



ENQUIRY DOCUMENT - TENDER

(Document No : B862-TENDER_DOC-B862-101-85-41-PM-T-7300)



[Click on the Document Title to go to that section of the document](#)

Table of Contents			
Document Number	Rev.	Document Title	Page Number
B862-TENDER_DOC-B862-101-85-41-PM-T-7300	A	ENQUIRY DOCUMENT - TENDER	19
B862-101-85-41-PM-T-7300	0	CCR PACKAGE	573
B862-101-85-41-SOW-001	2	OVERALL SCOPE OF WORK FOR CCR PACKAGE - PDH UNIT	574
B862-101-80-42-SOW-7300	0	SCOPE OF WORK & SUPPLY FOR CCR PACKAGE (SMED)	582
B862-101-80-42-SOW-7300-A	0	SCOPE OF WORK & SUPPLY FOR CCR PACKAGE (SMED-SE, ANNEXURE-A)	583
B862-101-80-42-SOW-7300-B	0	SCOPE OF WORK & SUPPLY (Annexure-B)	590
B862-101-80-42-SOW-7300-C	0	SCOPE OF WORK AND SUPPLY (SMED-PE ANNEXURE-C)	596
B862-101-80-43-SOW-7300	0	PROCESS SCOPE OF WORK FOR VENT GAS TREATING SYSTEM	600
B862-101-81-41-SOW-7300	B	SOW FOR CCR PACKAGE	611
B862-101-81-45-SOW-7300	A	Scope of Work CCR REGENERATION PACKAGE	623
B862-80-46-SOW-7300	0	SCOPE OF WORK & SUPPLY FOR VENT GAS TREATING SYSTEM-MTMS	637
B862-101-16-43-SOW-7300	A	SCOPE OF WORK & SUPPLY (PIPING) CCR PACKAGE	641
B862-101-17-43-SOW-1001	C	SCOPE OF WORK & SUPPLY	670
B862-101-16-51-SOW-7300	A	SCOPE OF WORKS (INSTRUMENTATION)	724
B862-101-16-43-00006	A	PIPING SCOPE DRAWING FOR CCR PACKAGE, PDH UNIT	734
B862-101-81-45-1-4561	E	SCOPE DRAWING FOR CCR PACKAGE OF PDH UNIT	735
B862-101-27-44-TND-1003	0	PLANNING, SCHEDULING, MONITORING AND CONTROL	736
B862-101-85-41-EF-002	0	ENDORSEMENT OF FEED FOR CCR PACKAGE - PDH UNIT	746
B862-85-41-CC-05	0	CONTRACT CLOSING	750
B862-85-41-CP-03	0	COMMUNICATION PROCEDURE	756
B862-85-41-CR-08	0	COORDINATION PROCEDURE	762
B862-85-41-CT-06	0	COST CONTROL	767
B862-85-41-MEET-04	0	MEETING	771
B862-85-41-ORG-02	0	ORGANIZATION	778
B862-85-41-PAC-09	0	PROCUREMENT & SUB-CONTRACTING	782
B862-85-41-PP-01	0	PROJECT PROCEDURE	793
B862-00-101-19-41-0002	0	CONSTRUCTION SUPERVISION AND MANAGEMENT BY PACKAGE CONTRACTOR	797
GUIDELINES TRANSPORTATION ODC CONSIGNMENTS	0	GUIDELINES FOR TRANSPORTATION OF ODC CONSIGNMENTS	1069
B862-101-85-41-PEP-002	1	Project Execution Plan	1071
B862-CE-68-42-7300	A	MISCELLANEOUS	1110

[Click on the Document Title to go to that section of the document](#)

Table of Contents			
Document Number	Rev.	Document Title	Page Number
B862-CE-68-42- Assesment of Quantum of Work	A	MISCELLANEOUS	1112
B862-101-80-42- VDR-7300	0	VENDOR DATA REQUIREMENTS FOR CCR PACKAGE TENDER	1126
B862-101-80-43- VDR-7300	0	VENDOR DATA REQUIREMENT FOR VENT GAS TREATING SYSTEM	1138
B862-101-80-46- VDR-7300	0	VENDOR DATA REQUIREMENTS FOR VENT GAS TREATING SYSTEM-MTMS	1142
B862-101-81-41- DRR-7300	A	VDR FOR CCR PACKAGE	1145
B862-101-81-45- VDR-7300	A	VENDOR DATA REQUIREMENT _CCR PACKAGE TENDER	1148
B862-101-06-45- VDR-7300	A	VENDOR DATA REQUIRMENT for T-7300	1151
B862-101-16-43- VDR-7300	A	VENDOR DATA REQUIREMENTS FOR CCR PACKAGE (PIPING)	1155
B862-101-16-51- VDR-7300	A	VENDOR DATA REQUIREMENTS (INSTRUMENTATION)	1159
B862-101-6-42-VDR- 7300	0	VENDOR DATA REQUIREMENTS FOR SURFACE PREPARATION AND PROTECTIVE COATING	1164
B862-101-79-41- VDR-1001	A	VENDOR DATA REQUIREMENTS FOR CCR PACKAGE CONTRACTOR FOR REVIEW FROM PROCESS VIEWPOINT	1167
B862-101-80-42-VL- 7300	0	EIL SUPPLIER LIST FOR CCR PACKAGE (SMED)	1170
B862-101-80-42-VL- 7300-A	0	EIL SUPPLIER LIST FOR CCR PACKAGE (SMED-SE, ANNEXURE-A)	1171
B862-101-80-42-VL- 7300-B	0	SUPPLIER LIST (ANNEXURE-B)	1194
B862-101-80-42-VL- 7300-C	0	VENDOR LIST (SMED-PE ANNEXURE-C)	1196
B862-101-16-43-VL- 7300	B	VENDOR LIST FOR CCR PACKAGE MR-7300	1206
B862-101-16-50-VL- 7300	A	VENDOR LIST (ELECTRICAL) CCR PAKAGE	1356
B862-16-51-VL-7300	A	VENDOR LIST (INSTRUMENTATION)	1391
B862-000-06-45-VL- 02	0	VENDOR LIST	1461
B862-101-81-41-LL- 7300	A	VENDOR LIST OFCCR PACKAGE	1464
B862-101-81-45-LL- 7300	A	APPROVED VENDOR LIST _CCR REGENERATION PACKAGE	1471
B862-101-80-42-SL- 7300	0	SPARE LIST (SMED)	1487
B862-101-80-42-SL- 7300-A	0	SPARES FOR CCR PACKAGE (SMED-SE, ANNEXURE-A)	1488
B862-101-80-42-SL- 7300-B	0	MANDATORY SPARES (ANNEXURE-B)	1491
B862-101-80-42-SL- 7300-C	0	MANDATORY SPARE LIST (SMED-PE ANNEXURE-C)	1493
B862-101-16-50-SL- 6002	A	SPARE LIST (ELECTRICAL) CCR PACKAGE	1496
B862-101-16-51-SL- 7300	A	MANDATORY SPARE PARTS (INSTRUMENTATION)	1498
B862-101-81-45-SL- 7300	A	MANDATORY SPARES _ CCR REGENRATION PACKAGE	1505

[Click on the Document Title to go to that section of the document](#)

Table of Contents			
Document Number	Rev.	Document Title	Page Number
B862-80-46-SL-7300	0	SPARE LIST FOR VENT GAS TREATING SYSTEM-MTMS	1507
B862-101-80-42-CL-7300	0	TECHNICAL COMPLIANCE FOR CCR PACKAGE (SMED)	1509
B862-101-80-42-CL-7300-A	0	TECHNICAL COMPLIANCE FOR CCR PACKAGE (SMED-SE, ANNEXURE-A)	1510
B862-101-80-42-CL-7300-B	0	TECHNICAL CONFIRMATION LIST (ANNEXURE-B)	1515
B862-101-80-42-CL-7300-C	0	TECHNICAL CONFIRMATION LIST (SMED-PE ANNEXURE-C)	1519
B862-101-16-43-TCL-0002	A	TECHNICAL COMPLIANCE FORMAT (PIPING) FOR CCR PACKAGE	1522
B862-80-46-TCL-7300	0	TECHNICAL COMPLIANCE STATEMENT FOR VENT GAS TREATING SYSTEM-MTMS	1527
B862-101-80-43-TCL-7300	0	TECHNICAL CONFIRMATION LIST FOR VENT GAS TREATING SYSTEMS	1529
B862-00-101-19-41-TC02	1	TECHNICAL COMPLIANCE FORMAT-CONSTRUCTION	1531
B862-101-27-44-TS-1003	0	TECHNICAL COMPLIANCE	1533
B862-999-80-42-EDB-1001	0	ENGINEERING DESIGN BASIS	1535
B862-999-81-41-EDB-1001	1	ENGINEERING DESIGN BASIS	1630
B862-000-06-45-EDB-01	0	DESIGN BASIS FOR PLANT CP SYSTEM	1677
B862-000-81-45-EDB-1001	0	Engineering Design BasisGeneral Civil	1685
B862-999-16-43-EDB-1001	0	ENGINEERING DESIGN BASIS(PIPING)	1697
B862-999-79-41-ODB-1001	C	OVERALL BASIC ENGINEERING DESIGN BASIS (BEDB)-PART-B	1743
B862-000-16-50-DB-1001	1	ELECTRICAL DESIGN BASIS	1901
B862-101-16-51-MD-7300	A	SPECIAL DESIGN REQUIREMENTS (INSTRUMENTATION)	1955
B862-000-17-43-PDB-1001	1	Fire Protection Design Basis	1970
B862-000-16-54-DB-0001	1	SITE SPECIFIC SEISMIC SPECTRA, PDH-PP, PLL DAHEJ	1999
B862-000-16-54-DB-0002	1	DESIGN BASIS FOR WIND LOAD ON PIPING, PDH-PP, PLL DAHEJ	2003
B862-000-16-54-DB-0003	0	SEISMIC DESIGN REQUIREMENTS FOR PIPING	2006
B862-101-80-42-SP-7300	0	JOB SPECIFICATION FOR CCR PACKAGE (SMED)	2009
B862-101-80-42-SP-7300-A	0	JOB SPECIFICATION FOR CCR PACKAGE (SMED-SE, ANNEXURE-A)	2010
B862-101-80-42-SP-7300-B	0	JOB SPECIFICATIONS FOR CCR PACKAGE (ANNEXURE-B)	2053
B862-101-80-42-SP-7300-C	0	JOB SPECIFICATION (SMED-PE ANNEXURE-C)	2068
B862-101-80-42-LSP-7300	0	LIST OF ATTACHMENTS FOR CCR PACKAGE (SMED)	2081
B862-101-80-42-LSP-7300-A	0	LIST OF ATTACHMENTS FOR CCR PACKAGE (SMED-SE, ANNEXURE-A)	2082

[Click on the Document Title to go to that section of the document](#)

Table of Contents			
Document Number	Rev.	Document Title	Page Number
B862-101-80-42-LSP-7300-B	0	LIST OF ATTACHMENTS FOR CCR PACKAGE (ANNEXURE-B)	2085
B862-101-80-42-LSP-7300-C	0	LIST OF ATTACHMENTS (SMED-PE ANNEXURE-C)	2087
B862-101-80-42-ER-5001	0	EXPERIENCE RECORD PROFORMA (CENTRIFUGAL FAN/ BLOWER)	2090
B862-101-80-42-ER-5002	0	EXPERIENCE RECORD PROFORMA (ROOTS BLOWER)	2094
B862-101-80-42-DS-5001	0	MECHANICAL DATASHEET (CENTRIFUGAL FAN/ BLOWER)	2097
B862-101-80-42-DS-5002	0	MECHANICAL DATASHEETS (ROOTS BLOWER)	2102
B862-101-80-42-DS-7300-31	0	DATA SHEET FOR AIR DRYER PACKAGE	2110
B862-101-80-42-DS-7300-32	0	DATA SHEET FOR BAG FILTER	2114
B862-101-80-42-DS-7300-33	0	DATA SHEET FOR CARTRIDGE FILTER	2117
B862-101-80-42-DS-7300-34	0	DATA SHEET FOR CHAIN PULLEY BLOCK	2119
B862-101-80-42-DS-7300-36	0	DATA SHEET FOR ELECTRIC HOIST	2121
B862-101-80-42-DS-7300-37	0	DATA SHEET FOR GOODS CUM PASSENGER LIFT	2122
B862-000-16-43-SP-0001	0	JOB SPECIFICATION FOR 3D MODELING BY PACKAGE VENDOR (PIPING)	2125
B862-000-6-44-0005-7300	A	PMS FOR CCR PACKAGE MR-7300	2139
6-44-0005-A1	7	Standard piping material specification general notes	2430
B862-000-6-44-0006-7300	A	VALVE MATERIAL SPECIFICATION FOR CCR PACKAGE MR-7300	2445
6-44-0006-A1	4	Specification valve material specification general notes	2481
B862-6-44-0016	4	JOB SPEC FOR NON DESTRUCTIVE TESTING	2487
B862-101-16-51-SP-7300	A	JOB SPECIFICATIONS (INSTRUMENTATION)	2510
B862-101-16-51-7300	A	UPS POWER DISTRIBUTION SCHEME	2536
B862-101-16-51-7301	A	SCHEMATIC FOR LOAD CELL	2538
B862-101-16-51-LL-7300	A	LIST OF ATTACHMENTS (INSTRUMENTATION)	2539
B862-101-81-47-GTD-7300	0	GEOTECHNICAL DATAFOR CCR PACKAGE	2541
B862-000-6-42-PLS-01	2	JOB SPECIFICATIONS FOR SHOP AND FIELD PAINTING/COATING AND LINING	2571
B862-000-06-42-PLS-03	1	JOB SPECIFICATION FOR INTERNAL COATING OF CARBON STEEL PIPING VALVES VESSLES AND FIELD JOINTS	2613
B862-000-06-42-PLS-04	0	JOB SPECIFICATION FOR EXTERNAL COATING OF BURIED PIPING AND FITTINGS	2628
B862-000-06-42-PLS-06	0	JOB SPECIFICATION FOR EXTERNAL AND INTERNAL COATING OF MOUNDED BULLETS	2636
B862-000-06-42-PLS-07	0	JOB SPECIFICATION FOR ANTI FUNGAL COATING SYSTEM FOR RCC STRUCTURES	2642
B862-000-06-42-CCS-001	0	JOB SPECIFICATION FOR PRETREATMENT CUM ONSTREAM CLEANING OF RECIRCULATING COOLING WATE	2645

[Click on the Document Title to go to that section of the document](#)

Table of Contents			
Document Number	Rev.	Document Title	Page Number
B862-000-06-42-CCS-003	0	JOB SPECIFICATION FOR DEGREASING OF CARBON STEEL PIPING VESSELS & EQUIPMENT IN AMINE SERVICE	2653
B862-000-06-42-CCS-005	1	JOB SPECIFICATION FOR CHEMICAL CLEANING & PASSIVATION OF COMPRESSOR CIRCUITS	2657
B862-000-06-42-CCS-007	0	JOB SPECIFICATION FOR CHEMICAL CLEANING OF HP/MP/LP STEAM GENERATORS	2668
B862-000-06-42-CCS-008	0	JOB SPECIFICATION FOR ALKALI BOILOUT CHEMICAL CLEANING OF BOILERS	2673
B862-000-06-42-CCS-011	0	JOB SPECIFICATION FOR EXTERNAL CHEMICAL CLEANING OF SS WELDS	2677
B862-000-06-41-WSC-0001.	1	WELDING SPECIFICATION CHARTS FOR PIPING CLASSES	2680
B862-000-6-43-IL-S001	1	JOB SPECIFICATION FOR HOT INSULATION OF VESSELS, PIPING AND EQUIPMENT	2718
B862-000-06-43-IL-S002	1	JOB SPECIFICATION FOR COLD INSULATION OF VESSELS, PIPING AND EQUIPMENT	2780
B862-000-06-43-IL-S003	0	JOB SPECIFICATION FOR INSULATION OF ELECTRICAL HEAT TRACED PIPING	2823
B862-101-16-50-SP-6002	D	JOB SPECIFICATIONS (ELECTRICAL) CCR PACKAGE	2833
B862-101-16-50-DS-6002	B	KEY LINE DIAGRAM ELECTRIC HEATER	2859
B862-101-16-50-DS-6011	A	FIRE ALARM SYSTEM	2860
B862-101-16-50-DS-6012	A	PLANT COMMUNICATION SYSTEM	2861
B862-101-16-50-VR-7300	A	VENDOR DATA REQUIREMENTS (ELECTRICAL) CCR PAKAGE	2862
B862-101-80-45-SP-011	0	HTD - JOB SPECIFICATIONS	2866
B862-101-80-45-SP-012	1	HTD - JOB SPECIFICATIONS	2870
B862-000-69-41-SP-0001	0	Procedure for Smart Engg. and Digital Handover for Drg./Doc./3D Model	2873
B862-101-80-46-SP-7300	0	JOB SPECIFICATION FOR VENT GAS TREATING SYSTEM-MTMS	2881
B862-101-6-45-CPS-7300	0	CP SYSTEM SPECIFICATION for CCR package T-7300	2888
B862-80-46-LL-7300	0	LIST OF ATTACHMENT FOR VENT GAS TREATING SYSTEM-MTMS	2955
B862-000-81-45-00001	F	Overall Plot Plan	2958
B862-000-16-50-DS-0411	A	MV POWER CABLE	2959
B862-000-16-50-DS-0412	B	CONTROL CABLES	2961
B862-000-16-50-DS-0952	A	LIGHTING FIXTURE SCHEDULE	2963
B862-000-16-50-DS-3002	A	DATA SHEET-HV VFD	2968
B862-000-16-50-DS-3101	B	DATA SHEET-HV INDUCTION MOTOR	2972
B862-000-16-50-DS-3102	B	DATA SHEET-VFD HV INDUCTION MOTOR	2975
B862-000-16-50-DS-3201	A	DATA SHEET-MV INDUCTION MOTOR	2978

[Click on the Document Title to go to that section of the document](#)

Table of Contents			
Document Number	Rev.	Document Title	Page Number
B862-000-16-50-DS-3202	A	DATA SHEET-VFD MV INDUCTION MOTOR	2981
B862-000-16-50-DS-3802	A	DATA SHEET-MV VFD	2984
B862-000-16-50-DS-5901	A	DATA SHEET-THYRISTOR CONTROL HEATER PANEL	2988
B862-000-16-50-DS-9101	B	MOV ACTUATOR	2990
B862-000-16-50-DS-9501	A	ELECT. SURFACE HEATING SYSTEM	2992
B862-000-16-50-DS-9901	A	ELECTRICAL LOAD DATA FORMAT	2995
B862-000-16-50-DS-9909	A	FORMAT FOR HARMONIC SPECTRUM	2998
B862-999-81-45-DS-8003	B	Data Steet of Hydrant	2999
B862-999-81-45-DS-8004	0	Data Steet of Hose Cabinet	3000
B862-999-81-45-DS-8005	C	Data Steet of WATER CUM FOAM MONITOR	3001
B862-999-81-45-DS-8006	B	Data Steet of ROLRM	3002
B862-999-81-45-DS-8007	B	Data Steet of spray Nozzle (medium velocity)	3004
B862-999-81-45-DS-8010	B	Data Steet of QBD	3005
B862-999-81-45-DS-8011	B	Data Steet of DELUGE VALVE	3006
B862-999-81-45-DS-8015	B	DATA SHEET FOR ROLRM (500-1000) GPM	3007
B862-999-81-45-DS-8017	A	DATASHEET OF AIR RELEASE VALVE	3009
B862-999-81-45-DS-8018	0	DATASHEET OF LANDING VALVE (STAND POST TYPE)	3010
B862-999-81-45-DS-8019	0	HOSE REEL	3012
B862-999-81-45-DS-8021	B	DATA SHEET FOR HVLRM(1000-2000) GPM	3013
B862-000-18-42-ITP-B862-5-1842-0005	0	Inspection Methodology & Co-ordination Procedure for PMC Jobs & Package orders	3015
B862-101-16-43-MISCE-7300	A	Miscellaneous Licensor Documents For CCR PACKAGE	3050
B862-101-16-43-LL-0004	A	LIST OF JOB SPECIFICATIONS (PIPING) CCR PACKAGE	3197
B862-101-16-43-LL-0005	A	LIST OF DOCUMENTS CCR PACKAGE	3202
B862-101-16-43-LL-0006	A	LIST OF DOCUMENTS CCR PACKAGE	3205
B862-101-16-43-NL01	0	NOZZLE LOADS FOR VCFE EXCHANGERS	3208
B862-79-41-EPC-101	2	CCR Package Scope of Work	3212
Annexure 2 CCR Vendor scope	1	Licensor BEDQ	3247
B862-101-79-41-OPC-1001	2	Annexure 3 of SOW	3404

[Click on the Document Title to go to that section of the document](#)

Table of Contents			
Document Number	Rev.	Document Title	Page Number
Annexure 4 CCR Package scope	3	Annexure 4 CCR Package scope LICENSOR P&ID's	3408
Annexure 5 CCR Vendor scope	1	Licensor BDEP	3459
Annexure 5A CCR Vendor scope	3	Licensor BDEP	3487
Annexure 6 CCR Vendor scope	1	Licensor BDEP	3897
Annexure 6A CCR Vendor scope	1	Licensor BDEP	3934
Annexure 7 CCR Package	1	Licensor BDEP	4338
Annexure 7A CCR Package	1	Licensor BDEP Index	4502
Annexure 12 CCR Package	0	Annexure 12 of SOW	4508
Annexure 13 CCR Package	0	Annexure 13 CCR Package	4510
Annexure 8 CCR Vendor scope	2	Licensor Legend P&ID's	4513
Annexure 9 CCR Vendor scope	0	Licensor GOM	4523
B862-79-41-PCS-101	1	Annexure 10 of SOW	4805
B862-79-41-101-11335	0	Annexure 14 of SOW	4850
CCR Package Document	0	Annexure 11 of SOW	4851
7-51-0307	6	Installation details for control / steel column in paved area	4854
7-51-0311	6	Connection details for vertical motor and control station (cable below ground)	4855
7-51-0312	6	Connection details for horizontal motor and control station (cable below ground)	4856
7-51-0313	6	Connection details for horizontal motor (cable below ground)	4857
7-51-0314	6	Connection details for motor and control station (cable in tray)	4858
7-51-0315	6	Installation details for socket / receptacle mounted on wall / column (cable below ground)	4859
7-51-0316	6	Installation details for socket / receptacle mounted on column (cable in tray)	4860
7-51-0317	6	Installation details for socket / receptacle / control station mounted on hand rail	4861
7-51-0323	5	Cable termination for motors (Cable dropping from overhead trays)	4862
7-51-0324	5	Cable termination for motors cable dropping along column (for HV / MV motors)	4863
7-51-0325	5	Cable termination for motors (Cable laid in trench)	4864
7-51-0326	5	Arrangement for termination of cables laid in trench (for HV/MV motors)	4865
7-51-0332	4	Safety measures for electrical installations during construction	4866
7-51-0333	4	Details for hot dip galvanized ladder type cable trays	4868
7-51-0701	3	Notes, legend and details for area classification (Onshore Oil/Gas installation)	4871
7-52-0001	7	Instrument connection on vessel, standpipes and tanks	4892
7-52-0002	6	Instrument connection on pipes	4897
7-52-0035	5	Thermowell	4900

[Click on the Document Title to go to that section of the document](#)

Table of Contents			
Document Number	Rev.	Document Title	Page Number
7-52-0036	6	Thermocouple / RTD assembly with thermowell	4904
7-52-0041	5	Orifice plates and flanges dimensional details.	4905
7-52-0101	4	Instrument support single instrument	4919
7-52-0102	4	Instrument support two instruments	4922
7-52-0104	4	Support details for junction boxes	4925
7-52-0105	4	Fabricated canopy for instruments	4927
7-52-0107	4	Perforated tray supports & cables clamping details	4934
7-52-0254	2	Duct fabrication bolted construction detail	4935
7-65-0001	5	Abbreviation legends and eqpt. Symbols	4966
7-65-0206	5	Grating detail for catch basin (for both steel & galvanized material).	4970
7-65-0211	5	Details of rungs for manholes, valve pits, tanks, etc.	4971
7-65-0212	6	Standard miscellaneous detail for manholes	4972
7-65-0213	6	Conc. bedding and encasement for pipes	4973
7-65-0219	5	Vents for manholes.	4974
7-65-0230	5	Typical detail of bend pipe for manholes	4975
7-65-0261	7	Manhole type-11 for depth $\geq 5M$ ($800 < \varnothing \leq 1000$)	4976
7-65-0263	6	Manhole type-13 for depth $\geq 5M$ ($\varnothing \leq 800$)	4977
7-65-0265	6	Catch basin (unit drainage details)	4978
7-65-0266	6	Unit drainage details (equipment drain funnels)	4979
7-65-0267	6	Unit drainage details (OWS / CRWS) precast manhole type-15) for depth $\geq 3M$ ($\varnothing \leq 600$)	4980
7-65-0268	6	Unit drainage details (for OWS / CRWS) precast manhole type-16) for depth $\geq 3M$ ($\varnothing \leq 500$)	4981
7-65-0269	6	Unit drainage details (CBD and ABD / other blow down header laying detail)	4982
7-65-0270	6	Unit drainage details (clean out for process blow down header)	4983
7-65-0271	5	Unit drainage details typ. branch connection for process blow down / open sewer	4984
7-65-0272	6	Unit drainage details (rectangular ditch details)	4985
7-65-0274	2	Clean out for OWS & SS	4986
7-65-0404	5	RCC pavement details	4987
7-65-0412	4	Typ. detail of acid/alkali proof lining.	4988
7-65-0420	5	Installation details of fire water dydrant	4989
7-65-0421	4	Installation details of water or water cum foam monitor long range foam / water monitor	4990
7-67-0008	8	Pedestal For Stair/Ladder.	4991
7-68-0051	7	Standard lifting hooks in precast slabs and cheq. plates	4992
7-68-0062	7	Typical cranking detail of rebar at beam and col. junctions	4993
7-68-0202	8	Typical grating support	4994
7-68-0417	9	M.S. anchor bolt assemblies	4995
7-68-0501	8	Handrails	5003
7-68-0506	8	Steel stairs	5011
7-68-0507	9	Details of steel ladder	5017
7-68-0509	8	Steel ladder joint details	5020
7-68-0626	6	Cable trench outside the buildings (for hydra movement)	5024
7-68-0655	6	Cable trench for class-aa tracked / 70R-wheeled vehicle (crane approach)	5041
7-68-0697	6	Electroforged grating type-I & type-II	5047
7-76-0103	2	Instructions to vendor for site performance guarantee requirements for package units	5055

[Click on the Document Title to go to that section of the document](#)

Table of Contents			
Document Number	Rev.	Document Title	Page Number
8-101-9	9	Gauge Glass Piping Assmeblies General Service	5062
8-102-10	10	Sample Coolers	5063
8-103-9	9	Sample Cooler Coolant Piping Assembly	5064
8-11-21 Piping	12	Piping	5065
8-12-11	11	Fabrication of Piping	5090
8-121	7	Typical Level Instrument Installation	5097
8-125	9	Gauge Glass Piping Assemblies (Caustic or Other Service Not Permitting Gauge Valves)	5098
8-127-11	11	DUR O LOK Coupling	5099
8-128-9	9	Gauge Glass Piping Assembly HF Acid Service	5100
8-130-8	8	Taper Bored Flange	5101
8-142-8	8	CCR Catalyst Sampler System (500 cc Sample)	5102
8-145-5	5	Oleflex CCR Catalyst Sampler System	5103
8-147-0	0	Catalyst Sampler System	5104
8-148-3	3	Spray Nozzle Assembly	5105
8-150-0	0	Thermal Sleeve Design	5106
9-11-11	11	External High Temperature Insulation and Weathershielding	5107
9-12-9	9	External Low Temperature Insulation	5123
9-120-6	6	Assembly of Catalyst Loading Equipment	5133
9-121-5	5	Assembly of Catalyst Unloading Equipment	5134
9-122-5	5	Assembly of Catalyst Handling Equipment for Loading	5135
9-123-5	5	Assembly of Sealed Catalyst Loading System	5136
9-124-4	4	Proposed Catalyst Handling Scheme	5137
9-125-4	4	Assembly of Loading Apparatus (Nitrogen Purged System)	5138
9-19-13	13	Safety Equipment	5139
9101130-A4-BEDQ Rev 01	1	BASIC ENGINEERING DESIGN QUESTIONNAIRE	5146
9101130 F2 Extract	0	MATERIAL SAFETY DATA SHEETS	5303
9101131 105	1	CATALYST DETAILS	5319
9101131 907	0	INSULATION AND WEATHERSHIELDING	5320
9101133-000	0	Instructions	5321
9101133-616-01	0	Control Valves	5325
9101133-616-02	0	Control Valves	5326
9101133-616-03	0	Control Valves	5388
9101133-660	0	Logic Systems	5389
3-103-7	7	Vessel Skirt Details - Conical	5397
3-11-12	12	Pressure Vessels Carbon Steel	5398
3-115-11	11	Baffles	5432
3-116-12	12	Grid Support And Baffle	5433
3-12-12	12	Pressure Vessels Low Alloy Steel	5434
3-121-0	0	Grid Support and Coverplate	5469
3-122-9	9	Vortex Breakers	5470
3-123-9	9	Raised Vortex Breakers	5471
3-15-10	10	Pressure Vessels Austenitic Steel	5472
3-17-10	10	Pressure Vessels ASME Sect VIII Div 2	5497
3-26-9	9	Vessel Internals Low Chrome and Stainless Steel	5542
3-322-9	9	Vortex Breakers	5545
3-335-8	8	Withdrawal Nozzle (Bottom Through Skirt)	5546

[Click on the Document Title to go to that section of the document](#)

Table of Contents			
Document Number	Rev.	Document Title	Page Number
3-356-7	7	Material Handling Equipment	5547
3-37-5	5	Inert Ceramic Balls	5548
3-445-3	3	Vessel Skirt Details (Cylindrical Skirts - Type II)	5554
4-11-14	14	Tubular Exchangers Shell And Tube Type	5555
4-12-13	13	Tubular Exchangers Hair Pin Type	5571
4-13-13	13	Air Cooled Exchangers	5578
4-14-10	10	Steam Surface Condensers Water Cooled	5585
5-13-11	11	Proportioning Pumps	5589
5-21-9	9	General Purpose Centrifugal Pumps	5592
5-33-0	0	Oil Mist Lubrication Systems	5599
6-101	9	Pressure Gage Piping Assemblies	5606
6-102	8	Pressure Instrument Piping Assemblies	5607
6-105	11	Thermowells	5608
6-106	10	Thermometer Assemblies	5609
6-107-10	10	Temperature Sensor Terminal Head Assemblies	5610
6-108-9	9	Thermowell And Skin Thermocouple Installation Assemblies	5611
6-109-8	8	External Displacement Level Instrument Piping Assemblies	5612
6-110-8	8	External Displacement Level Instrument Piping Assemblies-HF	5613
6-111-9	9	Orifice Plates	5614
6-112-7	7	Piping Arrangements For Orifice Plate Installations	5615
6-115-11	11	Orifice Meter Piping Assemblies	5616
6-116-10	10	Orifice Meter Piping Assemblies Liquid, Steam or Condensable Vapor Service	5617
6-12-0030	9	Standard specification for pressure vessels for package items	5618
6-120-10	10	Orifice Meter Piping Assemblies Hydrofluoric Acid Service	5637
6-122-9	9	Powdered Catalyst Instrument Piping Assemblies	5638
6-123-8	8	Pressure Tap Reamer	5639
6-127-7	7	Steam Trap Piping Assemblies	5640
6-134-6	6	Piping Arrangements For Venturi Installations	5641
6-139-8	8	Orifice Meter Piping Assemblies	5642
6-140-8	8	Orifice Meter Piping Assemblies	5643
6-142-7	7	Reactor Differential Pressure Instrument Piping Assembly	5644
6-144-8	8	Differential Pressure Instrument Piping Assembly For Liquid, Steam or Condensable Vapor Serv	5645
6-146-8	8	Pressure Instrument Piping Assembly Hydrofluoric Acid Service	5646
6-147-7	7	Differential Pressure Instrument Piping Assembly	5647
6-148-7	7	Reactor Differential Pressure Instrument Piping Assembly	5648
6-15-0001	6	General specification for heat exchangers	5649
6-15-0003	6	Standard specification for welded tube to tubesheet joints	5667
6-15-0004	6	Standard specification for expanded tube to tubesheet joints	5676
6-15-0006	6	Standard specification for u - tubes	5683
6-15-0021	6	Standard specification for vendor - designed shell and tube heat exchangers	5689
6-151-7	7	Displacement Level And Gauge Glass Flushing Oil Assembly	5701
6-152-7	7	Typical Analyzer Installation	5702
6-155-7	7	Pressure Instrument Piping Assemblies	5703
6-156-8	8	Flanged Multi-Thermowell Assembly With Integral Support	5704
6-158-7	7	Flanged Multi-Thermowell Assembly	5705

[Click on the Document Title to go to that section of the document](#)

Table of Contents			
Document Number	Rev.	Document Title	Page Number
6-159-5	5	Differential Pressure Instrument Piping Assembly For Dry Gas Service	5706
6-160-5	5	Piping Arrangements For Vortex Flowmeter Installations	5707
6-161-5	5	Non-Purged Reactor Differential Pressure Instrument Piping Assembly	5708
6-162-5	5	Differential Pressure Instrument Piping Assembly For Dry Gas Service	5709
6-23-0001	5	Standard specification for dust collection system : bag filter type	5710
6-24-0004	6	Standard specification for cartridge filter	5720
6-36-0002	5	Standard specification for ventilation / pressurisation system	5729
TIE IN FORMAT	A	MISCELLANEOUS	5741
6-42- 0016	0	Standard specification for centrifugal fans (including FD / ID fans) (API 673)	5743
6-44-0007	6	Standard specification for steam tracing	5763
6-44-0007-A1	5	Annexure-1 Steam tracing-site fabricated manifolds (Typical diagrams)	5772
6-44-0007-A2	4	Annexure-2 steam tracing-bought out manifolds (typical diagrams)	5777
6-44-0007-A3	0	Annexure-3 steam tracing-general details (typical diagrams)	5783
6-44-0012	6	Standard specification for fabrication and erection of piping	5786
6-44-0013	6	Standard specification for inspection, flushing and testing of piping systems	5801
6-44-0051	8	Technical notes for pipes	5810
6-44-0052	9	Technical notes for valves	5820
6-44-0053	8	Technical notes for flanges, spectacle blinds and drip rings	5843
6-44-0054	8	Technical notes for butt welded, socket welded and screwed fittings	5851
6-44-0056	7	Technical notes for gaskets	5861
6-44-0057	7	Technical notes for bolts and nuts	5866
6-44-0064	3	Technical notes for hoses & hose couplings	5872
6-44-0066	4	Technical notes for steam and air traps, manifolds and assemblies	5878
6-44-0067	3	Technical notes for strainers	5888
6-44-0068	3	Technical notes for sample coolers	5897
6-44-0069	3	Technical notes for sight flow indicators (sight glasses)	5902
6-44-0070	4	Technical notes for spring support assemblies	5908
6-51-0006	6	Specification for flameproof control stations.	5916
6-51-0007	0	Specification for flameproof power distribution boards	5926
6-51-0008	6	Specification for flameproof lighting and power panels	5935
6-51-0021	6	Specification for flameproof plugs, sockets & hand lamps.	5942
6-51-0031	7	Specification for medium voltage induction motors	5950
6-51-0038	3	Specification for MV variable frequency drive system	5967
6-51-0050	3	Specification for HV variable frequency drive system	5984
6-51-0051	9	Specification for medium and high voltage cables & accessories	6003
6-51-0052	7	Specification for communication and fire alarm cables.	6013
6-51-0059	2	Specification for electrics of heaters	6024
6-51-0061	6	Specification for hazardous area light fixtures and junction boxes	6034
6-51-0064	3	Specification for energy efficient low voltage induction motors	6042
6-51-0081	5	Specification for electrical equipment installation.	6055
6-51-0082	6	Specification for Cable Installation	6071
6-51-0083	6	Specification for lighting installation.	6083
6-51-0084	5	Specifications for earthing installation.	6096

[Click on the Document Title to go to that section of the document](#)

Table of Contents			
Document Number	Rev.	Document Title	Page Number
6-51-0087	4	Specification for field inspection, testing and commissioning of electrical installations	6104
6-51-0088	4	Specification for electrical works as part of paving works	6112
6-51-0091	5	Specification for electrical motor operated valve actuators.	6118
6-51-0093	6	Specification for electrics of package equipment	6128
6-51-0095	5	Specification for electric surface heating system.	6138
6-51-0099	7	Design philosophy for electrical facilities.	6151
6-52-0026	5	Standard specification for pressure relief valves.	6183
6-52-0027	6	Standard Specification for Rupture Discs	6193
6-52-0031	5	Standard specification for control valves.	6200
6-52-0035	6	Standard specification for process stream analyser	6225
6-52-0037	3	Standard specification for on-off valves	6250
6-52-0052	4	Standard specification for instrumentation of package units.	6271
6-52-0060	4	Standard specification for instrumentation erection works	6348
6-52-0071	5	Standard specification for special level instruments	6377
6-52-0076	5	Standard specification for nucleonic instruments.	6389
6-52-0079	5	Standard specification for self actuated control valves/regulators.	6400
6-52-0087	2	Standard specification for analyser shelter	6409
6-61-0014	6	Standard specification for electric wire rope hoist	6426
6-61-0015	6	Standard specification for chain pulley block	6434
6-61-0202	3	Standard specification for electric traction lift	6440
6-65-0006	4	Standard specification for earthwork for underground piping.	6454
6-65-0019	4	Standard specification for concrete pavement.	6461
6-65-0030	6	Standard specification for fabrication and laying of underground piping	6471
6-65-0061	4	Standard specification for acid/alkali proof lining with bitumen mastic.	6482
6-65-0062	6	Standard Specification for acid proof tile lining.	6487
6-66-0004	1	Standard specification for portable fire extinguisher	6493
6-66-0011	5	Standard specification for non-percolating lay flat delivery hose for fire fighting	6498
6-66-0012	5	Standard specification for stand post type fire hydrant with normal type lading valve	6502
6-66-0016	4	Standard specification for foam branch pipe.	6510
6-66-0018	5	Standard specification for first aid hose reel	6515
6-66-0021	4	Standard specification for stand post type water monitor	6520
6-66-0035	4	Standard specification for landing valve.	6526
6-66-0038	5	Standard specification for safety shower and eye wash.	6530
6-66-0046	4	Standard specification for water spray nozzle for cooling.	6535
6-66-0047	4	Standard specification for hose cabinet.	6541
6-66-0048	4	Standard specification for deluge valve skid	6546
6-66-0061	4	Standard specification for 50 kg. & 75 kg. capacity dry chemical powder extinguisher.	6557
6-68-0001	6	Standard specification civil and structural works general scope	6562
6-68-0002	7	Standard specification civil & structural works materials	6566
6-68-0003	6	Standard Specification Civil & Structural Works Earthwork.	6583
6-68-0004	8	Standard specification civil & structural works plain and reinforced cement concrete	6597
6-68-0005	7	Standard specification civil and structural works reinforced cement concrete for structure retaining aqueous liquids	6628

[Click on the Document Title to go to that section of the document](#)

Table of Contents			
Document Number	Rev.	Document Title	Page Number
6-68-0006	8	Standard specification civil & structural works structural steel works	6636
6-68-0007	8	Standard specification civil & structural works structural steel works (tubular/hollow sections)	6661
6-68-0008	9	Standard specification civil and structural works miscellaneous steel works	6677
6-68-0009	6	Standard specification civil & structural works brick masonry	6691
6-68-0012	6	Standard specification civil & structural works demolition and dismantling	6700
6-68-0013	6	Standard specifications civil & structural works miscellaneous items	6707
6-68-0014	2	Standard specification civil & structural works precast concrete	6717
6-68-0015	2	Standard specification civil & structural works modular construction of pipe racks and technological structures	6724
6-68-0017	2	Standard specification civil & structural works bipolar concrete penetrating corrosion inhibiting admixture	6733
6-68-0033	9	Standard specification civil & structural works passive fire proofing of steel structures (hydrocarbon pool fire).	6753
6-68-0056	5	Standard specification civil & structural works bonding fresh concrete to old concrete by EPOXY resin bonding system	6770
6-76-0001	4	Standard specification for erection of equipment & machinery	6776
6-76-0002	3	Standard specification for application of torque and hydraulic bolt tension for flange joints	6798
6-77-0001	5	Welding specification for fabrication of piping	6833
6-78-0001	3	Specification for quality management system requirements from bidders / suppliers / contractors	6879
6-78-0002	3	Specification for documentation requirements from contractors	6886
6-78-0003	3	Specification for documentation requirements from suppliers	6897
6-81-0001	4	Standard specification for positive material identification (PMI) at supplier's works	6908
6-81-0002	6	ITP for welded pipes	6916
6-81-0003	6	ITP for seamless pipes	6922
6-81-0004	7	Inspection and test plan for valves	6928
6-81-0005	9	Inspection and test plan for forged, seamless & welded fittings	6936
6-81-0006	6	Inspection and test plan for flanges, spectacle blinds and DRIP rings	6943
6-81-0007	5	ITP For Bolting Material	6950
6-81-0008	5	Inspection and test plan for gaskets	6957
6-81-0009	4	ITP for heat exchangers	6962
6-81-0012	4	ITP for pressure vessels/ columns/ reactors low alloy steel	6970
6-81-0015	3	ITP for Trays & Tower Internals	6978
6-81-0029	4	ITP for basket filter	6984
6-81-0030	4	ITP for cartridge filter	6990
6-81-0035	4	ITP for chain pulley block/winch	6997
6-81-0042	5	ITP for pump centrifugal vertical (general water service)	7002
6-81-0043	5	ITP for pump centrifugal vertical (large capacity water service)	7010
6-81-0054	5	Inspection and test plan for induced draft fan & forced draft fan	7019
6-81-0055	5	Inspection and test plan for centrifugal fans (including FD/ID fans) (as per API 673)	7025
6-81-0106	5	Inspection and test plan for 3-layer PE coating of linepipes	7032
6-81-0132	4	Inspection and test plan for sample coolers	7039
6-81-0133	4	Inspection and test plan for strainers	7046

[Click on the Document Title to go to that section of the document](#)

Table of Contents			
Document Number	Rev.	Document Title	Page Number
6-81-0134	4	Inspection and test plan for steam traps	7052
6-81-0135	4	Inspection and test plan for hose pipes and coupling	7057
6-81-0137	3	Inspection and test plan for spring support assemblies	7062
6-81-0140	2	ITP for dust collection system (bag filter type)	7067
6-81-0141	2	ITP for instrument air dryer unit	7073
6-81-0142	2	ITP for electric hoist	7081
6-81-0202	0	Inspection and test plan for lifts (hazardous area)	7086
6-81-1006	5	Inspection and test plan for flameproof control stations	7092
6-81-1008	4	Inspection and test plan for flameproof lighting and power panels	7097
6-81-1012	3	ITP for MV fixed type switch board for package equipment	7102
6-81-1018	4	ITP for MV switchboards	7107
6-81-1021	3	ITP for flameproof plugs, sockets and hand lamps	7113
6-81-1031	5	ITP for HV induction motors	7118
6-81-1038	3	ITP for MV variable frequency drive system	7125
6-81-1050	3	ITP for HV variable frequency drive system	7131
6-81-1051	4	ITP for MV & HV cables & accessories	7137
6-81-1052	4	ITP for communication & fire alarm cables	7143
6-81-1059	0	Inspection and test plan for electric heater and control panel	7150
6-81-1061	4	ITP for hazardous area lighting fixture & junction boxes	7158
6-81-1064	1	Inspection and test plan for energy efficient medium voltage motors	7163
6-81-1091	3	ITP for electrical motor operated valve actuators	7169
6-81-2002	4	ITP for electromagnetic flow meters	7175
6-81-2004	4	ITP for orifice plates and flanges	7181
6-81-2006	4	ITP for restriction orifice plates	7186
6-81-2007	4	ITP for variable area flow meters	7191
6-81-2010	4	ITP for vortex flow meters	7197
6-81-2012	4	ITP for gauge glasses & cocks	7203
6-81-2013	4	ITP for level instruments	7208
6-81-2014	4	ITP for tank level instruments.	7214
6-81-2015	3	ITP for magnetic level instruments	7220
6-81-2016	4	ITP for receiver & pressure gauges	7226
6-81-2021	4	ITP for temperature gauges & thermo wells.	7230
6-81-2026	4	ITP for pressure relief valves.	7235
6-81-2027	4	ITP for rupture discs	7240
6-81-2030	4	ITP for alarm annunciators	7245
6-81-2031	4	ITP for control valves.	7250
6-81-2032	4	ITP for electronic/pneumatic instruments	7257
6-81-2034	3	ITP for solenoid valves	7263
6-81-2035	4	ITP for process stream analysers	7268
6-81-2036	3	ITP for gas chromatographs	7276
6-81-2037	3	ITP for on-off valves	7283
6-81-2038	3	ITP for desuperheaters & PRDS	7289
6-81-2042	4	ITP for thermocouples, RTDs & thermowells	7295
6-81-2045	4	ITP for thermocouple extension cables	7301
6-81-2046	4	ITP for signal cables	7307
6-81-2048	4	ITP for junction boxes & cable glands.	7313
6-81-2049	4	ITP for main control panel & accessories	7318

[Click on the Document Title to go to that section of the document](#)

Table of Contents			
Document Number	Rev.	Document Title	Page Number
6-81-2067	5	ITP for instrument tube fittings	7324
6-81-2068	4	ITP for instrument tubing	7329
6-81-2069	4	ITP for instrument valves and manifolds	7333
6-81-2071	3	ITP for special level instruments	7337
6-81-2073	4	ITP for mass flow meters	7343
6-81-2076	3	ITP for nucleonic instruments	7349
6-81-2079	5	ITP for self actuated control valves/regulators.	7355
6-81-2091	2	ITP for Sight Glasses	7359
6-81-2092	1	Inspection and test plan for optical fiber cable	7363
6-81-2093	1	Inspection and test plan for ultra sonic flowmeter	7369
6-81-2094	0	Inspection and Test Plan for Flow Elements (Venturi / Flow Nozzle)	7375
6-82-0001	2	Standard specification for health, safety & environmental management at construction sites	7379
6-82-0002	5	Standard specification for positive material identification at construction sites	7484
6-82-1010	3	Inspection & test plan (ITP) for incoming material checking for contractor's supplied materials	7494
6-82-3100	2	Inspection & test plan (ITP) for civil, structural & architectural works (item rate contracts-with categorization)	7502
6-82-6100	4	Standard quality assurance plan (for item rate contracts)	7567
7-12-0001	7	Vessel tolerances	7580
7-12-0002	7	Support for horizontal vessel	7582
7-12-0004	8	Skirt base details	7583
7-12-0005	7	Skirt opening details	7584
7-12-0006	7	Angle leg support	7586
7-12-0007	7	Pipe leg support	7588
7-12-0008	7	Bracket support for vertical vessel	7589
7-12-0009	8	Manhole with hinged cover	7590
7-12-0010	8	Manhole with davit	7592
7-12-0011	7	Ladder rungs for manhole/demister	7594
7-12-0012	7	Retaining plate	7595
7-12-0013	8	Nozzle reinforcement and projection	7596
7-12-0014	7	Pad nozzles for vessels	7598
7-12-0015	7	Standard bolt hole orientation	7599
7-12-0018	7	Internal flanges	7600
7-12-0020	7	Inlet deflector baffle	7601
7-12-0021	7	Support ring & bolting bar	7602
7-12-0023	8	Pipe davit	7603
7-12-0024	9	Lifting lug top head type (for vertical vessels / columns)	7606
7-12-0025	7	Fire proofing & insulation support	7607
7-12-0026	7	Earthing lug	7609
7-12-0027	7	Name plate	7610
7-12-0028	7	Manufacturer name plate	7611
7-12-0029	7	Bracket for name plate	7612
7-12-0030	6	Name plate for small equipment	7613
7-12-0031	6	Details of forged nozzles	7614
7-12-0032	6	Supports for internal feed pipe	7615
7-12-0033	6	Hot insulation supports for horizontal vessel	7617

[Click on the Document Title to go to that section of the document](#)

Table of Contents			
Document Number	Rev.	Document Title	Page Number
7-12-0037	5	S.R. nozzle neck	7618
7-12-0038	2	Allowable nozzle loads	7619
7-15-0001	6	Part details (shell & tube exchangers)	7623
7-15-0002	6	Types of non standard gaskets (shell & tube exchangers)	7625
7-15-0003	6	Support for vertical exchanger (shell & tube exchangers)	7628
7-15-0004	6	Support for horizontal exchangers (Shell & tube exchangers)	7629
7-15-0005	6	Supports for horizontal stack units (shell & tube exchangers)	7631
7-15-0006	6	Tube hole preparation and roller expanding (shell & tube exchangers & air cooled heat exchangers)	7633
7-15-0007	6	Sliding & deflector strips to tube sheet welding details (shell & tube exchangers)	7634
7-15-0008	6	Eye bolt detail (shell & tube exchangers)	7635
7-15-0009	6	Method of fastening nuts to the tie rods (shell & tube exchangers)	7636
7-15-0010	6	Jack screw tapping and arrangement (shell & tube exchangers)	7637
7-15-0011	6	Fixing detail of dowel pins (shell & tube exchangers)	7638
7-15-0012	6	Couplings and plugs (shell & tube exchangers)	7639
7-15-0013	6	Lifting lug detail (shell & tube exchangers)	7641
7-15-0014	6	Davit for shell & channel cover (shell & tube exchangers)	7642
7-15-0016	6	Earthing lug (shell & tube exchangers)	7645
7-15-0017	6	Name plate (shell & tube exchangers)	7646
7-15-0018	6	Warning plate (shell & tube exchangers)	7647
7-15-0019	6	Tolerances (shell & tube exchangers)	7649
7-15-0021	6	Detail of sealing strip assembly for two pass shell (shell & tube exchanger)	7652
7-44-0033	7	Details of mitered elbow	7653
7-44-0162	6	Standard for spacers and blinds > 26" (150#, 300# and 600# FF to B 16.47 series B)	7655
7-44-0164	2	Standard for spacers and blinds > 26" (for AWWA flanges)	7658
7-44-0300	6	Temporary strainer RF (all ratings), FF 125# - 300#.	7660
7-44-0302	7	T-Strainer type-3 2"-24" (150# RF, 300# RF and RTJ, 600# and RTJ)	7661
7-44-0303	7	T-Strainer type-1 2"-4" (150CL, RF, 300CL RF and RTJ, 600CL RF and RTJ)	7662
7-44-0304	7	T-Strainer type-1 6" to 24" (150# RF, 300# RF & RTJ, 600# RF & RTJ)	7663
7-44-0305	7	T-Strainer type-2 2"-24" (150# RF, 300# RF and RTJ, 600# and RTJ)	7664
7-44-0350	6	Vents and drains (on lines 1" and below)	7665
7-44-0351	6	Vents and drains (on lines 2" and above).	7666
7-44-0352	6	Orientation of orifice taps (class 600 & below)	7667
7-44-0353	6	Wells installation 1 1/2" dia taps (up to class 600).	7669
7-44-0354	6	Pressure tappings (PA, PG, PC, PT, PIC etc)	7671
7-44-0401	6	Utility hose station	7672
7-44-0403	7	DRIP leg for steam lines	7673
7-44-0404	6	Pipe sleeve details for insulated lines under roads and dykes	7674
7-44-0476	6	Welding of pipe with different thickness	7675
7-44-0477	6	Butt welding end preparation	7676
7-44-0478	6	Fillet weld details	7677
7-44-0479	6	Welding detail for branch connections (not breaking into)	7678
7-44-0480	6	Butt weld details (dimensions)	7679

[Click on the Document Title to go to that section of the document](#)

Table of Contents			
Document Number	Rev.	Document Title	Page Number
7-44-0481	6	Butt weld details (sequence of welds)	7680
7-44-0482	6	Welding detail for branch connections (stub in)	7681
7-44-0483	6	Branch connection (breaking into)	7682
7-44-0484	6	Branch connections (not breaking into)	7683
7-44-0485	6	Method of cutting and dimensions of field manufactured concentric reducers	7684
7-44-0486	6	Tolerances for fabrication	7685
7-44-0487	7	Method of cutting and dimensions of field manufactured ECC. reducers	7686
7-44-0501-	5	(Withdrawn) Clearances	7687
7-44-0502	5	Accessibility for valves and instruments	7700
7-44-0503	5	Valve accessibility and clearances	7701
7-44-0504	5	Clearance requirements for orifice flange instrument piping	7702
7-44-0506	5	Table of basic span	7705
7-44-0507	5	Maximum spacing of guides for vertical and horizontal pipes	7706
7-51-0101	6	Typical earth electrode for earthing system.	7707
7-51-0102	8	Typical earth electrode in test pit.	7708
7-51-0103	7	Typical earth plate and fixing details.	7709
7-51-0104	6	Typical arrangement for earthing of motor	7710
7-51-0106	6	Typical earth connection for push button station.	7711
7-51-0107	6	Typical earth connection for lighting pole.	7712
7-51-0108	7	Typical earthing of tanks, vessel and spheres.	7713
7-51-0109	6	Typical arrangement for earthing of overhead cable tray and electric motor.	7715
7-51-0111	6	Typical earthing arrangement for process equipment.	7716
7-51-0112	6	Earthing / bonding of pipes and pipe racks (in hazardous area).	7717
7-51-0117	6	Typical details of directly buried earth electrode.	7719
7-51-0201	6	Typical installation of lighting fixture at ground level.	7720
7-51-0202	6	Typical installation of lighting fixture on platform.	7721
7-51-0203	6	Typical installation of open area flood light fixture mounted on wall or column.	7722
7-51-0205	6	Typical installation of flood light fixtures (two) mounted on pole.	7723
7-51-0208	7	Typical Marshalling box details for lighting poles.	7725
7-51-0220	6	Typical installation of aviation obstruction light.	7726
7-51-0221	6	Typical installation of hazardous area well glass / dome glass / flat glass lighting fixture	7727
7-51-0222	6	Typical installation of hazardous area bulk-head fixture	7728
7-51-0223	6	Typical installation of flood light fixture	7729
7-51-0225	6	Typical installation of flame proof lighting / power panel	7730
7-51-0303	7	Typical section of RCC cable trench	7731
3-102-8	8	Vessel Skirt Details - Cylindrical - Type 1	7732
7-51-0305	6	Installation details for conduit or cable support on wall / slab / beam	7733
7-51-0306	6	Installation details for control station on structural channel in paved area	7734



BIDDING DOCUMENT

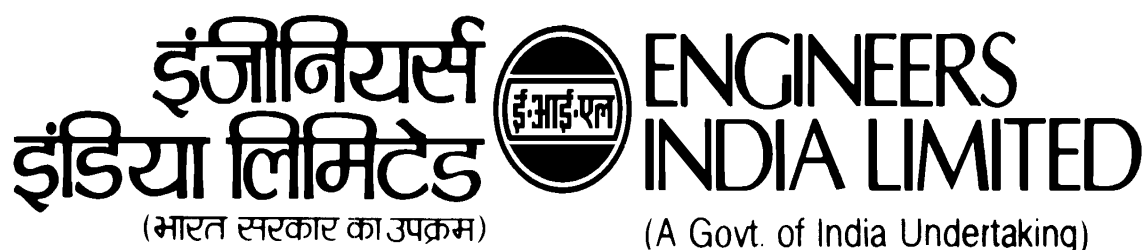
FOR

CCR PACKAGE

(BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)

**PROJECT: PDH PP PLANT WITH ETHANE AND PROPANE
STORAGE & HANDLING FACILITIES AT DAHEJ, GUJARAT**

PREPARED & ISSUED BY:



PART-I OF II : COMMERCIAL PART

PART-II OF II : TECHNICAL PART

**BIDDING DOCUMENT
FOR**

CCR PACKAGE

(BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)

**PROJECT: PDH PP PLANT WITH ETHANE AND PROPANE
STORAGE & HANDLING FACILITIES AT DAHEJ, GUJARAT**

PART-I OF II : COMMERCIAL PART

MASTER INDEX

NAME OF WORK : CCR PACKAGE FOR PDH PP PLANT WITH
ETHANE AND PROPANE STORAGE AND
HANDLING FACILITIES AT DAHEJ, GUJARAT

BIDDING DOCUMENT NO. : JP/B862-101-PM-T-7300/1028

PART – I: COMMERCIAL SECTION

S. No.	DESCRIPTION
1.	COVER PAGE
2.	MASTER INDEX
3.	INVITATION FOR BIDS (IFB) ALONG WITH APPENDICES/ANNEXURES
4.	BID DATA SHEET (BDS)
5.	INSTRUCTIONS TO BIDDERS (ITB)
i)	APPENDIX – I: COMMERCIAL QUESTIONNAIRE
ii)	APPENDIX – II: CONTENTS OF BID AND CHECK LIST
iii)	APPENDIX – III: INTEGRITY PACT
iv)	APPENDIX – IV: E-TENDERING METHODOLOGY
v)	APPENDIX – V: TRC & FORM -10F
vi)	APPENDIX – VI: POA FORMAT
vii)	APPENDIX – VII: BIDDING FORMS
viii)	APPENDIX – VIII: PROVISIONS REGARDING PROCUREMENT FROM A BIDDER FROM A COUNTRY SHARING LAND BORDER WITH INDIA
ix)	APPENDIX – IX: EMD FORMAT
x)	APPENDIX – X: PROCEDURE FOR ONLINE EMD SUBMISSION THROUGH PLL's ONLINE EMD TENDER FEE COLLECTION PORTAL
xi)	APPENDIX – XI: SITE VISIT BY FOREIGN NATIONALS
xii)	APPENDIX-XII: PROFORMA FOR INSURANCE SURETY BOND (IN LIEU OF EARNEST MONEY DEPOSIT)
6.	SPECIAL CONDITIONS OF CONTRACT (SCC)
7.	CONDITIONS OF CONTRACT (CoC)
i)	EXHIBIT A: DELETED
ii)	EXHIBIT B: RELEASE OF FRONT TO THE CONTRACTOR
iii)	EXHIBIT C: CONTRACT SCHEDULE
iv)	EXHIBIT D: CONTRACT PRICE SCHEDULE
v)	EXHIBIT E: QUALIFICATION & EXPERIENCE REQUIREMENT OF KEY CONSTRUCTION PERSONNEL AND PENALTY FOR THEIR NON-MOBILIZATION
vi)	EXHIBIT F: PROFORMA FOR APPROVAL OF CONSTRUCTION SUB-CONTRACTOR
vii)	EXHIBIT G: PAYMENT SCHEDULE
viii)	EXHIBIT H: GENERAL PROJECT REQUIREMENTS AND PROCEDURES

S. No.	DESCRIPTION
ix)	EXHIBIT I: INSURANCE
x)	EXHIBIT J: SPECIFICATIONS FOR DOCUMENTATION REQUIREMENTS FROM CONTRACTORS (Enclosed in Technical Section- Ref Doc No. 6-78-0002 & 6-78-0003)
xi)	EXHIBIT K: SPECIFICATION FOR QUALITY MANAGEMENT SYSTEM REQUIREMENTS FROM BIDDERS (Enclosed in Technical Section- Ref Doc No. 6-78-0001)
xii)	EXHIBIT L: DELETED
xiii)	EXHIBIT M: FREE ISSUE MATERIAL DETAILS
xiv)	EXHIBIT N: CONDITIONS FOR ISSUE AND RECONCILIATION OF MATERIALS
xv)	EXHIBIT O: CALIBRATION REQUIREMENT OF MONITORING AND MEASURING DEVICES AT CONSTRUCTION SITES
xvi)	EXHIBIT P: STANDARD SPECIFICATIONS ON HEALTH, SAFETY AND ENVIRONMENT (HSE) MANAGEMENT AT CONSTRUCTION SITE (Enclosed in Technical Section- Ref Doc No. 6-82-0001)
xvii)	EXHIBIT Q: OISD-192 & OISD-207
xviii)	EXHIBIT R: METHODOLOGY FOR PROCUREMENT OF STRUCTURAL STEEL, TMT BARS & CEMENT BY CONTRACTORS
xix)	EXHIBIT S: WORK DURING MONSOON
xx)	EXHIBIT T: DELETED
xxi)	EXHIBIT U: FORM OF CONTRACT
xxii)	EXHIBIT V: GUIDELINES FOR TRANSPORTATION OF ODC CONSIGNMENTS FROM FABRICATION YARD / SHOP TO SITE
xxiii)	EXHIBIT W: DELETED
xxiv)	EXHIBIT X: TERMS & CONDITIONS FOR POST WARRANTY ANNUAL MAINTENANCE CONTRACT (PWAMC)
xxv)	EXHIBIT Y: DELETED
xxvi)	EXHIBIT Z: GENERAL REQUIREMENT FOR RADIOGRAPHY & OTHER NDT

PART – II: TECHNICAL SECTION

S. No.	Description
1	TECHNICAL SECTION (Document No: B862-101-85-41-PM-T-7300)



NOTICE OF INVITATION FOR BIDS (IFB)

FOR CCR PACKAGE FOR

PDH-PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/s PETRONET LNG LIMITED (PLL)

(BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)
(INTERNATIONAL COMPETITIVE BIDDING)



1. INTRODUCTION:

- 1.1. Petronet LNG Limited (PLL) is a public limited company incorporated in April 1998 in India under the provision of the (Indian) Companies Act 1956, having registered office at 4th Floor, Tower I, World Trade Centre, Nauroji Nagar, New Delhi-110029, India. PLL owns & operates LNG Terminal at Dahej in the state of Gujarat, India with the name plate capacity of 17.5 MMTPA.

In view of expected growth in demand for petrochemical products in India and to remain competitive in the market with product self-sufficiency, Petronet LNG Ltd. (PLL) has planned to setup Petrochemical (PDH-PP) plant integrated with Ethane and Propane import facility at Dahej. The proposed "Petronet Petrochemical Complex" (PPC) will use propane as a feedstock, dehydrogenate it to form propylene in a Propane Dehydrogenation Unit (PDH) and further explore the possibilities of setting up of Propylene derivative complex to produce high value polymers / petrochemicals such as Poly Propylene (PP) targeting import substitution.

- 1.2. PLL has appointed Engineers India Limited (EIL) as Consultant for "PDH PP plant with Ethane and Propane storage and handling facility at Dahej Petrochemical Complex".
- 1.3. EIL on behalf of PLL invites e-bids (Through Government of India's Central Public Procurement Portal <http://eprocure.gov.in/eprocure/app>) for "**CCR PACKAGE**" under single stage two part system (Part-I: Techno-commercial Part & Part- II: Price Part) from competent agencies meeting the Bidder's Qualification Criteria (BQC) as stated under para 4 below.

2. BRIEF SCOPE OF WORK:

- 2.1. The Scope for the CCR Package of PDH Unit comprises of Overall Project management, Residual Process design and engineering, detailed design and engineering based on BDEP (including HAZOP study, SIL, etc.), Site Survey, HSE, Procurement, Project controls including Planning, scheduling and monitoring, 3D modelling, procurement of bought-out items & supply of CCR Regeneration Section along with Reactors, Lifts, Piperack, all associated equipment, all tagged items, all non-tagged items / instruments / electrical components/ piping components (including interconnection & transfer piping/ all spares etc.), fabrication of equipment, piping, super-structure, all civil works , construction of sub-structures inclusive of underground works such as piping, drains, foundation etc (as detailed in various documents of the tender).
- 2.1.1. The scope also includes engagement of different agencies as per tender requirements, deployment of resources, destructive and non-destructive testing including all stipulated and statutory inspections (as stated in tender documents), stage wise inspection including third party inspection (shop/site), PWHT, transportation of all the equipment/ materials to work site including Route survey for ODCs as applicable, arranging the land outside the Project Site on his own for construction of ware house/ storage of material and work shop. The work shop shall be provided with monsoon protection for fabrication of structural/ piping/ supports which shall be done by contractor.
- 2.1.2. The Scope of the Contractor includes, supply, fabrication, transportation, handling at site, erection, installation, construction of Hard stand (as applicable), construction including Construction Management and Supervision, providing temporary platform and hydro-testing of all facilities (as per tender requirements), surface preparation and application of primer & finish paint /Insulations, clearing of all debris from site and disposal of the same to the designated place etc ,any other scope not defined above but required to complete the work in all respect to achieve mechanical completion, pre-commissioning (as per the requirements of Tender documents), start-up & commissioning assistance to Owner, testing for performance guarantee in the presence of Licensor and Owner's Representative etc., training to owner's personnel including supply of required first fill of lubricant,

chemical, consumables, special tools and tackles, mandatory spares and commissioning spares and handing over the complete CCR Package to Owner as deliberated in Scope marked drawings of the Tender and also as per scope of work documents as specified in detail in various other chapters of the bidding document.

- 2.2. The above scope is not exhaustive and Bidder shall refer technical section of the bidding document for complete details of scope of work.

3. TIME SCHEDULE FOR COMPLETION:

24 (Twenty-Four) Months for Guaranteed Mechanical Completion from the date of issue of Letter of Acceptance (LOA) **plus 2 (Two) Months for Commissioning**. Prior intimation of 15 days shall be given to Contractor before commissioning

4. BIDDER QUALIFICATION CRITERIA (BQC):

Bidder shall fulfil the following qualification criteria in order to qualify for this work:

4.1. EXPERIENCE CRITERIA (TECHNICAL):

- 4.1.1. The Bidder should have executed and completed, as EPCC/ LSTK Contractor with single point responsibility in a contract, involving Project Management, Residual Process engineering, Design & detail engineering, Procurement, Supply, Inspection/Testing Construction / Construction supervision, Pre-Commissioning, Commissioning/Commissioning assistance of at least one CCR Regeneration Package in a Refinery / Propane De-Hydrogenation Unit / Petrochemical Complex.

- 4.1.1.1 In case the bidder is unable to meet the criteria as per Clause No. 4.1.1 above on his own in terms of Residual Process engineering, Design & detail engineering, but meets the criteria in terms of Project Management, Procurement, Supply, Construction / Construction supervision, Pre-Commissioning, Commissioning / Commissioning assistance, the bidder may still be considered, provided:

- a) For Residual Process engineering, Design & detail engineering, the Bidder engages a sole Engineering Sub-Contractor who shall have carried out Residual Process engineering, Design & detail engineering for at least one CCR Regeneration package as a minimum in a Refinery / Propane De-Hydrogenation Unit / Petrochemical Complex.
- b) As a minimum, the Bidder and their Engineering sub-contractor shall furnish a Responsibility Scope /Activity Matrix for the job. The Bidder & the Engineering sub-contractor shall ensure that Scope/Activity Matrix shall delineate according to the experience & capability of the Bidder vis-à-vis the Engineering sub-contractor whose proven track record is being considered. The Engineering documents shall be prepared by the Engineering Sub-contractor. Fabrication drawings shall be prepared by the Bidder as Single Point Responsible Contractor, thereafter same shall be vetted by the Engineering sub-contractor. The Engineering sub-contractor shall not be changed thereafter.
- c) The bidder shall furnish along with his bid the Memorandum of Understanding (MoU) / Letter of Agreement (LoA) / Letter of Consent (LoC) with the proposed Engineering sub-contractor conforming to the scope of work as defined in Clause no. 4.1.1.1 and same shall not be changed thereafter. The MoU/ LoA / LoC between the Bidder and the Engineering sub-contractor shall be converted into definite contract agreement between the Contractor (Successful Bidder) & Engineering sub-contractor within one month from the award of the job to the Contractor (Successful Bidder) and before signing of contract/purchase order with Client. This agreement must remain in force at least for five (5) years or till the defect liability period, whichever is later.

OR

- 4.1.2. The bidder should have executed and completed, as EPCC/ LSTK Contractor with single point responsibility in a contract, involving Project Management, Residual Process Engineering, Detailed Engineering, Procurement, Supply, Inspection/ Testing, Construction/ Construction Supervision, Pre-commissioning, Commissioning/ commissioning assistance and Performance Guarantee Testing and handing over of the unit on lump sum turnkey basis of one grassroot hydrocarbon process plant in Petroleum Refinery / Petrochemical. Grass root unit executed under existing

Complex shall also be considered as reference.

For the reference plant in Clause no. 4.1.2, in case the bidder has used services of its Parent/ holding company/ subsidiary/ fellow-subsi-dary/ affiliate for Residual Process engineering and/or Detailed engineering, the same shall be considered acceptable provided the bidder shall mandatorily engage a qualifying Parent/ subsidiary/ affiliate as per Clause no. 4.1.2.2 below.

4.1.2.1 In addition, the bidder (as defined in Clause no. 4.1.2) or it's Parent/ holding company/ subsidiary/ fellow-subsi-dary/ affiliate on its own shall also have experience of Engineering including Residual Process Engineering and Detailed Engineering, in any of the following grass-root process plants/units as listed below:

- Crude / Vacuum Distillation Unit
- Delayed Coker Unit
- Fluid Catalytic Cracking Unit/Resid FCC/Petrochemical FCC Unit/ Reactor Regenerator Package
- Propane De-Hydrogenation Unit/ CCR Package
- Hydrocracker Unit
- Residue Hydrocracking Unit
- Diesel Hydrotreating Unit / Diesel Hydro Desulphurization (DHDS) Unit
- Naphtha Hydrotreater and Catalytic Reforming Unit
- Naphtha Hydrotreater Unit and Naphtha Isomerization Unit
- MS Block (Naphtha Hydrotreater and Catalytic Reforming Unit and Naphtha Isomerisation Unit)
- VGO / CGO Hydrotreating Unit
- Hydrogen Unit (Steam reforming based)
- Gas Cracker Unit / Naphtha Cracker Unit / Dual Feed Cracker Unit
- Process Unit (s) in Aromatic Complex (Comprising of Units like NHT / Catalytic Reformer, Xylene Isomerization/ Xylene Fractionation / Para-Xylene Unit)
- Mono Ethylene Glycol (MEG) / Tri Ethylene Glycol (TEG) Unit
- Linear Alkyl Benzene (LAB) Unit

4.1.2.2 In case the bidder qualifies through its Parent / holding company/ subsidiary / fellow-subsi-dary/ affiliate for engineering, it shall mandatorily engage same qualifying Parent / holding company/ subsidiary / fellow-subsi-dary/ affiliate for engineering and in such a case, the bidder, along with the bid, shall submit Memorandum of Understanding (MoU) / Agreement with qualifying Parent / holding company/ subsidiary / fellow-subsi-dary/ affiliate (meeting the requirement in Clause no. 4.1.2.1 above) for executing the residual process engineering and/or detailed engineering, engineering for procurement, Pre-commissioning, commissioning assistance & PGTR assistance, which shall be binding on the bidder and is not to be changed thereafter. The MOU/Agreement between successful bidder & the qualifying Parent / holding company / subsidiary/ fellow-subsi-dary/ affiliate shall be converted into definite contract agreement after award of job and before signing of contract with PLL which shall be done within one month from the date of award to EPC Contractor and this agreement must remain in force at least 5 years or till the defect liability period whichever is later.

4.1.3. The CCR package/ reference unit(s) provided by the bidder with respect to their experience as mentioned in Clause No. 4.1.1 (incl. 4.1.1.1) OR 4.1.2 (incl. 4.1.2.1) above must be non-captive units (which shall mean, other than in-house units executed and completed for their Own (themselves)). Experience of any Pilot plant & Demo plant - shall not be considered for qualification. Bidder is required to declare the same upfront in the bid.

4.1.4. Exclusive experience of revamp of CCR Package/ reference units, Utility System / Utility block, waste water effluent treatment, offsite facilities shall not be considered as relevant experience.

4.1.5. The CCR Package/ reference unit(s) as referred in clause 4.1.1 (incl. 4.1.1.1) OR 4.1.2 (incl. 4.1.2.1) above must have been commissioned and shall have completed operation for at least one (1) year after commissioning within the last 15 (Fifteen) years from the bid submission date. In case of extended bid submission date, original bid submission date shall be considered.

4.1.6. The bidder has to submit Owner/ End User certificate certifying successful operation of one year

for the referred unit.

- 4.1.7.** The clauses 4.1.1, 4.1.1.1, 4.1.3, 4.1.4, 4.1.5 and 4.1.6 mentioned above shall be read in conjunction. Similarly, clauses 4.1.2, 4.1.2.1, 4.1.2.2, 4.1.3, 4.1.4, 4.1.5 and 4.1.6 mentioned above shall be read in conjunction.

4.2. EXPERIENCE CRITERIA (COMMERCIAL)

- 4.2.1.** Bidder should have executed and completed at least one or two or three contract(s) of **“Similar Work(s)”** having Minimum Value(s) as indicated below during the last 15 (Fifteen) years from the bid due date (in case of extended bid submission date, original bid submission date shall be considered):

(i) Three contracts, each having value not less than **INR 184,05,00,000** or **USD 19,627,800**

Or

(ii) Two contracts, each having value not less than **INR 245,40,00,000** or **USD 26,170,400**

Or

(iii) One contract having value not less than **INR 306,75,00,000** or **USD 32,713,000**

“Similar Work(s)” shall mean

“Contract(s) executed and completed with single point responsibility wherein scope involves either engineering, procurement, construction & commissioning / commissioning assistance (EPCC), or, Procurement & Construction (PC) of grassroot hydrocarbon Process Unit, or, Package which is part of a hydrocarbon Process Unit, in any one of the following sectors:

Petroleum Refinery/ Petrochemical Complex/ LNG Regasification facilities”

- 4.2.2.** For the purpose of qualification under Clause Nos. 4.2.1 above date of Mechanical Completion/Commissioning shall be considered as the completion date and that should fall within the qualifying period i.e. during the last 15 (Fifteen) years from the bid due date (in case of extended bid submission date, original bid submission date shall be considered).

- 4.2.3.** In case bidder has executed contract(s) meeting the “Similar Work(s)” as per Clause nos. 4.2.1 above, but such contracts(s) comprise of additional scope and/or multiple part(s)/unit(s) under single contract, the value of completed part(s) / unit(s) of contract (and associated facilities, if any) shall be considered for the purpose of qualification vis-a-vis the values given under Clause Nos. 4.2.1 above.

Further, where multiple part(s)/unit(s) is awarded under different Work Order(s) having different Work Order reference number(s) with the same Enquiry Document No., cumulative value of such completed part(s) / unit(s) of contract (and associated facilities, if any) meeting definition of Similar Work(s) as per Clause Nos. 4.2.1, as submitted, shall be considered for the purpose of BQC Evaluation.

- 4.2.4.** For the purpose of Experience Criteria (Commercial) as mentioned in Clause Nos. 4.2.1, if the work order covers the activities beyond Mechanical Completion (i.e. Pre-commissioning and Commissioning/ Commissioning Assistance and PGTR), the value of these activities will be considered only if these activities are completed and bidder has to provide necessary documentation certified by Owner/End User in this regard.

- 4.2.5.** The executed Contract Price as per the Completion Certificate shall be considered for meeting value-based Experience Criteria of BQC, provided the same is excluding Service Tax/ GST as applicable. In case the executed contract price includes Service Tax/GST, the same shall be excluded for evaluation. In such case, it shall be the responsibility of the Bidder to provide the details of Service Tax/GST which are included in executed contract price.

- 4.2.6.** In case, Executed Contract Price is not mentioned in the Completion Certificate, Work Order value with amendments, if any, shall be considered towards BQC requirements. In such cases, the copy of certified Bill shall also be acceptable for determining the Executed Contract Price if submitted along with Completion Certificate.

- 4.2.7. The annual inflation in the value of contract executed by the Bidder under the past experience shall not be considered.

4.3. FINANCIAL CRITERIA

4.3.1. ANNUAL TURNOVER

The minimum Annual Turnover of the bidder in at least one of the immediate preceding three financial years as on due date of submission of Bid shall be:

Indian Bidder	Foreign Bidder
INR 141,57,69,000	USD 15,098,300

Note: Turnover shall be taken as Revenue from Operations excluding other Incomes as stated in the Financial Statement(s) of the Bidder. GST (Goods & Services Tax), if applicable shall also be excluded.

4.3.2. NET WORTH

Net worth of the bidder as per the **immediate preceding year's** Audited financial statement should be **positive**.

Net worth calculation: Net-worth means paid up share capital, Share Application Money pending allotment* and reserves# less accumulated losses and deferred expenditure to the extent not written off. Net worth shall be calculated using the following formula:

Reserves to be considered for the purpose of net-worth shall be all reserves created out of the profits and securities premium account but shall not include reserves created out of revaluation of assets, write back of depreciation and amalgamation.

*Share Application Money pending allotment will be considered only in respect of share to be allotted.

Accordingly, the definition of net-worth shall be as follows:

Paid up share capital	XXXX
Add: Share application money pending allotment	XXXX
Add: Reserves (as defined above)	XXXX
Less: Accumulate Losses	(XX)
Less: Deferred revenue expenditure to the extend not written off	(XX)
Net-worth	<u>XXXX</u>

4.3.3. WORKING CAPITAL

The minimum Working Capital of the bidder as per the immediate preceding year's Audited Financial statements shall be:

Indian Bidder	Foreign Bidder
INR 28,31,54,000	USD 3,019,700

Working Capital calculation: Working Capital shall be Current Assets minus Current Liabilities.

Where Current Assets means Asset when it satisfies any of the following criteria:

- It is expected to be realized in, or is intended for sale or consumption in, the company's normal operating cycle*;
- It is held primarily for the purpose of being traded;
- It is expected to be realized within twelve months after the reporting date; or
- It is cash or cash equivalent unless it is restricted from being exchanged or used to settle a liability for at least twelve months after the reporting date.

Where Current Liabilities means Liabilities when it satisfies any of the following criteria:

- a) It is expected to be settled in the company's normal operating cycle*;
- b) It is held primarily for the purpose of being traded;
- c) It is due to be settled within twelve months after the reporting date; or
- d) The company does not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting date. Terms of a liability that could, at the option of the counterparty, result in its settlement by the issue of equity instruments do not affect its classification.

*An operating cycle is the time between the acquisition of assets for processing and their realization in cash or cash equivalents. Where the normal operating cycle cannot be identified, it is assumed to have duration of Twelve Months.

In case, Bidder is unable to meet the WC requirement as above, the Bidder may supplement the WC with a Fund based Line of Credit (LOC) from any scheduled bank in India or a commercial bank having networth more than INR 1000 million or equivalent USD (as per bank's latest audited financial statements). In such a case, Bidder shall furnish a declaration from the bank for availability of unutilized fund-based line of credit for the shortfall in WC below the specified WC value, in the format (enclosed as **Annexure-I to IFB**). The letter (dated any date between the tender floatation and final bid due date) shall provide the status of Fund based Line of Credit as on any date between the date of tender floatation and final Bid Due Date.

In this regard, following shall be noted:

- i. Currency for seeking the amount of line of credit from the bank shall be in the currency as per the IFB/ Bidding Document requirement.
- ii. Declaration letter for the shortfall of working capital shall be from a single bank only. Letters from multiple banks will not be acceptable. In case a Bidder submits Letters from multiple banks, the highest LOC amongst all the Banks shall only be considered for BQC evaluation. Further, banking syndicate will also be allowed wherein a group of banks can jointly underwrite and jointly lend money to the bidder. In case of banking syndicate also, declaration letter for meeting the working capital shall be from a single bank only.
- iii. If any bidder is not meeting the working capital requirement from its audited Financial Statement, Bidder has the option to submit the line of Credit certificate from their banker along with the bid. After opening of bids, in case the bidder is not meeting the required working capital amount even from the line of credit certificate submitted along with the bid, no further opportunity shall be given to bidder to modify or replace the certificate by any subsequent certificate from the same bank or any other bank.

However, if the bank certificate submitted in the bid is carrying certain inaccuracies in the language of the certificate as per the format enclosed in the tender, bidder shall be asked to clarify or make corrections in the language of the bank letter. In case of such clarifications/corrections, the same shall be submitted as an amendment to the line of credit from the bank submitted in the bid. In no case alterations in the amount of line of Credit as already submitted in the bid shall be allowed.

- iv. If any bidder is not meeting the working capital requirement as per its audited Financial Statement and also has not submitted the required line of credit certificate from bank in the bid, the bidder shall be rejected and no opportunity to submit the certificate shall be provided to bidder.
- v. Wherever bids are obtained through e-tendering, bidder shall be required to upload the copy of line of credit certificate along with the bid on the e-tendering portal itself, duly signed by a digital signature. The bidders shall not be required to submit the original of the line of credit certificate to EIL separately.

Example: If the WC required is Rs. 50 Crore and the Bidder has WC of Rs 30 Crore as per the Audited Financial Statement, Bidder needs to submit a LOC for the balance Rs. 20 Crore. Further, if the Working Capital required is Rs. 50 Crore and the Bidder has WC of (-) Rs 10 Crore as per the

Audited Financial Statement, Bidder needs to submit LOC for Rs. 60 Crore to meet the BQC requirement.

- 4.3.4.** The financial statements stated above shall be reviewed in respect of financial criteria under Bidder Qualification Criteria. However, in case any matter is referred in the notes to accounts and schedules referred in balance sheet and profit & loss account then, only quantified qualified/ adverse/ disclaimer opinion in the statutory auditor's reports, if any, having impact on financial criteria shall be considered for evaluation.

4.4. GENERAL PROVISIONS FOR BQC [for Experience Criteria- Technical & Commercial]:

4.4.1. Experience of Bidder as a Sub-Contractor:

A job completed by a Bidder as a Sub-Contractor shall be considered for the purpose of meeting the experience criteria of BQC provided the appointment of sub-contractor was authorized and subject to submission of following documents in support of meeting the BQC:

- a. **Documentary evidence/Certificate by the end-User/Owner/PMC**, with regards to approval of Bidder / engaging Bidder / execution by the Bidder as a Sub-Contractor to the Main Contractor.
- b. **Work order and Completion Certificates indicating the value of works and date of completion** issued by Main Contractor (including SOR/SOP, incase required for establishing scope of work). Completion certificate issued by PMC / Owner/ End-user shall also be acceptable.

- 4.4.2. Bidder's past experience as Consortium/JV:** While evaluating the Bids, Bidder's **past experience as a leader or member of a Consortium/JV shall be considered** acceptable, provided his scope in that Consortium/JV meets the requirement stipulated in the subject BQC under evaluation.

In case, the PTR of Consortium/JV experience submitted by the Bidder meets the Similar Work(s), as per Clause 4.2.1 above, without indicating the division of scope of work in terms of specific activities and associated value of work between the Consortium/JV members, but only the division of scope in terms of percentage share is indicated, in such case the completed value shall be arrived at after considering percentage share of each member, for the purpose of BQC evaluation.

Additionally, bidder to submit documentary evidence describing detailed scope of the bidder in Consortium/ JV in support of meeting the BQC (Technical).

4.4.3. Experience of Own Projects

Experience of only the Bidding entity shall be considered. A job executed by a Bidder for its own plant/projects shall not be considered as experience for the purpose of meeting the Qualification Criteria of the Enquiry document.

However, Jobs executed for Subsidiary/ Fellow subsidiary / Holding company shall be considered as experience for the purpose of meeting BQC, subject to submission of additional document towards "tax paid invoice(s) duly certified by Statutory Auditor of the Bidder or consolidated statement issued by Statutory Auditor of the Bidder towards payments of statutory tax" in support of the job executed for Subsidiary/ Fellow subsidiary / Holding company.

In case referred Project falls under "No Tax Area" (like SEZ), Bidder can submit certificate from their Statutory Auditor to above effect in place of Tax paid invoice.

Chartered Accountant (CA) (in place of Statutory Auditor) is acceptable where audited accounts are not mandatory as per law for latest financial year. CA shall not be an employee/ Director and not having any interest in the Bidder's company/Firm.

- 4.4.4.** Only such past experience(s) shall be considered for qualification, details of which are provided in the initial Bid by the Bidder and/or out of the list of Similar Work experiences specified in the Bid (with or without submitting relevant qualification documents), and subsequently additional past experience (PTR) which is not referred at all in the e-Bid in specific location, may not be permitted to be submitted by the Bidder and the Bid shall be evaluated in the following manner:

- a) In case, a Bidder does not meet the BQC based on experience documents (copy of work order, completion certificate, performance certificate etc. as more specifically mentioned in the BQC) submitted by the Bidder in support of meeting the BQC, Bids shall be rejected in case of "No Deviation Bid" without issuing TQs/CQs. However, in case CQs/TQs are issued, Bidders can be allowed to submit additional documents for any of the work out of the past experience(s) (PTR) list already submitted along with the Bid, to support their meeting the BQC.
- b) No additional past experience(s) (PTR) (not specified in the list already provided by the Bidder in their Bid) shall be considered from the Bidders, since this would amount to substantive change in the Bid.

4.4.5. Parties who are affiliates of one another can decide which Affiliate will make a bid. Only one affiliate may submit a bid. Two or more affiliates are not permitted to make separate bids directly or indirectly. If two or more affiliates submit separate bids, then all of them shall be summarily rejected.

4.4.6. A firm which has been engaged by PLL to provide consultancy services for this Project (here "Project" shall mean the project embracing the works and/or unit(s) forming the subject matter of the Bid and resultant Contract) and any of its affiliates are disqualified from executing EPC works for the same project.

Bidder to provide declaration regarding this as per **Annexure – III** attached with IFB, in their letter head duly signed and stamped by their Power of Attorney holder failing which their bid shall be rejected.

4.4.7. DEFINITION OF AFFILIATE/SUBSIDIARYCOMPANY

"Affiliate/Subsidiary" of a Party (i.e. Bidder) shall mean any company or legal entity which:

- (a) controls either directly or indirectly a Party, or
- (b) which is controlled directly or indirectly by a Party; or
- (c) is directly or indirectly controlled by a company, legal entity or partnership which directly or indirectly controls a Party.

"Control" means actual control or ownership of at least a 50% voting or other controlling interest that gives the power to direct, or cause the direction of, the management and material business decisions of the controlled entity.

4.4.8. Currency Conversion for evaluation of BQC:

Currency Conversion in case of BQC document other than in Indian Currency/specified Foreign Currency shall be as follows:

4.4.8.1 Experience Criteria (Commercial): In case currency indicated in the BQC related document (work order/completion certificate etc.) submitted by Bidder towards qualification of value-based experience criteria is other than in Indian Currency/specified foreign currency, the value of work shall be derived to Indian Currency/specified foreign currency considering "Bill Selling (foreign exchange) Rate of State Bank of India" as on the date of award of work.

4.4.8.2 Financial Criteria: In case, Audited Financial Statement submitted by the Bidder towards qualification of Financial criteria is other than in Indian Currency/specified Foreign currency, the value of Bidder's Financials shall be derived to Indian Currency/specified Foreign currency by considering the Currency conversion factor specified in the Audited Financial statement for the respective Financial Year if shown in the Financial statement. Otherwise, the Bill Selling (foreign exchange) Rate of State Bank of India on the end date of Financial Year, specified in the Financial statement, shall be considered.

4.4.8.3 In case, the SBI Bill Selling rate is not available as on the date of conversion as specified above for respective cases, the currency conversion rate shall be taken from the Internet, such as:

<https://www.xe.com/currencyconverter>,

<https://www.oanda.com/currency/converter>,

<https://economictimes.indiatimes.com/markets/forex/currency-converter>

4.5. DOCUMENTATION

The bidder shall, in his own interest, furnish complete documentary evidence, as required, to justify that the bidder meets the Bidders Qualification Criteria (BQC). Notwithstanding any other condition/ provision in the Tender documents, bidders are required to submit complete documents pertaining to BQC along with their offer. Failure to meet the BQC will render the bid to be summarily rejected. PLL reserves the right to complete the evaluation based on the details furnished by the bidder, with or without seeking any additional supporting documents/ clarifications.

Bidder shall furnish documentary proof of fulfilling the Bidder's Qualification Criteria as detailed below:

4.5.1. For Experience Criteria (Technical):

Bidder shall complete and submit Experience Record Proforma (ERP- **Annexure-IV & V to IFB**) enclosed with the Bid along with all the documents as listed in ERP in order to establish that the Bidder meets the Bidder Qualification criteria as per Clause no. 4.1 of this document.

4.5.2. For Experience Criteria (Commercial):

- a. The bidder shall, in his own interest, furnish complete documentary evidence to justify that the bidder meets the Qualification Criteria as per Clause **4.2** above.
- b. Bidder shall complete and submit the Experience Record Proforma provided under the Proposal Form of the Bidding Document (Along with supporting documents mentioned) to establish that the bidder meets the Bidder Qualification Criteria as per Clause No. **4.2** of this document.
- c. Bidder shall furnish documentary evidence i.e. copies of work orders/ relevant pages of contract/SOR mentioning the value and the scope of work, completion certificate, from the Owner/ Consultant of work executed.
- d. In case the job is completed by a bidder as a sub-contractor then bidder to submit the documents mentioned under Clause No. 4.4.1.

4.5.3. For Financial Criteria

4.5.3.1 Bidder shall submit the following documents to substantiate the Financial BQC.

- a) Complete Audited Balance Sheet and Profit and Loss Statement along with auditor report and all other schedule / notes to Balance sheet and Profit & Loss account for the immediate three preceding financial years as final on bid due date.

AND

- b) Financial Details of Bidder, from the Statutory Auditor (SA)/ Chartered Accountant (CA) (*), on the letter head of Statutory Auditor/CA(*) (in the format enclosed as **Annexure-II(A)#**

OR

Financial Details of Bidder, on the letter head of Bidder, duly certified by Statutory Auditor/ CA(*) (in the format enclosed as **Annexure-II(B)#**

(*) The letter from CA in place of Statutory Auditor is acceptable where audited accounts are not mandatory as per law at the time of preparation of financial statement for a particular financial year. Also, CA shall not be an employee/ Director and not having any interest in the bidder's company/Firm.

(#) Additionally, Bidders (Other than companies such as Partnership/ Proprietorship firms) are required to submit the details from their Statutory Auditor/ Chartered accountant in **Annexure-II(C) to IFB**.

The above financial details, as per **Annexure-II (A-C) to IFB**, shall be submitted without any reservation/ qualification remarks.

4.5.3.2 For meeting the Financial Criteria, bidders shall be required to submit the Audited Annual Reports /

Financial Statements of the Company as per the provision of bidding document, audited and issued till the final bid due date. Bidder shall be evaluated based on the Financial Statements of the Company submitted in the bid.

Any shortfall information/ document on Audited Annual Reports / Financial Statements of the Company, audited and issued on or before the bid due date can be sought through CQs but bidder shall not be allowed to submit the Financial Statements of the Company audited & issued after final bid due date and time. Accordingly, Financial Statements of the Company audited & issued post final bid due date and time shall not be considered for evaluation.

4.5.3.3 In case the last financial year's closing date was within 9 months prior to final bid due date and Complete Audited Financial Statement of last financial year are not available, bidder has the option to submit the financial details of the three previous financial years immediately prior to the last financial year. Otherwise, it is compulsory to submit the financial details of the immediate preceding three financial years.

For example, in case, final bid due date is up to 31st December and financial details of immediate preceding financial year (year ending 31st March of the same year) are not available, the financial details of the three previous years immediately prior to the last financial year may be submitted.

4.5.3.4 Submission of Consolidated Audited Financial Statement:

- i. **Bidder is a Parent/Holding Company:** Where only consolidated Audited Financial Statements are prepared and audited, which includes the financial details of their wholly owned subsidiaries etc., consolidated audited financial statement shall be considered for establishing the financial criteria subject to Statutory Auditor/ CEO/ CFO/ Company Secretary or any member of the Board of Directors of the bidder, certifying that standalone Financial Statements of bidder (without the financial data of subsidiaries, etc.) is not separately prepared and audited.
- ii. **Bidder is a Subsidiary Company:** In case a Bidder is a Subsidiary Company and separate Financial Statements of the Bidder is not prepared & audited, but only a consolidated audited Financial Statements of their Parent Company/Holding Company are available, consolidated audited Financial Statement shall be considered for establishing the financial criteria subject to Statutory Auditor/ CEO/ CFO/ Company Secretary or any member of the Board of Directors of the Parent/Holding company (whose Audited Financial Statements are submitted for qualification) certifying in their letterhead that Financial Statements of Bidder are not separately prepared and audited.

4.5.3.5 Unique Document Identification Number (UDIN):

Bidder shall ensure that the certificate/reports issued/attested by practicing Chartered Accountant (CA)/Statutory Auditor in India shall contain Unique Document Identification Number (UDIN) of the CA, without which these Certificates/ reports shall not be considered for evaluation.

However, this requirement of including UDIN shall not be mandatory for certificate / reports issued / attested by a CA practicing in foreign country.

4.5.4. AUTHENTICATION OF DOCUMENTS SUBMITTED IN SUPPORT OF BIDDER QUALIFICATION CRITERIA (BQC):

Submission of genuine and authentic documents is the prime responsibility of the bidder. Bidders should ensure submission of complete information/documentation in the first instance itself. Qualification may be completed based on the details so furnished without seeking any subsequent additional information and EIL/PLL reserves the right to reject the bid without making any reference to the bidder.

Accordingly, in order to lend credibility and instil confidence in the procurement process, the mechanism for certification regarding authenticity of BQC documents has been prescribed as under:

4.5.4.1. For authentication of document submitted in support of Financial Bid Qualification Criteria (BQC):

Indian Bidder:

- i) Bidder shall submit "Details of financial capability of bidder" as per Annexure-II(A) or Annexure-II(B) (if applicable) duly signed and stamped by Statutory Auditor or Chartered Accountant (as the case may be).

- ii) Further copy of audited annual financial statements submitted in bid shall be duly certified/attested by notary public with legible stamp.

Foreign Bidder:

- i) Bidder shall submit "Details of financial capability of bidder" as per Annexure-II A or Annexure-II B (if applicable) duly signed and stamped by Statutory Auditor or Chartered Accountant (as the case may be).
- ii) Further, copy of audited annual financial statements submitted in bid shall be certified true copies, duly signed, dated and stamped by an official, authorized for this purpose in Indian Embassy/High Commission in bidder's country. However, member countries of Hague Convention 1961, supporting document pertaining to financial BEC apostille affixed by Competent Authorities designated by the government of bidder's country shall also be acceptable.

In case the foreign bidder is unable to submit duly audited financial statements due to their internal/local regulation, a certificate issued by CEO's/ CFO's (of the parent company for itself or for its subsidiary in case bidder is a subsidiary) certifying all the required information along with a declaration that the bidding company is not in a position to submit its financial statement as per the local/ internal regulation (clearly specifying the applicable regulation) with an endorsement by Chartered Accountant/ Statutory Auditor/ Certified Public Accountant (not being an employee or a Director or not having any interest in the bidder(s) company/ firm) shall be submitted.

Wherever Chartered Accountant/ Statutory Auditor/ Certified Public Accountant (not being an employee or a Director or not having any interest in the bidder(s) company/ firm) is not in a position to endorse such CEO's/ CFO's certificate due to local regulations, CEO's/ CFO's certificate without endorsement may be accepted provided a reference of the local regulation restricting this endorsement is given in the CEO's/CFO's certificate.

4.5.4.2. For authentication of document submitted in support of Experience Criteria (Technical) & Experience Criteria (Commercial) of BQC:

For both Indian & Foreign Bidder:

All documents in support of Experience Criteria (Technical) & Experience Criteria (Commercial) of Bidder Qualification Criteria (BQC) furnished by the bidders shall be verified and certified by any one of the following independent third party inspection agency:

- i. Société Générale de Surveillance (SGS)
- ii. Gulf Lloyds Industrial Services (India) Pvt. Ltd. (GLIS)
- iii. International Certification Services (ICS)
- iv. Bureau Veritas (Ind.) Pvt. Ltd (BVIS)
- v. TUV SUD (TUV)
- vi. Det Norske Veritas (DNV)
- vii. Certification Engineers International Ltd. (CEIL)
- viii. Lloyds Register Industrial Services (LRIS)

However, any work/purchase/service order executed for PLL/EIL by the bidder shall not require any certification from external parties (i.e. Chartered engineer, notary, or any third-party agency).

4.5.4.3. All charges of the Third party for verification and certification shall be borne by the Bidder.

4.5.4.4. Since the bids are being obtained through e-tendering, bidders shall be required to upload the digitally signed authenticated copies of documents for meeting BQC on the e-tendering portal only. Bidder shall not be required to submit the original authenticated documents in physical form to EIL/PLL.

4.5.4.5. Regarding the authenticity/ correctness of any document, EIL/PLL reserves the right to get the document(s) cross verified from the document issuing authority or any relevant source.

4.6. GENERAL:

4.6.1. The bidders who are on Holiday/ Negative list/ Suspension/ Banning List of PLL / EIL on due date of submission of bid / during-the process of evaluation of the bids, the offers of such bidders shall not be considered for bid opening/evaluation/Award.

4.6.2. Translation of BQC Documents to English Language

If the supporting documents towards BQC are not in English language, then copies of the English translation of the same shall also be furnished duly certified, stamped and signed, as per the convention followed by the concerned authority in the respective country, by any one of the following authorities:

- a. Local Chamber of Commerce, or
- b. Indian Embassy in Bidder's Country, or
- c. Bidder's embassy in India, or
- d. Any translator in India recognized/ authorized by Bidder's Embassy

4.6.3. EIL/PLL reserves the right to complete the evaluation based on the details furnished (without seeking any additional information) and / or in-house data, survey or otherwise.

Further, if the Bidder cites any reference of a job executed for PLL/ some other Client through EIL and the Bidder is not able to furnish documentary evidence, PLL/ EIL may consider the internal records of Owner or EIL (as the case may be).

4.6.4. Bidder shall furnish documentary evidence i.e. copies of work orders/ relevant pages of Contract/SOR/invoice/final Bill, completion certificate, from the Owner/ Consultant of work executed, copy of MOU with Sub-Contractor (as applicable), Audited annual Financial Statements containing audited balance sheets and profit & loss accounts statement in the first instance itself, in support of their fulfilling the qualification criteria. **EIL/PLL reserve the right to complete the evaluation based on the details furnished without seeking any additional information.**

4.6.5. Any direct email communication from Bidder's Owner / PMC (from their domain server) [of whom Bidder has submitted the past experience] to EIL shall be acceptable for establishing work experience. The same shall be considered as an authentic document.

4.6.6. The prospective bidders should not be under 'liquidation', any 'court receivership or similar proceedings' or 'bankruptcy' during the processing of the tender. The bidder shall give an undertaking regarding the same in their bid. In case it comes to the notice of EIL/PLL that the bidder has given wrong declaration in this regard, the same shall be dealt as 'fraudulent practices' and action shall be initiated as per the procedure for action in case of corrupt / Fraudulent / collusive / coercive practices.

Further, it shall be the sole responsible of the bidder to ensure that any changes occurring in their above declaration during the processing of the tender are brought to the notice of Employer.

Further, in case of 'liquidation', any 'court receivership or similar proceedings' or 'bankruptcy' after award of contract for service/ works suitable action in accordance with relevant provisions of Conditions of contracts.

4.6.7. **Procurement from a Bidder from a Country Sharing Land Border with India:**

- (a) **Department of Expenditure (DoE) vide O.M. No. 7/10/2021-PPD(1) dated 23.02.2023 has issued the revised guidelines for Restrictions on Procurement from Bidders from Country(ies) sharing Border with India. These guidelines are available on the website of DoE (<https://doe.gov.in>).**

- (b) Bidders shall submit a certificate of compliance in the enclosed Form(s) of ITB.

This certificate shall be on the company's letter head and shall be duly signed & stamped by the authorized signatory of the bidder.

In case at any stage, it is found that the above certification given by the bidder is false, their bid shall be rejected and the bidder shall be liable for other actions like placement on suspension/ banning or encashment of EMD (if applicable). However, if this is found after order placement, this would be a ground for immediate termination and further legal actions in accordance with law/ provision of bidding document, including suspension/ banning and encashment of CPBG.

- (c) In addition to above, such bidders shall also be required to submit evidence of registration with competent authority. In case of non-submission of required evidence of registration or invalid

registration, bid shall be rejected.

- (d) In respect of tenders, registration shall be valid at the time of submission of bids and at the time of acceptance of bids/ order/ LOA placement. In respect of supply otherwise than by tender, registration should be valid at the time of placement of order. If the bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution.

(e) **Provision for Sub-Contracting in Works Contracts**

Contractors shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the competent authority. Bidders shall be required to submit a certificate in the format enclosed elsewhere in the Bidding Document.

5. THE SALIENT FEATURES OF THE BIDDING/IFB DOCUMENT ARE AS FOLLOWS:

5.1. Salient Features:

SI. No.	SALIENT FEATURES	DETAILS				
a)	Earnest Money Deposit (EMD) / Bid Security Refer Cl. No. 16 of Instructions to Bidders (ITB) for details.	<table><tr><th>Indian Bidder</th><th>Foreign Bidder</th></tr><tr><td>INR 3,19,25,000</td><td>USD 340,460</td></tr></table> Bid Security to be submitted in favour of “Petronet LNG Limited” payable at New Delhi in line with provisions of Clause no. 16 of Instructions to Bidders (ITB). In case of foreign bidder, EMD shall be accepted only in form of Bank Guarantee. In case the EMD/ Bid Security in original physical form does not reach EIL-Gurugram within 7 (seven) calendar days (*) (up to 1200 HRS IST) from the final bid due date & time, bid shall be rejected and not considered for further evaluation, irrespective of their status/ ranking in tender and notwithstanding the fact that a copy of EMD/Bid Security was earlier uploaded by the bidder on the CPP portal.	Indian Bidder	Foreign Bidder	INR 3,19,25,000	USD 340,460
Indian Bidder	Foreign Bidder					
INR 3,19,25,000	USD 340,460					
b)	Bidding/IFB Document and subsequent Addenda / Corrigenda (if any) available on Web-site for viewing and downloading	The complete Bidding Document can be viewed and downloaded from CPP Portal having URL https://eprocure.gov.in/eprocure/app) The link (Tender id of NIC portal) of the bidding document on NIC portal shall also be available on EIL website http://tenders.eil.co.in				
c)	Non-Disclosure Agreement	: APPLICABLE Refer Clause 6 of IFB for details				
d)	Bidding Document available on Web-site	: From 11.04.2026 to 1200 HRS (IST) ON 25.05.2026				
e)	Last date of receipt for pre-bid queries	: Up to 25.04.2026; 18:55 HRS (Bidder shall submit their queries strictly within the cut-off date/time as specified above on e-tender portal only after which EIL/PLL reserve the right				

SI. No.	SALIENT FEATURES	DETAILS
		not to entertain such queries) Editable copies of Pre-bid queries shall be forwarded to: prashant@eil.co.in ; mitesh.patel@eil.co.in ; jaydip@eil.co.in
f)	Date of Pre-bid meeting	: At 14:30 Hrs (IST) on 24.04.2026 on MS Teams platform as per web-link below (*) Link: Pre-bid Meeting for CCR PACKAGE (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028) | Meeting-Join | Microsoft Teams Meeting ID: 467 181 524 566 38 Passcode: tH2f2g4f
g)	Last date and time of submission of e-Bids	: Up to 12:00 Hrs. (IST) on 25.05.2026 Online submission (e-Bids) through CPP Portal Bid submitted through any other mode shall not be acceptable. Bidder to refer e-tendering portal in case of any extension of bid due date.
h)	Opening of Techno-commercial (Unpriced) e-Bids	: 1400 Hrs. (IST) on 26.05.2026 (*)
i)	Tender Fee	: NOT APPLICABLE
j)	Opening of Priced Bids	: On the date & time to be intimated later
k)	Contact Person for any query/ clarification	: Mr. Prashant Sharma, AGM (SCM-C&P) E-mail ID: prashant@eil.co.in Tel. No.: +91-124-289-1350/ 8849846145 Mr. Mitesh Patel, AGM (SCM-C&P), E-mail ID: mitesh.patel@eil.co.in Tel no.: +91-124-289-1341/ 9726256050 Mr. Jaydip Purkayastha, GM (SCM-C&P) E-mail ID: jaydip@eil.co.in Tel. No.: +91-124-289-1287

If the date indicated at (*) above happens to be a declared/closed holiday in EIL-Gurugram, the next working day shall be considered.

5.2. All revisions, amendments, time extensions, clarifications, etc. to the IFB/Bidding Document shall be uploaded in the NIC-CPP Portal (<https://eprocure.gov.in/eprocure/app>) only and shall not be published in Newspapers. Bidders should regularly visit the above-mentioned website(s) to keep themselves updated and submit their Bids based on latest information/instructions hosted in website(s).

5.3. Bidder shall submit their requests for extension of Bid due date (if unavoidable). EIL/PLL may at its sole discretion extend Bid due date on such written requests if the time schedule permits.

6. NON-DISCLOSURE AGREEMENT

Due to confidential information contained in the Technical part of Bidding Document, Non-disclosure Agreement (NDA)/Confidentiality Agreement needs to be executed by all Bidders prior to obtaining

the Technical part of Bidding Document.

The detailed **Bidding Document** along with Instructions for executing Non-disclosure Agreement (NDA) is uploaded on e-procurement Portal (<https://eprocure.gov.in/eprocure/app>). Technical part of the bidding document is uploaded separately on the e-procurement portal under the same e-tender ID, however Bidder shall be able to download the Commercial section of Bidding Document. Bidder shall approach UOP with copy to EIL and PLL (contact details given below) for obtaining the NDA format in their name.

Bidder shall submit the scanned copy of duly filled, signed & stamped NDA to UOP along with copy to PLL and EIL (contact details given below) and shall send 2 Signed hard copies of the NDA to the address mentioned below for UOP signature.

Name of Company & Contact Personnel:

Mr. Aditya Iyer

Project Sales Manager
+91 9769347970

aditya.iyer@honeywell.com

Honeywell UOP,

[Unitech Trade Center, Sector 43, Block C, Phase - 1, Sushant Lok, Gurugram, Haryana 122001](#)

Along with NDA, Bidder shall also submit a self-declaration (in their Company letter head) that they have not changed/modified any content of the NDA (secrecy agreement) and the signatory of NDA is duly authorized to do so.

Bidder to upload the duly signed NDA (Non-negotiable) on e-procurement Portal under intimation to EIL. Upon acceptance of the NDA on e-procurement, Bidder shall get access to Technical Section of Bidding Document. Further, Bidder to submit the copy of UOP signed NDA to EIL for information and records.

The Process of downloading NDA Instructions, its submission, verification and freezing is enclosed as **Annexure-VI** to this NIT. The acceptance/re-submission or rejection of NDA can be checked from e-procurement Portal and vendor whose NDA is accepted by EIL can further download the Technical part of Bidding document.

Note: The methodology indicated in Annexure-VI may vary since the e-tender portal is dynamic in nature.

A link for the bidding document will also be available on EIL tender website <http://tenders.eil.co.in>

Contact details Table:

UOP Contact	PLL Contact	EIL Contact
Mr. Aditya Iyer Project Sales Manager +91 9769347970 aditya.iyer@honeywell.com uop.honeywell.com	Mr. Naveen Jain GM(Projects) Mob: +91-99990 16489 email: naveenjain@petronetlng.in Mr. Chirag Jani Chief Manager (Projects) Mob: +91-74339 44824 email: chiragjani@petronetlng.in	Mr. Prashant Sharma AGM (SCM-C&P) Mob: +91-8849846145 email: prashant@eil.co.in Mr. Mitesh Patel AGM (SCM-C&P) Mob: +91-9726256050 email: mitesh.patel@eil.co.in Mr. Jaydip Purkayastha GM(SCM-C&P) Mob: +91-98102 99247 email: jaydip@eil.co.in

Note: Bidders who have already executed CGNDA (Contractor General NDA) with M/s UOP, need not submit/upload the Non-Disclosure Agreement on the NIC Portal. However, such bidders need to upload an undertaking/declaration (on company letterhead) on NIC portal against NDA option that “We M/s **<insert bidder name> have executed CGNDA with M/s UOP and NDA submission is not applicable for us for Tender No. JP/B862-101-PM-T-7300/1028 (CCR PACKAGE) and we shall abide by the confidentiality terms and conditions**

agreed under the executed CGNDA (& amendments if any)".

Upon verification/confirmation of the same, the undertaking/declaration shall be accepted by EIL on NIC portal against NDA option, and upon acceptance, the bidder shall be able to download the Technical part of bidding document.

7. AWARD METHODOLOGY

The contract shall be awarded to the qualified and techno-commercially acceptable bidder based on lowest evaluated price (L-1) as per the relevant provisions of Bidding Document.

8. GENERAL NOTES TO IFB

- 8.1. The complete Bidding Document can be downloaded from the CPP portal <http://eprocure.gov.in/eprocure/app> only.
- 8.2. Bidders are required to submit their e-bids only through CPP portal <http://eprocure.gov.in/eprocure/app> in accordance with the instructions and terms & conditions of this Bidding Document.
- 8.3. Subsequent to the submission of bid, bidders are not allowed to change the price or substance of the bid i.e. scope of work, specifications, delivery schedule, completion period etc.
- 8.4. In case contract/ Purchase order awarded for a previously tendered work has to be terminated due to Contractor's default and a separate enquiry / tender has been refloated to get the remaining/complete work executed, such defaulting Contractor will not be considered for the refloated enquiry.
- 8.5. EIL/PLL reserves the right to assess Bidder's capabilities and capacity to execute the work using in-house information.
- 8.6. Bidders are required to sign and submit the Integrity Pact along with their bid. In case of non-submission of duly signed Integrity Pact, bid shall be liable for rejection.
- 8.7. In case any bidder is found to be involved in cartel formation, his bid will not be considered for evaluation/ placement of order. Such bidder will be debarred from bidding in future.
- 8.8. Canvassing in any form by the Bidder or by any other Bidder on their behalf may lead to disqualification of their Bid.
- 8.9. Consortium / Joint Venture Bids are not acceptable.
- 8.10. EIL/PLL shall not be responsible for any expenses incurred by bidders in connection with the preparation & delivery of their bids, site visit and other expenses incurred during bidding process.
- 8.11. **Physical / Fax / Telex / e-mail Bids (other than the documents specifically required to be submitted in hard form) shall not be accepted.**
- 8.12. EIL/PLL reserves the right to reject any or all Bids or annul the tender without assigning any reason, whatsoever.
- 8.13. For detailed specifications, terms and conditions and other details, refer Bidding Document.

***Please specify NIC-CPP Tender ID & Bidding Document No. in all correspondence**

THIS IS NOT AN ORDER

Very truly yours,

For & on Behalf of
Petronet LNG Limited

General Manager
Engineers India Limited

(To be declared by the Bank on their Letter Head)

DECLARATION FOR AVAILABILITY OF UNUTILIZED LINE OF CREDIT

Ref: _____

Date: _____

We _____ <Insert Name of Bank>, a Bank, having its registered office at _____ <Insert full address of the Bank with Country Name> and Branch at _____ <Insert full of Branch address with Country Name, in case different from registered office >, hereby confirm that the Company M/s _____ <Insert Company Name in favour of whom Declaration being issued>, having its registered office at _____ <Insert full address of Company with Country Name> and their working Office address at _____ <Insert full working office address with Country Name, in case different from registered office >, is having Bank account with our Bank.

The credit limits of the Company as on _____ <Insert any Date between the date of Enquiry and Bid Due Date> are as follows:

Fund Based Line of Credit (towards Working Capital like CC Limit)	Amount in (Currency _____)
Sanctioned Line of Credit	
Utilized Line of Credit	
Balance Line of Credit	

The Bank further hereby declare [Bank to specify as applicable]:

(a) that we are a Scheduled Commercial Bank in India and our Net Worth is more than **INR 1000 Million**;

OR

(b) that we are a bank which is listed as a Scheduled Commercial Bank and our Net Worth more than **INR 1000 Million** (or equivalent USD) as per our latest audited financial statements.

Yours Faithfully,

Signature

Name:

Designation:

E-mail ID:

Mobile number:

Tel (with STD Code):

Seal:

(Letter from Statutory Auditor/Chartered Accountant)
(To be printed on Letter Head of Statutory Auditor/Chartered Accountant)

FINANCIAL DETAILS

We, _____, a CA firm having our registered office address _____ and certificate number _____ certify that we are statutory auditor of the Company M/s _____, having its registered office at _____.

OR

We, _____, a CA firm having our registered office address _____ and certificate number _____ certify that statutory audit is not mandatory for the M/s _____, having its registered office at _____ as per prevailing law and we are practicing Chartered Accountant, not being an employee / Director and not having any interest in the company.

Financial details of the above-mentioned Company, as per latest available audited balance sheet are as follows:
 Statutory Auditor/Chartered Accountant to select either of the following options and strike off the other.

- a. In case bidder is a parent company, i.e., having its subsidiaries: Auditor to select either of the following options and strike off the other.
- Financial details are of parent company without the financial data of subsidiaries
 - Financial details are of parent company including the financial data of subsidiaries. It is certified that separate annual report of bidder, without the financial data of subsidiaries, is not prepared and audited.

OR

- b. In case bidder is a subsidiary company: Auditor to select either of the following options and strike off the other.
- Financial details are of subsidiary company
 - Financial details are of parent company including the financial data of subsidiaries. It is certified that separate annual report of bidder, i.e., subsidiary, is not prepared and audited.

OR

- c. In case bidder does not have any subsidiary or parent company, financial details are of the company itself.

S.No.	Description	Year	Value Currency (_____)
1.	Turnover	Latest financial year (_____)	
		Preceding 1 st year (_____)	
		Preceding 2 nd year (_____)	
2.	Net Worth	Latest financial year (_____)	(*)
3.	Working Capital	Latest financial year (_____)	

(*) – Indicate Positive or Negative (Value is not Mandatory)

Note:

- In case the financial year closing date is within 9 months of bid due date and audited annual report of immediately preceding financial year is not available, bidder has the option to submit the financial details of the three previous years immediately prior to the last financial year. Otherwise, it is compulsory to submit the financial details of the immediate three preceding financial years.

Example, In case, audited annual report of immediate preceding financial year (year ending 31st March) is not available and where bid closing date is up to 31st December, the financial details of the three previous

years immediately prior to the last financial year may be submitted. However, in case the bid closing date is after 31st December, it is compulsory to submit the financial details of the immediate three preceding financial years only.

2. In case of a bidder (a Parent Company) only consolidated Audited Financial Statements are prepared and audited which includes the financial details of their wholly owned subsidiaries, etc., consolidated audited Balance Sheet and Profit & Loss Account shall be considered for establishing the financial criteria subject to statutory auditor/ CEO/ CFO of the bidder certifying that separate Financial Statements of bidder (without the financial data of subsidiaries, etc.) is not prepared and audited.
3. Further, in case a bidder is a subsidiary company and separate Financial Statements of the bidder is not prepared & audited, but only a consolidated audited Financial Statements of the Parent Company is available, consolidated audited Balance Sheet and Profit & Loss Account shall be considered for establishing the financial criteria subject to statutory auditor/ CEO/ CFO of the parent company certifying that separate Financial Statements of bidder are not prepared and audited.
4. **Net Worth calculation:** Net Worth means paid up share capital, Share Application Money pending allotment* and reserves# less accumulated losses and deferred expenditure to the extent not written off. Net Worth has been calculated using the following formula, as per provisions of the enquiry document:

Reserves to be considered for the purpose of Net Worth shall be all reserves created out of the profits and securities premium account but shall not include reserves created out of revaluation of assets, write back of depreciation and amalgamation.

*Share Application Money pending allotment will be considered only in respect of share to be allotted.

Paid up share capital	XXXXXX
Add: Share Application Money pending allotment	XXXXXX
Add: Reserves (As defined Above)	XXXXXX
Less: Accumulated Losses	XXXXXX
Less: Deferred Revenue Expenditure to the extent not written off	XXXXXX
Net Worth	XXXXXX

5. **Working Capital calculation:** Working Capital shall be Current Assets minus Current Liabilities, **Refer Annexure-II (C) to IFB.**
6. **Turnover:** Turnover shall be calculated excluding GST & other Incomes.
7. In view of above definition of Net Worth i.e. exclusion of certain reserves which shall not form part of Net Worth, EIL reserve the right to seek the clarifications from bidder duly signed by their statutory auditor regarding the origin/creation of various reserves shown in the Balance Sheet
8. Net Worth, Working Capital and Turnover has been calculated using the abovementioned formulae and after giving effect to the Impact of quantified qualified / adverse / disclaimer Auditor's opinion (if any) given in the Statutory Auditor's Report of the Bidder.

Signature with date

Name:

Designation:

UDIN [Applicable for CA in India]

Seal

Annexure-II (B) to IFB (Certification by Statutory Auditor/Chartered Accountant)

(To be printed on Letter Head of Company)

FINANCIAL DETAILS

We, M/s _____, having our registered office at _____ certify that M/s _____ is a CA firm having their registered office address _____ having certificate number _____ are our statutory auditor.

OR

We, M/s _____, having our registered office at _____ certify that statutory audit is not mandatory for the company as per prevailing law and M/s _____, a CA firm having their registered office address _____ having certificate number _____ are practicing Chartered Accountant, not being an employee/Director and not having any interest in our company.

Financial details of our Company, as per latest available audited balance sheet are as follows: Company to select either of the following options and strike off the other.

- a. In case bidder is a parent company, i.e., having its wholly owned subsidiaries: Company to select either of the following options and strike off the other:
- Financial details are of parent company without the financial data of subsidiaries
 - Financial details are of parent company including the financial data of subsidiaries. It is certified that separate annual report of bidder, without the financial data of subsidiaries, is not prepared and audited.

OR

- b. In case bidder is a subsidiary company: Auditor to select either of the following options and strike off the other.
- Financial details are of subsidiary company
 - Financial details are of parent company including the financial data of subsidiaries. It is certified that separate annual report of bidder, i.e., subsidiary, is not prepared and audited.

OR

- c. In case bidder does not have any subsidiary or parent company, Financial details are of the company itself.

S.No.	Description	Year	Value Currency (_____)
1.	Turnover	Latest financial year (_____)	
		Preceding 1 st year (_____)	
		Preceding 2 nd year (_____)	
2.	Net Worth	Latest financial year (_____)	(*)
3.	Working Capital	Latest financial year (_____)	

(*) – Indicate Positive or Negative (Value is not Mandatory)

Note:

- In case the last financial year closing date is within 9 months of bid due date and audited annual report of immediate preceding financial year is not available, bidder has the option to submit the financial

details of the three previous years immediately prior to the last financial year. Otherwise, it is compulsory to submit the financial details of the immediate three preceding financial years.

Example, In case, audited annual report of immediate preceding financial year (year ending 31st March) is not available and where bid closing date is up to 31st December, the financial details of the three previous years immediately prior to the last financial year may be submitted. However, in case the bid closing date is after 31st December, it is compulsory to submit the financial details of the immediate three preceding financial years only.

2. In case of a bidder (a Parent Company) only consolidated Audited Financial Statements are prepared and audited which includes the financial details of their wholly owned subsidiaries, etc., consolidated audited Balance Sheet and Profit & Loss Account shall be considered for establishing the financial criteria subject to statutory auditor/ CEO/ CFO of the bidder certifying that separate Financial Statements of bidder (without the financial data of subsidiaries, etc.) is not prepared and audited.
3. Further, in case a bidder is a subsidiary company and separate Financial Statements of the bidder is not prepared & audited, but only a consolidated audited Financial Statements of the Parent Company is available, consolidated audited Balance Sheet and Profit & Loss Account shall be considered for establishing the financial criteria subject to statutory auditor/ CEO/ CFO of the parent company certifying that separate Financial Statements of bidder are not prepared and audited.
4. **Net Worth calculation:** Net Worth means paid up share capital, Share Application Money pending allotment* and reserves# less accumulated losses and deferred expenditure to the extent not written off. Net Worth has been calculated using the following formula, as per provisions of the enquiry document:

Reserves to be considered for the purpose of Net Worth shall be all reserves created out of the profits and securities premium account but shall not include reserves created out of revaluation of assets, write back of depreciation and amalgamation.

*Share Application Money pending allotment will be considered only in respect of share to be allotted.

Paid up share capital	XXXXX
Add: Share Application Money pending allotment	XXXXX
Add: Reserves (As defined Above)	XXXXX
Less: Accumulated Losses	XXXXX
Less: Deferred Revenue Expenditure to the extent not written off	XXXXX
Net Worth	XXXXX

5. **Working Capital calculation:** Working Capital shall be Current Assets minus Current Liabilities, **Refer Annexure-II(C) to IFB.**
6. **Turnover:** Turnover shall be calculated excluding GST & other Incomes.
7. In view of above definition of Net worth i.e. exclusion of certain reserves which shall not form part of Net worth, EIL reserve the right to seek the clarifications from bidder duly signed by their statutory auditor regarding the origin/creation of various reserves shown in the Balance Sheet.
8. Net Worth, Working Capital and Turnover has been calculated using the abovementioned formulae and after giving effect to the Impact of quantified qualified / adverse / disclaimer Auditor's opinion (if any) given in the Statutory Auditor's Report of the Bidder.

Signature with date
Name & Designation of Bidder (with seal)

Sign and Stamp of Statutory auditor/ CA (on all pages)

Signature with date
Name & Designation:
UDIN [Applicable for CA in India]
Seal

Working Capital calculation: Working Capital shall be Current Assets minus Current Liabilities.

Where Current Assets means Asset when it satisfies any of the following criteria:

- a) It is expected to be realized in, or is intended for sale or consumption in, the company's normal operating cycle*;
- b) It is held primarily for the purpose of being traded;
- c) It is expected to be realized within twelve months after the reporting date; or
- d) It is cash or cash equivalent unless it is restricted from being exchanged or used to settle a liability for at least twelve months after the reporting date.

Where Current Liabilities means Liabilities when it satisfies any of the following criteria:

- a) It is expected to be settled in the company's normal operating cycle*;
- b) It is held primarily for the purpose of being traded;
- c) It is due to be settled within twelve months after the reporting date; or
- d) The company does not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting date. Terms of a liability that could, at the option of the counterparty, result in its settlement by the issue of equity instruments do not affect its classification.

*An operating cycle is the time between the acquisition of assets for processing and their realization in cash or cash equivalents. Where the normal operating cycle cannot be identified, it is assumed to have duration of Twelve Months.

BIDDERS (OTHER THAN COMPANIES SUCH AS PARTNERSHIP/PROPRIETORSHIP FIRMS) ARE REQUIRED TO SUBMIT THE FOLLOWING DETAILS DULY CERTIFIED FROM THEIR AUDITOR/CHARTERED ACCOUNTANT.

S.no.	Particulars	Total Value as per Balance Sheet (INR)	Amount <u>(out of column no. 3) Receivable/ Due within 12 months from balance sheet date</u> or as per above definition of current assets and current liabilities
(1)	(2)	(3)	(4)
A	Current Assets as per Balance sheet		.....
B	Assets (Excluding Fixed Assets) which are not specifically disclosed as current assets in the Balance sheet.		
	a. Loans and Advances	.....	.....
	b. Investments (Including Fixed Deposits)	.....	.....
	c. Other asset (Excluding Fixed Assets) which are not classified as current assets	.....	.....
	Total Current Assets		 (X)
C	Current Liabilities as per Balance sheet		.....
D	Liabilities which are not specifically disclosed as current liabilities in the Balance sheet.		
	a. Bank Overdraft / Bank CC limit etc.*		.....
	b. Secured Loans	.....	.....
	c. Unsecured Loans	.....	.....
	d. Provisions	.....	.....
	e. Other Liabilities which are not classified as current Liabilities.	.....	.....
	Total Current Liabilities		 (Y)
	Working Capital (X-Y)		.....

*Bank Overdraft/ Bank CC limit shall be treated as current liabilities only and accordingly same shall be filled in column 4 only.

Signature with date

Name:

Designation:

UDIN [Applicable for CA in India]

Seal

PROFORMA OF UNDERTAKING**(To be submitted by the participating bidders)**

I/We, ... {Name(s) of Authorized Signatory (ies)}, on behalf of M/s. do hereby declare that our company or any of its Directors/Partners/Employees/Affiliates do not have any conflict of interest as per the provisions covered in the Bidding Document and specifically confirm that our company or any of its Directors/Partners/Employees/Affiliates have not been engaged by PLL to provide consultancy services for this Project (here "Project" shall mean the project embracing the works and/or unit(s) forming the subject matter of the Bid and resultant Contract).

I/We, ... {Name(s) of Authorized Signatory (ies)}, on behalf of M/s. do hereby undertake that our company or any of its Directors/Partners/Employees/Affiliates shall refrain from entering into any business relationships or activities, which would result into a 'Conflict of Interest' with the agency/consultant, who has been engaged by PLL for firming up the specifications and/or tender evaluation and/or monitoring execution of the project (as applicable), for which this tender (i.e. Tender No.) has been invited (floated).

(Authorized Signatory)

Signature:

Name :

Designation:

FORMAT FOR PAST EXPERIENCE OF BIDDER / ENGINEERING SUB-CONTRACTOR
(To be filled if Bidder is submitting Bid as per Qualification Criteria under Cl. No. 4.1.1 i.e. CCR Package)

SL. NO.	PACKAGE NAME	CLIENT	BRIEF SCOPE OF PACKAGE (DESIGN, DETAILED ENGINEERING, PROCUREMENT, CONSTRUCTION ETC.)	SUBSIDIARY/ FELLOW SUBSIDIARY/ HOLDING COMPANY - YES/NO*	RESIDUAL PROCESS, DESIGN & DETAIL ENGINEERING (BY SELF/ BY OTHERS) ##	YEAR OF COMPLETION	YEAR OF COMMISSIONING	MINIMUM ONE YEAR OF OPERATION (YES/NO) **	MECHANICAL COMPLETION/ COMMISSIONING CERTIFICATE FROM OWNER **

NOTES

1. This format shall be duly filled-in, stamped and signed by bidder and shall be submitted along with the Bid. In case, backup consultant and / or Engineering subcontractor is engaged by Bidder, duly filled in format shall also be signed and stamped by backup consultant/ Engineering subcontractor, as applicable.
2. Since the information requested in this format shall be utilized to assess the Bidder's capability to execute the subject Project, it would be in the interest of the Bidder to include only those references which are relevant for Bidder Qualification Criteria. The Bidder shall also ensure that all information asked for is furnished and the same is correct and complete in all respects. **Incorrect information furnished in this format shall render the bid/order liable for rejection at any stage of evaluation / work execution, at the risk and cost of the bidder.**
3. For the referred installations, the Bidder shall indicate the name of the User's contact person (along with his address, telephone no., fax no., e-mail id etc.) who may be contacted by the Owner / EIL, if felt necessary.
4. Bidder shall furnish documentary proof in terms of the copy of work order(s)/ Contract agreement(s)/ relevant pages of Contract document(s)/ completion certificate of previous executed CCR Package as defined in Cl. No. 4.1.1, fulfilling the qualification criteria themselves as well as their proposed Engineering sub-contractor, as applicable.

* Whether Bidder is quoting based on the jobs executed for Subsidiary/Fellow Subsidiary/Holding Company as mentioned in IFB – Bidder / Back-Up Consultant to Categorically mentioned **“Yes/No” in the stated column.**

** Bidder to ensure submission of End User certificate for minimum operation of 1 Year, Mechanical Completion/Commissioning Certificate from Owner along with Purchase Order and any additional document required to support qualification shall be enclosed as documentary evidence.

Submit approved Datasheets, P&IDs, GADs, necessary supporting documents, etc. as documentary evidences.

FORMAT FOR PAST EXPERIENCE OF BIDDER/ PARENT/ HOLDING COMPANY/ SUBSIDIARY/ FELLOW SUBSIDIARY/ AFFILIATE
(To be filled if Bidder is submitting bid as per Qualification Criteria under Cl. No. 4.1.2)

SL. NO.	EPCC / LSTK PACKAGE NAME	CLIENT	BRIEF SCOPE OF EPCC / LSTK PACKAGE	EXPERIENCE CRITERIA (AS PER BQC)	NAME OF PARENT/ HOLDING COMPANY/ SUBSIDIARY/ / FELLOW SUBSIDIARY/ AFFILIATE as applicable	PARENT/ HOLDING COMPANY/ SUBSIDIARY/ / FELLOW SUBSIDIARY/ AFFILIATE - YES/NO*	YEAR OF COMPLETION	YEAR OF COMMISSIONING	MINIMUM ONE YEAR OF OPERATION (YES/NO) **	COMMISSIONING CERTIFICATE **	CERTIFICATE OF 1 YEAR OPERATION AFTER COMMISSIONING **

NOTES

1. This format shall be duly filled-in, stamped and signed by bidder and shall be submitted along with the Bid.
2. Since the information requested in this format shall be utilized to assess the Bidder's capability to execute the subject Project, it would be in the interest of the Bidder to include only those references which are relevant for Bidder Qualification Criteria. The Bidder shall also ensure that all information asked for is furnished and the same is correct and complete in all respects. **Incorrect information furnished in this format shall render the bid/order liable for rejection at any stage of evaluation / work execution, at the risk and cost of the bidder.**
3. For the referred installations, the Bidder shall indicate the name of the User's contact person (along with his address, telephone no., fax no., e-mail id etc.) who may be contacted by the Owner / EIL, if felt necessary.
4. Bidder shall furnish documentary proof in terms of the copy of work order(s)/ Contract agreement(s)/ relevant pages of Contract document(s) of previous EPCC / LSTK Packages fulfilling the qualification criteria, as applicable.
** Bidder to ensure submission of Certificate(s) / commissioning of Unit/Plant from Owner(s) /Owner's Consultant having completed 1 year of operation after commissioning for the reference EPCC / LSTK Package(s) submitted for qualification.

Chapter – I

NDA Submission by Bidder

- 1.1.** In the NDA enabled tenders, only NIT and NDA type documents are available in public domain. Interested bidder(s) shall be required to submit one document of same format against each NDA Type document.
- 1.2.** In the NDA enable tenders, bidder shall click on “**Proceed For NDA Submission**” to submit NDA documents.

Tender Documents

NIT Document				
S.No	Document Name	Description	Document Size (in KB)	
1	Tendernotice_1.pdf	nn	43.93	

Download as zip file

NDA Documents				
S.No	Document Type	Document Name	Description	Document Size (in KB)
1	NDA	Dummy3 .pdf	dummy3	31.09
2	NDA	Dummy2 .xls	dummy2	336.00

Tender Inviting Authority

Name	TIA
Address	Gurgaon

- 1.3.** After clicking on “Proceed for NDA Submission”, System will take bidder to next screen to upload his NDA document. Screenshot depicting it is as follows: -

Bidder NDA Document Details

Organisation Chain : COIS Gurgaon||Materials
 Tender Reference Number : NDA3
 Tender ID : 2021_COIS_72545_3
 Tender Title : NDA
 Bidder Name : cbtc
 NDA/Prequalification Closing Date : 07-Oct-2021 10:05 AM
 NDA/Prequalification Approval End Date : 07-Oct-2021 11:30 AM

Requested NDA Document List

S.No	Document Type	Document Name	Description	Upload	File Name	File Size (KB)	Status
1.	NDA	Dummy2 .xls	dummy2	Upload			
2.	NDA	Dummy3 .pdf	dummy3	Upload			

Upload NDA document

- 1.4.** System will ask bidder to upload one document of the same format against each NDA type document uploaded by Tender Admin. (i.e., if the Tender admin

has uploaded NDA document in “.pdf” format, against that document bidder can upload one “.pdf” document only).

Organisation Chain : COIS Gurgaon||Materials
Tender Reference Number : NDA3
Tender ID : 2021_COIS_72545_3
Tender Title : NDA
Bidder Name : cbtc
NDA/Prequalification Closing Date : 07-Oct-2021 10:05 AM
NDA/Prequalification Approval End Date : 07-Oct-2021 11:30 AM

Document Name : NDA
Document Type : xls
Document Description : dummy2

Description*
NDA2

Only xls files are permitted to upload.

Document*
C:\Users\00506474\Desktop\NDA_1.xls

Back Submit

1.5. Bidder shall “Verify” the uploaded document and will click on “Freeze NDA” after verifying it.

Organisation Chain : COIS Gurgaon||Materials
Tender Reference Number : NDA3
Tender ID : 2021_COIS_72545_3
Tender Title : NDA
Bidder Name : cbtc
NDA/Prequalification Closing Date : 07-Oct-2021 10:05 AM
NDA/Prequalification Approval End Date : 07-Oct-2021 11:30 AM

Requested NDA Document List

S.No	Document Type	Document Name	Description	Upload	File Name	File Size (KB)	Status
1.	NDA	Dummy2.xls	dummy2	Upload	NDA_1.xls	336.	Verified
2.	NDA	Dummy3.pdf	dummy3	Upload	NDA_2.pdf	31.0	Verified

Back Freeze NDA

Note: - After this stage bidder(s) shall not be able to change their NDA documents. If the bidder wishes to change the submitted document, it should be done before clicking “Freeze NDA” button by using “upload” option.

Chapter – II

NDA Evaluation

- 2.1. NDA Document(s) submitted by the bidder shall be available to Tender Admin for evaluation under Menu “NDA documents”. Tender Admin shall click on “View” against respective Tender ID, it will display the list of bidders who have submitted NDA documents.

TENDER MANAGEMENT

NDA Approval

Search

Tender ID: Tender Category:

Keyword:

Keyword finds match in tender title and tender reference no.

NDA Tenders List

S.No	Tender ID	Tender Reference Number	Tender Title	Tender Category	NDA/Prequalification Approval End Date	View
1	2021_COIS_72545_3	NDA3	NDA	Works	07-Oct-2021 01:30 PM	

Tender Admin will find the NDA documents submitted by the bidder under “NDA Documents” Menu and click against the particular tender

NDA DOCUMENTS

NDA Documents → NDA Documents List

Organisation Chain : COIS Gurgaon||Materials

Tender Title : NDA

Tender Reference Number : NDA3

Tender ID : 2021_COIS_72545_3

Total No. of Bidder's NDA to be Opened : 1

Pending Bidders List

S.No	Bidder	Submitted Date	View / Edit
1.	cbtc	06-Oct-2021 04:48 PM	

NDA Documents + NDA Documents List + View NDA Documents

Organisation Chain : COIS Gurgaon||Materials
Tender Title : NDA
Tender Reference Number : NDA3
Tender ID : 2021_COIS_72545_3
Bidder Name : cbtc
Submitted Date & Time : 06-Oct-2021 04:48 PM

Requested NDA Documents				
S.No	Document Description	Document Type	File Name	File Size (in KB)
1	dummy2	xls	Dummy2.xls	336.0
2	dummy3	pdf	Dummy3.pdf	31.09

Responded NDA Documents					
S.No	Document Description	Document Type	File Name	File Size (in KB)	Bidder Description
1	dummy2	xls	NDA_1.xls	336.0	NDA2
2	dummy3	pdf	NDA_2.pdf	31.09	DA2

☐ Accept
☐ Reject
☐ Resubmit

2.2. Tender Admin shall check the NDA documents submitted by bidders and will accordingly exercise any following three options: -

- Accept
- Reject
- Resubmit

a) "Accept"- As soon as Tender admin accepts a bidder and clicks on "Submit" button, following will happen:

- i. System shall send Acceptance Mail to bidder.
- ii. Respective bidder shall immediately get access of all the documents uploaded in "Work Item Documents" section.
- iii. Respective bidder shall be able to proceed for bid submission immediately from the instant of Acceptance of his NDA documents till Bid Submission Closing Date.

Following message shall appear in Bidder's interface when he login in and visits this Tender:

[View Tender Details](#)

Your NDA Documents are Accepted. You can proceed for bid submission.

Basic Details	
Organisation Chain	COIS Gurgaon||Materials
Tender Reference Number	NDA3

As shown in below screenshot, Tender Document, BOQ, Additional Documents are visible to be bidder at this juncture and Bidder is getting the option to "Proceed for Bid Submission".

On clicking on "Proceed For Bid Submission", bidder shall be able to proceed for bid submission as in case of normal tender.

Tender Documents				
NIT Document	S.No	Document Name	Description	Document Size (in KB)
	1	Tendernotice_1.pdf	nn	43.93
Download as zip file				
			Description	Document Size (in KB)
			dummy3	31.09
			dummy2	336.00
Download as zip file				
Work Item Documents	S.No	Document Type	Document Name	Description
	1	BOQ	BOQ_70988.xls	BoQ
				Document Size (in KB)
				336.00
Latest Corrigendum List				
S.No	Corrigendum Title		Corrigendum Type	View
1	ff		Date	
Tender Inviting Authority				
Name	TIA			
Address	Gurgaon			
Back Proceed For Bid Submission				

b) "Reject" - As soon as Tender admin rejects a bidder and clicks on "Submit" button, system shall send "Rejection" mail to bidder and bidder shall not be able to perform any further action in that tender.

Following message shall appear in Bidder's interface when he login in and visits this Tender:

Print

[View Tender Details](#)

Your NDA Documents are Rejected. You cannot proceed for bid submission.

Basic Details	
Organisation Chain	COIS Gurgaon||Materials
Tender Reference Number	NDA3

As shown in below screenshot, Bidder has only “Back” button enabled for that tender. Also, Tender Document, BOQ, Additional Documents are not visible to be bidder.

Tender Documents					
NIT Document	S.No	Document Name	Description	Document Size (in KB)	
	1	Tendernotice_1.pdf	nn	43.93	
 Download as zip file					
NDA Documents	S.No	Document Type	Document Name	Description	Document Size (in KB)
	1	NDA	Dummy3 .pdf	dummy3	31.09
	2	NDA	Dummy2 .xls	dummy2	336.00
Tender Inviting Authority					
Name	TIA				
Address	Gurgaon				
Back					

- c) **“Resubmit” and “Submit”**- As soon as Tender admin selects the “Resubmit” option and clicks on “Submit” button, system shall send an intimation mail to bidder and bidder shall get the option to submit NDA document again till “NDA/Prequalification Approval End Date”.

Following message shall appear in Bidder’s interface when he login in and visits this Tender:

[View Tender Details](#)

 You are required to Resubmit NDA Documents. Please proceed for Resubmission.

Basic Details	
Organisation Chain	COIS Gurgaon||Materials
Tender Reference Number	NDA3

As shown in below screenshot, Bidder is getting the option to “Proceed for NDA Submission”. On clicking on “Proceed for NDA Submission”, bidder will be able to submit his NDA documents again in the same way as submitted earlier.

Please note that Tender Document, BOQ, Additional Documents are not visible to this bidder. They will be made visible only to NDA accepted bidder.

Tender Documents					
NIT Document	S.No	Document Name	Description	Document Size (in KB)	
	1	Tendernotice_1.pdf	nn	43.93	
 Download as zip file					
NDA Documents	S.No	Document Type	Document Name	Description	Document Size (in KB)
	1	NDA	Dummy3.pdf	dummy3	31.09
	2	NDA	Dummy2.xls	dummy2	336.00
Tender Inviting Authority					
Name		TIA			
Address		Gurgaon			
Back Proceed For NDA Submission					

Organisation Chain : COIS Gurgaon||Materials
 Tender Reference Number : NDA3
 Tender ID :
 Tender Title : NDA
 Bidder Name : cbtc
 NDA/Prequalification Closing Date :
 NDA/Prequalification Approval End Date :

Requested NDA Document List							
S.No	Document Type	Document Name	Description	Upload	File Name	File Size (KB)	Status
1.	NDA	Dummy3.pdf	dummy3	Upload			
2.	NDA	Dummy2.xls	dummy2	Upload			

[Back](#)
[Freeze NDA](#)

In Resubmission Screen, Bidder shall be able to check his previously submitted NDA documents and Tender Admin's resubmission/evaluation remark against his NDA documents using **"Resubmission Request History"** option. The same is shown in following screenshot.

Government eProcurement System - Internet Explorer

https://demoeproc.nic.in/nicgep/app?component=%24DirectLink&page=BidderNDADocumentsSelect&...

Tender Title :	NDA
Tender Ref No :	NDA3
Tender ID :	2021_COIS_72545_5
Bidder Name :	cbtc
NDA/Prequalification Closing Date :	26-Oct-2021 04:15 PM
NDA/Prequalification Approval End Date :	26-Oct-2021 04:40 PM
NDA Frozen Date and Time :	26-Oct-2021 04:07 PM

Requested NDA Documents				
S.No	Document Description	Document Type	File Name	File Size (in KB)
1.	dummy3	pdf	Dummy3.pdf	31.09
2.	dummy2	xls	Dummy2.xls	336.0

Remark by "Tender Admin"

Resubmission Requested History List							
Iteration No	Document Description	File Name	File Size (in KB)	Uploaded Date	Requested By	Requested Date	Remark
1	ff	NDA_1.pdf	31.09	26-Oct-2021 04:07 PM	GANESH R G AJAY	26-Oct-2021 04:22 PM	resubmit the document
	dd	NDA_2.xls	336.0	26-Oct-2021 04:07 PM	GANESH R G AJAY	26-Oct-2021 04:22 PM	resubmit the document

All other processes post NDA Evaluation (i.e., Bid Submission, Opening, Evaluation and Award) of tender is same as of normal tender. Please note that NDA is not a cover therefore it should not be counted into Number of Covers while Tender Creation, it is just a prerequisite to access a complete Tender Documents of NDA enabled Tender. For all other Processes not explained here Integrated E-Tendering Manual may be referred.

----- END OF DOCUMENT -----

BID DATA SHEET (BDS)

	BID DATA SHEET (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)						
		Rev	0	Page	2	of	2

BID DATA SHEET

SR. NO.	ITB CL. NO.	CONTENT
1.	ITB 2.1	Enquiry Basis: Open Competitive Basis for Indian & Foreign (Global) Bidders. Note: Bidders meeting the Bidder Qualification Criteria (BQC) as per IFB only are eligible to quote.
2.	ITB 2.2 & 16.10	Consortium Bids are not acceptable. Accordingly, provisions related to Consortium, mentioned anywhere in the Bidding Document shall not be applicable.
3.	ITB 36.1	The evaluation and comparison of bids by converting bid prices to Indian Rupees in line with Clause 14.1.3 of ITB shall be carried out as per following: I. The Total amount quoted shall be calculated / established as per Note-1 of D1.0 of Table-A of Contract Price Schedule. II. To arrive at the evaluated price, loading on total quoted price as per I above shall be done as follows: a) Goods Custom Duties as per Table-C, if the imports are in the IE code of Owner (i.e. Option I of Article 13.3.5 of CoC) as per of D.2.A b) 'PLL GST' as per 13.5.2 of CoC, if any as per Table-C of Exhibit-D c) PWCAMC including GST quoted in Table-O of Exhibit-D III. Conditional discount, if offered, shall not be considered for evaluation. IV. Suo moto price change as per clause no. 36.3 of ITB.

**PDH PP PLANT WITH ETHANE AND PROPANE
HANDLING FACILITIES AT DAHEJ, GUJARAT**

INSTRUCTIONS TO BIDDER

FOR EPCC/LSTK WORKS

**B862-ITB-LSTK-REV.0
30-MAR-2026**



INSTRUCTIONS TO BIDDER (ITB)



Rev 0 Page 1 of 35

INDEX

1.0	INTRODUCTION.....	3
2.0	ELIGIBLE BIDDERS.....	3
3.0	COST OF BIDDING	5
4.0	SITE LOCATION / SITE VISIT	5
5.0	ENTRY OF FOREIGN NATIONALS TO PROJECT PREMISES.....	6
6.0	BIDDING DOCUMENTS.....	6
7.0	PRE-BID MEETING	8
8.0	AMENDMENT OF BIDDING DOCUMENTS	9
9.0	LANGUAGE OF BIDS	10
10.0	INTEGRITY PACT	10
11.0	SUBMISSION OF BIDS.....	11
12.0	BIDS ON CONSORTIUM BASIS.....	16
13.0	PRICE BID	16
14.0	CURRENCIES OF BID AND PAYMENT	17
15.0	INVOLVEMENT OF AGENT (IN CASE OF FOREIGN BIDDER)	18
16.0	EARNEST MONEY DEPOSIT (EMD).....	18
17.0	PERIOD OF VALIDITY OF BIDS	21
18.0	MULTIPLE / ALTERNATIVE BIDS	21
19.0	FORMAT AND SIGNING OF BID.....	22
20.0	E-TENDERING.....	24
21.0	ENROLMENT OF BIDDER ON NIC-CPP PORTAL	25
22.0	DELETED.....	25
23.0	DELETED.....	25
24.0	DEADLINE FOR SUBMISSION OF BIDS.....	25
25.0	PRICES IN FIGURES AND WORDS.....	25
26.0	CORRECTION OF ARITHMETICAL ERRORS	26
27.0	LATE BIDS/ UNSOLICITED BIDS / BID SUBMISSION AT OTHER PLACE	26
28.0	MODIFICATION AND WITHDRAWAL OF BIDS	26
29.0	OPENING OF UNPRICED BIDS	27
30.0	CLARIFICATION OF BIDS.....	27
31.0	DEVIATIONS, RESERVATIONS, AND OMISSIONS	28
32.0	TECHNO-COMMERCIAL EXAMINATION OF BIDS	28
33.0	BID EVALUATION CRITERIA.....	29
34.0	COMPLETE SCOPE OF SUPPLIES / WORK	29
35.0	OPENING OF PRICE BID	30
36.0	EVALUATION AND COMPARISON OF PRICES.....	30
37.0	OWNER'S RIGHT TO ACCEPT/ REJECT	31
38.0	AWARD CRITERIA AND NOTIFICATION OF AWARD	31
39.0	CONTRACT PERFORMANCE BANK GUARANTEE	32
40.0	SIGNING OF CONTRACT	32
41.0	CONFIDENTIALITY AND COMMUNICATION PROTOCOL	32
42.0	INFORMATION TO BE FURNISHED BY FOREIGN CONTRACTORS	33
43.0	CORRUPT & FRAUDULENT PRACTICES	33
44.0	PROJECT SPECIFIC ACCOUNT.....	34
45.0	DELETED.....	34
46.0	COMPLIANCE OF PLL INSIDER'S TRADING.....	34



INSTRUCTIONS TO BIDDER (ITB)



Rev 0 Page 2 of 35

SL.NO.	DESCRIPTION	APPENDIX NUMBER
1.	COMMERCIAL QUESTIONNAIRE	APPENDIX-I TO ITB
2.	CONTENTS OF BID AND CHECK LIST	APPENDIX-II TO ITB
3.	INTEGRITY PACT	APPENDIX-III TO ITB
4.	E-TENDERING METHODOLOGY	APPENDIX-IV TO ITB
5.	TRC & FORM -10F	APPENDIX-V TO ITB
6.	POA FORMAT	APPENDIX-VI TO ITB
7.	BIDDING FORMS	APPENDIX-VII TO ITB
8.	PROVISIONS REGARDING PROCUREMENT FROM A BIDDER FROM A COUNTRY SHARING LAND BORDER WITH INDIA	APPENDIX-VIII TO ITB
9.	EARNEST MONEY DEPOSIT (EMD) / BID SECURITY FORMAT	APPENDIX-IX TO ITB
10.	PROCEDURE FOR ONLINE EMD SUBMISSION THROUGH PLL's ONLINE EMD TENDER FEE COLLECTION PORTAL	APPENDIX-X TO ITB
11.	VISIT BY FOREIGN NATIONALS	APPENDIX-XI TO ITB
12.	PROFORMA FOR INSURANCE SURETY BOND (IN LIEU OF EARNEST MONEY DEPOSIT)	APPENDIX-XII TO ITB



INSTRUCTIONS TO BIDDER (ITB)



Rev	0	Page	3	of	35

1.0 INTRODUCTION

- 1.1 In connection with the Invitation for Bids, Engineers India Limited on behalf of PLL invites e-Bid(s), under single stage two bid system, for the scope covered under the Bidding Document.

2.0 ELIGIBLE BIDDERS

- 2.1 An Eligible bidder may be a firm or a company who is meeting the BQC criteria as per Invitation for Bids (IFB) on Open Competitive basis. (Refer IFB).
- 2.2 A bidder who is on Black-listing / Holiday Listing /Suspension / Banning List/ Negative List/ Debarment List of EIL/Owner on due date of submission of bid / during the process of evaluation of the bids, the offers of such bidders shall not be considered for bid opening/evaluation/award. Further, in case of a consortium, if any of the member(s) of consortium is on Black-listing / Holiday Listing /Suspension / Banning List/ Negative List/ Debarment List of EIL/ Owner on due date of submission of bid / during the process of evaluation of the bids, the offers of such consortium shall not be considered for bid opening/evaluation/Award.
- 2.3 Similarly, if a bidder is seeking qualification based on engaging a sub-contractor / sub-vendor who meets stipulated qualification criteria (in case allowed as per IFB/NIT) and such a sub-contractor is on Black-listing / Holiday Listing /Suspension / Banning List/ Negative List/ Debarment List of EIL / Owner on due date of submission of bid / during the process of evaluation of the bids, the offer of such bidder shall not be considered for bid opening/evaluation /award.
- 2.4 If a Bidder / member of the consortium / proposed sub-contractor, is placed on Black-listing / Holiday Listing /Suspension / Banning List/ Negative List/ Debarment List after opening of price bid and such Bidder / Consortium happens to be the lowest bidder, the next lowest bidder may be asked to match L1 prices and work may be awarded as per PLL internal guidelines.

2.5 PROCUREMENT FROM A BIDDER FROM A COUNTRY SHARING LAND BORDER WITH INDIA:

Department of Expenditure (DoE) vide O.M. No. 7/10/2021-PPD(1) dated 23.02.2023 has issued the revised guidelines for Restrictions on Procurement from Bidders from Country(ies) sharing Border with India. These guidelines are available on the website of DoE (<https://doe.gov.in>). In view of the above,

- a) Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services & non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority specified in Annexure-I of the DoE OM dated 23.07.2020 {Public Procurement No.1}.



INSTRUCTIONS TO BIDDER (ITB)



Rev	0	Page	4	of	35

- b) These orders will not be applicable to the bidders from those countries (even if sharing a land border with India) to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects.
- c) Updated lists of countries to which lines of credit have been extended or List of countries in which development grant projects are undertaken are given on the website of Ministry of External Affairs.
- d) Bidder shall refer to the enclosed Appendix – VIII to ITB.
- e) Bidder (each member of Consortium) to submit undertaking as per Form-IA, Form-IB & Form-II as applicable (on Company's Letterhead) attached with Appendix – VIII to ITB for compliance.

2.6 Bidder/ member(s) of consortium should be not under Liquidation, Court receivership or similar proceedings. Bidder/ member(s) of consortium to submit self-certificate in this regard.

In case Bidder(s) affirms that present litigations/arbitrations have impact on their obligations to perform the Contract or doesn't provide the affirmations as above, their bids shall be rejected.

In case it comes to the notice of Owner/EIL that the bidder has given wrong declaration in this regard, the same shall be dealt as 'fraudulent practices' and action shall be initiated as per the procedure for action in case of corrupt / Fraudulent / collusive / coercive practices.

Further, it shall be the sole responsibility of the bidder to ensure that any changes occurring in their above declaration during the processing of the tender are brought to the notice of Employer. Further, in case of 'liquidation', any 'court receivership or similar proceedings' or 'bankruptcy' after award of contract for service/ works suitable action in accordance with relevant provisions of Conditions of Contract.

2.7 The bidder found to have a conflict of interest shall be disqualified.

Bidder's conflict of interest as Consultant of EIL/ Owner:

Consultants or any of their Affiliates will not be considered for any assignment, which by its nature may be in conflict with another assignment of the consultants.

Bidder's conflict of interest with other bidders:

A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Owner's interests. The bidder found to have a conflict of interest shall be disqualified

A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:-

- a. they have controlling partner(s) in common; or
- b. they receive or have received any direct or indirect subsidy/ financial stake from any of them; or



INSTRUCTIONS TO BIDDER (ITB)



Rev	0	Page	5	of	35

- c. they have the same legal representative/agent for purposes of this bid; or
- d. they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder; or.
- e. Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid;
- f. In case of a holding company having more than one independently manufacturing units, or more than one unit having common business Ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/ similar line of business.

3.0 COST OF BIDDING

- 3.1 The bidder shall bear all direct and indirect costs associated with the preparation and submission/delivery of its bid including (but not limited to) costs and expenses related to clarification meetings, visits to the site(s) and other locations, and the cost of any tests, investigations, evaluations and consultations. The OWNER/PMC will in no case be responsible or liable for any costs regardless of the outcome of the bidding process.

4.0 SITE LOCATION / SITE VISIT

- 4.1 The site is located at Dahej, Gujarat. Nearest Sea port is Dahej, Gujarat.
- The Dahej LNG terminal is about 48 km by road from Bharuch, Gujarat . Bharuch town has a railway station on the Mumbai-Delhi trunk railway line. The railway station at Dahej is about 4 km from the project site. National Highway connecting Mumbai to Ahmedabad passes through Bharuch. A road exists for port related facilities from Dahej, Gujarat to Bharuch, Gujarat. The nearest airport is at Vadodara, Gujarat which is at a distance of hundred (130) kilometers from Dahej, Gujarat.
- 4.2 Bidder is advised to visit and examine the site (at his cost), its surroundings and familiarise himself of the existing facilities & environment, and collect all other information which he may require for preparing and submitting the bid and entering into the Contract. Bidder shall satisfy himself of the site conditions and shall apprise himself of the procedure for engagement of agencies / labour and shall collect other relevant information that may be required before submitting the bid. **Claims and objections due to ignorance of existing conditions or inadequacy of information will not be considered a reason for extra claim or delay in work at later date after submission of the bid and during contract execution.**
- 4.3 The Bidder and any of his personnel or authorised representative/agent will be granted permission by the Owner to enter upon his premises and land for the purpose of such inspection, **subject to the explicit condition that the Bidder, his personnel or agents will release and indemnify the Owner and his personnel and agents/consultant from and against all liabilities in respect thereof** and will also be responsible for personal injury (whether fatal or otherwise), loss of or damage to property and any other loss, damage, cost and expenses incurred as a result thereof. During such visits the Bidder shall abide by all the rules and regulations, as applicable.
- 4.4 Bidder may contact in advance with the following person for site visit purpose:



INSTRUCTIONS TO BIDDER (ITB)



Rev	0	Page	6	of	35

- i) For Engineers India Limited:
Name: Mr. Virender Bedi, Resident Construction Manager (RCM)
Engineers India Limited
Dahej, Gujarat
Mobile No.: +91 7587568509
e-Mail: virender.bedi@eil.co.in
- ii) For Petronet LNG Limited:
Mr. Pramod Tiwary, General Manager (Construction) • Projects
Address: Denotified SEZ Z/97, Z/98, Z/99 Petronet LNG Petrochemical Project,
Adjacent to Plot 7/A, Dahej, Taluka- Vagra, Distt. Baruch, Gujarat, 392130
Mobile – 95582 53796
Mail - pramodtiwari@petronetlng.in

5.0 ENTRY OF FOREIGN NATIONALS TO PROJECT PREMISES

- 5.1 It may please be noted that all the Project Premises/Site is declared as “prohibited place”. The same should be kept in mind while submitting request for issue of visa by your office.

6.0 BIDDING DOCUMENTS

- 6.1 The Bidding Document shall in general consist of the following and should be read in conjunction with any amendment(s) issued in accordance with ITB clause 8.0.
- Notice Inviting Tender (NIT) / Invitation for Bid (IFB)/ Letter Inviting Bid (LIB).
 - Instructions to Bidder and its attachments.
 - Bid Data Sheet
 - Special Conditions of Contract (SCC) and its Annexures, if any.
 - Conditions of Contract (CoC) and its Exhibits.
 - Technical Specifications / Standards.
 - Drawings, if any
- 6.2 The Detailed IFB along with Qualification Criteria, Complete Bidding Document can be viewed / downloaded from the following e-tendering website:
<https://eprocure.gov.in/eprocure/app> .
- 6.3 The link for accessing the tender shall also be available on EIL website
<http://tenders.eil.co.in>.
- 6.4 The bidder is expected to examine the Bidding Documents, including all instructions, FORMs, terms and conditions of Contract, specifications, drawings and other documents and to fully familiarize itself with the requirements of the Bidding Documents. **Failure to furnish all the information required by the Bidding Documents or the submission of a bid not substantially responsive to the Bidding Documents in every respect may result in the rejection of the Bid.**
- 6.5 Throughout the Bidding Document:
- (a) Owner/PLL means Petronet LNG Limited, a company having its registered office at 4th Floor, Tower I, World Trade Centre, Nauroji Nagar, New Delhi-110029, India



INSTRUCTIONS TO BIDDER (ITB)



Rev	0	Page	7	of	35

- (b) EIL means Engineers India Limited, a company incorporated under the Companies Act, 1956 having its registered office at 1, Bhikaiji Cama Place, R.K Puram, New Delhi-110066 (INDIA), acting as a Consultant for the Project.
 - (c) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and
 - (d) “day” means calendar day.
 - (e) E-Tendering website/ e-Procurement Portal/ e-tendering portal/ NIC Portal/ NIC-CPP Portal/ CPP portal / CPPP/ E-tendering system means Government of India Central Public Procurement (CPP) Portal <https://eprocure.gov.in/eprocure/app>
 - (f) unless mentioned otherwise, the term ‘Bid Due Date’ shall mean the ‘Final Bid Due Date’.
 - (g) “Instructions to Bidders” shall mean the documents describing the manner in which Bidder shall prepare and submit his bid.
 - (h) The term “bid”/ “tender” / “offer” / “proposal” and their derivatives (“RFQ/Bidding/Enquiry” documents, “bidder/tenderer”, “Vendor/Supplier/Seller”, “Bid/tender”, “bidding/tendering”, “Contract/Purchase Order” etc.) are synonymous.
 - (i) “Tender Document” or “Bidding Document” shall mean the documents issued to the bidder and/ or uploaded on tender portal, including any subsequent addenda to enable bidder submit his Bid.
 - (j) “Bidder” or “Tenderer” shall mean the person or company who receives the Tender Document and submits Tender or Bid to EIL either in response to Limited tendering or Open tendering. In case of consortium, it includes each member of consortium.
 - (k) Contract Price Schedule/ BoQ/ Price Schedule (PS) / Schedule of Rate (SOR)/ Schedule of Prices (SOP) shall have the same meaning.
- 6.6 In case of Open Competitive Bidding, since the Bidding Document is available for free downloading on the portal <https://eprocure.gov.in/eprocure/app>, any bidder may submit the Bid and the same shall be evaluated in line with the provisions of the Bidding Document.
- 6.7 Bidders shall treat the Bidding Documents and contents therein as strictly confidential.
- 6.8 The Bidding Document is and shall remain the exclusive property of the Owner/EIL without any right to Bidder to use them for any purpose except for the purpose of bidding.
- 6.9 Although all the details presented in this Bidding Document have been compiled with reasonable care, the bidder is expected to examine the Bidding Document, including all instructions, forms, terms, specifications and drawings in the Bidding Document including all the documents as per Table of Contents/Master Index. In case of any ambiguity or incompleteness, the bidder must bring it to the attention of CONSULTANT immediately and prior to submission of Bid.

6.10 ACKNOWLEDGEMENT & CONFIRMATION



INSTRUCTIONS TO BIDDER (ITB)



Rev	0	Page	8	of	35

- 6.10.1 Within 5 days of downloading of Bidding Document, bidder shall acknowledge the receipt of Bidding Document and confirm his intention to submit his bid for the tendered work on EIL website <http://tenders.eil.co.in>.
- 6.10.2 Bidder must furnish the Acknowledgement-Cum-Consent Letter positively. Bidder should download the Bidding Document in their name and while downloading the Bidding Document shall give complete and correct contact details while downloading the document.

7.0 PRE-BID MEETING

- 7.1 Bidder's authorized representative(s) shall attend the pre bid meeting on the day and time specified in IFB/NIT through video conferencing. During the pre-bid meeting, all the technical and commercial issues shall be discussed and concluded to ensure that the bid received subsequent to pre bid meeting shall be without any deviations to terms and conditions. Hence, bidders shall treat the pre bid meeting as utmost important and depute competent & senior person capable of taking on the spot decision to sort out all the technical and commercial issues.

However, in case any bidder does not attend the pre bid meeting, it shall be understood that the bidder has a clear understanding of the scope, terms & conditions of the bidding document and does not have any comments/ deviations to the requirements of the bidding document.

- 7.2 In order to ensure fruitful discussions during pre-bid meeting, the bidder is requested to submit any queries/clarification/information pertaining to Bidding document in writing. These queries shall be replied during pre-bid meeting.

Bidder shall submit their queries only through NIC CPP portal strictly on or before cut-off date mentioned in IFB/LIB/PPP portal after which, EIL/PLL shall reserve the right not to entertain any queries. Queries sent through e-mails or any other mode by any bidder shall not be given any cognizance. The editable soft copies of the queries shall be e-mailed to concerned persons specified in IFB, to enable EIL to prepare replies to the queries and upload the replies thereof. The bidders shall strictly submit their queries within cut-off date after which, EIL shall reserve the right not to entertain any queries.

- 7.3 The bidders are required to participate in the pre-bid meeting after going through the entire Bidding Document along with BQC. Bidder shall come with all technical and commercial points on which they need clarifications and also to ensure that they possess all the supporting documentation for meeting the BQC. In case of any doubt, they may discuss the same during the meeting to avoid any techno-commercial clarifications/ discussions post bid.

- 7.4 Replies to the pre-bid queries (including text of the queries raised by Bidder(s), (without identifying the source) will be uploaded on e-procurement CPP portal as expeditiously as possible. After pre-bid meeting, no further queries will be entertained from the bidders. The response to the pre-bid queries shall not form part of the Bidding Document unless issued as an Addendum/ Amendment.

- 7.5 Any modification of the Bidding Document, which may become necessary as a result of the pre-bid discussion, shall be intimated to all bidders through the issue of an Addendum/Amendment which shall be uploaded on e-tendering website and the same may



INSTRUCTIONS TO BIDDER (ITB)



Rev	0	Page	9	of	35

be downloaded by the bidder from the said e-tendering website and shall be considered for submission of Bidder's Bid.

Replies to Pre-bid Queries are for the purpose of clarification only and shall not form part of Bidding Document and subsequent Contract.

- 7.6 Techno-commercial compliance shall be signed and submitted by the bidders as part of their offer. After pre-bid meeting, Bidders are expected to submit their Bids compliance to the provisions of Bidding document including the Addendum (if any) and EIL/Owner reserves its right not to accept any deviation and if any deviation is submitted in the bid, their offers may be liable to be rejected.
- 7.7 After bid opening, deviation may not be accepted. Bidder in their own interest shall submit Bid fully complying with Bidding Document requirements and EIL/Owner shall reserve the right to proceed with the available compliant bids for evaluation and Technical Queries (TQ)/ Commercial Queries (CQ) may not be issued once the bid has been opened. However, wherever TQ/CQ are unavoidable, EIL/Owner at its discretion may issue TQ/CQ for bidder to reply within the cut-off date along with all relevant documents/ information/ clarification/ confirmation as required with the TQ/CQ reply(ies). EIL/Owner reserves the right not to consider any reply after the cut-off date to complete the bid evaluation process.
- 7.8 Extension in bid due date shall not generally be granted due to tight Project Schedule.
- 7.9 Not attending the pre-bid meeting will neither be a cause for disqualification of the bidder nor a cause for bidder's ignorance to submit the bid as per provisions of the bidding document and latest information uploaded in the Central Public Procurement Portal (CPPP) / Website of Government of India/ NIC Portal <https://eprocure.gov.in/eprocure/app>.
- 8.0 AMENDMENT OF BIDDING DOCUMENTS**
- 8.1 At any time prior to the deadline for submission of bids, EIL/PLL may, for any reason whether at his own initiative or in response to the clarification requested by the prospective bidder(s), issue amendment in the form of Amendment/ Addendum
- 8.2 Any Addendum /Amendment/ Corrigendum/extension in bid due date/ Clarifications (if any) etc. which are applicable to all bidders, shall be hosted on the above **Central Public Procurement Portal (CPPP) of Government of India**.
- 8.3 Any Addendum/ Amendment thus issued shall become part of Bidding Document. **Bidder shall submit a copy of the Addendum/Amendment duly signed and stamped along with all relevant documents/information** (if applicable as per Addendum) in token of their acceptance. Failure of the Bidder to submit Bid without taking cognizance of Amendment issued by EIL/Owner shall be liable for rejection.
- 8.4 **Generally intimation of uploading of documents in website is sent to the bidders in their e-mail id as registered by the Bidder for this tender in the CPP Portal. It is the responsibility of the bidder to check and use current and valid email id.** However, Bidder should regularly visit the website to keep themselves updated.
- 8.5 Bidders shall examine the Bidding Documents thoroughly and inform the EIL/Owner of any apparent conflict, discrepancy or error, so that the OWNER may issue appropriate



INSTRUCTIONS TO BIDDER (ITB)



Rev	0	Page	10	of	35

clarification(s) or amendment(s), if required.

8.6 **EIL/Owner may, at its discretion, extend the date of submission of Bids in order to allow the bidders a reasonable time to furnish their most competitive bid taking into account the amendments issued.**

8.7 **EIL/Owner may also for any reason issue amendment subsequent to receiving the bids.** Any amendment thus issued shall become part of Bidding Document. Bidder shall follow the instructions issued along with Amendment with regard to submission of impact on quoted price in the form of Price Implication or revised price as instructed.

9.0 LANGUAGE OF BIDS

9.1 The Bid prepared by the bidder, all documents attached to and/or relating to the bid and all correspondence exchanged by the Bidder shall be written **in English language only.**

9.2 Any printed literature furnished by the bidder may be written in another language provided that this literature is accompanied by an **authenticated English translation**, in which case, **for purpose of interpreting the Bid, the English translation shall govern.**

9.3 In case a Bidder/Member(s) in case of consortium, submits any BQC documents in any language other than English, then it will be the responsibility of such Bidder/Member(s) of consortium, to also provide the **English translation copy of the same duly certified as per provisions of IFB.**

10.0 INTEGRITY PACT

10.1 PLL, as one of its endeavour to maintain and foster most ethical and corruption free business environment, have adopted the Integrity Pact to ensure that all activities and transactions between the Company (PLL) and its Counterparties (Bidders, Contractors, Vendors, Suppliers, Service Providers/Consultants etc.) are handled in a fair and transparent manner, completely free of corruption.

10.2 For details of Independent External Monitors (IEMs) appointed by PLL are as below:

Name & Email of Independent Monitor: Mr. Sanjeev Mitla; Sanjeev.mitla@sharmagoel.in

10.3 Bidder shall submit the same format of signed integrity pact (as provided in the bidding document), duly filled-in, signed & stamped by the authorised signatory of bidder. No deviations / modifications in IP shall be acceptable. Bidder shall submit the Integrity pact along with the un-priced bid.

10.4 Integrity Pact shall be signed by

- i) the authorised signatory of the bid, in case of Company
- ii) the Proprietor, in case of Proprietorship firm
- iii) at least two partners, in case of Partnership firm
- iv) In case of consortium bids (if permitted in BDS/IFB/NIT), Integrity Pact shall be signed by all consortium members.



INSTRUCTIONS TO BIDDER (ITB)



Rev 0 Page 11 of 35

- v) In Case of sub-contracting by the main/principle Sub-contractor, the main/Principal Sub-contractor shall take the responsibility of the adoption of Integrity Pact by the Sub-contractor (of main subcontractor).
- 10.5 Non-submission of Integrity Pact in the bid shall be a ground of disqualification. However, in case of non-submission of Integrity Pact in the bid, an opportunity shall be given in the Commercial Queries (CQ) to submit the Integrity Pact.
- 10.6 Further, if the Integrity Pact submitted in the bid is carrying certain shortcomings / deviations, the bidder shall be asked to clarify or make simple corrections through CQs.

11.0 SUBMISSION OF BIDS

- 11.1 Bid must be submitted by the bidder through e-tendering website on or before bid due date and time mentioned in the IFB / NIT or any extension thereof as duly notified by EIL on e-tendering website. However, Bidders are requested to not to ask any extension in due date for submission of Bids in view of tight project schedules.
- 11.2 Physical Bid, Bid through e-mail/Post/Fax/CD etc. are not permitted. The electronic bids (e-bids) submitted online through above Central Public Procurement Portal (CPPP) of Government of India shall only be considered for evaluation and ordering. **Bidders are required to upload the Bid along with all supporting documents including Priced bid on above Central Public Procurement Portal (CPPP) of Government of India only.**
- 11.3 However, in addition to submission of e-bids as above, bidders are required to submit in original of the documents as detailed in clause 11.5.2 of this ITB and, in the manner prescribed in the Bidding Document in sealed envelope titled "Original Documents for respective Bidding Document No." which should reach EIL Gurugram within 7 (Seven) calendar days (1200 HRS IST) from final bid due date and time.
- 11.4 Electronic Bids (e-bid) in two parts i.e. PART-I (Techno-commercial part) & PART-II (Priced part) as detailed below shall be submitted in e-tendering portal in accordance with the instructions and terms & conditions enclosed with the Bidding Document.

Bidders to upload the EMD/Bid Security, Un-price and Price part of their bids strictly in the respective folders at the designated place in the e-tendering website. Non-Compliance to the same may lead to rejection of their offer.

11.5 PART-I: TECHNO-COMMERCIAL/UNPRICED BID:

- 11.5.1 The bidder is required to make a proposal in a format as outlined below in order to achieve the objective of maintaining a uniform proposal structure from all bidders. The bid shall be submitted by uploading relevant documents in respective covers provided in the e-tendering website.

Unpriced e-Bids folder shall contain following documents, duly signed and stamped:

SECTION	DESCRIPTION
SECTION-I	i. Bidder is required to upload the Scanned copy of EMD/ Bid Security as per clause no. 16.0 of ITB (to be uploaded in e-tendering portal) along with the e-bid.

INSTRUCTIONS TO BIDDER (ITB)

SECTION	DESCRIPTION
SECTION-II	i. Letter of submission & Synopsis of the proposal ii. Check-List dully filled in (Appendix-II to ITB) iii. Power of Attorney of Bid Signatory The bid shall be signed (e-signed) by the person duly authorised to sign on behalf of the bidder and having valid POA for the same at the time of e-bid submission. The digital signature used for signing the bid shall be issued in the name of such authorised person and the certificate details, available from the e-signed documents, should indicate the details of the signatories. Any consequences resulting due to such signing (e-signing) shall be binding on the bidder. In case of Consortium, Power of Attorney a. Given Jointly by all the members to Lead Member b. By each member in the name of signatory signing the Consortium Agreement. iv. Integrity Pact duly signed and stamped on each page along with 2 witnesses on the last page (Appendix-III to ITB). The bidder shall submit the same format of signed integrity pact (as provided in the bidding document duly signed by PLL) duly filled-in, signed & stamped by the authorised signatory of bidder. In case of Consortium each constituent of Consortium shall submit duly signed and stamped Integrity Pact Agreement on each page. v. Undertaking (as per Form-I A/ Form-I B / Form-II of Appendix – VIII to ITB) required under ITB clause no. 2.5, regarding “Procurement from a Bidder from a Country sharing Land Border with India.
SECTION-III	i. Scanned copy of authenticated documents required for meeting the BQC requirements as per Invitation for Bid (IFB). ii. Memorandum of Understanding between the Consortium members (if applicable) as per requirements of the Bidding Document. iii. Details of Past Experience of Bidder / Sub-Contractor as per format enclosed with Annexure-IV to IFB (i.e. format for Past Experience of Bidder/Engineering Sub-contractor/ Consortium Member, as applicable, against Technical BQC). iv. Form- N(i): Similar Experience during Last 15 Years

INSTRUCTIONS TO BIDDER (ITB)

SECTION	DESCRIPTION
	v. Form-N(ii): Experience Details
SECTION-IV	i. Bidder shall submit the complete audited balance sheets and profit and loss account along with Auditor's Report including all Schedules for the immediate three preceding financial years, for evaluation and his qualification with respect to financial criteria. ii. Declaration from Bank for Availability of Un-utilized Line of Credit (If applicable) as per Annexure-I to IFB iii. Financial Details of the bidder duly certified by Statutory Auditor / Chartered Accountant as per Annexure-II A/B/C (as applicable) to IFB.
SECTION-V	i. One copy of the Table of Contents (also referred to as Master Index) of the Bidding Document duly signed and stamped on each page, in token of having received and accepted the complete set of the Bidding Document ii. Reply to Commercial Questionnaire (Appendix-I to ITB) iii. Unpriced copy of Contract Price Schedule (Exhibit-D to CoC) duly stamped & signed on each page mentioning "Quoted/Not Quoted" (as applicable) & indicating the currency of Quote. iv. In case of consortium bids, certificate from any one out of CEO or CFO or Company Secretary or any Functional Director in Board of Members of the Bidder of the Leader of consortium , certifying the stake of each consortium member and the prices are quoted in the price bid proportionate to their respective percentage of stake.
SECTION-VI	i. FORM-A: Form of Bid as per Proposal ii. FORM-B: Information about the Bidder (Annexure to be submitted for each member of consortium, in case of bids on consortium basis) along with all the required documents as sought therein. iii. FORM-C: Declaration duly signed & stamped by the bidder in token of having received and read all volumes of the commercial & technical documents and having accepted and considered the same in preparing and submitting the bid. iv. FORM-E: Compliance of Bid Requirement v. FORM-G: Undertaking for non-engagement of child labour vi. FORM-I: Declaration with regard to non-involvement of

SECTION	DESCRIPTION
	Indian Agents. vii. FORM-P: Self-Declaration viii. FORM-Q: Declaration of Black Listing /Holiday Listing ix. Undertaking as per Annexure-III to IFB
SECTION-VII	i. FORM-J: Methodology of Execution as per Proposal. ii. FORM-K: Details of proposed Organization for Home and Site Office iii. FORM-L: Deployment Schedule of construction equipment, tools & tackles proposed for execution of work iv. FORM-M: Deployment Schedule of Supervisory personnel v. Contract Schedule/Project Schedule in the form of Bar Chart in compliance to Exhibit-C to CoC. vi. Quality Assurance: A brief description of the bidder's QA system and a statement detailing how QA will be implemented for the Project.
SECTION-VIII	i. Technical Details/ documents specified under "Technical Information Required along with Bid" ii. Reply to Technical Questionnaire in Technical Sections
SECTION-IX	i. Any other information required in the Bidding Documents or considered relevant by the Bidder

11.5.2 SUBMISSION OF PHYSICAL DOCUMENTS

- a) EMD/ Bid Security in the form of Bank Guarantee/ Insurance Surety Bond, in addition to uploading with the bid on the NIC-CPP/e-tendering Portal (refer ITB Cl. No. 16), shall also be submitted **within 7 (Seven) calendar days (*) (1200 HRS IST) from final bid due date and time. In case the EMD/ Bid Security in original physical form does not reach EIL-Gurugram within the above cut-off date, his bid shall be rejected and not considered for further evaluation, irrespective of their status/ ranking in tender and notwithstanding the fact that a copy of EMD/Bid Security was earlier uploaded by the bidder on the NIC-CPP/e-tendering portal.**
() If the cut-off date for submission of original Bid Security specified above happens to be a declared/closed holiday in EIL-Gurugram, the next working day (date and time) shall be considered.*
- b) In case EMD/ Bid Security is submitted through net banking, submission of Original physical form of EMD/ Bid Security within the bid due date shall not be required. However, transaction details/ proof of submission of EMD/ Bid Security through net banking shall be uploaded in designated place in the above-mentioned Govt. of India CPP Portal.

- c) The envelope shall be titled “ORIGINAL DOCUMENTS” with the Name of the Work, Bidding Document No., Name of the Project etc. along with the Bidder’s name and address with contact no. etc. and shall be submitted to the address at Clause No. 16.5:
 - i) Bid Security/EMD.
 - ii) Any other document to be submitted in original as per Bidding Document.
 - d) Each envelope shall indicate name, address, and contact details with email ID of the bidder to enable the bid to be returned unopened, if required.
 - e) If the envelope is not sealed and marked as above, the Owner / EIL will assume no responsibility for the misplacement or premature opening of the bid.
 - f) Document submitted in physical form shall be the exact copy of the documents uploaded on the above CPP Portal.
- 11.5.3 Bid shall be serially page numbered and indexed in detail. Wherever reference to any document is made in support of Bidder’s qualification criteria, page number of such document shall be clearly indicated.
- 11.5.4 In the event of the space on the bid proforma being insufficient for the required purpose, additional pages may be added. Each such additional page must be numbered consecutively, showing the bidding document number and should be duly signed. In such cases reference to the additional page(s) must be made in the bid.
- 11.5.5 The Bidders are advised in their own interest to ensure that all the points brought out in the check list are complied with in their bid.
- 11.5.6 For convenience, the Bid shall be compiled in the form of specific Sections conforming to the above. In case of non-submission of above documents or submission of incomplete documents, the EIL/OWNER reserves the right not to evaluate such offers further and not to enter into correspondence in this regard after opening the Techno-commercial / Unpriced Bid.
- 11.6 **PART-II (PRICE BID):**
- Part-II shall be uploaded in “FINANCE” folder in e-tendering portal.
- a. Contract Prices Schedule (Exhibit-D to CoC) duly filled in accordance with instructions provided in Table-A of Contract Prices Schedule, in e-tendering portal, without making any changes in the format / names of the file / worksheet.
 - b. This part shall not contain any condition whatsoever failing which the Bid shall be liable to be rejected. No stipulation, deviation, terms & conditions, presumption, basis etc. shall be stipulated in Price Part of the bid. **Any condition, if stipulated, shall be treated as null and void** and may render the bid liable for rejection. No corrections, conditions, additions, deletions or modifications in Price Part are permitted. All corrections in quoted rates must be signed and stamped.
 - c. Bidder to note that if they submit prices in un-priced part of their bid, such prices shall not be considered. The prices as submitted in the price part in e-tendering portal only shall be



INSTRUCTIONS TO BIDDER (ITB)



Rev	0	Page	16	of	35

considered for evaluation and ordering, if any. If prices are not found in the price part and even if mentioned elsewhere, the bid shall be rejected.

- 11.7 Although all the details presented in this Bidding Document have been compiled with all reasonable care, it is the Bidder's responsibility to ensure that the information provided is adequate and clearly understood.
- 11.8 The bid requirements are explicitly stated in the Bidding Documents. The Bidder is required to study these requirements in detail & make a proposal in an outline as defined above completely meeting these requirements. **The offer must be complete in all respects**, leaving no scope for ambiguity. It is in the interest of the **Bidder to submit a complete & comprehensive proposal** leaving no scope for EIL/OWNER to raise or ask for any further questions or clarifications, with a view that **the proposal may be evaluated only on the basis of what has been submitted by the bidder in the first instance in order to adhere to a very strict project schedule**. Bidder's quotation is the responsibility of the bidder and no relief or consideration can be given for errors and omissions.

12.0 BIDS ON CONSORTIUM BASIS

- 12.1 The Bid shall contain copy of the **original Memorandum of Understanding (MOU)** between the consortium members clearly defining the Scope and Responsibility of each member including the Prime Member (i.e. Leader) for faithful execution of the Contract.
- 12.2 The division of responsibility/scope and share in Lumpsum price of each member will be subject to acceptance by OWNER/Consultant. Subsequently, the Consortium members will not be allowed to change their responsibility/scope and share in Lumpsum price. The distribution of works among Prime Member and the Member shall not to be changed thereafter.
- 12.3 The MOU shall be converted to a definitive Agreement between the parties within **30 days** from the date of LOA. The definitive agreement shall be as per the provisions of Bidding Document and the modifications in MOU accepted by EIL/Owner during Bid evaluation. **The Agreement must remain in force at least till the pendency of the Contract** as per Bidding Document.
- 12.4 The Leader of the consortium shall represent the Consortium in all dealings with the OWNER and for providing any information or clarification sought from the Consortium, and this authorization shall be evident in legally executed Power of Attorney signed by legally authorized signatories of all the consortium members so as to enable such representative member(s) to be in-charge and to act on behalf of and to bind the other member.

Payment for works under the Contract shall be made by Owner to Consortium as per provisions of Conditions of Contract (CoC).

13.0 PRICE BID

- 13.1 For execution of scope of work as per conditions stipulated in the bidding document the Bid price is to be filled in the formats given in Contract Price Schedule. Unless otherwise permitted in the Bidding Documents, the price bid shall be for the whole works.
- 13.2 The Total Lump sum Price shall be quoted in the **Contract** Price Schedule (SOP) considering the impact under Goods and Service Tax (GST) of India, which is effective from 01.07.2017 as per Format included.

- 13.3 The Lump Sum Price means aggregate of Lump Sum prices for completing all activities as per Scope of Work defined in Technical and Commercial Section of Bidding Document and subsequent Amendment (Technical and Commercial).

Prices, taxes, duties including GST on any transaction between Contractor and their sub-supplier/sub-contractor/backup consultant/ Engineering Subcontractor shall be included in the Total Lumpsum Price quoted by the Contractor.

- 13.3.1 Unless stated otherwise in the Bidding Document, the Contract shall be for the total works as described in Bidding Document, based on the Schedule of Prices submitted by the bidder and accepted by EIL/OWNER.
- 13.3.2 Bidder shall quote for all the items of Contract Price Schedule after careful analysis of cost involved for the performance of the complete item considering all parts of the Bidding Document. In case any activity is not specifically covered in description of item under 'Schedule of Prices' but is required to complete the work as per Scope of Work, Scope of Supply, Specifications, Standards, Drawings, Special Conditions of Contract, Condition of Contract (CoC) or any other part of Bidding Document, the rates/ prices quoted shall be deemed to be inclusive of cost incurred for such activity.
- 13.3.3 Rates/ prices quoted by the bidder, shall remain firm, fixed and valid till the completion of the Works and will not be subject to variation on any account except as otherwise specifically provided in the Bidding Documents.
- 13.3.4 All duties, taxes, and other levies payable shall be as per Conditions of Contract.

14.0 CURRENCIES OF BID AND PAYMENT

14.1 Currency of Bid

Bidders are allowed to quote in currencies as under:-

- I. INR and /or
- II. Any one/two Foreign Currency out of USD, EURO, GBP

- 14.1.1 Foreign Bidders may quote prices for materials and services to be imported into India either in Indian Rupees or in one/ two Foreign Currency(ies) or in a combination of Indian Rupees and one/ two Foreign Currency(ies). **Bidders shall quote the price for materials and services to be procured from India and for expenses to be incurred in India only in Indian Rupees.**
- 14.1.2 Indian bidders may quote the prices for materials and services to be imported into India either in Indian Rupees or in one/ two Foreign Currency(ies) or in a combination of Indian Rupees and one/ two Foreign Currency(ies). Such bidders quoting in foreign currency shall separately indicate in a list the materials and services to be imported into India and the Foreign Currency price payable for such materials and services. **Bidders shall quote the price for materials and services to be procured from India and for expenses to be incurred in India only in Indian Rupees.**
- 14.1.3 For evaluation purposes, the bid price shall be converted to Indian Rupees by converting the Foreign Currency into Indian Rupees at the Bill selling rate of State Bank of India, New Delhi prevailing one day prior to the opening of the price bid. In case the rate is not available one day prior to priced bid opening, the latest available rate prior to the day of priced bid opening, shall be considered.



INSTRUCTIONS TO BIDDER (ITB)



Rev	0	Page	18	of	35

14.2 **Currency of Payment:** As per Conditions of Contract (CoC).

15.0 INVOLVEMENT OF AGENT (IN CASE OF FOREIGN BIDDER)

15.1 OWNER shall deal directly with the CONTRACTOR abroad without involving with Contractor's Agent. Each bidder shall be required, along with the bid, to give a declaration in Proposal **FORM-I** that no Agent is involved in the transaction.

16.0 EARNEST MONEY DEPOSIT (EMD)

16.1 Bids must be accompanied with Earnest Money Deposit / Bid Security in favour of "Petronet LNG Limited" payable at "New Delhi". Bids not accompanied with requisite Earnest Money deposit /Bid Security shall be considered as non-responsive and such Bids shall be summarily rejected.

16.2 Bidder shall furnish Bid Security, in original form, as part of its bid, in the amount and currency specified in the Enquiry. Any bid not accompanied with a requisite Bid security or the Bid Security not being for the required amount, shall be summarily rejected by EIL/Owner. Format of Bank Guarantee for Bid Security is enclosed as Appendix-IX to ITB (i.e. Proforma of Bank Guarantee for EMD).

16.3 Bidder shall be required to upload the scanned copy of original bid security within the final extended bid due date and time on the e-tendering portal. If the Bidder fails to submit Bid Security physically in original or upload copy of the same on the e-tendering portal within the cut-off date as per the bidding document, his bid shall be rejected and not considered for further evaluation. Uploading as well as submitting original Bid Security within the cut-off date is mandatory.

16.4 Apart from hard copy submission of BGs, bank guarantee issued towards EMD/CPBG/ABG, etc, it shall be ensured that same is also routed through SFMS platform (Structured Financial Messaging System)/SWIFT message (from foreign bidders) for Bank Guarantee issuance and verification. The information/ messaging (as per SFMS platform) shall be sent by BG issuing bank branch to PLL's Banker. Failure to adhere to this requirement may render the bid liable for rejection.

16.5 **Original EMD/ Bid Security, in addition to uploading with the bid on the NIC-CPP/e-tendering Portal, shall also be submitted within 7 (Seven) calendar days (*) (1200 HRS IST) from final bid due date and time. In case the EMD/Bid Security in original physical form does not reach EIL-Gurugram office within the above cut-off date and time, their bid shall be rejected and not considered for further evaluation, notwithstanding the fact that a copy of EMD/Bid Security was earlier uploaded by the bidder on the NIC-CPP/e-tendering Portal.**

Place for Submission of Original EMD/Bid Security:

**DAK RECEIPT SECTION,
ENGINEERS INDIA LIMITED
R&D COMPLEX, SECTOR-16 (On N.H.-8)
TOWER-2 (GROUND FLOOR),
GURGAON-122 001, HARYANA (INDIA).**



INSTRUCTIONS TO BIDDER (ITB)



Rev	0	Page	19	of	35

ATTN: Mr. Jaydip Purkayastha, GM (SCM)

Phone no. +91-124- 289 1341 / 1374/ 1287

E-mail ID: mitesh.patel@eil.co.in / ranjit.vunna@eil.co.in / jaydip@eil.co.in

16.6 Owner shall not pay any interest on Bid Security furnished. Further, in case EMD/bid security submitted is found to be fake, bid of such bidder shall be rejected and may initiate action as deemed necessary as per EIL /Owner Policy.

16.7 The bid security submitted by Indian bidder, shall be in the form of bank guarantee in favour of Petronet LNG Limited OR through PLL Online EMD Tender Fee Collection portal, in any of the following forms at the bidder's option:

- (a) an unconditional and non-revocable bank guarantee issued by any schedule Indian Bank or any branch of international bank situated in India and registered with RBI as schedule foreign bank, strictly in the format enclosed as Appendix-IX to ITB (i.e. Proforma of Bank Guarantee for EMD).
- (b) Bidder can also submit the EMD through PLL Online EMD Tender Fee Collection portal (detailed procedure attached as Appendix-X to ITB), the link for the same is <https://petronetlng.in/emd/tender?number=JP/B862-101-PM-T-7300/1028> . Bidders shall be required to submit/ upload the successful transaction details along with their bid/e-bid. In absence of submitting/ uploading the remittance details, the bid is likely to be considered as bid not accompanied with EMD. Further, in case of the online transaction, submission of EMD in original is not applicable.
- (c) In lieu of Bank Guarantee towards EMD, Indian Bidder may also submit "Insurance Surety Bond (ISB)" from an Indian Insurance Company (Insurer) in the format enclosed Appendix-XII to ITB.

Insurance Company issuing Bond shall have credit rating of at least 'AA' by CRISIL Ltd. or an equivalent rating from ICRA. However, this condition of rating shall not be applicable for public sector insurance companies.

All other tender provisions applicable for Bank Guarantee towards EMD shall also be applicable for Insurance Surety Bond.

16.8 Deleted

16.9 Foreign bidders shall submit unconditional Bank Guarantee from any schedule bank in India or from an international bank who has its Branch in India and registered with RBI as schedule foreign bank incorporated in India strictly in the format enclosed as Appendix-IX to ITB (i.e. Proforma of Bank Guarantee for EMD) to be denominated in the currency of contract for the amount as applicable may be accepted.

BG issued by any foreign bank, which is not a scheduled bank in India shall be accepted provided that Bank Guarantee issued by such bank is counter guaranteed by any Schedule Bank incorporated in India.



INSTRUCTIONS TO BIDDER (ITB)



Rev	0	Page	20	of	35

- 16.10 In case of a Consortium bid, the Bid Security may be submitted by Consortium, or the Leader or any of the members of the Consortium, on behalf of Consortium as follows:
- a. Foreign consortium (i.e., consortium formed by foreign companies only) - USD
 - b. Indian Consortium (i.e, consortium formed by Indian companies only) - Indian Rupees
 - c. Consortium bid involving at least one Indian entity and one Foreign entity - Indian rupees or USD.
- 16.11 Bank Guarantee/ Insurance Surety Bond shall be valid for Thirty (30) days beyond the validity period of the bid, or beyond any period of extension if requested under Clause 17 of ITB.
- 16.12 **Return of bid security:**
- a) EMD of late bids/ where unpriced bids not opened, shall be returned after Unpriced bid opening.
 - b) EMD of Bidders whose price bids are not opened shall be returned after Price Bid opening.
 - c) EMD/ Bid securities of unsuccessful bidders will be returned upon placement of order/ award.
 - d) In case of the successful Bidder, the same will be returned after the order/ contract is effective and Contract Performance Bank Guarantee is submitted.
 - e) However, in case EIL/Owner decides to cancel / annul the Enquiry / bidding document at any stage during the bidding process but before the award of work/ items (as applicable), EMD of the bidders shall be returned at the earliest from the date of such decision.
- 16.13 The bid security shall be forfeited as per the stipulations of Bidding Document which includes the following:
- (a) submits multiple bids/alternative bids in accordance with Clause 18.0 of ITB; or
 - (b) if a bidder withdraws its bid during the period of bid validity, or any extension thereto provided by the bidder; or
 - (c) on his own altered / modified his bid during the period of bid validity, or any extension thereto provided by the bidder; or
 - (d) If the Information/ documents forming basis of evaluation submitted by the bidder in the bid is found to be false/ forged / fake in accordance with relevant provisions provided in Bidding Document.
 - (e) if the successful bidder fails to:
 - (i) acknowledge the LOA issued in accordance with Clause 38.0 of ITB; and/or
 - (ii) sign the Contract in accordance with Clause 40.0 of ITB; and/or
 - (iii) Not furnish a Contract performance Bank Guarantee in accordance with relevant



INSTRUCTIONS TO BIDDER (ITB)



Rev	0	Page	21	of	35

Clause of CoC.

- (iv) to accept arithmetical corrections of its bid, as per terms of the Bidding Document.

In case, any of the above (except (a) & (d)) events happens, the bidder shall be given a notice of 7 days to take corrective action and in case corrective action is not taken, the bid security shall be encashed without any further notice.

In case of forfeiture of EMD/Bid security, the forfeited amount will be considered inclusive of tax and tax invoice will be issued by PLL (if applicable). The forfeiture amount will be subject to final decision of PLL based on other terms and conditions of order/contract.

17.0 PERIOD OF VALIDITY OF BIDS

- 17.1 Bids shall remain valid for **6 (Six) months** after the deadline for bid submission. A bid valid for a shorter period shall be rejected by the OWNER as non-responsive. Bidders shall not be entitled during the above period, without the consent of EIL/Owner in writing, to revoke or cancel their Bid or to vary the Bid given or any term thereof. In case of bidders revoking or cancelling their Bid or varying any terms in regard thereof without the consent of EIL/Owner in writing, EIL/Owner shall forfeit Bid security, submitted along with the bid and shall reject their bids. Such Bidder may also be put on Black list / Holiday list/ Negative List/Suspension/Banning List.
- 17.2 Notwithstanding the above, the OWNER may solicit the bidder's consent to an extension of the period of bid validity. The request and the responses thereto shall be made in writing.
- 17.3 A bidder may refuse the request for extension of validity of the Bid beyond the validity of Bid as per Bidding Document. In such case bidder will be allowed to withdraw his bid without forfeiting his bid Security.
- 17.4 **A bidder accepting the request for extension shall not be permitted to modify his bid because of the extension including change in prices, unless specifically invited to do so.** If a Bidder still deviates or changes prices, its bid shall be rejected.

18.0 MULTIPLE / ALTERNATIVE BIDS

- 18.1 A bidder (i.e. the bidding entity) shall, on no account submit more than one bid either directly (as a single bidder or as a member of consortium) or indirectly (as a sub-contractor) failing which following actions shall be initiated:
- All bids submitted by such bidder (say 'A') either as a single bidder or as a consortium, shall stand rejected and BID SECURITY/EMD, if any, in case of all such bids submitted by bidder 'A' shall be forfeited.
 - If another bidder (say 'B') has proposed bidder 'A' as a sub-contractor then bidder 'B's bid shall also be rejected. However, in case the bidder 'B' has also proposed an alternative sub-contractor who is other than the bidder 'A', then bidder 'B's bid shall be evaluated with the proposed alternative sub-contractor only. Hence, every bidder shall ensure in his own interest that his proposed sub-contractor is not submitting alternative/ multiple bids.

Note:

However, in case EIL has proposed a list of sub-contractors/ sub-vendors in the enquiry document itself which shall be common for all the bidders, the provision at (b) above shall not be applicable. It is further clarified that: A sub-Contractor can be common to more than one Bidder, provided the sub-Contractor themselves are neither a Bidder nor a consortium member.

- 18.2 Alternative bids are not acceptable.
- 18.3 By making a bid pursuant to the Tender Documents, the bidder/ tenderer shall be deemed to have declared that the bidder/ tenderer has not made any other bid or a multiple bid as understood or deemed in terms of this clause.
- 18.4 All the multiple bids of a bidder shall be rejected and the Earnest Money Deposit for all such bids shall be forfeited, not by way of penalty or liquidated damages but by way of reimbursement of the pre-estimated costs likely to be incurred by the OWNER towards bidding process and in the scrutiny and evaluation of bids.

19.0 FORMAT AND SIGNING OF BID

- 19.1 Bids shall be signed by the authorized signatory of the bidder.
- 19.2 In all enquiries, bidder shall submit a Power of Attorney in the name of such authorized signatory(ies). Requirements for submitting the Power of Attorney (POA) shall be as follows:

i) Company:

- Bidder shall submit a specific Power of Attorney for the enquiry in the name of authorized person. OR
- In case Bid signatory has General Power of Attorney or has the power as per their Board resolution, the same shall be submitted duly certified by Notary Public or CEO/CFO/Company Secretary (CS)/Member of Board of Directors. OR
- In case, Bid is signed by CEO/CFO/CS/any member of board of Directors, no separate POA is required, provided the documentary evidence of their being CEO/CFO/CS/any member of board of Directors is reflected in the MOA/AOA/Financial Statements, else submitted separately in the Bid.

ii) Partnership Firm: In such case,

- Bid can be signed by all the partners of the Firm and in such case no separate POA is required. OR
- Bid can be signed by any of the Partner(s) holding Power of Attorney as specified in the Partnership Deed, OR
- Bid can be signed by an authorized person and shall submit a specific POA for the Enquiry duly signed by all the Partners.

Bidder shall submit the copy of Partnership Deed.

iii) Limited Liability Partnership (LLP) Entity:



INSTRUCTIONS TO BIDDER (ITB)



Rev	0	Page	23	of	35

- Bid shall be signed by the person holding Power of Attorney as per the registered LLP Agreement for the Firm, OR
- has the power as per their Board resolution, OR
- a specific POA for the Enquiry duly signed by all the LLP Partners.

Bidder shall submit (i) a copy of LLP Agreement, and (ii) a copy of Certificate of Incorporation.

- iv) Proprietorship: Proprietor shall sign the Bid. Bidder shall also submit a copy of (i) PAN card and (ii) Bank Mandate Form, duly certified by the Bidder's Banker.
- v) Consortium: Members of the consortium shall authorize the Lead Member of the consortium with the authority to bind the consortium, through a Power of Attorney given jointly by all the members to the Lead Member.

Leader as well as Members of the Consortium/ shall also submit a separate POA from their respective Company/ Firm in the name of the signatory signing the Consortium Agreement. Depending on the formation/ registration/ constitution (Company/ Firm, etc.) of the Leader/Member of the Consortium, POA shall be submitted in a manner, as applicable, as per the above clauses.

- 19.3 For Indian Bidder, POA shall be on non-judicial stamp paper of minimum value of INR 100/- and duly Notarized by a Notary Public in India.

For Foreign Bidders, POA shall be:

- on the Stamp Paper of appropriate value or engraving/embossing, in lieu of non-judicial stamp paper, as per applicable laws in Bidder's Country; or
- as per any other system prevailing in the bidder's country for the purpose of issuing POA.

- 19.4 Specific POA issued for the Enquiry shall confirm that the authorized signatory have been authorized to do in the name and on behalf of the Company/Firm all or any of the acts, deeds or things necessary in connection with or incidental to the Bid submitted by the bidder for the subject Enquiry Document, including but not limited to the signing and submission of bid, participating in the meetings, responding to queries, submission of information / documents and generally to represent us in all the dealings with EIL/Owner or any person, in connection with the works, without any prejudice, limitations and exceptions till the completion of the bidding process.

- 19.5 Bidders to upload the Un-price and Price part of their e-bids strictly in the Un-price & Priced folders respectively at the designated place in the e-tendering portal. Non-Compliance to the same may lead to rejection of their Bids.

19.6 DIGITAL SIGNATORY:

- i) In accordance with clause no. 19.2 above, e-bid shall be digitally signed (e-signed) using the digital signature of a person duly authorised to sign on behalf of the bidder. The digital signature used for signing the bid shall be issued in the name of

such authorised person and the certificate details, available from the signed documents, should indicate the details of the signatories. Any consequences resulting due to such signing (e-signing) shall be binding on the bidder.

- ii) In case foreign bidder does not have digital signature issued by an Indian certifying authority, he can authorize his Indian representative to use the representative's digital signature to upload the bid on behalf of foreign bidder. In such a case, the authorization letter shall be submitted along with the bid.
 - iii) All documents as submitted in the e-Procurement Portal using digital signature at any time during the Bidding process shall be deemed considered signed by the authorized signatory only, irrespective of authorised signatory's signature on all pages or not.
- 19.7 Bidder shall clearly indicate their legal constitution and the person signing the Bid shall state his capacity as also the source of his ability to bind the Bidder. The Power of Attorney or Authorization or other document constituting adequate proof of the ability of the signatory to bind the Bidder, shall be annexed to the POA. Owner may reject outright any Bid unsupported by adequate proof of the signatory's authority.
- 19.8 Owner shall not be bound by any Power of Attorney granted by the Bidder or changes in the constitution of the Company made subsequent to submission of the Bid or after the award of the Contract. Owner may, however, recognise such Power of Attorney and changes after obtaining proper legal advice, the cost of which will be borne by the Bidder.
- 19.9 The cancellation of any document such as Power of Attorney, Partnership Deed, etc. should be promptly communicated by the Bidder to the Owner in writing well in time, failing which Owner shall have no responsibility or liability for any action taken by Owner on the strength of the said documents
- 20.0 E-TENDERING**
- 20.1 e-Bids are required to be submitted through Government of India's Central Public Procurement (CPP) portal <https://eprocure.gov.in/eprocure/app> only, on or before the Bid-Submission Date & Time. In order to perform e-procurement activities, the bidders are required to enroll/register at <https://eprocure.gov.in/eprocure/app>. No enrollment/registration fee would be charged from the bidders for the same.
- 20.2 Methodology for e-tendering and Procedure for obtaining Digital Signature by Foreign Bidder shall be as per attached **Appendix-IV to ITB**. Bidders are requested to get acquainted with the E-Tendering Website and the formalities and upload their Bid well within the time (extended time in case of extension of bid submission date) provided for bid submission to avoid last minute hassles.
- 20.3 Bidders are advised in their own interest to carefully go through Instructions for E-tendering and other related document available against various help links so as to ensure that bids are uploaded in E-tendering website well before the closing date and time of bid submission.
- 20.4 Bidders are requested to obtain/seek clarifications, if any from EIL and/or EIL's Authorised Service Provider, whose contact information is provided in the **Appendix-IV** to ITB.
- 20.5 EIL/Owner shall not be responsible for any failure of Bidder to upload the bid for reasons

other than any problem in e-tendering website.

21.0 ENROLMENT OF BIDDER ON NIC-CPP PORTAL

- 21.1 Various links such as “Help for Contractor”, “Information about DSC”, “FAQ”, “Resources Required”, “Bidders Manual Kit” etc. are available on home page of <https://eprocure.gov.in/eprocure/app> facilitating Bidders to participate in the bidding process. Bidders are advised to download & utilize the available information/documents under these links for activities like Registration in CPPP, obtaining User ID & Password, uploading & submission of e-bids etc. Bidders are advised in their own interest to carefully go through Instructions for E-tendering and other related document available against various help links so as to ensure that bids are uploaded in E-tendering website well before the closing date and time of bid submission.
- 21.2 The above CPP Portal mandates that the bidders are to be registered on the portal before any enquiry can be issued to them. The enquiry can be downloaded by the bidders from the above e-Procurement website as soon as their registration is completed in the above e-procurement (NIC/CPPP) Portal.
- 21.3 All those bidders who have still not registered on the above NIC Portal are required to register on the same (immediately after issue of enquiry on EIL portal but not later than ten days before the bid due date) for facilitating issue of enquiry to them on the NIC Portal failing which it will not be possible for them to upload their bids. Pursuant to registration, the bidders are also required to login in EIL tender portal and update NIC’s registration details and inform the undersigned regarding the same for the subject enquiry.
- 21.4 Request for extension in due date of submission of bids due to non-registration or delayed registration in NIC portal shall not be entertained.
- 21.5 The bid has to be necessarily submitted on the NIC Portal.
- 21.6 Bidders who do not register with NIC Portal may not be able to submit their bids. Therefore, it is in the interest of the bidders that they register on the NIC Portal at the earliest.
- 21.7 The bidder registration on NIC Portal is a very user-friendly process. However, in case of any doubt, the bidder may contact as per the details given in IFB.

22.0 DELETED

23.0 DELETED

24.0 DEADLINE FOR SUBMISSION OF BIDS

- 24.1 The e-bid must be submitted on or before the date and time of submission specified in the Invitation for Bids (IFB).
- 24.2 EIL/Owner may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Documents in accordance with Clause 8.0 of ITB, in which case all rights and obligations of EIL/Owner and bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

25.0 PRICES IN FIGURES AND WORDS

- 25.1 The bidder shall fill the Schedule of Lumpsum Prices both in figures as well as in words in



INSTRUCTIONS TO BIDDER (ITB)



Rev	0	Page	26	of	35

the Contract Price Schedule forming part of the Bidding Documents. The tendered amount for the work shall be entered in the Price schedule and duly signed by the bidder.

- 25.2 When there is a difference between the prices in figures and words, the price in words shall prevail.

26.0 CORRECTION OF ARITHMETICAL ERRORS

- 26.1 The prices quoted by bidders shall be checked for arithmetic correction, if any, based on rate and amount filled by the bidder in the Contract Price schedule formats.

26.1.1 RATE AND AMOUNT IN FIGURES ONLY

When rate and amount are in figures only, in case of discrepancy, the rate quoted by bidder shall be taken as correct.

26.1.2 LUMP SUM AMOUNT ONLY IN FIGURES AND WORDS

When a lumpsum amount is quoted in figure and words but unit rates are not required to be quoted, amount quoted in words shall be taken as correct.

27.0 LATE BIDS/ UNSOLICITED BIDS / BID SUBMISSION AT OTHER PLACE

- 27.1 No bid will be accepted after the deadline of submission of bid.
- 27.2 E-tendering system shall close immediately after the deadline for submission of bid. Any bids being submitted in physical form (other than Bid Security/EMD) shall not be considered for opening / evaluation / award and will be returned to such bidders.
- 27.3 In the event the Bid Security in original, in accordance with ITB Clause 16.5, are not submitted within the deadline, the bids shall be declared late and shall not be considered for further evaluation, notwithstanding the fact that the bid has been submitted in electronic form within the deadline.
- 27.4 Unsolicited bids or bids being submitted/ uploaded to address other than one specifically stipulated in the Bidding Document will not be considered for opening / evaluation / award.

28.0 MODIFICATION AND WITHDRAWAL OF BIDS

- 28.1 The Bidder may modify or withdraw its Bid after the Bid's submission but prior to the due date prescribed for submission of Bids by selecting the "Re-Submission" option available in the e-tender portal.
- 28.2 No bid shall be modified subsequent to the deadline for submission of bids.
- 28.3 No bid shall be allowed to be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the bidder. Withdrawal of a bid during this interval shall result in the forfeiture of bidder's EMD/Bid security.
- 28.4 There are two specific features in Central Public Procurement Portal (CPPP) viz, "Withdraw" and "Re-Submission". Bidders should not use the feature "withdraw" unless they have decided to withdraw their bids. It is to be noted that once "withdraw" feature is used they will not be allowed to re-submit their bid against this Bidding Document. In case a Bidder desires to change his bid for any reason before bid due date, Bidder shall use

“Re-Submission” feature.

- 28.5 In case bidder fails to accept the order or withdraw the bid after bid submission, punitive action shall be taken against them as per the EIL/PLL Policy.

29.0 OPENING OF UNPRICED BIDS

- 29.1 EIL/Owner shall open bids received in the e-tendering portal except bidders who are on Holiday/ Suspension / Banning list of EIL / PLL.
- 29.2 EIL/Owner shall verify the availability of scanned copy of BID SECURITY is uploaded in Part-I of e-Bid during un-priced bid opening.
- 29.3 The order of part wise opening of bids shall be as follows;
- i. On scheduled date and time of UNPRICED bid opening,
 - (a) Opening of documents of Part–I, submitted in electronic form shall be processed on the e-Procurement module of the e-tendering portal.
 - (b) Bid Security submitted in e-bid shall be verified that whether Bid Security has been furnished as per bid requirement.
 - (c) If a bidder has not complied with Bid Security requirement above, such bidder’s offer shall be rejected out rightly.
 - (d) The un-priced bids shall be opened online on the date and time specified in the IFB and shall be deemed to be opened publicly.
 - ii. Part-II (Priced Bid) of bid of only those bidders whose bids is determined to be technically and commercially acceptable by Owner shall be opened. Bidders selected for opening of their priced bids shall be informed about the date, time and place of price bid opening and shall not be called for physical participation during bid opening.

30.0 CLARIFICATION OF BIDS

- 30.1 A substantially responsive Bid is one that meets the requirement of bidding document without any deviation as more specifically defined in **clause 33.1** below. It is expected that bidders will submit bids based on the terms and conditions and specifications contained in the Bidding Document and will not stipulate any deviations/clarification etc. Bidders shall confirm compliance to Bidding Document as per **FORM E**. EIL/OWNER reserves the right to reject any bid containing unacceptable deviation(s) as non-responsive.
- 30.2 Bidders should ensure that the Bid submitted is substantially responsive Bid in the first instance itself. Evaluation may be completed based on the content of the Bid itself without seeking any subsequent additional information which may result in rejection of Bid. However, EIL / OWNER may, at its discretion, request bidder to submit the necessary information or documentation, within a reasonable period of time, to withdraw material deviation, reservation, or rectify omission in the bid related to documentation requirements. Requesting information or documentation on such account shall not be related to any aspect of the price of the Bid. EIL’s/Owner’s request for clarification and the response shall be in writing.
- 30.3 No change, including any unsolicited increase or decrease, in the prices or substance of the bid shall be sought, offered, or permitted. Bidder shall not be allowed to submit any



INSTRUCTIONS TO BIDDER (ITB)



Rev	0	Page	28	of	35

price implication or revised price after submission of Bid unless the same is called for by EIL/ Owner in writing.

- 30.4 Any clarification submitted by a bidder that is not in response to a request by EIL/Owner shall not be considered. Failure of the bidder to comply with the request may result in the rejection of its Bid.
- 30.5 If a bidder does not provide clarifications of its bid by the date and time set in EIL's/Owner's request for clarification, Owner/EIL reserves the right to evaluate the bid with available information which may result in rejection of their bid.
- 30.6 If desired by the EIL/Owner, the Bidder shall be prepared to give presentation on salient features of his bid including but not limited to Project Execution Methodology.
- 30.7 Deleted
- 30.8 The Bidders to note that that any implication on account of wrong quotation of taxes and duties shall be to Bidder's account. However, the payment towards such taxes and duties shall be restricted to lower of taxes and duties quoted by the bidder or the documentary evidence provided by the bidder.
- 30.9 In line with above clauses, Bidder shall endeavour to submit their substantially responsive bid based on the terms, conditions and specifications contained in the Bidding Document without any stipulations / deviations / clarifications etc., in the first instance itself.

Due to tight Project Schedule, Owner reserves the right to complete the Evaluation based on the content of the Bid itself without seeking any subsequent additional information (provided sufficient techno-commercially acceptable bids are available) and that may result in rejection of Bid.

31.0 DEVIATIONS, RESERVATIONS, AND OMISSIONS

31.1 During the evaluation of bids, the following definitions apply:

- (a) "Deviation" is a departure from the requirements specified in the Bidding Documents;
- (b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Documents; and
- (c) "Omission" is the failure to submit part or all of the information or documentation required in the Bidding Documents.

32.0 TECHNO-COMMERCIAL EXAMINATION OF BIDS

- 32.1 Prior to price opening of bids, EIL/Owner will determine whether each bid is accompanied with required Bid Security, Integrity pact, as applicable;
- 32.1.1 Fulfils the technical, financial, and other requirements as specified in the Bidding Document;
- 32.1.2 Considering any clarifications and/ or requirement pursuant to clause No. 30 of ITB.
- 32.1.3 Any other relevant factor, if any that EIL / OWNER deems necessary or prudent to be taken into consideration.

- 32.2 EIL / OWNER reserve the right to use in-house information for assessment of capability of bidder and their performance on jobs completed/ in progress for evaluation purpose.

33.0 BID EVALUATION CRITERIA

- 33.1 Prior to detailed bid evaluation, the OWNER will determine the substantial responsiveness of each bid with respect to the Bidding Documents. **A substantially responsive bid is one which conforms to the terms, conditions and specification of the Bidding Documents without material deviation. A material deviation is one which affects in any substantial way the scope, quality or performance of the works, or which limits in any substantial way, inconsistent with the Bidding Documents, the OWNER's rights or the Bidder's obligations as envisaged in the Bidding Documents, and the rectification of which deviation or reservation would affect unfairly the competitive position of other bidders presenting substantially responsive bids.** Further examination of only such bids as are determined to be substantially responsive shall be taken up, unless otherwise determined by the OWNER.

33.2 ZERO DEVIATION:

Bidders to note that the tender is issued on Zero deviation basis. Bids are to be submitted on Zero deviation basis and in strict compliance with the terms & conditions, scope, specifications and other stipulations contained in the tender/ enquiry without any deviations.

In view of this Bidder shall ensure submission of complete bid without any deviation as per requirement of Bidding Document in first instance itself failing which the bid shall be considered to be non-responsive and shall render the bid liable for outright rejection.

34.0 COMPLETE SCOPE OF SUPPLIES / WORK

- 34.1 The complete scope of supplies and work/services has been defined in the Bidding Document. Only those bidders who take complete responsibility and who bid for the complete scope of supplies and work/services as contained in the Bidding Document shall be considered for further evaluation.
- 34.2 If a Bidder submits his bid, qualifies and does not get the contract because of his offer not being the lowest, he will be prohibited from working as a subcontractor for the contractor who is executing the contract.
- 34.3 If the CONTRACTOR is required to engage a Sub-Contractor(s) for any part of work, then such Sub-Contractor(s) shall have prior proven experience of similar work and shall require specific approval by OWNER/PMC after award of work.

Following the notification of Acceptance of Bid, the CONTRACTOR will submit to the OWNER for approval the details of Sub-Contractor(s) in line with relevant provisions of CoC.

- 34.4 If a proposed sub-contractor has been approved by the OWNER, the CONTRACTOR shall not replace such approved sub-contractor with another sub-contractor without obtaining the OWNER's prior approval for the proposed replacement.
- 34.5 The Bidder shall along with the bid furnish its Project Execution Plan as per the requirement specified in the Technical section, which shall be evaluated for technical acceptability of the Bids.
- 34.6 As a minimum following activity shall be performed by the CONTRACTOR directly and

shall not be sub-contracted:

- a. Overall Project Management
- b. Planning, Scheduling, Monitoring
- c. Procurement Services including procurement (except for procurement of cement, steel & aggregate)
- d. Quality Assurance including HSE
- e. Construction Management
- f. Commissioning

35.0 OPENING OF PRICE BID

- 35.1 Priced Bid of only those bidders whose bids are determined to be technically and commercially acceptable by EIL / OWNER shall be opened. Bidders selected for opening of their priced bids shall be informed about the date, time and place of price bid opening.

36.0 EVALUATION AND COMPARISON OF PRICES

- 36.1 Refer Bid Data Sheet (BDS) for details

36.2 Situations in which the award can be resorted to L2 Bidder

- 36.2.1 Under insolvency or Bankruptcy Bidders shall submit declaration on proceedings under Insolvency and Bankruptcy Code, 2016. Offer will not be considered of bidder(s) in the following cases:

- (a) If the bidder is undergoing insolvency resolution process or liquidation or bankruptcy proceedings under Insolvency and Bankruptcy Code, 2016 (Code) or any other applicable law (in cases where code is not applicable).
- (b) Insolvency resolution process or liquidation or bankruptcy proceeding is initiated under the Code or any other applicable law (in cases where code is not applicable) against/ by the bidder at any stage of evaluation of the bid.

In case where the bid of the L-1 bidder is rejected on the aforesaid grounds during the period between Price-Bid-Opening and Award of Contract, the bid of the next higher eligible bidder may be considered for further processing subject to matching of L1 bidder's prices.

36.2.2 Treatment of Holiday listed L-1 Bidder

If after opening of price bids, it has come to the notice that the L-1 bidder has already been put on holiday list due to any reason whatsoever at any location within PLL/EIL, the party will not be considered for issue of order, the bid of the next higher eligible bidder may be considered for further processing subject to matching of L1 bidder's prices.

- 36.3 **Suo moto price change:** In case of any suo-moto change in price, following shall apply:

Stage	Price Increase	Price Decrease

After opening of unpriced bid	Not Acceptable. Bid shall be rejected without offering any opportunity to the bidder to withdraw the same. Any other appropriate action, as required, may be taken against such bidder.	Tender evaluation shall be done without considering suo moto decrease. However, Ordering shall be done considering suo moto decrease in case bidder is successful bidder.

37.0 OWNER'S RIGHT TO ACCEPT/ REJECT

The OWNER also reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time prior to award of Contract without incurring any liability to the affected bidder(s) or any obligation to inform the affected bidder(s) of the ground of OWNER's action.

38.0 AWARD CRITERIA AND NOTIFICATION OF AWARD

- 38.1 Subject to Clause 37.0 of ITB, the OWNER shall award Contract to the Bidder whose bid has been determined to be the lowest evaluated bid in line with clause 36.0 of ITB. However, if in the opinion of OWNER/Consultant, the total price or price of certain item quoted by the recommended bidder are considered high, OWNER/Consultant may invite such bidder for price negotiation. Recommended bidder shall attend such negotiation meetings and if requested by OWNER/Consultant shall provide the analysis of prices/break-up of amount quoted by him for any or all items of Contract Price Schedule to demonstrate the reasonability. As a result of negotiation, bidder may offer rebate on his earlier quoted Price.
- 38.2 Prior to the expiration of the period of bid validity, the OWNER shall notify the successful bidder, in writing, that its bid has been accepted. The notification letter (hereinafter and in the Conditions of Contract (CoC) called the "**Letter of Acceptance (LOA)**") shall specify the sum that the OWNER will pay the Contractor in consideration of the execution and completion of the Works.
- 38.3 A Letter of Acceptance is an acceptance of offer by the Owner and it need not be accepted by the contractor. But the contractor should acknowledge a receipt of the Purchase Order /Letter of Acceptance within 15 days of mailing of Purchase Order/ Letter of Acceptance and any delay in acknowledging the receipt will be a breach of contract and compensation for the loss caused by such breach will be recovered by the Owner by forfeiting earnest money deposit.
- 38.4 **In case of Consortium a Order shall be placed in the name of Consortium** clearly specifying the names of all constituents and also mentioning that the Consortium is led by which constituent (i.e. Prime member/ Leader).
- 38.5 In the event of award of Contract to the Consortium, the Contract shall be signed by each constituent of the Consortium as binding upon them. Alternatively, the Prime Member/Leader of the Consortium may sign the Contract subject to submission of a Power of Attorney (duly notarized) from each constituent authorizing the Prime Member/Leader of the Consortium to sign the Contract on behalf of the individual member of the Consortium. Irrespective of whether the Contract is signed by all the constituents of the Consortium or by the Prime Member/Leader of the Consortium, all the constituents of the Consortium shall be jointly and severally responsible for faithful execution of the Contract considering the whole Contract as single Works Contract Service.

39.0 CONTRACT PERFORMANCE BANK GUARANTEE

- 39.1 Contract Performance Bank Guarantee is to be submitted by successful bidder within 30 days after issuance of Letter of Acceptance (notification of Award) and in event of delay in submission of CPBG / SD, the provisions as specified in Conditions of Contract (CoC) shall apply.
- 39.2 Failure of the successful bidder to submit the above-mentioned Contract Performance Bank Guarantee or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security.

40.0 SIGNING OF CONTRACT

- 40.1 The Contract Document may be digitally signed and the procedure for e-signing will be intimated later on. For e-signing purpose, the digital signature shall be of class 2 or 3.
- 40.2 The CONTRACTOR shall execute a formal Contract with the OWNER in the Form of Contract forming part of the Bidding Document on non-judicial stamp paper of appropriate value (as applicable as per Stamp Duty Act of the State in which the contract is finalized), only after receipt of CPBG. Stamp paper shall be purchased by Contractor in the name of the Owner (1st party) and Contractor (2nd party). The cost of non-judicial stamp paper shall be borne by the CONTRACTOR.
- 40.3 Contract document shall be executed (signed and sealed) between Owner and the Contractor as soon as possible after issuance of LOA and shall generally be signed after receipt of CBPG and its confirmation from the bank. Accordingly, before signing the contract, it shall be ensured that CBPG and its confirmation from the bank is in place.
- 40.4 CPBG shall be submitted by the Contractor directly to the Owner after issuance of LOA.

41.0 CONFIDENTIALITY AND COMMUNICATION PROTOCOL

- 41.1 Bidders shall treat the Bidding Documents and contents therein as strictly confidential.
- 41.2 A bidder may seek clarification regarding the bidding document provisions, bidding process and / or rejection of his bid. Owner/EIL shall respond to such requests within a reasonable time. However, such information relating to the evaluation of bids and recommendation of contract award shall not be disclosed to any other persons not officially concerned with the bidding process.
- 41.3 Any attempt by a bidder to influence CONSULTANT / Owner in the evaluation of the bids or Contract award decisions shall render their Bid liable for rejection.
- 41.4 Notwithstanding Clause 41.3 of ITB, from the time of bid opening to the time of Contract award, if a bidder wishes to contact Owner/EIL on any matter related to the bidding process, it shall be done so in writing only.
- 41.5 Bidder shall strictly follow the communication protocol as prescribed in IFB/NIT/Enquiry. In case the queries/ representation is not addressed to the persons specified in the communication protocol stipulated in the IFB/NIT/Bidding document, EIL/Owner may not give any cognizance to the same and EIL/Owner shall not be liable to reply them.
- 41.6 Only a bidder who has participated in the concerned procurement process i.e. prequalification or bidding, as the case may be, can make such representation in respect of

the procurement process in which they have participated concerning their bid only.

In case pre-qualification bid has been evaluated before the bidding of Technical/ financial bids, an application for review in relation to the technical/ financial bid may be filled only by a bidder who has qualified in pre-qualification bid.

In case Priced bids are opened subsequent to qualification/ acceptance of bidders post evaluation of unpriced bids, an application for review in relation to the price bid may be filed only by a bidder whose unpriced bid is found to be acceptable.

Any representation pertaining to Award stage by a bidder whose price bid is opened and is directly affected by such award shall have to submit such representation within 10 days of the issue of LOA.

42.0 INFORMATION TO BE FURNISHED BY FOREIGN CONTRACTORS

42.1 It is mandatory for the Foreign CONTRACTOR to furnish the following information in case his receipts are subject to tax deduction at source in India:

- i) PAN No. as per the Indian Income Tax requirements failing which the CONTRACTOR shall be responsible for any additional tax deduction at source as per the provisions of the Indian Income Tax Act/Rules and the same shall be deducted from the payment made to CONTRACTOR.
- ii) Tax Residency Certificate (TRC) containing prescribed particulars as per the enclosed **Appendix-V** to ITB from the Government of foreign country in order to claim the benefits of DTAA as per the Indian Income Tax requirements failing which the relief under DTAA will not be available and consequently the higher prevailing applicable rate of withholding tax will be deducted from the payment made to CONTRACTOR (i.e., non-resident taxpayer). The TRC shall be duly verified by the Government of the country of which the assessee claims to be a resident for the purposes of tax.
- iii) In addition to TRC, bidder in order to claim the benefits of DTAA shall also submit additional information in **Form no. 10F** (enclosed as Appendix-V to ITB). Form 10F has to be signed & verified by the assessee himself.

If some information is already contained in TRC, the bidder shall not be required to provide that information in Form no. 10F but even then Form no. 10F is required to be provided by the bidder. However, the bidder may write Not Applicable in the relevant column in case that information is already contained in TRC.

The above shall be furnished before release of any payment or within one month of the release of Order, whichever is earlier failing submission of the above information, any additional tax liability on OWNER, will be deducted from the payment due to the bidder.

43.0 CORRUPT & FRAUDULENT PRACTICES

43.1 The Owner requires that Bidder/ Contractor observe the highest standard of ethics during the award/execution of Contract. "Fraudulent Practice" means a misrepresentation of facts in order to influence the award of a Contract to the detriment of the Owner, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the owner of the benefits of free and open competition.



INSTRUCTIONS TO BIDDER (ITB)



Rev	0	Page	34	of	35

- 43.2 The Owner will reject a proposal for award if it determines that the bidder recommended for award has engaged in fraudulent practices in competing for the Contract in question.
- 43.3 Bidder is required to furnish the complete and correct information/ documents required for evaluation of their bids. If the information/ documents forming basis of evaluation is found to be false/ forged, the same shall be considered adequate ground for rejection of bids and forfeiture of Bid Security.
- 43.4 In case, the information/ document furnished by the Bidder/ Contractor forming basis of evaluation of his bid is found to be false/ forged after the award of the contract, Owner shall have full right to terminate the contract and get the remaining job executed at the risk & cost of such Contractor without any prejudice to other rights available to Owner under the contract such as forfeiture of CPBG, withholding of payment etc.
- 43.5 In case, this issue of submission of false documents comes to the notice after execution of supply/work, Owner shall have full right to forfeit any amount due to the Bidder/ Vendor/ Supplier along with forfeiture of CPBG furnished by the bidder/vendor/ Supplier.
- 43.6 Further, such bidder/Contractor shall be put on Blacklist/ Holiday/ Negative Suspension/Banning List of Owner debarring them from future business with EIL/Owner for a time period, as per the prevailing policy in Owner.
- 43.7 EIL, being the Consultant for the Owner in this Project reserves the right to take action against the defaulting Bidder/contractor in this tender/PO/ Contract including putting the Bidder/supplier/contractor on the Suspension/ Banning list of EIL. For this purpose, EIL may decide the same considering the communications carried out by the client with the Bidder/contractor (including show cause notice/ personal hearing, etc).
- 43.8 In case any bidder is found to be involved in cartel formation/ bid-rigging /collusive bidding, his bid will not be considered for evaluation/ placement of order. Such bidder will also be debarred from bidding in future.
- 43.9 Procedure for action in case Corrupt/ Fraudulent/Collusive/Coercive Practices is enclosed with Conditions of Contract.

44.0 PROJECT SPECIFIC ACCOUNT

For the benefit of the Project, it is desired that the CONTRACTOR shall maintain Project Specific Bank Accounts, with a bank approved by the OWNER to ensure that finances released by the OWNER, line of credit received from the lenders to meet working capital requirements and all revenues & other receipts arising from the CONTRACT and under any agreements are deposited into such Account(s). Withdrawals and appropriations during the Contract Period, at any relevant time, from such Account(s) shall be made only for the purpose of Project/Project Facilities and Services.

45.0 DELETED

46.0 COMPLIANCE OF PLL INSIDER'S TRADING

- 46.1 By virtue of association / engagement with Petronet LNG Limited (PLL), it is likely that certain Unpublished Price Sensitive Information (UPSI) as defined under "Code for Prevention of Insider Trading in the Securities of PLL" (hereinafter called Code), copy of which is hosted on the website of the company www.petronetlng.in, that is not generally available and which upon becoming generally available is likely to materially affect the



INSTRUCTIONS TO BIDDER (ITB)



Rev	0	Page	35	of	35

price of the securities issued by PLL, might be shared with you / your organization. It is hereby cautioned that you or any of your team members or immediate relatives thereof or your organization, should not trade in the securities of PLL while in possession of such UPSI or communicate such UPSI to any person except in furtherance of legitimate purposes (as defined in the Code), performance of duty or discharge of legal obligations. Any trades in securities of PLL, directly or indirectly, while in possession of any UPSI would be presumed to have been motivated by the knowledge and awareness of the UPSI and the onus to prove that trades were executed otherwise would be on you or any of your team members or your organization as the case may be. It is therefore advised that all concerned as stated above must familiarize himself/themselves with the "Code for Prevention of Insider Trading in the Securities of PLL", copy of which is hosted on the website of the company.

Accordingly, it must be ensured that any UPSI, whenever received from the company:

- (a) shall be used solely for the purpose for which it is being disclosed;
- (b) shall be preserved and the secrecy of such information shall be maintained;
- (c) shall not be disclosed to any third party;
- (d) shall be kept securely and properly protected against theft, damage, loss and unauthorized access (including access by electronic means) by deploying means similar to those being used to secure its own confidential information;
- (e) to notify PLL immediately upon becoming aware that any of the confidential information has been disclosed to or obtained by a third party.

It may be noted that any violation in dealing with UPSI shall be considered as breach of terms of engagement / Contract and PLL shall take necessary action for such breach in addition to reporting to SEBI for taking necessary action under SEBI (Prohibition of Insider Trading) Regulations, 2015 or subsequent amendments thereof. Further, SEBI may take any action including levy of penalty etc. as per SEBI Regulations in this regard in case of any violation in dealing with UPSI at your end.

APPENDIX –I TO ITB

COMMERCIAL QUESTIONNAIRE

COMMERCIAL QUESTIONNAIRE

NAME OF WORK : _____

BIDDING DOCUMENT : _____

SL. No.	EIL's QUERY	BIDDER's REPLY/ CONFIRMATION
1)	Please confirm that Master Index Document along with Amendment, if any, duly signed and stamped on each page has been submitted along with the Bid.	
2)	Confirm that all pages of the Bid have been numbered in sequential manner.	
3)	Confirm that Bid has been submitted in as per Instructions to Bidders.	
4)	Confirm that you have studied complete Bidding Document including Technical and Commercial Part and your Bid is in accordance with the requirements of the Bidding Document.	
5)	Contract Price Schedule	
a.	i) Price uploaded in the e-tender portal as per instruction given in ITB.	
	ii) In case Contract Price Schedule format has been revised through amendment(s), Bidder confirms that Bidder has submitted / uploaded Price in latest revision of Contract Price Schedule.	
	iii) Confirm that the format is not altered by the bidder, except filling the prices, Currency and information sought.	
b.	Confirm that price has been quoted for all items of Contract Price Schedule.	

SL. No.	EIL's QUERY	BIDDER's REPLY/ CONFIRMATION
c.	Confirm currency (ies) of bid as indicated in Contract Price Schedule.	
d.	Confirm that the price part does not include any stipulation, deviation, terms & conditions, presumption, basis etc. In case any stipulation, deviation, terms & conditions, presumption, basis etc. is mentioned in the price part, the same shall be treated as null and void.	
e.	~~In case of Consortium bid price break up details of each member has been provided in Price bid.~~	
f.	Confirm that your quoted price includes following taxes/duties, insurance etc: - i) Taxes/levies as per provisions of Bidding Document. ii) Insurance as per provision of Bidding Document.	
6)	Confirm your compliance to total scope of work mentioned in the Bidding Document.	
7)	Confirm your acceptance for 'SCOPE OF SUPPLY' mentioned in the Bidding Document. Please note that scope of supply mentioned in the Bidding Document is not limitative and except for the material (if any) specifically identified as that to be issued by OWNER, CONTRACTOR's scope shall include supply of all materials required for completion of Work irrespective of whether such materials are mentioned in the Bidding Document or not.	
8)	Confirm your acceptance for Contract Schedule as mentioned in EXHIBIT-C to Conditions of Contract (CoC).	

SL. No.	EIL's QUERY	BIDDER's REPLY/ CONFIRMATION
9)	Confirm that your bid does not include any stipulation, deviation, terms & conditions, presumption, basis etc and is submitted on ZERO DEVIATION BASIS as per clause no. 33.2 of Instruction to Bidders (ITB).	
10)	Confirm that your Bid is substantially responsive to the requirements of the Bidding Document, and you have not stipulated any material deviation and submitted all details as specified in the Bidding Document.	
11)	Confirm that while proposing the list of construction equipments (as applicable), you have considered the following equipments: - Cranes of adequate capacity - Induction Pipe Bending Machine - DG Sets - Compressors - Spray Painting Machines - Test pumps - Adequate nos. of Welding Machines - All relevant civil construction eqpts. - All Electrical eqpts. - All Instrumentation eqpts. - Batching plant - Any other equipment required for execution of work. - Any other equipment specified in the Bidding Document.	
12)	Confirm that you have proposed	

SL. No.	EIL's QUERY	BIDDER's REPLY/ CONFIRMATION
	adequate project/site organisation with supervisory personnel having qualification and experience as per EXHIBIT-E of Conditions of Contract (CoC).	
13)	Confirm that all costs resulting from safe execution of Work, such as safety induction, use of protective clothing, safety glasses and helmet, safety precaution taken during monsoon, or any other safety measures to be undertaken by the CONTRACTOR for execution of Work are included in the Lumpsum Price.	
14)	Please confirm that all safety rules & regulations as mentioned in Bidding Document or notified at later date by OWNER during execution shall be adhered by CONTRACTOR within Lumpsum Price.	
15)	Confirm that the following safety precautions shall be followed by CONTRACTOR as mandatory: - Use of safety goggles while grinding - Use of helmet/ safety shoes - Crane movement area to be barricaded - Cylinders of flammable gases to be stacked upright - Earthing of equipment to be made proper - Toe boards to be provided in scaffolding platforms - Excavations to be properly shored/ slopped - Safety net for construction. - Any other safety precautions	

SL. No.	EIL's QUERY	BIDDER's REPLY/ CONFIRMATION
	required for execution of work. - Any other safety precautions specified in the Bidding Document.	
16)	Confirm the following: - "The planning schedule, S-curves, manpower estimates, construction equipment deployment schedule etc; submitted by the bidder with his bid, are indicative and shall not be basis for extra compensation in case actual needs are higher. Detailed planning schedule developed by CONTRACTOR after Contract award may be subject to fluctuations depending upon actual progress of the project and available Work front. Co-ordination and making available by CONTRACTOR of all staff, manpower, construction equipment, tools, cranes, etc. and materials as required for a timely completion of all Work as per OWNER's construction and priority schedule and in accordance with the available Work front are to be included in the pricing". Notwithstanding the above provision, the bidder shall submit these details in accordance with the volume of work, which may be reviewed and commented by OWNER/PMC during pre-award stage/ post award stage.	
17)	Please furnish the bio data of key personnel including nominated Project Director, Project Manager, Engineering Manager, Engineering Co-ordinator, Purchase Manager, QA/QC Manager, Commissioning Manager, Commissioning Engineer, etc. These will be reviewed and approved by Engineer-in-charge.	

SL. No.	EIL's QUERY	BIDDER's REPLY/ CONFIRMATION
18)	Please confirm that your Lumpsum Price includes cost towards third party inspection, if any.	
19)	Please note that the scope of this Bidding Document is on Lumpsum Turnkey (LSTK) basis, as detailed in the Bidding Document. The scope of work mentioned under various sections shall not be considered as limitative and CONTRACTOR's scope shall include completion of any activities of work not mentioned in the bid package but required to complete the Work in all respects and making it functional.	
20)	Please confirm that the CONTRACTOR shall supply all chemicals, consumables, first fill of catalyst, adsorbents, absorbents required for pre-commissioning/ Commissioning/PGTR as per provision of Bidding Document.	
21)	The safety measures as mentioned in Bidding Document shall not be considered as limitative. The CONTRACTOR will be required to develop their stringent safety measures and submit the same to Engineer-in-charge with the provision of a dedicated safety group closely monitoring the construction activities in all working shifts.	
22)	Please confirm that your sub contractor for construction shall be meeting the requirements as specified in the Bidding Document / CoC. Also, that the agency for executing Electrical work shall have a valid licence for carrying out the Work in the state of Gujarat.	
23)	Confirm that your bid is valid for 6 Months from the last date / final date of submission of bid.	

SL. No.	EIL's QUERY	BIDDER's REPLY/ CONFIRMATION
24)	Bidder to confirm whether they require the interest-bearing Mobilisation Advance as per Article 14.2 of Conditions of Contract (CoC). Note: In case the bidder does not indicate the requirement of Mobilisation Advance by explicitly stating "YES" in the above box, it shall be presumed that the bidder does not require the Mobilisation Advance and their offer shall be evaluated accordingly.	☐ Yes ☐ No
25)	Confirm that you have uploaded the Bid on e-tender portal as per the instructions given in ITB.	
26)	i) Confirm that the Power of Attorney holder is the e-bid signatory having valid digital signature certificate	
	ii) Indicate the name(s) of POA holder(s)	
	iii) Confirm that the validity of POA is at least till the validity of Bid.	
	iv) Please confirm whether the POA signatory is authorized through Board Resolution (in case of Company). If so, please ensure submission of copy of Board Resolution.	

(STAMP AND SIGNATURE OF BIDDER)

APPENDIX -II TO ITB

CONTENTS OF BID

AND

CHECK LIST

(COMMERCIAL)

CONTENTS OF BID AND CHECK LIST

NAME OF WORK : _____

BIDDING DOCUMENT : _____

Bidder is requested to fill this check list and ensure that all details/documents have been furnished under relevant sections as called for in the Bidding Document along with duly filled in, signed & stamped.

This checklist is for guidance purpose. It shall be bidder's responsibility to submit all complete documents as per the requirements of Bidding Document.

Please tick the box and ensure compliance:

PART-I: TECHNO-COMMERCIAL/UNPRICED BID			
(A) UNDER SECTION-I			
(A.1)	Earnest Money Deposit (EMD) / Bid Security	☐	Submitted
	Bidder to also ensure the original hard copy submission (in case of Bank Guarantee/ Insurance Surety Bond) as per cut-off date/time indicated elsewhere in the bidding document (hard copy is not required in case of EMD through PLL Online EMD Tender Fee Collection Portal, however bidder to ensure submission of transaction details along with their e-bid.).	☐	Submitted
(B) UNDER SECTION-II			
(B.1)	Letter of submission & Synopsis of the Proposal.	☐	Submitted
(B.2)	Check-List dully filled in (Appendix-II to ITB)	☐	Submitted
(B.3)	Power of Attorney (PoA) in favour of the person(s) who has signed the bid.	☐	Submitted
	In case of company, also ensure submission of Board Resolution in favour of executant of PoA.	☐	Submitted
	~~In case of Consortium, Power of Attorney~~ a. ~~Given Jointly by all the members to~~	☐	Submitted

	Lead Member		
	b. ~~By each member in the name of signatory signing the Consortium Agreement.~~	☐	Submitted
(B.4)	Integrity Pact duly signed and stamped on each page (Appendix-III to ITB). ~~In case of Consortium each member of Consortium shall separately submit duly signed and stamped (on each page) Integrity Pact Agreement.~~	☐	Submitted
(B.5)	DELETED.		
(B.6)	Evidence of valid registration with Competent authority required Under ITB clause no. 2.5 regarding "Procurement from a Bidder from a Country sharing Land Border with India" as per Appendix – VIII to ITB , if applicable.	☐	Submitted
(B.7)	Undertaking (as per Form-I A/ Form-I B / Form-II (as applicable) of Appendix –VIII to ITB) required under ITB clause no. 2.5, regarding "Procurement from a Bidder from a Country sharing Land Border with India as per Appendix – VIII to ITB ."	☐	Submitted
(C) UNDER SECTION-III			
(C.1)	Scanned copy of authenticated/certified documents required for meeting the BQC requirements as per Invitation for Bid (IFB).	☐	Submitted
(C.2)	~~Memorandum of Understanding between the Consortium members (if applicable) mentioning their area of responsibility/scope division and percentage share in Lumpsum Price in executing this contract on LSTK Basis.~~	☐	Submitted
(C.3)	Details of Past Experience of Bidder / Engineering Sub-Contractor/ Consortium Member, as applicable, as per Annexure enclosed with IFB/NIT (i.e. ERP format against Technical BQC).	☐	Submitted
(C.4)	Form- N(i): Similar Experience during Last 15 Years	☐	Submitted
(C.5)	Form-N(ii): Experience Details	☐	Submitted
(D) UNDER SECTION-IV			
(D.1)	Complete audited balance sheets and profit and loss account along with Auditor's Report	☐	Submitted

	including all Schedules for the immediate three preceding financial years		
(D.2)	Declaration from Bank for Availability of Un-utilized Line of Credit (If applicable) as per Annexure-I to IFB	☐	Submitted
(D.3)	Financial Details of the bidder duly certified by Statutory Auditor / Chartered Accountant as per Annexure-II A/B/C (as applicable) to IFB.	☐	Submitted
(E) UNDER SECTION-V			
(E.1)	One copy of the Table of Contents (also referred to as Master Index) of the Bidding Document duly signed and stamped on each page	☐	Submitted
(E.2)	Commercial Questionnaire duly filled (Appendix-I to ITB)	☐	Submitted
(E.3)	Unpriced copy of Schedule of Prices duly stamped & signed on each page mentioning Quoted/Not Quoted (as applicable) and indicating currency(ies) of quote	☐	Submitted
(E.4)	~~In case of consortium bids, certificate from any one out of CEO or CFO or Company Secretary or any Functional Director in Board of Members of the Bidder of the Leader of consortium, certifying the stake of each consortium member and the prices are quoted in the price bid proportionate to their respective percentage of stake.~~	☐	Submitted
(F) UNDER SECTION-VI			
(F.1)	FORM-A: Form of Bid as per Proposal	☐	Submitted
(F.2)	FORM-B: Information about the Bidder & following enclosures (Annexure to be submitted separately for each member of consortium, in case of bids on consortium basis) :	☐	Submitted
	a) Contractor's Organization Chart from the upper hierarchy level to Managers level. Indicate Group or Division who will be responsible for execution of the EPC work and its management team. b) History & structure of the organisations	☐	Submitted

	with names of directors & chief executives.	☐	Submitted
	c) Copy of Article of Association & Memorandum of Association (MOA) of the Company or Board Resolution mentioning Chairman/ Chief Executive Officer / Managing Director of the Company.	☐	Submitted
	Note: To be submitted for each member of consortium, in case of bids on consortium basis.		
(F.3)	FORM-C: Declaration duly signed & stamped by the bidder	☐	Submitted
(F.4)	FORM-E: Compliance of Bid Requirement	☐	Submitted
(F.5)	FORM-G: Undertaking for non-engagement of child labour	☐	Submitted
(F.6)	FORM-I: Declaration with regard to non-involvement of Indian Agents.	☐	Submitted
(F.7)	FORM-P: Self-Declaration	☐	Submitted
(F.8)	FORM-Q: Declaration of Black Listing /Holiday Listing	☐	Submitted
(F.9)	Undertaking as per Annexure-III to IFB	☐	Submitted
(G) UNDER SECTION-VII			
(G.1)	FORM-J: Methodology of Execution as per Proposal	☐	Submitted
(G.2)	FORM-K: Details of proposed Organization for Home and Site Office	☐	Submitted
(G.3)	FORM-L: Deployment Schedule of construction equipment, tools & tackles proposed for execution of work	☐	Submitted
(G.4)	FORM-M: Deployment Schedule of Supervisory personnel	☐	Submitted
(G.5)	Project Schedule in the form of Bar Chart	☐	Submitted
(G.6)	Quality Assurance: A brief description of the bidder's QA system and a statement detailing how QA will be implemented for	☐	Submitted

	the Project.	
(H) UNDER SECTION-VIII		
(H.1)	Technical Details/ documents specified under “Technical Information Required along with Bid”	☐ Submitted
(H.2)	Reply to Technical Questionnaire in Technical Sections of the bidding document	☐ Submitted
(I) UNDER SECTION-IX		
(I.1)	Any other information required in the Bidding Documents or considered relevant by the Bidder	☐ Submitted
PART-II (PRICE BID)		
(K.1)	Price bid uploaded by the bidder on designated e- tendering folder in the e- tendering website as per ITB	☐ Submitted

(STAMP & SIGNATURE OF BIDDER)

APPENDIX-III TO ITB

INTEGRITY PACT

Integrity Pact

Between

Petronet LNG Limited hereinafter referred to as "The Principal",

And

.....hereinafter referred to as "Counterparty"

Preamble

The Principal intends to award, under laid down organizational procedures, Contract/s for

The Principal values full compliance with all relevant laws and regulations, and of fairness and transparency in its relations with its all counterparties.

In order to achieve these goals, The Principal has appointed an external independent monitor (*Refer Bid Data Sheet (BDS) for details of independent monitor*) who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section I - Commitments of the Principal

1. The Principal commits itself to take all measures necessary to observe the following principles:-
 - a) The Principal is committed to have most ethical business dealings with Counterparties.
 - b) The Principal values its relationship with all Counterparties and will deal with them in a transparent manner with equity and fairness.
 - c) The Principal and/or its Associates (Officers, Directors, Agents, Consultants, Advisors, etc.) will not seek or take any undue benefit directly or indirectly for themselves or for third parties.
 - d) The Principal will exclude all of Associates who may be prejudiced or have a Conflict of interest in dealings with Counterparties.
 - e) The Principal will honour its commitments and make due payments to Counterparties on timely basis.
 - f) The Principal will initiate action and pursue it vigorously whenever corruption or unethical behaviour occurs.
2. No Associate of the Principal, personally or through family members, will in connection with the tender for , or the execution of a contract, demand, take a promise for or accept, for



him/herself or third person, any material or immaterial benefit which he/she is not legally entitled to.

3. The Principal will, during the tender process treat all Counterparties with equity and fairness. The Principal will in particular, before and during the tender process, provide to all Counterparties the same information and will not provide to any Counterparty confidential/ additional information through which the Counterparty could obtain an advantage in relation to the tender process or the contract execution.
4. If the Principal obtains information on the conduct of any of its Associates, which is a breach of the above or a criminal offence under the relevant Anti-Corruption Laws of India, or if there be a substantive suspicion in this regard, the Principal will inform the Independent Monitor and in addition can initiate disciplinary actions.

Section II - Commitments of the Counterparties

The Counterparty commits itself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

1. The Counterparty will not, directly or through any other person or firm, offer, promise or give to any of the Principal's Associate employees involved in the tender process or the execution of the contract or to any third person any material or immaterial benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
2. The Counterparty will not enter with other Counterparty into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
3. The Counterparty will not commit any offence under the relevant Anti-corruption Laws of India the Counterparty will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically unless authorized by Petronet.
4. The Counterparty will not instigate third persons to commit offences outlined above or be an accessory to such offences.
5. The Counterparty will not bring any Political, governmental or diplomatic influence to gain undue advantage in its dealings with Petronet.
6. The Counterparty will not make any false or misleading allegation against Petronet or its Associates.

Section III- Disqualification from tender process and exclusion from future contracts

1. If the Counterparty has committed a transgression through a violation of Section II such as



to put his reliability or credibility into question, the Principal is entitled also to exclude the Counterparty from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressors within the company hierarchy of the Counterparty and the amount of the damage. The exclusion will be imposed for a minimum of 6 months and maximum of 3 years.

2. The Counterparty accepts and undertakes to respect and uphold the Principal's absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.
3. If the Counterparty can prove that he has restored/recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal may revoke the exclusion prematurely.

Section IV - Compensation for Damages

1. If the Principal has disqualified the Counterparty from the tender process prior to the award according to Section - III the Principal is entitled to demand and recover from the Counterparty liquidated damages equivalent Earnest Money Deposit / Bid Security.
2. If the Principal has terminated the contract according to Section- III, or if the Principal is entitled to terminate the contract according to Section - III (3), the Principal shall be entitled to demand and recover from the counterparty Contractor liquidated damages equivalent to Security Deposit / Performance Bank Guarantee.

Section V - Previous transgression

1. The Counterparty declares that no previous transgressions occurred in the last 3 years with any other Company that could justify his exclusion from the tender process.
2. If the Counterparty makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section VI – Equal treatment of all Counterparty / Subcontractors

1. The Counterparty undertakes to demand from all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.
2. The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section VII - Criminal charges against violating Counterparty/ Subcontractors

If the Principal obtains knowledge of conduct of a Counterparty or Subcontractor, or of an employee or a representative or an associate of a Counterparty or Subcontractor which



constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Independent Monitor who may initiate criminal proceedings against the violator.

Section VIII -Independent Monitor

1. The Principal will appoint competent and credible Independent Monitor for this Pact, who shall be one of the Independent Director on the Board of the Principal. The task of the Independent Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
2. The Independent Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairperson of the Board of the Principal.
3. The Counterparty will accept that the Independent Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Counterparty. The Counterparty will also grant the Monitor, upon his request and demonstration of a valid interest, access to his project documentation.
4. The Principal will provide to the Independent Monitor sufficient information when requested about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
5. As soon as the Independent Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or heal the violation, or to take other relevant action.
6. The word 'Independent Monitor' would include both singular and plural.

Section IX - Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the respective contract, and for all other Counterparties 6 months after the contract has been awarded.

If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged / determined by Chairperson of the Principal.

Section X - Other Provisions

1. This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Petronet LNG Ltd, World Trade Centre, First Floor, Babar Road, Barakhamba Lane, New Delhi.
2. Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.

3. If the Counterparty is a partnership or a consortium; this agreement must be signed by all partners or consortium members.
4. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.



For the Principal

For the Counterparty

Place

Witness 1:

Date

Witness 2:

E-TENDERING METHODOLOGY

Instructions for Online Bid Submission:

The bidders are required to submit soft copies of their bids electronically on the CPP Portal (URL: <https://eprocure.gov.in>) only, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More detailed information useful for submitting online bids on the CPP Portal may be obtained at:

<https://eprocure.gov.in/eprocure/app> .

REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link “Click **here to Enroll**” on the CPP Portal is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process and submit in EIL tender portal for updation of records (<http://tenders.eil.co.in>) . These details would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (DSC) (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.
- 5) Foreign Bidders have to refer “DSC details for foreign Bidders” for Digital signature Certificates requirements which comes under Download Tab at <http://eprocure.gov.in/eprocure/app> and the remaining part is same as above and below.
- 6) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- 7) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, organization name, location, date, value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, the same can be moved to the respective ‘My Tenders’ folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.

- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3) To avoid Network congestion, Bidder is recommended to upload file size of up to Maximum 35 MB per part. However, in case file size exceeds 35 MB, bidder may compress the files by scanning with 75 dpi setting as per s.no 4 below and can use additional 25 MB space ("My Documents") provided to the bidder as per s.no 5 below.
- 4) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document and generally, they can be in PDF / XLS / RAR / DWF formats. **Bid documents may be scanned with 75 dpi with black and white option. However, Price Schedule / SOR shall be strictly in RAR format without altering any contents of the formats uploaded by EIL in their Bidding Document.**
- 5) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Documents" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

SUBMISSION OF BIDS

- 1) Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as "offline" to pay the tender fee / EMD as applicable and enter details of the instrument.
- 4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the Tender Processing Section, within due date and time of bid submission. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- 5) A Price Bid format has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the Price Bid file, open it and complete the cells with their respective financial quotes and other

details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the Price Bid file is found to be modified by the bidder, the bid will be rejected.

- 6) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 7) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done.
- 8) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 9) Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 10) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

RETENDER

Please note that if Tender has been retendered, than it is mandatory for the bidder to submit their offer again on CPP Portal.

WITHDRAWAL OF BID

It may please be noted that bidders now have an additional feature of withdrawing their bids before due date and time. After submitting the bid on the CPP Portal, if the bidder wishes to withdraw his bid, he can do so. However, if the bidder withdraws his bid, he will be exempted from further participation in the tender and won't be able to submit his bid again for that particular tender.

ASSISTANCE TO BIDDERS

- 1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- 2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24 x 7 CPP Portal Helpdesk. The contact number for the helpdesk is 1800-3070-2232 and Mobile Nos +91-7878007972, +91-7878007973.

APPENDIX-V TO ITB

TRC &10F

[TRC CERTIFICATE]

TRC obtained by the Non-resident from Government of foreign country shall contain the following particulars:

- i) Name of the assessee;
- ii) Status (individual, company, firm etc.) of the assessee;
- iii) Nationality (in case of individual);
- iv) Country or specified territory of incorporation or registration (in case of others);
- v) Assessee's tax identification number in the country or specified territory of residence or in case no such number, then, a unique number on the basis of which the person is identified by the Government of the country or the specified territory;
- vi) Residential status for the purposes of tax;
- vii) Period for which the certificate is applicable; and
- viii) Address of the applicant for the period for which the certificate is applicable;

FORM-10F**ON THE LETTER HEAD****[See sub-rule (1) of rule 21AB]****Information to be provided under sub-section (5) of section 90 or sub-section (5) of section 90A of the Income-tax Act, 1961**

I, ... *son/daughter of Shri..... in the capacity of(designation) do provide the following information, relevant to the previous year..... *in my case/in the case of..... for the purposes of sub-section (5) of * section 90/section 90A:—

SI No	Nature of Information	:	Details #
(i)	Status (individual; company, firm etc.) of the assessee	:	
(ii)	Permanent Account Number (PAN) of the assessee if allotted	:	
(iii)	Nationality (in the case of an individual) or Country or specified territory of incorporation or registration (in the case of others)	:	
(iv)	Assessee's tax identification number in the country or specified territory of residence and if there is no such number, then, a unique number on the basis of which the person is identified by the Government of the country or the specified territory of which the assessee claims to be a resident	:	
(v)	Period for which the residential status as mentioned in the certificate referred to in sub-section (4) of section 90 or sub-section (4) of section 90A is applicable	:	
(vi)	Address of the assessee in the country or territory outside India during the period for which the certificate, mentioned in (v) above, is applicable	:	

2. I have obtained a certificate to in sub-section (4) of section 90 of sub-section (4) of section 90A from the Government of (name of country or specified territory outside India)

Signature:

Name:

Address:

Permanent Account Number:

Verification

I, ... do hereby declare that to the best of my knowledge and belief what is stated above is correct complete and is truly stated.

Verified today the day of.....

Signature of the person providing the information

Place:

Notes:

a. * Delete whichever is not applicable

b. # Write N.A. if the relevant information forms part of the certificate referred to in sub-section (4) of section 90 or sub-section (4) of section 90A.

APPENDIX-VI TO ITB

POWER OF ATTORNEY OF BIDDER

APPENDIX – VI TO ITB

Sample Format for Power of Attorney (POA) of Bidder
(To be submitted in in non-judicial Stamp Paper of appropriate value or as per laws of Bidder's Country)

Name of the Work:

Bidding Document No.:

Name of the Bidder:

Know all men by these presents, We _____
(name and address of the registered office) do hereby constitute, appoint & authorize Mr./Ms. _____ (name and residential address) who is presently employed with us and holding the position of _____ as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our Bid, including signing and submission of all documents and providing information/responses to Owner, representing us in all matters before Owner and generally dealing with Owner and their Consultants in all matters in connection with our Bid including negotiation of Terms and conditions, Price negotiation, signing of Agreements, as applicable, for the subject work.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall be deemed to have been directly done by us.

We further certify that vide documents reference _____ dated _____, we have the power to sub-delegate and issue this POA as per Company Charter

For & on behalf of
<Name of Bidder>

Signature of person in whose favour POA is issued

Name:

Designation:

Date:

Signature attested and Accepted

(Signature)

(Name, Title and Address) of the Attorney

Designation:

Date & Seal

Note

Wherever required, the executant(s) should submit for verification the extract of the charter documents and/or documents such as board of resolution passed for this purpose (in case of company) in favour of the Person executing this Power of Attorney for the delegation of power hereunder on behalf of the executant(s).

Indian Bidder to submit Power of Attorney (POA) on non-judicial stamp paper of minimum value of INR 100/- and duly Notarized by a Notary Public in India.

Foreign Bidders, to submit POA on the Stamp Paper of appropriate value or engraving/embossing, in lieu of non-judicial stamp paper, as per applicable laws in Bidder's Country; or as per any other system prevailing in the bidder's country for the purpose of issuing POA.

FORMAT OF POWER OF ATTORNEY FOR LEAD MEMBER OF CONSORTIUM
(Note: To be provided by each of the other members of the Consortium in favor of the Lead Member)

POWER OF ATTORNEY

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution)

KNOW ALL MEN BY THESE PRESENTS THAT [Name of the Consortium member company] having its registered office at, ..., and [Name of the Consortium member company] having its registered office at, [Insert names and registered offices of all Members of the Consortium] the Members of Consortium have formed a Consortium named (insert name of the Consortium **if finalized**) (hereinafter called the '**Consortium**') vide Jt. Bidding Agreement dated..... (copy enclosed) and having agreed to appoint [Name and Address of the Lead Member] as the Lead Member of the said Consortium do hereby constitute, nominate and appoint M/s....., a company incorporated under the laws of and having its Registered /Head Office at as our duly constituted lawful Attorney (hereinafter called as **Lead Member**) to exercise all or any of the powers for and on our behalf and on behalf of the Consortium in regard to submission of our Bid in response to Invitation for Bids ("**IFB**") dated [insert date] and other bidding documents thereto issued by Petronet LNG Limited ("**PLL**"). We also authorize the said Lead Member to undertake the following acts:

- (i) to submit Bid on behalf of Members of the Consortium to submit Bid in response to IFB.
- (ii) participate in bidders' and other conferences.
- (iii) accept the letter of award if issued by PLL.
- (iv) sign and execute contracts and undertakings consequent to acceptance of the bid of the Consortium.
- (v) to do any other acts or submit any information and documents related to the above Bid as per the requirement of the IFB and other bidding documents issued by PLL thereto.

It is expressly understood that in the event of the Consortium being selected as Successful Bidder, this Power of Attorney shall remain valid, binding and irrevocable until the Consortium achieves execution of Agreement.

We as the Member of the Consortium agree and undertake to ratify and confirm all whatsoever the said Attorney/ Lead Member does on behalf of the Members of the Consortium pursuant to this Power of Attorney and the same shall be binding on us and deemed to have been done by us.

IN WITNESS WHEREOF[Name of member Consortium Company], as the Member of the Consortium have executed these presents on this..... day of under the Common Seal of our company.

For and on behalf of the Consortium Member
M/s.....

(Signature of the person authorized by the board)

(Name
Designation

Place
Date)

Accepted

(Signature, Name, Designation and Address
of the person authorized by the board of the Lead Member)

Attested

(Signature of the executant)

(Signature and stamp of Notary of the place of execution)

Place:

Date:

Note:

- (i) Lead Member in the Consortium shall hold majority shareholding as per the provision of the IFB;
- (ii) Power of Attorney shall be supported by certified true copy of the board resolution from respective Members of the Consortium.
- (iii) The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.
- (iv) Also, wherever required, the Members of the Consortium should submit for verification the extract of the charter documents and documents such as a board or shareholders' resolution/ power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Members of the Consortium.
- (v) For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Members of the Consortium from countries that have signed the Hague Legislation Convention 1961 are not required to be legalised by the Indian Embassy if it carries a conforming Apostille certificate.

APPENDIX-VII TO ITB

BIDDING FORMS

TABLE OF CONTENTS

<u>FORM NO.</u>	<u>DESCRIPTION</u>
A	FORM OF BID
B	INFORMATION ABOUT BIDDER
C	DECLARATION BY THE BIDDER REGARDING BIDDING DOCUMENT
D	Deleted
E	COMPLIANCE TO BID REQUIREMENT
F	DELETED
G	UNDERTAKING FOR NON-ENGAGEMENT OF CHILD LABOUR
H	FORMAT FOR BIDDERS' QUERIES
I	PROFORMA OF CERTIFICATE OF NON-INVOLVEMENT OF AGENT
J	METHODOLOGY OF EXECUTION
K	DETAILS OF PROPOSED ORGANIZATION FOR HOME AND SITE OFFICE
L	DEPLOYMENT SCHEDULE OF CONSTRUCTION EQUIPMENT TOOLS & TACKLES PROPOSED FOR EXECUTION OF WORK
M	DEPLOYMENT SCHEDULE OF SUPERVISORY PERSONNEL
N(i)	SIMILAR EXPERIENCE DURING LAST 15 YEARS
N(ii)	EXPERIENCE DETAILS
O	DELETED
P	SELF DECLARATION
Q	DECLARATION OF BLACK-LIST /HOLIDAY LIST / SUSPENSION LIST/ BANNING LIST/ DELISTED LIST/ NEGATIVE LIST

FORM-A**FORM OF BID****(TO BE SUBMITTED ON BIDDER'S LETTER HEAD)****Serial No.****Date:****From**

_____**To****Petronet LNG Limited**

4th Floor, Tower I, World Trade Centre,

Nauroji Nagar, New Delhi – 110029, India

SUBJECT: BID SUBMISSION LETTER AGAINST BIDDING DOCUMENT NO.

.....

**NAME OF WORK: OF M/S PETRONET LNG LIMITED, DAHEJ
(GUJARAT), INDIA**

Dear Sirs,

Having examined the Bidding Documents including Notice for Invitation for Bid, Instructions to Bidders, Conditions of Contract, Specifications, Technical requirements, Time Schedule, Form of Contract, Form of Bid, Price Schedule and Amendment(s) to the Bidding Documents (if any), and having understood the provisions of the said Bidding Documents and having thoroughly studied and understood the requirements of **Petronet LNG Limited (PLL)** relative to the work for in connection with the **above work for PLL's PDH PP PLANT WITH ETHANE AND PROPANE STORAGE AND HANDLING FACILITIES Project (PDH PP Project)** and having conducted a thorough study of the job site(s) involved, the site conditions, soil conditions, the climatic conditions, labour, power, water, material and equipment availability, the transport, communication facilities and access to site, the availability and suitability of borrowed earth areas, the availability of land and/or premises for temporary office and accommodation quarters and all other factors and facilities and things whatsoever necessary or relevant to the formulation of the Bid and the performance of Work, I/we hereby submit our bid/offer for the performance of the proposed services and supplies in accordance with the terms and conditions and within the time mentioned in the Bidding Documents at the lumpsum price quoted by me/us in the Price Schedule(s) included in the Bidding Documents and arrived at by adding the Price of Materials and the Price of Supplies and services in the format as per the Price Schedule. If the Work is awarded to me/us, I/we undertake to perform the Work and make the supplies in accordance with the Contract Documents as defined in the Form of Contract forming part of the Bidding Documents and accept the terms and conditions of Contract as laid down therein and undertake within 30 days of receipt of the Letter of Acceptance to deposit with the Chief Finance Manager, **Petronet LNG Limited** a sum equivalent to **10% (Ten percent)** of the Lumpsum price as specified in the Letter of Acceptance by way of Contract Performance Bank Guarantee from an acceptable bank / Security deposit as mentioned in SL. no. 14.9 of Conditions of Contract (CoC), and to commence work at the job site(s) involved within 30 days from the Acceptance of Bid, and to sign the formal Contract in terms of the Form of Contract forming part of the Bidding Documents within 45 (Forty Five) days of receipt of the detailed Letter of Acceptance from or on behalf of **Petronet LNG Limited (PLL)**, failing which **Petronet LNG Limited (PLL)** shall be at liberty, without further reference to me/us and without prejudice to any of its other rights or remedies, to terminate the Contract.

I/ We further undertake to keep my/our this Bid/offer open for a period of not less than **6 (Six)** months from the final bid due date {Bid submission End Date mentioned in IFB, if no extension in Bid Due Date (BDD) or extended Bid Due Date in case BDD is extended."}.

I/We hereby further state that I/We/us (in the case of partnership firm) was/were not employed as Directors of **Petronet LNG Limited (PLL)** during the period of 2 (Two) years immediately preceding the date hereof OR I/We hereby declare that I Shri....., one of our partners (in the case of partnership firm), was employed as a director in **Petronet LNG Limited (PLL)**, during the period of 2 (Two) years immediately preceding the date hereof and that Shri Or / I / We has/have obtained previous permission of **Petronet LNG Limited (PLL)** to make this Bid.

OR

I/We hereby declare that Shri, one of directors was employed as a director of **Petronet LNG Limited (PLL)** during a period of 2 (Two) years immediately preceding the date hereof and that Shri / I/We has / have obtained previous permission of **Petronet LNG Limited (PLL)** to make this Bid.

I/We have annexed to this Bid the following documents:

- (i) Power of Attorney or other proof of authority of the person who has signed the Bid or Copy of general Power of Attorney or other authority duly certified by a Notary Public in proof of authority of the person who has signed the Bid:
- (ii) Information Regarding Bidder in the form annexed to the Form of Bid
- (iii) Contract Price Schedule in the prescribed form
- (iv) Table of Contents (Master Index) of the Bidding documents, as issued duly signed as a token of receipt of the complete set of the Bidding Document.
- (v) Self-Declaration
- (vi) Documentation against Bidder's Qualification Criteria (Technical Experience Criteria, Commercial Experience Criteria (if applicable) and Financial)" as mentioned in Instructions to Applicants for Bid Submission and IFB.
- (vii) Check List duly filled in.
- (viii) Declaration of black listing/ holiday listing
- (ix) Integrity Pact as per proforma included
- (x) Financial details as per IFB along with supporting documents.
- (xi) Earnest Money Deposit
- (xii) Additional documents as listed below:

.....

I/We hereby undertake that the statements made herein and the information given in the Annexures referred to above are true in all respects and that in the event of any such statement or information being found to be incorrect in any particular, the same may be construed to be a misrepresentation entitling **Petronet LNG Limited (PLL)** to avoid or terminate any resultant Contract.

I/We further undertake as and when called upon by **Petronet LNG Limited (PLL)** to produce for its inspection, original(s) of the documents(s) of which copies have been annexed hereto.

We, the undersigned warrant our competence (experience wise and financially) to faithfully execute the entire work to the highest levels of professional standards and practice.

We also declare that in case of award of the said LSTK contract to us, we shall fully comply with all rules, regulations and Health, Safety and Environment guidelines set forth by Owner or any other Government body at Dahej (Gujarat) India.

We declare that we or any of our subcontractor or personnel required to work on this project, shall have no objection in signing secrecy agreement with Owner, if so requested.

We hereby confirm that we have submitted all details as mentioned in the CHECK LIST included in various sections and as per provisions mentioned elsewhere in the Bidding document and all such documents are page numbered serially and flag marked for easy identification with proper index.

Yours faithfully,
(Signature(s) of the Bidders(s))

Name & Designation of authorised person signing the Bid on behalf of the Bidder(s)
Full Name and address of the Bidder(s)

FORM-B**INFORMATION ABOUT BIDDER****(TO BE FURNISHED WITH BID)**

(To be furnished with the Bid separately for each consortium member in case of bids on consortium basis)

1.0	IN CASE OF LIMITED LIABILITY COMPANY OR COMPANY LIMITED BY GUARANTEES	
a)	Amount of paid up capital	
b)	Name of Directors	
c)	Date of Registration of Company	
d)	Copies of the Balance sheet of the company for the last 3 years.	
e)	Field of Business activities	
2.0	IN CASE OF INDIVIDUAL	
a)	Name of Business and it's Proprietor	
b)	Whether his business is registered.	
c)	Date of commencement of business.	
d)	Whether he pays Income Tax over Rs.10,000/- per year.	
e)	Field of Business activities	
3.0	IN CASE OF PARTNERSHIP	
a)	Name of Partners	

b)	Whether the partnership is registered.	
c)	Date of registration of firm.	
d)	If each of the partners of the firm pays income tax over Rs. 10, 000/- a year and if so which of them pays the same.	
e)	Age of Partners	
f)	Field of Business activities	

(Signature & Seal of the Bidder)
Name and address of the Bidder

Form –B(I)**INFORMATION ABOUT BIDDER****(OTHER DETAILS)**

[in case of consortium bid, this form shall be submitted separately for each member of the consortium]

To
Petronet LNG Limited
 4th Floor, Tower I, World Trade Centre,
 Nauroji Nagar, New Delhi – 110029, India

S.No.	DESCRIPTION	BIDDER'S REPLY
1.1	Legal Name of the Bidder (Company)	
1.2	Date of Business (Company) Establishment	Day Month Year
1.3	Country of registration and Registration Number:	
1.4	Address of Registered Office	City : _____ District : _____ State : _____ PIN/ZIP: _____
1.5	Operation/Working Address if different from above:	City : _____ District : _____ State : _____ PIN/ZIP: _____
1.6	Telephone Number (Incl. ISD & Area	

S.No.	DESCRIPTION	BIDDER'S REPLY
	code, as applicable):	
1.7	Fax Number:	
1.8	Name & Mobile no. of Concerned person(s)	
1.9	E-mail address:	
1.10	Internet Website (If applicable)	
1.11	ISO Certification, if any	
2.0	Affiliates / Associates / Subsidiary Companies details	Name: Address:
		Name: Address:
		Name: Address:
		Name: Address:
3.0	GENERAL	

S.No.	DESCRIPTION	BIDDER'S REPLY
3.1	Income Tax PAN No. (In India) of the firm.	
3.2	Provident Fund Registration No. of the firm.	
3.3	ESI Registration No. of the firm	
3.4	GST Registration No. of the firm.	
4	<u>CONTRACTOR'S PROFILE</u>	
4.1	Organisation Profile covering a) Contractor's Organization Chart from the upper hierarchy level to Managers level. Indicate Group or Division who will be responsible for execution of the EPC work and its management team.	
	b) History & structure of the organisations with names of directors & chief executives.	
	c) Copy of Memorandum and Article of Association of the Company or Board Resolution mentioning Chairman/ Chief Executive Officer / Managing Director of the Company.	
	d) Memorandum of Understanding among the Consortium partners mentioning their area of responsibility and percent liability in financial terms in executing this contract on LSTK Basis.	
4.2	Parent Company: state legal name and country of residence of direct parent company and the ultimate holding company, if any.	
4.3	Change of Ownership: has there been any major change of Ownership of the establishment over the past five (5) years. If so, kindly provide details and if not, please affirm by "NONE".	
4.4	Affiliates / Associates / Subsidiary Companies: Provide details in the form of a graphic	

S.No.	DESCRIPTION	BIDDER'S REPLY
	representation to clearly identify each of the CONTRACTOR's Affiliates / Associates / Subsidiary Companies and their interrelation to one another.	

(Signature & Seal of the Bidder)
Name and address of the Bidder

FORM-C**DECLARATION BY THE BIDDER REGARDING BIDDING DOCUMENT**

We _____ (Name of the Bidder) hereby represent that we have gone through and understood the Bidding Documents No. _____ (including but not limited to) the Commercial & Technical Requirements/ Specifications in the Bidding Document (all volumes/ parts) and that our Bid has been prepared accordingly in compliance with the requirements stipulated in the said documents.

We are submitting the Table of Contents (Master index –Technical & Master index – Commercial) of Bidding Documents and amendments, if any, as part of our Bid duly signed and stamped on each page in token of our acceptance. We are not submitting the total Bidding Document as part of our Bid but undertake that said the Bidding Documents shall be deemed to form part of our bid and in the event of award of work to us, the same shall be considered for constitution of Contract Agreement. Further, we shall sign and stamp on each page of these documents as a token of Acceptance and as a part of the Contract in the event of award of Contract to us.

SIGNED FOR AND ON BEHALF OF

(NAME OF BIDDER)

PLACE: _____

DATE: _____

NOTE: This declaration should be signed by the Bidder's representative who is signing the Bid.

FORM-D

DELETED

FORM-E

**COMPLIANCE TO BID REQUIREMENT
(TO BE SUBMITTED ON THE LETTERHEAD OF BIDDER)**

NAME OF WORK : _____

BIDDING DOCUMENT. : _____

We (*) hereby agree to fully comply with, abide by and accept without variation, deviation or reservation all technical, commercial and other conditions of the Bidding Document and its Technical & Commercial Amendments, issued by EIL on behalf of PLL.

We confirm that during detailed engineering, we will review and recommend the required Special tools & tackles and Commissioning spares, wherever specified in the enquiry document and supply the same without any additional cost and time implication to Owner / Purchaser.

We further hereby waive, withdraw and abandon any and all assumptions, deviations, variations, objections or reservations whatsoever hereto set out, given or indicated in our offer, clarifications, correspondence, communications, or otherwise with a view that the price bid and price implication (if any) submitted may be treated to conform to, in all respects, with the terms and conditions of the said Bidding Document including all Technical and Commercial Amendments.

We further hereby confirm that the price quoted in the price bid are as per the provisions of the Bidding document and there is no deviation to the provisions in the price bid.

**

For and on behalf of

Authorised signatory

(Name and signature of authorized signatory)

Date:

* Here fill in the name of bidder.

** The bid compliance letter must be signed by the person (s) authorized to sign.

FORM – F

DELETED

FORM-G**UNDERTAKING FOR NON-ENGAGEMENT OF CHILD LABOUR****Name of Work:** _____**Bidding Doc. No.:** _____

I / We hereby declare that:

- a) We are committed to elimination of child labour in all its forms.
- b) Neither we nor any of our nominated sub-contractor(s) will engage Child Labour in any of our work(s) in terms of the provisions of The Child Labour (Prohibition and Regulation) Act, 1986 and other applicable laws.
- c) We as well as our nominated sub-contractor(s) undertake to fully comply with provisions of The Child Labour (Prohibition and Regulation) Act, 1986 and other applicable labour laws, in case the work is awarded to us.
- d) It is understood that if I/We, either before award or during execution of Contract, commit a transgression through a violation of Article b /c above or in any other form, such as to put my/our reliability or credibility in question, the Owner is entitled to disqualify us from the Tender process or terminate the Contract, if already executed or exclude me / us from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Owner. Such exclusion may be for a period of 1 year to 3 years as per the procedure prescribed in the guidelines for holiday listing of the Owner.
- e) I/We accept and undertake to respect and uphold the Owner's absolute right to resort to and impose such exclusion.

Place:

Signature of Bidder:

Date

Name of Signatory:

FORM-H**FORMAT FOR BIDDERS' QUERIES**

NAME OF WORK : _____

BIDDING DOCUMENT : _____

NAME OF BIDDER : _____

SL. NO.	REFERENCE OF ENQUIRY DOCUMENT				BIDDER'S QUERY	EIL/PLL REPLY
	PART/VOL.	PAGE NO.	CLAUSE NO.	SUBJECT		

NOTE:

1. The Pre-Bid Queries, if any to be uploaded on e-procurement portal within the cut-off date mentioned in IFB.
2. Also send the editable soft format through email.

SIGNATURE OF BIDDER : _____ WITH SEAL/STAMP

FORM – I**PROFORMA OF CERTIFICATE OF
NON-INVOLVEMENT OF AGENT****NAME OF WORK :** _____**BIDDING DOCUMENT. :** _____

Where Indian Agent/Consultant/Representative/Retainer/Associates is not involved, the bidder shall certify in the proforma given below on their letterhead.

This is to Certify that we have not engaged/involved any Indian Agent/Representative/Consultant/Retainer/Associates who is not our employee for the purposes of accompanying bid or any resultant Contract and therefore, no Agent's/Retainer's/ Representative's/Consultant's/Associate's commission is payable in India or abroad against or in connection with any resultant Contract.

SIGNATURE OF THE BIDDER : _____**NAME OF THE BIDDER :** _____**DATE:**

FORM - J**SUBJECT: METHODOLOGY OF EXECUTION****NAME OF WORK :** _____**BIDDING DOCUMENT. :** _____

In this Proposal FORM, Bidder shall detail out **Methodology of Execution** of work, as applicable for the following:

In this Exhibit, Bidder shall furnish the following:

1. Methodology of execution of residual basic design and detailed engineering considering/ furnishing
 - Availability of 3D modelling with PDS/PDMS software along with details such as number of work stations, available experienced manpower etc.
 - Availability of latest IT communication system and Engineering Documentation Management & control & Transfer of deliverables
 - Exposure of engineering company for above software
 - Key personnel to be deployed by main bidder, either at Bidder's design office or design office of Engineering sub-contractor, for review, approval and monitoring.
2. Methodology of Construction Execution covering.
 - Mobilization of heavy duty crane for installation of heavy lifts mentioned under (3) below.
 - working in Monsoon period
 - Extent of mechanization of construction processes/equipment
 - Expediting of material/equipment
 - Quality Assurance
 - HSE policy Implementation
3. Heavy Equipments
4. Any Other

(STAMP & SIGNATURE OF BIDDER)**DATE:**

FORM-K**DETAILS OF PROPOSED ORGANISATION****NAME OF WORK** : _____**BIDDING DOCUMENT.** : _____

The Bidder shall submit herein details of Head Office and Project/Site Organization proposed to be deployed for execution of work. Bidder shall also furnish the bio-data of Site-in-Charge and key personnel to be deployed meeting the minimum criteria specified in the Bidding Document.

Bidder understand that the said proposal represents the minimum deployment and the Bidder acknowledges that the said deployment may have to be augmented with additional number and/or categories, if required if directed by Engineer-in-Charge in order to compete the work within the completion schedule and quoted lumpsum price.

SIGNATURE OF BIDDER : _____**NAME OF BIDDER** : _____

FROM-L**DEPLOYMENT SCHEDULE OF CONSTRUCTION EQUIPMRNT**

SL. NO.	DESCRIPTION	CAPACITY	DEPLOYMENT SCHEDULE (IN MONTH)																										
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	TOTAL
1	CRANES																												
1.1	3200 MT																												
1.2	1250 MT																												
1.3	1000 MT																												
1.4	500 MT																												
1.5	300 MT																												
1.6	150 MT																												
1.7	75 MT																												
1.8	50 MT																												
1.9	20 MT																												
1.10	15 MT																												
1.11	10 MT																												
1.12	5 MT																												
2	DIESEL GENERATOR S																												
2.1	500 KVA																												
2.2	300 KVA/250KV																												
2.3	150 KVA/125KV																												

SL. NO.	DESCRIPTION	CAPACITY	DEPLOYMENT SCHEDULE (IN MONTH)																											
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	TOTAL	
3	COMPRESSOR S																													
3.1	600 CFT																													
3.2	350 CFT																													
4	WELDING M/CS																													
4.1	DIESEL WELDING M/C																													
4.2	DIESEL GENERATOR																													
4.3	WELDING TRANS FORMERS/ RECTIFIERS																													
4.4	TIG WELDING M/CS																													
5	GRIT BLASTING M/CS																													
6	SPRAY PAINTING M/CS																													
7	STRESS RELIEVING M/CS																													
8	RADIOGRAPH Y M/CS																													
9	TEST PUMP																													

SL. NO.	DESCRIPTION	CAPACITY	DEPLOYMENT SCHEDULE (IN MONTH)																										
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	TOTAL
10	WATER PUMP																												
11	TRANSPORT A-TION EQPT																												
11.1	TRACTOR - TRAILOR																												
11.2	TRUCKS																												
11.3	BUS																												
12	JACKS																												
12.1	MECHANICAL																												
12.2	HYDRAULIC																												
13	CIVIL																												
13.1	EXCAVATOR S																												
13.2	DUMPERS																												
13.3	BATCHING PLANT																												
13.4	CONCRETE PUMP CAR																												
13.5	TRANSIT MIXER																												
13.6	MIXER																												
13.7	VIBRATORS																												

SL. NO.	DESCRIPTION	CAPACITY	DEPLOYMENT SCHEDULE (IN MONTH)																											
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	TOTAL	
13.8	COMPACTOR S																													
13.9	THEODOLITE S																													
14.0	OTHERS																													
14.1	INSULATION TESTING EQUIPMENT																													
14.2	SECONDARY INJECTION TESTING KIT																													
14.3	METERS, TOOLS & TACKLES ETC.																													
14.4	CALIBRATION EQUIPMENT																													
14.5	OTHER TOOLS & TACKLES																													
14.6	MULTI METERS CALIBERATORS ETC.																													
14.7	BATCHING PLANT																													

(STAMP & SIGNATURE OF BIDDER)

Notes – Bidder to add other equipment's as required

Page 149 of 7734 : B862-TENDER DOC-B862-101-85-41-PM-T-7300 : Rev. A

SL. NO.	DESCRITPION	DEPLOYMENT SCHEDULE (IN MONTH)																											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	TOTAL	
2.3.5	ELECTRICAL																												
(i)	ENGINEERS																												
2.3.6	INSTRUMENTATION																												
(i)	ENGINEERS																												
2.3.7	MISCELLANEOUS																												
3	PROCUREMENT																												
3.1	PURCHASE																												
3.1.1	PURCHASE MANAGER																												
3.1.2	PURCHASE COORDINATOR																												
3.1.3	PURCHASE OFFICER																												
3.2	INSPECTION																												
3.2.1	INSPECTION MANAGER																												
3.2.2	INSPECTORS																												
3.3	EXPEDITING																												
3.3.1	EXPEDITING COORDINATOR																												
3.3.2	EXPEDITORS																												

SL. NO.	DESCRITPION	DEPLOYMENT SCHEDULE (IN MONTH)																											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	TOTAL	
3.4	CUSTOM CLEARANCE, IMPORT LICENCE, TRANSPORTATION PERSONNEL																												
4	SITE CONSTRUCTION																												
4.1	PROJECT MANAGER																												
4.2	CONSTRUCTION MANAGER																												
4.3	CIVIL STRUCTURAL																												
4.3.1	LEAD ENGINEER																												
4.3.2	SITE ENGINEER																												
4.3.3	SUPERVISORS																												
4.4	MECHANICAL WORKS																												
4.4.1	LEAD ENGINEER																												
4.4.2	SITE ENGINEER																												
4.4.3	SUPERVISORS																												
4.5	PIPING WORK																												
4.5.1	LEAD ENGINEER																												
4.5.2	SITE ENGINEER																												
4.5.3	SUPERVISORS																												
4.6	ELECTRICAL WORK																												

SL. NO.	DESCRITPION	DEPLOYMENT SCHEDULE (IN MONTH)																											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	TOTAL	
4.6.1	LEAD ENGINEER																												
4.6.2	SITE ENGINEER																												
4.6.3	SUPERVISORS																												
4.7	INSTRUMENTATION WORK																												
4.7.1	LEAD ENGINEER																												
4.7.2	SITE ENGINEER																												
4.7.3	SUPERVISORS																												
4.8	QUALITY ASSURANCE/ QUALITY CONTROL																												
4.8.1	QC/QA MANAGER																												
4.8.2	INSPECTOR (CIVIL)																												
4.8.3	INSPECTOR (PIPING)																												
4.8.4	INSPECTOR (MECH EQPT)																												
4.9	SAFETY ENGINEER																												
4.10	SITE ENGINEERING WORKS																												
4.10.1	ENGINEERS																												
4.10.2	SUPERVISORS																												
4.11	COMPUTER ENGINEER																												

SL. NO.	DESCRITPION	DEPLOYMENT SCHEDULE (IN MONTH)																											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	TOTAL	
4.12	ADMINISTRATION MANAGER																												
4.13	MISCELLANEOUS																												
4.14	WAREHOUSE PERSONNEL																												
4.15	MATERIAL MANAGER																												
4.16	COMMISSIONING																												
i)	COMMISSIONING COORDINATOR																												
ii)	COMM ENGINEER (SHIFT- IN-CHARGE)																												
iii)	CONTROL ROOM COORDINATOR																												
iv)	FIELD SUPERVISOR																												
v)	TECHNICIAN																												
Vi)	Any Other																												

(STAMP & SIGNATURE OF BIDDER)

Form –N(i)

[in case of consortium bid, this form shall be submitted separately for each member of the consortium]

SL NO.	PROJECT AND UNIT DESCRIPTION	NAME OF OWNER, POSTAL ADDRESS, PHONE/FAX NO. & E-MAIL	COUNTRY & LOCATION	EXECUTION MODE	PROJECT TOTAL VALUE	FINAL EXECUTED VALUE	DETAIL OF COMPLETION AS PER COMPLETION CERTIFICATE	NO. OF YEARS OF OPERATION	UNIT MODE (GRASS ROOT/REVAMP)
1.				SINGLE LSTK / CONSORTIUM					
2.				SINGLE LSTK / CONSORTIUM					
3.				SINGLE LSTK / CONSORTIUM					
4.				SINGLE LSTK / CONSORTIUM					
5.				SINGLE LSTK / CONSORTIUM					
6.				SINGLE LSTK / CONSORTIUM					

SL NO.	PROJECT AND UNIT DESCRIPTION	NAME OF OWNER, POSTAL ADDRESS, PHONE/FAX NO. & E-MAIL	COUNTRY & LOCATION	EXECUTION MODE	PROJECT TOTAL VALUE	FINAL EXECUTED VALUE	DETAIL OF COMPLETION AS PER COMPLETION CERTIFICATE	NO. OF YEARS OF OPERATION	UNIT MODE (GRASS ROOT/REVAMP)
7.				SINGLE LSTK / CONSORTIUM					
8.				SINGLE LSTK / CONSORTIUM					
9.				SINGLE LSTK / CONSORTIUM					

(Signature & Seal of the Bidder)

Name and address of the Bidder

EXPERIENCE DETAILS (IFB Clause no. 3.1 & 3.2)*[In case of consortium bid, this form shall be submitted separately for each member of the consortium]*

Bidder shall furnish their experience details with reference to the Work, which pre-qualify them in line with criteria mentioned in Invitation for Bid against **IFB Clause no. 3.1 & 3.2**

(MARK ✓ FOR APPLICABILITY IN BOX)

S. NO.	DESCRIPTION	DETAILS
1.	Name of project, location	
2.	Description of work	
3.	Contract Value	
a)	Awarded value (With Currency)	Currency:
		Value:
	Awarded value in (INR/USD) [As per IFB Cl. No. 3.4.4]	Currency Conversion Factor:
		INR/ USD Value:
b)	Final Executed value (Currency _____)	Currency:
		Value:
	Final Executed in (INR/USD) [As per IFB Cl. No. 3.4.4]	Currency Conversion Factor:
		INR/ USD Value:
4.	Name of Owner, Postal Address, Phone/Fax No. & e-mail	

S. NO.	DESCRIPTION	DETAILS		
5.	Name of Consultant, Postal Address, Phone/ Fax No. & e-mail			
6.	Above Referred Job Executed as:			
	Single Bidder :	☐		
	A Leader of the Consortium:	☐		
	Through any other Mode (Please Specify)			
8	ACTIVITY PERFORMED UNDER SCOPE OF WORK	BY SELF / AS A LEADER OF CONSORTIUM	BY MEMBER OF CONSORTIUM	BY SUB-CONTRACTOR
		(MARK ✓ FOR APPLICABILITY IN BOX)		
	Overall Project Management			
	Residual process design			
	Detailed Engineering			
	Procurement and Supply			
	Construction including fabrication, erection			
	Inspection, testing, Start-up and pre-commissioning			
	Commissioning Assistance			
	Commissioning			
9	Completion Status	Specify Date of		

S. NO.	DESCRIPTION	DETAILS
		i) Effective Date of Contract: _____ ii) Starting date: _____ iii) Scheduled Completion Date: _____ iv) Mechanical Completion Date : _____ v) Commissioning Date :_____ vi) Date of putting into operation : _____ vii) Actual Date of Completion of Contract:_____ viii) Date of completion of one year successful operation : _____ ix) Delay in months, if any : _____ x) Reasons for delay, if any: _____
10	Confirm following documents enclosed [Refer IFB Clause. No. 3.1 and 3.2]	- Copy of work order/contract agreement in line with BQC requirement Ref.No.:_____ Dated:_____ - Copy of Proof of Completion in line with BQC requirement Ref.No.:_____ Dated:_____ - Proof of Commissioning in line with BQC in line with requirement Ref.No.:_____ Dated:_____

S. NO.	DESCRIPTION	DETAILS
		- A proof that plant has been under operation for Last 1 year in line with BQC requirement Ref.No.:_____ Dated:_____ ☐ - A proof that plant is Non-Captive / Non-Revamp in line with BQC requirement Ref.No.:_____ Dated:_____ ☐
11	Confirm that you are meeting the Technical Criteria of BQC as mentioned in IFB.	Yes ☐ No ☐
13	Confirmed that all supporting documents pertaining to qualification criteria submitted as evidence are duly authenticated as per requirement mentioned in IFB [Clause no. 3.5.4] and Instructions To Bidders.	Confirmed ☐

Note:

- In case of submitting multiple jobs for qualification, the above **Form N (ii)** sheet shall be provided for each job separately.

CONFIRMATION:

- We confirm that information furnished along with our Bid as per this format are true and correct and in case of any original document is required by Owner/Consultant, the same shall be submitted by us for verification.
- We confirm that copies of the documents submitted/ uploaded with e-bid for meeting the Bidder Qualification Criteria are authenticated copies and are true images of the original document. In case some area has been omitted while taking the Photocopy of original documents due to confidentiality requirement, then such portions of the documents should be identified and informed in writing stating the reasons.

(Signature & Seal of the Bidder)

SELF DECLARATION/CERTIFICATION**FORM-P**

Bidder's declaration as furnished herein below shall supersede the stipulations mentioned elsewhere in their bid.

SL. NO.	DESCRIPTION	BIDDER'S DECLARATION
1.	We confirm that we are not under Liquidation, Court Receivership or similar proceeding or bankruptcy, otherwise, if involved please furnish information about the same. [Refer IFB Clause No.: 4.6.6]	
2.	(a) We confirm that we are not involved in any Litigation/Arbitration	(a)
	(b) (In case of Litigation/Arbitration) We confirm that the current Litigation/Arbitration, in which bidder is involved will not have any impact in work being tendered or in entering into contract during the validity of offer and performing the contract till all the contractual obligations under contract are performed.	(b) [To be replied only in case bidder confirms there is any Litigation/Arbitration]
	(c) In case Bidder (s) affirms that present litigations / arbitrations have impact on their obligations to perform the contract or doesn't provide the affirmation as per (a) or (b) above, their bids shall be rejected.	(c)
3.	We confirm that we are not on BLACK-LIST /HOLIDAY LIST / SUSPENSION LIST/ BANNING LIST/ DELISTED LIST/ NEGATIVE LIST of EIL/PLL on due date of submission of bid.	

4.	We confirm that we are not in Holiday List of other Companies and their performance is not far from satisfactory level in ongoing contracts in the recent projects under implementation.	
5.	(a) We confirm that no previous Transgression occurred in the last three years immediately before signing of Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged or with any other Company. [Refer Section V of the Integrity Pact]	
	(b) We further confirm that the above declaration/confirmation are true and accurate in all respects, and not in conflict with the declaration mentioned in our any part of our bid / financial statement/any other document.	

FORM-Q**DECLARATION OF BLACK-LIST /HOLIDAY LIST / SUSPENSION LIST/ BANNING LIST/ DELISTED LIST/ NEGATIVE LIST****In the case of company:**

We, M/s _____, hereby declare that we have not been placed on any BLACK-LIST /HOLIDAY LIST / SUSPENSION LIST/ BANNING LIST/ DELISTED LIST/ NEGATIVE LIST declared by **Engineers India Ltd. OR Petronet LNG Limited**, except as indicated below:

(Here give particular of BLACK-LIST /HOLIDAY LIST / SUSPENSION LIST/ BANNING LIST/ DELISTED LIST/ NEGATIVE LIST, and in absence thereof, state "NIL".)

In the case of a Proprietary Concern:

I hereby declare that neither I in my personal name or in the name of my Proprietary concern M/s _____, which is submitting the accompanying Bid/Tender nor any other concern in which I am proprietor nor any partnership firm in which I am involved as a Managing Partner have been banned or placed on BLACK-LIST /HOLIDAY LIST / SUSPENSION LIST/ BANNING LIST/ DELISTED LIST/ NEGATIVE LIST declared by **Engineers India Ltd. OR Petronet LNG Limited**, except as indicated below:

(Here give particulars of BLACK-LIST /HOLIDAY LIST / SUSPENSION LIST/ BANNING LIST/ DELISTED LIST/ NEGATIVE LIST, and in absence thereof state "NIL")

In the case of a Partnership Firm:

We hereby declare that neither we, M/s _____, submitting the accompanying Bid/Tender nor any partner involved in the management of the said firm either in his individual capacity or as proprietor or managing partner of any firm or concern have or has been banned or placed on BLACK-LIST /HOLIDAY LIST / SUSPENSION LIST/ BANNING LIST/ DELISTED LIST/ NEGATIVE LIST declared by **Engineers India Ltd** OR **Petronet LNG Limited**, except as indicated below:

(Here give particulars of BLACK-LIST /HOLIDAY LIST / SUSPENSION LIST/ BANNING LIST/ DELISTED LIST/ NEGATIVE LIST, and in absence thereof state "NIL")

It is understood that if this declaration is found to be false in any particular of BLACK-LIST /HOLIDAY LIST / SUSPENSION LIST/ BANNING LIST/ DELISTED LIST/ NEGATIVE LIST, **EIL/PLL** shall have the right to reject my/our bid, and if the bid has resulted in a contract, the contract is liable to be terminated.

SIGNATURE OF BIDDER : _____

NAME OF BIDDER : _____

COMPANY SEAL : _____

APPENDIX-VIII TO ITB

PROCUREMENT FROM A BIDDER FROM A COUNTRY SHARING LAND BORDER WITH INDIA

Restriction on Procurement from Bidders from Country(ies) sharing land border with India

- 1.0 Department of Expenditure (DoE) vide **O.M. No. 7/10/2021-PPD(1) dated 23.02.2023** has issued the revised guidelines for Restrictions on Procurement from Bidders from Country(ies) sharing Border with India. These guidelines are available on the website of DoE (<https://doe.gov.in>).
- 2.0 **Requirement of registration from Competent Authority:**
 - i). Any Bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the Bidder is registered with the Competent Authority, specified in **Annexure-I of DoE O.M. No. 7/10/2021-PPD(1) dated 23.02.2023..**
 - ii). Any Bidder (including an Indian bidder) who has a Specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the Bidder is registered with the Competent Authority, specified in **Annexure-I of DoE O.M. No. 7/10/2021-PPD(1) dated 23.02.2023.**
- 3.0 **This Order shall not apply to the following special cases:**
 - i). In projects which receive international funding with the approval of the Department of Economic Affairs (DEA), Ministry of Finance, the procurement guidelines applicable to the project shall normally be followed, notwithstanding anything contained in this order and without reference to the Competent Authority. Exceptions to this shall be decided in consultation with DEA.
 - ii). This order shall not apply to procurement by Indian missions and by offices of Government agencies/ undertakings located outside India.
 - iii). This order will not apply to Bidders (or Entities) from those countries (even if sharing a land border with India) to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects. Updated lists of countries to which lines of credit have been extended or in which development projects are undertaken are given on the website of the Ministry of External Affairs.
 - iv). Procurement of spare parts and other essential service support like Annual Maintenance Contract (AMC)/ Comprehensive Maintenance Contract (CMC), including consumables for closed systems, from Original Equipment Manufacturers (OEMs) or their authorized agents, shall be exempted from the requirement of registration.
- 4.0 **Definitions:**
 - i). **"Bidder"** (including the term 'Tenderer', 'Consultant' 'Vendor' or 'Service Provider' in certain contexts) means any person or firm or company,

including any member of a Consortium or Joint Venture (that is an association of several Persons, or Firms or Companies), every artificial juridical person not falling in any of the descriptions of Bidders stated hereinbefore, including any Agency, Branch or Office controlled by such person, participating in a procurement process.

- ii). **"Tender"** will include other forms of procurement, except where the context requires otherwise.
- iii). **"Transfer of Technology"** means dissemination and transfer of all forms of commercially usable knowledge such as transfer of know-how, skills, technical expertise, designs, processes and procedures, trade secrets, which enables the acquirer of such technology to perform activities using the transferred technology independently. (Matters of interpretation of this term shall be referred to the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade, and the interpretation of the Committee shall be final.)
- iv). **"Specified Transfer of Technology"** means a transfer of technology in the sectors and/ or technologies, specified in [paragraph 5.0](#), occurring on or after 23.07.2020.
- v). **"Bidder (or entity) from a country which shares a land border with India"** means
 - (a) An entity incorporated, established or registered in such a country; or
 - (b) A subsidiary of an entity incorporated, established or registered in such a country; or
 - (c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - (d) An entity whose beneficial owner is situated in such a country; or
 - (e) An Indian (or other) agent of such an entity; or
 - (f) A natural person who is a citizen of such a country; or
 - (g) A Consortium or Joint Venture where any member of the Consortium or Joint Venture falls under any of the above.
- vi). **Beneficial Owner** for the purposes of [paragraph 4.0 v\) \(d\)](#) will be as under:
 - a) **In case of a Company or Limited Liability Partnership**, the beneficial Owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person(s), has a controlling ownership interest or who exercises control through other means.

Explanation: -

1. "Controlling ownership interest" means ownership of, or entitlement to, more than twenty-five per cent of shares or capital or profits of the company;
2. "Control" shall include the right to appoint the majority of the Directors or to control the management or policy decisions,

including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

- b) **In case of a Partnership Firm**, the beneficial Owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
- c) **In case of an Unincorporated Association or body of Individuals**, the beneficial Owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
- d) Where no natural person is identified under a) or b) or c) above, the beneficial Owner is the relevant natural person who holds the position of senior managing official;
- e) **In case of a Trust**, the identification of beneficial Owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

vii). **"Agent"** is a person employed to do any act for another, or to represent another in dealings with third persons.

[Note:

- i). A person who procures and supplies finished goods from an entity from a country which shares a land border with India will, regardless of the nature of his legal or commercial relationship with the producer of the goods, be deemed to be an Agent for the purpose of this Order.
- ii). However, a Bidder who only procures raw material, components etc. from an entity from a country which shares a land border with India and then manufactures or converts them into other goods will not be treated as an Agent.]

5.0 **Sensitive Sectors/ Technologies (relevant only for the provisions on ToT arrangements):**

- i). Certain sectors and technologies have been identified as sensitive from the national security point of view. **The sectors listed in [Schedule I \(copy attached\)](#) are considered Category-I sensitive sectors. The sectors listed in [Schedule II \(copy attached\)](#) are considered Category-II sensitive sectors.** The technologies listed in [Schedule III \(copy attached\)](#) are considered sensitive technologies.
- ii). For **Category-I sensitive sectors**, Bidders with ToT arrangement in any technology with an entity from a country which shares a land border with India shall require registration.
- iii). For **Category-II sensitive sectors**, Bidders with ToT arrangement in the sensitive technologies listed in [Schedule III](#), with an entity from a country which shares a land border with India shall require registration.

- iv). In **Category-II sensitive sectors**, the Secretary (or an officer not below the rank of Joint Secretary to Government of India, so authorized by the Secretary) of the Ministry/ Department of the Government of India is empowered, after due consideration, to waive the requirement of registration for a particular item/ application or a class of items/ applications from the requirement of registration, even if included in Schedule-III. The Ministry/ Department concerned shall intimate the Department for Promotion of Industry and Internal Trade (DPIIT) and National Security Council Secretariat (NSCS) of their decision to waive the requirement of registration.

Ministries/ Departments of the Government of India are not required to consult the DPIIT/ NSCS before deciding and are only required to intimate the decision to DPIIT/ NSCS. If any point is raised by DPIIT/ NSCS, it should be considered in future procurements; ongoing procurement for which the waiver was granted need not be interrupted or altered.

Based on security considerations, a Ministry/ Department in a **Category-II sensitive sector** or other Ministries/ Departments may recommend to DPIIT inclusion of any other technology in the list of sensitive technologies, either generally or for their Ministry/ Department.

6.0 **Sub-contracting in works contracts**

In works contracts, including turnkey contracts, Contractors shall not be allowed to sub-contract works to any Contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority. The definition of "**Contractor from a country which shares a land border with India**" shall be as given in above [paragraph 4.0 v\)](#).

[Note: Procurement of raw material, components, etc. does not constitute sub- contracting.]

7.0 **Certificate regarding compliance**

Bidder shall submit a certificate of Compliance in the enclosed [Form-I A/ Form-I B/ Form - II](#) (as applicable).

This certificate shall be on the Bidder's Letter head and shall be duly signed & stamped by the authorised signatory of the Bidder.

In case at any stage, if it found the certification given by the Bidder is false, their Bid shall be rejected and shall be liable for other penal actions like placement on Suspension/ banning or forfeiture of EMD (if applicable). However, if this is found after order placement, this would be ground for immediate termination and further legal actions in accordance with law/ provisions of Bidding Document including suspension/ banning and forfeiture of CPBG/ Security Deposit.

BIDDER'S UNDERTAKING
(On Company's Letter Head)

To,

M/s Engineers India Limited/ _____ (Name of the client)

Tender Name : _____

Tender No. : _____

"I have read the clause regarding restrictions on procurement from a Bidder of a country which shares a land border with India; I hereby certify that, Bidder M/s _____ (Name of the Bidder) is:

i).	Not from such a country	[]
ii).	If from such a country, has been registered with the Competent Authority	[]

Notes:

- a) Bidder to tick appropriate option (✓) in either i) or ii) above)
- b) In case of sl. no. ii) above, Bidder to attach evidence of valid registration by the Competent Authority.

I hereby certify that the Bidder fulfills all requirements in this regard and eligible to be considered.

Place :

Signature (#):

Date :

Name :

Designation :

Seal :

(#) Undertaking shall be signed by the authorized signatory of the Bidder.

BIDDER'S UNDERTAKING IN CASE OF SUB-CONTRACTING IN WORK CONTRACTS**(On Company's Letter Head)**

To,

M/s Engineers India Limited/ _____ (Name of the client)

Tender Name : _____

Tender No. : _____

"I have read the clause regarding restrictions on procurement from a Bidder of a country which shares a land border with India and on sub-Contracting to Contractors from such countries; I hereby certify that, Bidder M/s _____ (Name of the Bidder) is:

i).	Not from such a country and will not sub-Contract work to a Contractor from such countries unless such Contractor is registered with the Competent authority	[]
ii).	If from such a country, has been registered with the Competent Authority and will not sub-Contract work to a Contractor from such countries unless such Contractor is registered with the Competent authority	[]

Notes:

- a) Bidder to tick appropriate option (✓) in either i) or ii) above)
- b) In case of sl. no. ii) above, Bidder to attach evidence of valid registration by the Competent Authority.

I hereby certify that the Bidder fulfills all requirements in this regard and eligible to be considered.

Place :

Signature (#):

Date :

Name :

Designation :

Seal :

(#) Undertaking shall be signed by the authorized signatory of the Bidder.

**BIDDER'S UNDERTAKING IN CASE OF TRANSFER OF TECHNOLOGY (ToT)
ARRANGEMENT**

(On Company's Letter Head)

To,

M/s Engineers India Limited/ _____ (Name of the client)

Tender Name : _____

Tender No. : _____

"I have read the clause regarding restrictions on procurement from a Bidder having Transfer of Technology (ToT) arrangement. Bidder M/s _____ (Name of the Bidder), hereby certify that,

i).	Bidder does not have any ToT arrangement requiring registration with the competent authority	[]
ii).	Bidder has valid registration to participate in this procurement	[]

Notes:

- a) Bidder to tick appropriate option (✓) in either i) or ii) above)
- b) In case of sl. no. ii) above, Bidder to attach evidence of valid registration by the Competent Authority.

I hereby certify that the Bidder fulfills all requirements in this regard and eligible to be considered.

Place :

Signature (#):

Date :

Name :

Designation :

Seal :

(#) Undertaking shall be signed by the authorized signatory of the Bidder

PROFORMA OF BANK GUARANTEE FOR EMD

(To be submitted on non-judicial stamp paper of appropriate value to be purchased in the name of the issuing Bank)

To,
 Petronet LNG Limited
 1st Floor, World Trade Centre,
 Babar Road,
 Barakhamba Lane,
 New Delhi - 110 001

BG No. : _____
 Date of Issue : _____
 Date of Expiry : _____
 (30 days beyond bid validity)
 Date of Claim : _____
 Bank Name : _____

Dear Sirs,

1. In consideration of Petronet LNG Limited established under the Company's Act, 1956 having its registered office at 1st Floor, World Trade centre, Babar Road, Barakhamba Lane, New Delhi-110001, India (hereinafter referred to as the "Company" which expression shall unless repugnant to the context or meaning thereof, include all its Successors, Administrators, Executors and permitted Assignees), has floated/issued a Tender/ Bidding Document for

(Name of work)

[Bidding Document No.:

through press notification/ on limited basis, (hereinafter referred to as the "Tender" which expression shall include all the amendments thereto) and M/s _____ (Name of Bidder) having its Head/Registered Office at _____ (herein after referred to as the "Bidder" which expression unless repugnant to the context or meaning thereof, shall include all its Successors, Administrators, Executors and permitted Assignees) have submitted a Bid in response to the Tender enquiry and the Bidder having agreed to furnish as a condition precedent for participation in the said Tender an unconditional and irrevocable Bank Guarantee *hereinafter shall be referred to as this "Guarantee"+ of value _____ [in fig. as per currency indicated in Notice/Letter Inviting Bid] [in words _____] for the due performance of the Bidder's obligations as contained in the Instructions to Bidder *ITB+ and other terms and conditions contained in the Tender document supplied by the Company which amount is liable to be forfeited on the happening of any of the contingencies mentioned in the said Tender document.

2. We _____ (Name of Bank) established /registered under the laws of _____ (Name of the Country and Act/Laws) having its registered office at _____ (hereinafter referred to as the "Bank" which expression shall unless repugnant to the context or meaning thereof include all its successors, administrators, executors and permitted assignees) do hereby guarantee on behalf of the Bidder and undertake to pay immediately on demand signed by the Company's duly authorized officer, to the Company any money or all money up to the extent of the value of this Guarantee at the time but in any case not exceeding _____ (in Fig. with Currency) _____ (in words with Currency) in aggregate at any time without any demur, reservation, recourse, contest and/or without any reference to the Bidder. Any such demand made by the Company on the Bank shall be conclusive and binding on the Bank irrespective of any dispute or difference raised by the Bidder or any dispute pending before any Court, Tribunal, Arbitrator or any other authority.
3. The Bank confirms that this Guarantee has been issued in accordance with the appropriate laws in India [the country of issue].
4. The Bank also agrees that this Guarantee herein contained shall be irrevocable and shall continue to be enforceable in accordance with the Indian Laws and subject to exclusive jurisdiction of Indian Courts as per condition stipulated in Tender Document.
5. The Bank also agrees that the Company at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor, in the first instance, without proceeding against the Bidder and without any reference to the Bidder and notwithstanding any security or other Guarantee that the Company may have in relation to the Bidder's liabilities.
6. The Bank further agrees that this Guarantee herein contained shall remain in full force up to and including one month after the expiry of the Period of Bid validity i.e. upto _____ [30 days beyond the bid validity] that is taken as the obligations of the Bidder as per Tender document and it shall continue to be enforceable until all the dues of the Company, if any, under or by virtue of this Guarantee have been fully paid and its claim satisfied or discharged.
7. The Bank further agrees that this Guarantee shall not be determined or affected by the liquidation or winding up, dissolution or change of constitution or insolvency of the Bidder during the period this Guarantee is in force but shall be in all respects and for all purposes be binding and operative until payment of all money due to the Company in respect of such liability or liabilities is paid or no claim is lodged by the Company to the Bank within the claim period after the Guarantee expires.
8. The Bank further agrees that this Guarantee shall not be affected by any change in the Bank's Constitution. The Bank also undertakes not to revoke this Guarantee during its currency.
9. The Bank further agrees that to fulfill the Bidder's liability during the bidding process, if requested by the Bidder in writing, the Bank shall issue Amendment to this Guarantee, as and when required, incorporating the extended date of validity and/or other amendment.

10. Notwithstanding anything contained herein above:

- a) The Bank's liability under this Guarantee is limited to - _____ (in Fig with currency) _____ (in words with currency) in aggregate;
- b) This Guarantee shall remain in full force up to and including 30 (thirty) days after the expiry of the Period of Bid validity i.e. up to [Date] and any extension(s) thereof on written instruction from the Bidder on whose behalf this Guarantee has been given, in which case it shall remain in full force up to and including 30 (thirty) days after the extended date; and
- c) The Bank shall be released and discharged from all its liabilities and obligations under this Guarantee unless a written claim or demand is issued to the Bank on or before _____ <Date> or within the 30 (thirty) days of the date of expiry of the extended date and the Company's right under this Guarantee will cease.

11. The Bank further agrees that all claims under this Guarantee is payable to the Company in favour of the below said account number at New Delhi.

Beneficiary Name	Petronet LNG Limited
Beneficiary Address	First Floor, World Trade Centre, Babar Road, Barakhamba Lane, New Delhi -110001
Over Draft Account No.	32519890815
Bank Name	State Bank of India
Branch Address	Corporate Accounts Group Branch-II 4 th & 5 th Floor, Red Fort Capital Parsvanath Towers, Bhai Vir Singh Marg, Gole Market, Near Speed Post office, New Delhi – 110 001
Branch Code	17313
IFSC Code	SBIN0017313

12. The Bank has the power to issue this Guarantee under its Memorandum and Articles of Association and the undersigned is authorized to sign this Guarantee on behalf of the Bank and to bind the Bank thereby.

IN WITNESS whereof, the Bank_____has executed this
Guarantee at_____(Place) on_____(Date)

Signed and Sealed by Constituted Attorney

(Signature of a person authorized to sign on behalf of the Bank)

Name:
Designation:
Bank Name:

In presence of witness:

1. Signature _____

Name & Designation:

2. Signature _____

Name & Designation:

[Note: The Bank shall issue the confirmation letter of providing this Guarantee on behalf of the Contractor directly to the beneficiary at the above mentioned address]

Request Letter: Transmission of Bank Guarantee Cover Message <to be submitted by Bidder to BG issuing bank>

Date: _____

The Manager,

(Bank),

(Branch)

Sub: Inclusion of unique identifier while transmitting BG cover messages.

Dear Sir/Ma'am,

I/We, _____, request you to include unique identifier PLNG574440489 in field 7037 of the SFMS cover messages IFN COV 760 (for BG issuance) and IFN COV 767 (for BG amendment) while transmitting the same to the beneficiary bank (ICICI Bank, IFSC: ICIC00000007). This is required by Petronet LNG Limited as per their tender/contract requirement.

Thanking You,

The Template for MT 760-COV (SFMS) for issuing bank is mentioned below:

```
{
:7020:
:7022:
:7024:EMD/ BID SECURITY
:7025:INRxxxxx
:7026:
:7027:<Date of Issue>
:7029:<Expiry date>
:7030:<Place of Claim Lodgement>
:7031:<Issuing Bank IFSC>
:7032:<Issuing Bank Name>
:7033:<Bidder Name>
:7034:PETRONET LNG LIMITED <Address>
:7035:ICIC0000007
:7036:ICICI BANK LIMITED
:7037:PLNG574440489
-}
```

Instructions for payment of EMD/Tender Fee through PLL Online EMD Tender Fee Collection portal

- a. Please click or copy the link to the browser.
- b. Please note that bidder has to make EMD and Tender Fee payments separately.
- c. Please fill all the information for EMD or Tender fee, as the case may be, in the online form.
- d. Once bidder submit the information then system will redirect to ICICI bank pay2corp web page where bidder can choose following mode for online payment:
 - i. Debit Card
 - ii. Net banking (Retail/Corporate)
 - iii. Challan mode (EMD only)
- e. Outcome of payment mode selected:
 - i. **Debit card:** once payment is done, bidder will be redirected to PLL webpage and bidder shall get an e-mail confirmation for payment.
 - ii. **Net banking (Retail):** After authorization of payment on the respective bank webpage, bidder will be redirected to PLL webpage and bidder shall get an e-mail confirmation for payment.
 - iii. **Net banking (Corporate):** Bidder has to create the Cheque/ RTGS/ NEFT instruction on the respective bank's webpage, and after that bidder shall be redirected to PLL webpage with Payment awaiting message. Thereafter, transaction needs to be authorised by the approvers on the Corporate Net-banking portal of the respective bank and after authorisation, bidder shall get an e-mail confirmation for payment within next 30 Minutes.
 - iv. **Challan mode:** Bidder has to generate the Challan on pay2corp page, and then he will be redirected to PLL webpage with Payment awaiting message. Thereafter, bidder needs to make the payment to the bank account details provided in challan. Bidder to ensure payment authorization within 7 days from the date of challan generation. Once the payment is done, bidder shall get an e-mail confirmation for payment within next 30 Minutes.
- f. Bidder/s are advised not to close the browser while making online payment through ICICI Pay2corp.
- g. Bidder/s should wait for at least 30 minutes for payment confirmation mail after payment authorization in the respective bank.
- h. In case, amount is deducted from bidder's bank account and email confirmation has not been received by the bidder, then bidder should attach the proof of payment along with bid.
- i. Bidder should ensure the payment amount for EMD/Tender Fee as per Bid Document. In case, bidder has done the payment of incorrect amount then bidder should contact the PLL support team on emd@petronetlng.in.

Steps involved (Bidders perspective)

1. Bidder has to open the given link and following web page will be opened in browser.

The screenshot shows a web browser window with the address bar displaying "petronetlmg.in/emd/tender?number=1". The page header is dark blue with the Petronet LNG Limited logo and navigation links: "PL Corporate", "Our Businesses", "Our Commitment", and "Investors". There are also social media icons for Facebook, Twitter, LinkedIn, and YouTube.

The main content area is titled "EMD / Tender Form - Tender No.1". It contains a form with the following fields:

- Type of Payment* (Dropdown menu with "Select" as the current value)
- Vendor Name (As per bank account)* (Text input field)
- PAN of Vendor* (Text input field)
- Bank Account Number* (Text input field)
- Verify Bank Account Number* (Text input field)
- Amount in INR* (Text input field)
- IFSC* (Text input field)
- Bank Name* (Text input field)
- Branch* (Text input field)
- Name (contact person name)* (Text input field)
- Mobile Number* (Text input field)
- Attachment - Cancelled copy of cheque/Bank letter* (File upload button labeled "Choose File" and "No file chosen")
- Email Address (contact person mail id)* (Text input field)

Below the form, there is a checkbox labeled "I hereby confirm that the above particulars are accurate." and a note: "Note : For any issues, please reach out to the admin at emd@petronetlmg.in". A disclaimer states: "If the challan option is selected on the bank payment screen, please ensure that the RTGS/NEFT payment includes the challan number. Please refer the concerned tender document for details including the refund policy."

At the bottom of the form, there is a digital signature area with a box containing the word "ashok" and a "Text Verification" input field.

The footer of the page is dark blue and contains the text "Petronet LNG Limited", "Quick links", and "Other Links".

2. Bidder has to fill the following details in respective fields: -

- a. Type of Payment – EMD or Tender Fees
- b. Bidder Name
- c. PAN of Bidder
- d. Bank Account Number
- e. IFSC Code
- f. Amount in INR
- g. Bank Name
- h. Branch
- i. Contact Person Name
- j. Mobile Number
- k. Copy of cancelled Cheque / Bank Letter
- l. Contract Person mail address

EMD / Tender Form - Tender No. PLHDSJ7350

Type of Payment*

EMD

Vendor Name (As per bank account)*

PETRONET

PAN of Vendor*

AAACP8148D

Bank Account Number*

Verify Bank Account Number*

123456789

Amount in INR*

1

IFSC*

SBIN0000001

Bank Name*

DUMMY

Branch*

DUMMY

Name (contact person name)*

CHARIT

Mobile Number*

8130789224

Attachment - Cancelled copy of cheque/Bank letter *

Choose File CBOT notification.pdf

Email Address (contact person mail id) *

charitgoyal@petronetng.in

☒ I hereby confirm that the above particulars are accurate.

Note : For any issues, please reach out to the admin at emd@petronetng.in

If the challan option is selected on the bank payment screen, please ensure that the RTGS/NEFT payment includes the challan number.

Please refer the concerned tender document for details including the refund policy.

3. Bidder has to certify the filled details, enter captcha and click on Proceed for payment button.

Petronet LNG Limited / EMD/Tender

petronetlmg.in/emd/tender?number=PLHDS/7350

PL Corporate ▾ Our Businesses ▾ Our Commitment ▾ Investors ▾

1 SBIND000001

Bank Name* DUMMY

Branch* DUMMY

Name (contact person name)* CHARIT

Mobile Number* 8130789224

Attachment - Cancelled copy of cheque/Bank letter* Choose File CBOT notification.pdf

Email Address (contact person mail id)* charitgoyal@petronetlmg.in

☒ I hereby confirm that the above particulars are accurate.

Note: For any issues, please reach out to the admin at emd@petronetlmg.in

If the challan option is selected on the bank payment screen, please ensure that the RTGS/NEFT payment includes the challan number.

Please refer the concerned tender document for details including the refund policy.

7489

Text Verification

7489

Proceed for Payment

Petronet LNG Limited

For Regas capacity booking at Dahej Regasification LNG terminal and for availing Ancillary Services of Unloading-Storage-Reloading.

Quick Links

Contact us

Other Links

India Energy Week

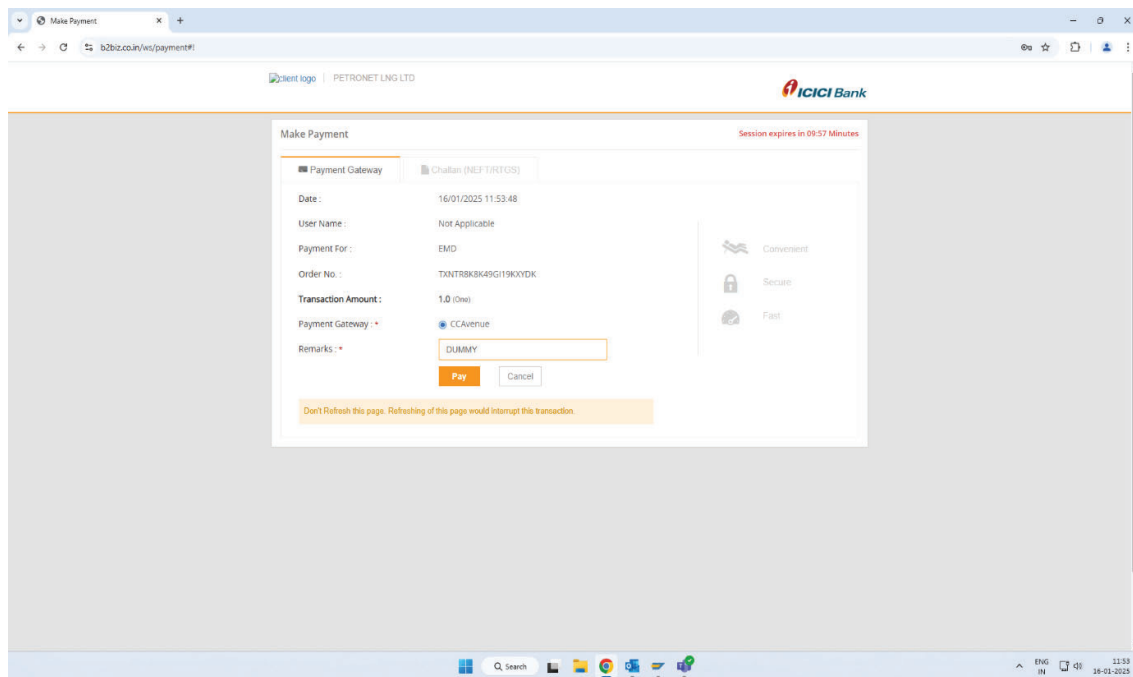
Q Search

ENG IN 11:53 16-01-2025

Kindly note that necessary validations are implemented in field box.

In case all details are not filled properly, then Proceed for Payment button will not be shown.

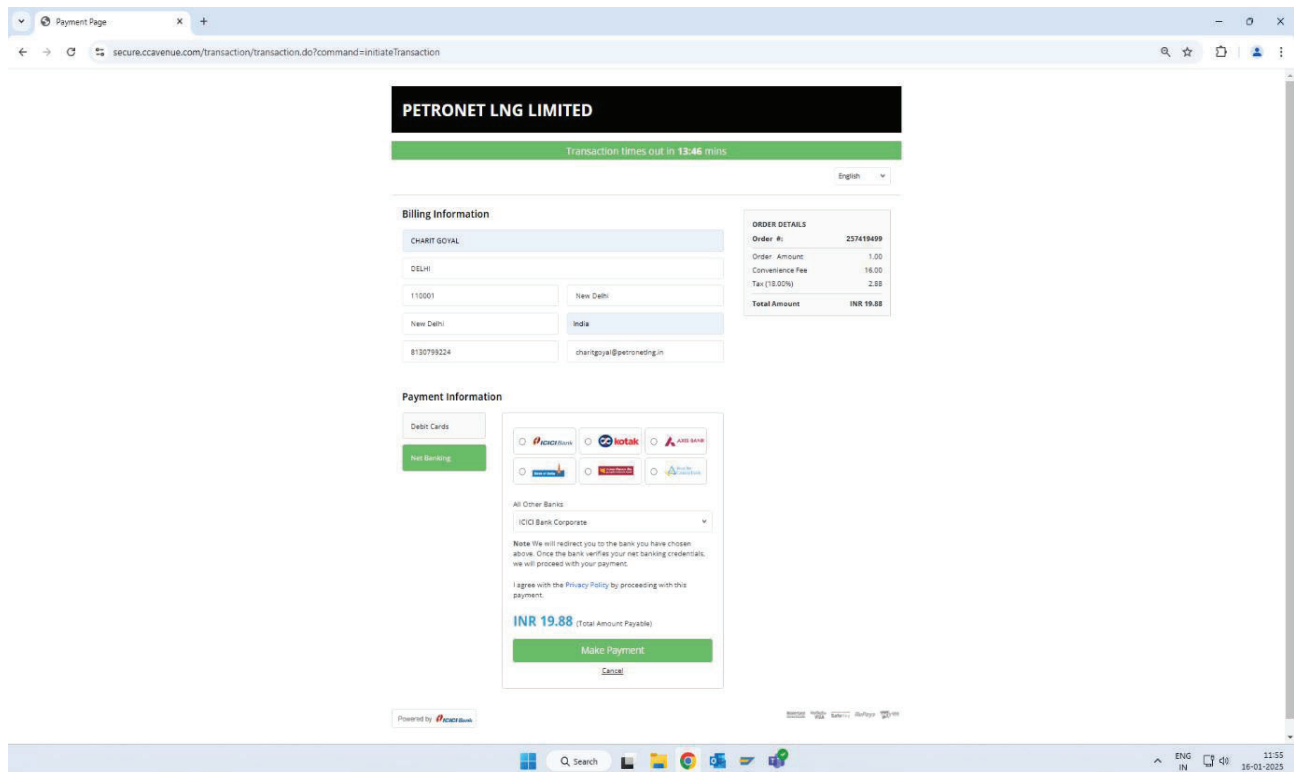
4. Once the Bidder click on Proceed for Payment button, following webpage will open.



5. Bidder has to select the mode of payment out of the following options: -

a. Payment Gateway

If the Bidder selects Payment Gateway option, then he has to provide **Remarks** and click on **Pay** button. Following webpage will open, where Bidder has to fill the billing information and make the payment from **Net-banking** or **Debit Card** and proceed accordingly.



Debit Card

Bidder has to fill the card details and then he will be redirected to the OTP page on Bank's website. Once he enters the OTP, transaction will be completed successfully, and Bidder will be redirected to Petronet EMD page with Payment confirmation message and receipt.

Simultaneously, a system generated mail will be triggered on Bidder's mail id along with Payment Receipt.

Personal Net-banking

Bidder has to click the Net-banking option and select his bank from the list and click on make payment option. Thereafter Bidder will be redirected to the Bank's Net-banking page and login with his credentials and make the payment. Transaction will be completed successfully, and Bidder will be redirected to Petronet EMD page with Payment confirmation message and receipt.

Simultaneously, a system generated mail will be triggered on Bidder's mail id along with Payment Receipt.

Corporate Net-banking

Bidder has to click the Net-banking option and select his bank's corporate portal from the list and click on make payment option. Thereafter Bidder will be redirected to the Bank's Corporate Net-banking page and login with his credentials and create the Cheque/ RTGS/ NEFT instruction. Bidder will be redirected to Petronet EMD page with Payment awaiting message and a system generated mail will be triggered on Bidder's mail id along with pending payment receipt.

Thereafter as per Bidder's SOP in place, transaction need to be authorised by the approvers on the Corporate Net-banking portal. After approval of transaction by the Bidder, status will be updated in the next 30 minutes on Petronet server and a payment success mail will be triggered on Bidder's mail address.

b. Challan Payment

If Bidder select challan payment, a unique challan will be generated, and Bidder will be redirected to Petronet EMD page with Payment awaiting message and a system generated mail will be triggered on Bidder's mail id along with challan.

Thereafter Bidder has to make the NEFT/RTGS payment on the account details provided in the challan generated. After processing of transaction by the Bidder, status will be updated in the next 30 minutes on Petronet server, and a payment success mail will be triggered on Bidder's mail address.

PETRONET LNG LTD	
Date:	09/01/2025 11:19:52
Beneficiary Name:	PETRONET LNG LIMITED PETCHEM ACCOUNT
Beneficiary Account No.:	PTRLNG235610
Beneficiary IFSC:	ICIC0000106
Bank Name:	ICICI Bank
Amount in Figure (in INR):	1.0
Amount in Words (in INR):	One
Reference No.:	TXNCP98XAQBLO985RUK6
Mode of Payment:	NEFT/RTGS
Client Code:	PTRLNG
IP Address & Date:	125.63.96.162 09/01/2025 11:19
Terms & Conditions: Please try to make NEFT/RTGS payment atleast one day prior to tender closing.	
Signature of Depositor	
(For BANK'S USE ONLY)	
Date of Transfer:	
Rupees:	
Debited A/c No.:	
Remittance No.:	
Authorised Signatory	
Branch Stamp	
	

SITE VISIT BY FOREIGN NATIONALS

If any foreign national representing the Bidder intends to visit the site, the following details must be submitted alongwith his request for site visit.

- a. Clearance from Indian Ministry as per the requirement of Government of India.
- b. Copy of Passport of visitor(s)
- c. Visa Document
- d. Duration of visit
- e. Purpose of visit
- f. Details regarding stay

The above details shall be furnished to Resident Construction Manager-EIL/PLL as per the contact address for site visit mentioned in the Invitation to Bid (IFB), one week before the date of site visit.

Annexure-1**PROFORMA OF "INSURANCE SURETY BOND (ISB)" FOR "EARNEST MONEY DEPOSIT/ BID SECURITY"**

(To be stamped in accordance with the Stamp Act)

To, M/s Petronet LNG Limited	Insurance Surety Bond No.	
	Date of ISB	
	ISB Valid up to (Expiry date)	
	Claim period up to (indicate date of expiry of claim period which includes minimum three months from the expiry date)	
	Stamp Certificate No.	Sl. No./e-Stamp

Dear Sir(s),

In accordance with Tender Document under your reference No _____ M/s. _____ having their Registered / Head Office at _____ (hereinafter called the Tenderer/Bidder), wish to participate in the said tender for _____

As an irrevocable Insurance Surety Bond against Earnest Money Deposit for the amount of _____ is required to be submitted by the Bidder as a condition precedent for participation in the said Tender Document which amount is liable to be forfeited on the happening of any contingencies mentioned in the Tender Document.

We, the _____ [Name & address of the Insurer] at _____ having our Head Office _____ (Local Address)

guarantee and undertake to pay immediately on demand without any recourse to the Bidder by Petronet LNG limited (PLL), the amount _____ without any reservation, protest, demur and recourse. Any such demand made by PLL, shall be conclusive and binding on us irrespective of any dispute or difference raised by the Bidder.

This Insurance Surety Bond shall be irrevocable and shall remain valid up to _____ [this date should be 90 days beyond the validity of the bid]. If any further extension of this Insurance Surety Bond is required, the same shall be extended to such required period on receiving instructions from Bidder M/s. _____ on whose behalf this Insurance Surety Bond is issued.

Notwithstanding anything contained herein:

- The Insurer's liability under this Insurance Surety Bond shall not exceed (currency in figures) (currency in words only)
- This Insurance Surety Bond shall remain in force upto _____ (this expiry date should be 90 days beyond the validity of bid) and any extension(s) thereof; and
- The Insurer shall be released and discharged from all liability under this Insurance Surety Bond unless a written claim or demand is issued to the Insurer on or before the midnight of (indicate date of expiry of claim period which includes minimum three months from the expiry of this Insurance Surety Bond) and if extended, the date of expiry of the last extension of this Insurance Surety Bond. If a claim has been received by us within the said date, all the rights of PLL under this Insurance Surety Bond shall be valid and shall not cease until we have satisfied that claim.

Annex. VIII

In witness whereof the Insurer, through its authorized officer, has set its hand and stamp on this
_____ day of _____ 2026 at _____.

Details of next Higher Authority of the Officials who have issued the Insurance Surety
Bond:

Name

Designation

WITNESS:

(SIGNATURE)

(NAME)

(OFFICIAL ADDRESS)

(SIGNATURE)

(NAME)

Designation with Insurer Stamp

E-Mail ID:

Telephone/Mobile No. :

Attorney as per

Power of Attorney No. _____

Date:

**INSTRUCTIONS FOR FURNISHING "BID SECURITY DEPOSIT/ EARNEST
MONEY" BY "INSURANCE SURETY BOND"**

- a) The Insurance Surety Bond shall be from Insurance Regulatory and Development Authority of India (IRDAI) registered general insurance companies as per guidelines issued by Insurance Regulatory and Development Authority of India (IRDAI).
- b) The Employer shall be the Creditor, the Bidder shall be the Principal debtor and the Insurance company/Insurer shall be the Surety in respect of the Insurance Surety Bond to be issued by the Insurer.
- c) The Insurance Surety Bond should be on Non-Judicial stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the state(s) where the Insurance Surety Bond is submitted or is to be acted upon or the rate prevailing in State where the Insurance Surety Bond is executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Bidder/Insurer issuing the Insurance Surety Bond.
- d) The expiry date should be arrived at in accordance with "ITB: Clause-C9 of Part-1".
- e) The Insurance Surety Bond by bidders will be given by an insurance company having a **credit rating of AA or above** from **CRISIL/ICRA**. Please note that this rating criteria requirement does not apply to **public sector insurance companies**.
- f) A letter from the issuing insurer of the requisite Insurance Surety Bond confirming that said Insurance Surety Bond / all future communication relating to the Insurance Surety Bond shall be forwarded to the Purchaser at its address as mentioned at "ITB".
- g) Bidder must indicate the full postal address of the Insurer along with the Insurer's E-mail / Fax / Phone from where the Insurance Surety Bond has been issued.

**MATTER TO BE MENTIONED IN COVERING LETTER TO BE SUBMITTED
BY VENDOR ALONG WITH INSURANCE SURETY BOND**

1	INSURANCE SURETY BOND NO	:			
2	VENDOR NAME / VENDOR CODE	:	NAME		
			VENDOR CODE		
3	INSURANCE SURETY BOND AMOUNT	:			
4	TENDER NO	:			
5	NATURE OF INSURANCE SURETY BOND	:			
	(Please Tick (√) Whichever is Applicable		PERFORMANCE INSURANCE SURETY BOND	SECURITY DEPOSIT	EMD
6	INSURER DETAILS	(A)	EMAIL ID:		
(B)		ADDRESS:			
(C)		PHONE NO:			



PETRONET LNG LIMITED (PLL) - PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT

SPECIAL CONDITIONS OF CONTRACT

FOR EPCC/LSTK WORKS

	SPECIAL CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL)	PAGE 2 / 5	
BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028			

The clauses of Conditions of Contract are amended to the following extent:

S.NO.	ARTICLE /CLAUSE NO.	CLAUSE HEADING	AMENDED/NEW CLAUSE
1.	1.1.18 (Defined Terms)	“Commissioning”	“Commissioning” in respect of the Facility shall be as per the provisions stipulated in the Bidding Document.
2.	1.1.51 (Defined Terms)	“Facility”	“Facility” shall mean CCR Package of PDH Unit including all the plant, machinery and equipment, as defined in the Technical Documents and related piping, electrical, instrumentation and other facilities described in more detail in the Technical part, which are to be designed, engineered, procured, developed, constructed, tested, mechanically completed and handed over by the Contractor to the Owner in accordance with the Scope of Work, the Technical Documents and the other terms and conditions of this Contract.
3.	1.1.64 (Defined Terms)	“Guaranteed Mechanical Completion Date”	“Guaranteed Mechanical Completion Date” shall mean the date that occurs Twenty-Four (24) months immediately following the Effective Date or such extended date in accordance with the terms and conditions of this Contract.
4.	2.2		[NOT USED]
5.	10.3.2	Site	PLL will offer land for use of only contractor’s office (Porta Cabins) inside the PLL premises up to 3 months after completion of works on free of cost basis. Porta cabins may be shifted multiple times due to space constraint at site, the same shall be carried out at free of cost by the contractor. In case, contractor fails to clear the site beyond 3 months after completion of works (as defined above), the payment of final Bill and release of CPBG shall be withheld and can be done only after full vacation of site by contractor. Additionally, PLL shall charge/levy rent for occupying land inside PLL premises at twice the rate to be decided by rental formula (as per applicable Government norms in force). Decision of Engineer-In-Charge in this regard to applicability of rental charge shall be final and binding on the contractor and same will not be subject of Arbitration process. Land required for Fabrication yard, blasting & painting, batching plants, storage areas, warehouses and Lay-down area for fabrication shall be arranged by the contractor outside PLL premises preferably within vicinity of PLL complex and with

	SPECIAL CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL)	PAGE 3 / 5	
BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028			

S.NO.	ARTICLE /CLAUSE NO.	CLAUSE HEADING	AMENDED/NEW CLAUSE
			minimum / NIL obstructions for ODC movement to site. Construction power and Water at Fabrication yard to be arranged by Contractor. The fabrication of sections shall be done at fabrication yard and transported to Site by Contractor considering the ODC guidelines. Only site joints shall be done inside PLL complex, fabrication of the sections to be done at Yard. Contractor may use shop fabrication facility for sections fabrication with limits considering the ODC criteria for transportation to Site. No land shall be provided for accommodation purposes to the CONTRACTOR, or the purposes of any CONTRACTOR's personnel.
6.	11.2.1 (2)	Execution of Contract	NOT USED.
7.	12.1.6	Payment Milestones	Payment Milestone: - Ordering of Regenerator & Reactors - Completion of piling and foundation works of CCR Regeneration Section - Delivery of Regenerator & Reactor - Erection of Regenerator and Reactors
8.	14.2.1 (a)	Interest on Mobilization Advance	The mobilization advance will attract an interest rate of 2% per annum (applicable on the date of disbursement of mobilization advance) on reducing balance basis.
9.	14.10	Composite Bank Guarantee (CBG)	Composite Bank Guarantee (CBG) In case mobilization advance is paid to the contractor under the provisions of article 14.2, Contractor has the option to furnish a Composite Bank Guarantee as per Attachment A4 to CoC to cover both mobilization advance as well as performance bank guarantee, which shall be subject to the following conditions: - The Composite Bank Guarantee will for an equivalent amount equal to one hundred ten percent (110%) of the Work Advance Value and shall be kept valid up to 3 months beyond the expiry of the Defect Liability Period. - The Work Advance shall be paid as per the provision given in article 14.2.1 (a) to (d).

	SPECIAL CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL)	PAGE 4 / 5	
BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028			

S.NO.	ARTICLE /CLAUSE NO.	CLAUSE HEADING	AMENDED/NEW CLAUSE
			c. Recoveries will be effected from each running account bill as per the article 14.2.2. d. Initially, the composite Bank Guarantee will be entirely reckoned towards Work advance / mobilization advance and progressively, the portions of Composite Bank Guarantee, vacated by the recoveries effected towards mobilization advance, shall be reckoned towards performance bank guarantee, such that after the mobilization advance stands fully recovered with interest accrued thereon, the entire composite Bank Guarantee shall be reckoned to cover the performance bank guarantee for the work. e. All the other stipulations as mentioned in article 14.9 hereof in respect of PBG shall be applicable.
10.	14.11	Additional Performance Bank Guarantee For AMC	In addition to the Performance Bank Guarantee as per Article 14.9 or Composite Bank Guarantee as per Article 14.10, before 30 days of Final Acceptance, Contractor shall provide the Owner with an irrevocable, unconditional, first demand bank guarantee issued by an Acceptable Bank in the same FORMAT as of Attachment A2 of CoC for an amount equal to 10% of the Maximum annually AMC amount. This additional performance bank guarantee shall remain valid and effective and be maintained in full force for the AMC period from the date of Final Acceptance plus three months. This additional Bank Guarantee shall be used for performance of Scope of Annual Maintenance Contract.
11.	New Clause 14.12	Insurance Surety Bond (ISB)	a. In lieu of “Performance Bank Guarantee”, Contractor may also submit “Insurance Surety Bond” from an Indian Insurance Company (Insurer) in the format enclosed as Attachment-S1 to this Special Conditions of Contract. Insurance Company issuing Bond shall have credit rating of at least ‘AA’ by CRISIL Ltd. or an equivalent rating from ICRA. However, this condition of rating shall not be applicable for public sector insurance companies. b. All other tender provisions applicable for Performance Bank Guarantee shall also be applicable for Insurance Surety Bond. c. Insurance Surety Bond submission shall not be allowed in

	SPECIAL CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL)	PAGE 5 / 5	
BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028			

S.NO.	ARTICLE /CLAUSE NO.	CLAUSE HEADING	AMENDED/NEW CLAUSE
			lieu of Composite Bank Guarantee and Work Advance Repayment Bank Guarantee. In case the Contractor intends to avail Mobilization Advance, the Contractor shall submit Work Advance Repayment Bank Guarantee in addition to Performance Bank Guarantee or Insurance Surety Bond.
12.	New Clause	Engagement of New Engineering Subcontractor During the Contract Period	The selected contractor shall not change the engineering sub-contractor (on whose basis the contractor was qualified for this tender) over the period of contract duration. However, in exceptional cases, change in Engineering sub-contractor can be proposed for owner approval based on PTR inline with clause no. 4.1.1.1 (a) of IFB with justification. This shall however be without any change in the acceptance rates of the contract agreement and without any time and cost implication to PLL.

PROFORMA OF SURETY BOND FOR CONTRACT PERFORMANCE SECURITY*(To be executed on non-judicial stamp paper of appropriate value)*

Ref.....

Guarantee No.....

To,

Petronet LNG Limited

4th Floor, Tower-I, World Trade Center

Nauroji Nagar

New Delhi – 110029

Dear Sir (s),

In consideration of you, Petronet LNG Limited a Company duly incorporated and executing under the laws of India having its office at 04th, 05th and 06th Floor, Tower -I, World Trade Center, Nauroji Nagar, New Delhi - 110 029 (hereinafter referred to as the “**PLL**”, which expression shall unless it be repugnant to the subject or context thereof include its successors and assigns) having awarded the Contract to **[insert name of the Contractor]** having its registered office at **[insert address of the Contractor]** (hereinafter referred to as the “**Contractor**”, which expression shall unless it be repugnant to the subject or context thereof include its/their executors, administrators, successors and assigns) in relation to **[insert Contract Name/Work Description]** pursuant to the Contract Agreement bearing Reference Number **[insert reference number]** (hereinafter collectively referred to as “**Contract Documents**”), we **[insert name of the Insurer]** having our registered office at **[insert registered address of the Guarantor]** and one of its branch at **[insert relevant branch address of the Insurer]**, at the request of the Contractor, do hereby irrevocably, unconditionally, and without reservation guarantee the due and faithful performance, discharge and compliance of all the terms, conditions, and obligations under the Contract Documents by the said Contractor and unconditionally undertake to pay to PLL forthwith on first demand without any demur, reservation, recourse, contest, protest, or requiring proof of satisfaction or condition, and without reference to the Contractor, an amount of **INR _____ (Rupees _____ only) [insert Guarantee Amount]** (hereinafter referred to as the “**Guaranteed Amount**”) as our primary obligation under this Insurance Bond. Any such demand made by PLL on the insurer shall be conclusive, binding and notwithstanding any difference between PLL and the Contractor or any dispute pending before any court, tribunal or any other authority. .

NOW, THEREFORE, the Insurer hereby unconditionally and irrevocably guarantees and affirms as follows:

1. This Insurance Bond (“**Performance Guarantee**”) shall be a continuing guarantee and shall remain in full force and effect till all claims or demands made by the PLL on the Insurer (“**Guarantor**”) are realised and/or until the PLL discharges this Bond, subject however that the PLL shall have no claims under this Guarantee after **[insert time and date including at least 03 (three) months beyond the defect liability period, plus six months’ claim period]** or any written extension(s) thereof.
2. In order to give full effect to this Bond, PLL shall be entitled to treat the Insurer (“**Guarantor**”) as the Principal Debtor. PLL shall have the fullest liberty without affecting in any way the liability of the Insurer under this Bond / Guarantee from time to time or to vary any of the terms and conditions contained in the said Contract Documents or to extend time for performance of the

Contract or the validity period of the Performance Guarantee or the period for compliance with any obligations by the Contractor or to postpone for any time and from time to time any of the powers exercisable by PLL against the said Contractor and either to enforce or forbear from enforcing any of the terms and conditions contained in the said Contract Documents or the securities available to PLL, and the Guarantor shall not be released from its liability under these presents by any exercise by PLL of the liberty with reference to the matters aforesaid or by reason of time being given to the said Contractor or any other forbearance, act or omission on the part of PLL or any indulgence by PLL to the said Contractor or by any change in the constitution of PLL or its absorption, merger or amalgamation with any other person or any other matter or thing, whatsoever, which under the law relating to Guarantee would but for this provision have the effect of releasing the Guarantor from its such liability.

3. It shall not be necessary for the PLL to proceed against the Contractor before proceeding against the Guarantor and the Guarantee herein contained shall be enforceable against the Insurer / Guarantor as the Principal Debtor notwithstanding the existence of any other undertaking or security for any indebtedness of the Contractor to the PLL and notwithstanding that any such security shall at the time when claim is made against the Guarantor or proceedings taken against the Guarantor hereunder, be outstanding or unrealized.
4. The amount stated by the PLL in any demand, claim or notice if made with reference to this Insurance Bond shall as between the Guarantor and the PLL which shall be final, conclusive and binding with regard to the amount payable by the Guarantor to the PLL hereunder.
5. The liability of the Insurer / Guarantor to PLL under this Guarantee shall remain in full force and effect notwithstanding the existence of any difference or dispute between the Contractor and the PLL, the Contractor and the Guarantor and/or the Guarantor and the PLL or otherwise, howsoever, related to this Insurance Bond or Guarantee or the liability of the Contractor to the PLL, and notwithstanding the existence of any instructions or purported instructions by the Contractor or any other person to the Guarantor not to pay or for any cause withhold or defer payment to the PLL under this Insurance bond / Guarantee, with the intent that notwithstanding the existing of such difference, dispute or instructions, the Guarantor shall be and remain liable to make payment to the PLL in terms thereof.
6. We, the Guarantor, further agree that PLL shall be the sole judge to decide as to whether the Contractor is in default of due and faithful fulfilment and compliance with the terms and conditions contained in the aforesaid Contract Documents and the decision of PLL that the Contractor is in default as aforesaid shall be final and binding on us, notwithstanding any differences between PLL and the Contractor or any dispute pending before any Court, Tribunal, Arbitrator or any other authority.
7. This Guarantee shall not be determined or affected by the liquidation or winding up or dissolution or change of constitution or insolvency of the Contractor or any change in the legal constitution of the Insurer / Guarantor or the PLL.
8. Any notice by way of request, demand or otherwise hereunder shall be sufficiently given or made if addressed to the Insurer / Guarantor and sent via email or by courier or by registered post, to the Insurer / Guarantor at the address set forth herein.
9. We undertake to make the payment on receipt of your notice of claim on us addressed to name of Guarantor along with branch address and delivered at our above branch and/or via email to: **[insert email ID]** which shall be deemed to have been duly authorized to receive the said notice of claim.

10. The Insurer's obligations under this Bond / Guarantee shall not be reduced by reason of any partial performance of the Contract by the Contractor. The Insurer's obligations under this Bond shall not be reduced by any failure by PLL to timely pay or perform any of its obligations under the Contract.
11. We, the Insurer / Guarantor, further undertake not to revoke this Guarantee during its currency except with the previous express consent of PLL in writing.
12. The Insurer / Guarantor declares that it has power to issue this Guarantee and discharge the obligations contemplated herein, the undersigned is duly authorised and has full power to execute this Guarantee for and on behalf of the Contractor.
13. This Guarantee issued by us is in full compliance with applicable laws of India, as amended from time to time.
14. This Insurance Bond / Guarantee is for the benefit of PLL and its successors and assigns. This Bond/Guarantee is binding not only on the Guarantor, but also on the Guarantor's successors and permitted assigns. The Guarantor shall not assign its rights and obligations hereunder to any person, insurer, company or other entity unless permitted by PLL in writing.
15. Notwithstanding anything herein:
 - 1 The Insurer's / Guarantor's liability under this Guarantee shall not exceed Rs. **[insert Guarantee Amount]**;
 - 2 This Bond / Guarantee shall remain in force until **[insert]**;
 - 3 This Bond/ Guarantee shall have additional claim period of **[six]** months thereafter; and
 - 4 The Insurer / Guarantor is liable to pay the Guaranteed amount or any part thereof under this Bond / Guarantee only if PLL serves upon the Guarantor a written claim or demand upon the Guarantor or any branch thereof on or before the aforesaid claim period.

Signed and sealed this [●] day of [●], [●] at [●].

SIGNED, SEALED, AND DELIVERED

For and on behalf of the Guarantor by:

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

-----O-----O-----O-----O-----

Instructions: -

- a) The surety bond shall be from a Surety Insurer as per guidelines issued by Insurance Regulatory and Development Authority of India (IRDAI) as amended from time to time.
- b) The surety bond should contain the name, designation and code number of the officer(s) signing the surety bond.
- c) The address, telephone number, E-mail and other details of the head office of the surety insurer as well as of issuing branch should be mentioned on the covering letter of issuing branch. The letter may also include any web portal link, from where the Surety Bond can be confirmed by the Company.
- d) The Insurance Surety Bond should be on Non-Judicial stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the state(s) where the Insurance Surety Bond is submitted or is to be acted upon or the rate prevailing in State where the Insurance Surety Bond is executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Bidder/Insurer issuing the Insurance Surety Bond.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 1 / 131	
		REV. 0	

PETRONET LNG LIMITED (PLL) - PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT

CONDITIONS OF CONTRACT FOR EPCC/LSTK WORKS

TABLE OF CONTENTS

TABLE OF CONTENTS	2
ARTICLE 1 - DEFINITIONS.....	4
ARTICLE 2 - CONTRACTOR'S WORK.....	16
ARTICLE 3 - CONTRACTOR'S ACCEPTANCE OF THE WORK AND SITE	18
ARTICLE 4 - PERFORMANCE AND RESPONSIBILITIES.....	21
ARTICLE 5 - CONTRACTOR'S PERSONNEL.....	33
ARTICLE 6 - SUBCONTRACTORS AND SUPPLIERS	37
ARTICLE 7 - SHIPMENT.....	41
ARTICLE 8 - TRAINING AND OBSERVATIONS.....	43
ARTICLE 9 - ACCOUNTING RECORDS AND AUDIT.....	44
ARTICLE 10 - OWNER'S RESPONSIBILITIES	45
ARTICLE 11 - EFFECTIVENESS	47
ARTICLE 12 - CONTRACT SCHEDULE.....	48
ARTICLE 13 - PRICE.....	50
ARTICLE 14 - PAYMENT	58
ARTICLE 15 - CHANGE ORDER	66
ARTICLE 16 - RIGHT TO INSPECT	69
ARTICLE 17 - ACCEPTANCE PROCEDURES, MECHANICAL COMPLETION, PRE-COMMISSIONING, COMMISSIONING (AVAILABILITY COMPLETION), PGTR (PROVISIONAL ACCEPTANCE) AND FINAL ACCEPTANCE.....	72
ARTICLE 18 - GENERAL WARRANTIES.....	77
ARTICLE 19 - COMPLETION AND PERFORMANCE GUARANTEES AND WARRANTIES.....	80
ARTICLE 20 - PRICE REDUCTION SCHEDULE	81
ARTICLE 21 - USE AND POSSESSION OF FACILITY; RISK OF LOSS.....	83
ARTICLE 22 - TITLE.....	84
ARTICLE 23 - INSURANCE	86
ARTICLE 24 - CHANGE OF LAW.....	87
ARTICLE 25 - FORCE MAJEURE	88
ARTICLE 26 - SUSPENSIONS.....	90
ARTICLE 27 - TERMINATION.....	91
ARTICLE 28 - INDEMNIFICATION	95
ARTICLE 29 - PROPRIETARY INFORMATION; COMPUTER DATA; LICENSES AND INVENTIONS.....	98
ARTICLE 30 - DISPUTES.....	101
ARTICLE 31 - MISCELLANEOUS.....	105
ATTACHMENT A1 [NOT USED]	109
ATTACHMENT A2: FORM OF PERFORMANCE BANK GUARANTEE	110
ATTACHMENT A-3	114
ATTACHMENT A-4	119

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 3 / 131	
		REV. 0	

EXHIBITS

EXHIBIT A: DELETED

EXHIBIT B: RELEASE OF FRONT TO THE CONTRACTOR

EXHIBIT C: CONTRACT SCHEDULE

EXHIBIT D: CONTRACT PRICE SCHEDULE

EXHIBIT E: QUALIFICATION & EXPERIENCE REQUIREMENT OF KEY CONSTRUCTION PERSONNEL AND PENALTY FOR THEIR NON-MOBILIZATION

EXHIBIT F: PROFORMA FOR APPROVAL OF CONSTRUCTION SUB-CONTRACTOR

EXHIBIT G: PAYMENT SCHEDULE

EXHIBIT H: GENERAL PROJECT REQUIREMENTS AND PROCEDURES

EXHIBIT I: INSURANCE

EXHIBIT J: SPECIFICATIONS FOR DOCUMENTATION REQUIREMENTS FROM CONTRACTORS

EXHIBIT K: SPECIFICATION FOR QUALITY MANAGEMENT SYSTEM REQUIREMENTS FROM BIDDERS

EXHIBIT L: DELETED

EXHIBIT M: FREE ISSUE MATERIAL DETAILS

EXHIBIT N: CONDITIONS FOR ISSUE AND RECONCILIATION OF MATERIALS

EXHIBIT O: CALIBRATION REQUIREMENT OF MONITORING AND MEASURING DEVICES AT CONSTRUCTION SITES

EXHIBIT P: STANDARD SPECIFICATIONS ON HEALTH, SAFETY AND ENVIRONMENT (HSE) MANAGEMENT AT CONSTRUCTION SITE

EXHIBIT Q: OISD-192 & OISD-207

EXHIBIT R: METHODOLOGY FOR PROCUREMENT OF STRUCTURAL STEEL, TMT BARS & CEMENT BY CONTRACTORS

EXHIBIT S: WORK DURING MONSOON

EXHIBIT T: DELETED

EXHIBIT U: FORM OF CONTRACT

EXHIBIT V: GUIDELINES FOR TRANSPORTATION OF ODC CONSIGNMENTS FROM FABRICATION YARD / SHOP TO SITE

EXHIBIT W: DELETED

EXHIBIT X: TERMS & CONDITIONS FOR POST WARRANTY ANNUAL MAINTENANCE CONTRACT (PWAMC)

EXHIBIT Y: DELETED

EXHIBIT Z: GENERAL REQUIREMENT FOR RADIOGRAPHY & OTHER NDT

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 4 / 131	
		REV. 0	

ARTICLE 1 - DEFINITIONS

1.1 Defined Terms

For the purposes of the Contract, in so far as the context admits and unless otherwise defined in the Contract, capitalised terms used in the Contract shall have their respective meanings set forth hereunder:

1.1.1 **“12% Amount”** shall have the meaning ascribed thereto in Article 14.2.2.

1.1.2 **“Acceptable Bank”** shall mean the State Bank of India constituted under the State Bank of India Act 1955; or a "Schedule Commercial Bank (in the category of Public Sector Banks and Private Sector Banks)" in India (as defined under the Reserve Bank of India Act, 1934) whose long term debt is rated at least AA+ (AA plus) by CRISIL Ltd. or assigned an equivalent rating by some other Indian Credit Rating Agency, ICRA, CARE or India Ratings, and acceptable to PLL in its sole discretion, or an international bank (having a branch in India)(Scheduled Foreign Banks in India) whose long term debt is rated at least A- (A minus) (or equivalent) by Standard & Poor Corporation / Fitch Ratings or A3 (or equivalent) by Moody's Investor Services.”

In case, where more than one Rating is taken by Bank, lowest rating shall be considered for Acceptance of Bank.

Any Foreign Bank which is not a Scheduled Foreign Bank in India is also acceptable provided that offered documents like BG/LC etc. are counter guaranteed by any Indian Bank meeting the criteria of Acceptable Bank.

1.1.3 **“Advance Payments” or “Work Advance”** shall have the meaning ascribed thereto in Article 14.2.1.

1.1.4 **“Affiliate”** shall mean, with respect to any company/corporation/person, a company/corporation/person that directly or indirectly, through one or more intermediaries, controls, is controlled by or is under common control with, such first mentioned company/corporation/person. The term "controls" when used with respect to a company/corporation/person shall mean (a) an ownership of more than fifty percent (50%) of the voting rights or other equity interests of the relevant company/corporation/person directly or indirectly, legally or beneficially; or (b) the possession, direct or indirect, of the power or authority to direct or cause the direction of the management and policies of the relevant company/corporation/person, whether through the ownership of voting securities, by contract or otherwise and all cognate expressions including "controlled" and "under common control with" shall be construed accordingly.

1.1.5 **“Applicable Law”** shall mean, any law, legislation, statute, act, by-law, rule, regulation, ordinance, order, decree, protocol, notification, policy, administrative guideline, ruling, instruction, directive, code, requirement, consent, license, approval, permit, judgement, court order, international treaty or any interpretation thereof by any Governmental Authority/Courts or by any Person acting under the authority of any Governmental Authority and / or of any statutory authority, as may be applicable from time to time, to this Contract and to the exercise, performance and discharge of the respective rights and obligations of the Parties, or to the Parties, as the context may require.

1.1.6 **“Applicable Tax Law”** shall mean any Applicable Law of India including but not limited to Goods and Service Tax law:

- (a) Imposing or governing the levy of any Indirect Tax
- (b) Providing exemptions/concessions in relation to Indirect Tax,

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 5 / 131 REV. 0	

for abundant caution it is clarified that Applicable Tax Law excludes Applicable Law pertaining to any Excluded Taxes.

- 1.1.7 **“Approval”** and its grammatical variations shall mean approved or confirmed in writing by Engineer-in-Charge.
- 1.1.8 **“Authorisations”** shall mean any and all regulations, clearances, licenses, no objection certificates, exemptions, consents, decrees, orders, permits, waivers, privileges and approvals from and filings and registrations with any and all Governmental Authorities that have been obtained or are required to be obtained and maintained in relation to the Work or the Project under Applicable Law.
- 1.1.9 Deleted
- 1.1.10 Deleted
- 1.1.11 Deleted
- 1.1.12 **“Bidding Documents”** mean the Notice Inviting Bids/ Letter Inviting Bids, the instruction to bidders (including annexures), form of bid (including appendices), the Contract Agreement, the Conditions of Contract, the Specifications and all other reports, surveys, drawings and documents including amendments, if any, provided to the Contractor by EIL/PLL.
- 1.1.13 **“CFR”** shall mean Cost and Freight as defined in INCOTERMS 2020 (ICC Publication 723).
- 1.1.14 **“CGST”** shall mean Central Goods and Service Tax leviable under Goods and Service Tax law
- 1.1.15 **“Change in Law”** shall mean the occurrence of any of the following events, after the Relevant Date:
- (a) Enactment of any new Applicable Law in India other than in relation to the imposition of, or governing the levy of Excluded Taxes;
 - (b) Modification or repeal of any existing Applicable Law of India other than in relation to the imposition of, or governing the levy of Excluded Taxes;
 - (c) Any change in the interpretation or enforcement of any Applicable Tax Law by a decision rendered by the Supreme Courts of India;
 - (d) Increase or decrease in the rates of Tax imposed under any Applicable Tax Law in force on the Relevant Date;
- Provided “Change in Law” shall not include
- (1) any change in the interpretation or application of any Applicable Law except as provided in sub clause (c) above; and
 - (2) any enactment, modification, repeal, interpretation or application of any Applicable Law of India, other than clause (d) above, which increases market prices of goods, commodities, labour and services in general.
- 1.1.16 **“Change Order”** shall have the meaning ascribed to it in Article 15.3.
- 1.1.17 **“CIF”** shall mean Cost, Insurance and Freight as defined in INCOTERMS 2020 (ICC Publication 723).
- 1.1.18 **“Commissioning”** shall mean as defined in Special Conditions of Contract.
- 1.1.19 **“Commissioning Notification Date”** shall mean the date when owner notifies the Contractor to carry out the Commissioning, occurring on or after the Guaranteed Mechanical Completion Date.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 6 / 131	
		REV. 0	

- 1.1.20 **“Completion Guarantees”** shall have the meaning ascribed thereto in Article 19.1.1.
- 1.1.21 **“Component Value”** shall mean the portion of the Contract Price allocated to each Component of a Work Item as set forth in the Contract Price Schedule.
- 1.1.22 **“Component”** shall mean each separate individual good or service comprising each Work Item and for which a separate value is stipulated in the Contract Price Schedule (Exhibit D) (or if such Work Item is not divided into smaller components for which separate values are stipulated, such Work Item), as set forth in the Contract Price Schedule (Exhibit D).
- 1.1.23 **“Composite Bank Guarantee (CBG)”** shall have the meaning ascribed thereto in Article 14.10
- 1.1.24 **“Computer Data”** shall mean all electronic deliverables which are originated and / or developed by Contractor for delivery to Owner at Provisional Acceptance of the WORK and specified additional works, as specified in the Contract.
- 1.1.25 **“Computer Programs”** shall mean computer programs or software which are purchased, developed or licensed by the Contractor for delivery with the WORK and specified additional works as are necessary for the operation, maintenance, repair of the WORK and specified additional works or for training of Owner’s personnel, such as but not limited to, Control Systems software.
- 1.1.26 Deleted
- 1.1.27 Deleted
- 1.1.28 Deleted
- 1.1.29 **“Construction and Erection Work Items”** shall mean the items of Work as specified in the Contract Price Schedule.
- 1.1.30 **“Contract Price Portion”** shall have the meaning ascribed thereto in Article 27.3.1.
- 1.1.31 **“Contract Price Schedule”** shall mean the information and data relating to the components of the Contract Price submitted with the bid by Contractor and attached to the Contract as Exhibit D.
- 1.1.32 **“Contract Price”** shall have the meaning ascribed thereto in Article 13.1.
- 1.1.33 **“Contract Schedule”** shall mean the schedule of the Work set forth in Exhibit C as adjusted pursuant to Article 12.5.
- 1.1.34 **“Contract”** shall mean this works contract for engineering, procurement, construction and commissioning along with all Annexes, Schedules, Attachments, Exhibits, Appendices and documents attached thereto, including the Technical Documents, which may be modified, amended and supplemented from time to time in accordance with the terms thereof.
- 1.1.35 **“Contractor”** shall mean the bidder selected by the OWNER for the faithful performance of the Work and supply of materials and shall include the successors, legal heirs, authorised representatives and permitted assigns of the CONTRACTOR, and if the CONTRACTOR is consortium, shall include each member thereof.
- 1.1.36 **“Contractor Taxes”** shall mean all Taxes leviable on the Contractor and its Subcontractors/sub-vendors/Suppliers under Applicable Law in relation to this Contract and performance of Contractor’s obligations hereunder, including but not limited to the following:
- (a) All Taxes on Contractor’s or Subcontractor’s/Supplier’s/sub-vendor’s income, profit, real and personal property;
 - (b) All applicable payroll, withholding, social security, workers’ compensation and

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 7 / 131	
		REV. 0	

employment taxes and contributions imposed under any law in connection with or measured by compensation (including without limitation wages and salaries) paid to or for the benefit of employees of the Contractor or Subcontractors/sub-vendors (including without limitation taxes, health and welfare funds, minimum wages, provident fund, employee state insurance, gratuity, pensions and annuities, disability insurance and all other similar social payments under labour laws or otherwise under Applicable Laws;

- (c) Any payments required to be made under the Building and Other Construction Workers Welfare Cess Act, 1996);
- (d) Any municipal/panchayat level tax or similar taxes/duties/cesses leviable on entry of goods pursuant to the Contract into a local area/state.
- (e) Taxes, if any, on the Owner making available power and water as per clause 4.3.1 (and such other facility made available by the Owner under this Contract), which shall be borne and paid by the Contractor.
- (f) All Taxes applicable on the Contractor's Equipment,

but shall exclude PLL GST. 'Contractor Taxes' shall also exclude Goods Customs Duties in a scenario where import of Equipment and Materials from outside India is undertaken by the Owner under its own IE code pursuant to a high sea sale/transfer outside India by the Contractor of the said Equipment and Materials.

- 1.1.37 **"Contractor's Liability Insurance"** shall mean the insurance to be obtained and maintained by Contractor as per Article 1 of Exhibit I (Insurance).
- 1.1.38 **"Contractor's Equipment"** shall mean any and all equipment, materials, tools, implements, supplies, structures and other items purchased, rented or furnished for or in connection with the performance of the Work and not constituting Equipment and Materials.
- 1.1.39 **"Control Systems"** shall mean all process, utilities and electrical control systems, as specified or referred to in the Technical Documents, including DCS, ESD, FGS, PLCs and ECS).
- 1.1.40 **"Defect"** means any defect, imperfection or other fault in the Facility or any part thereof arising from or in connection with the execution of the Works or any defect, imperfection or other shortcoming in the Contractor's Documents, or a breach of the Contract or the neglect or failure of the Contractor to comply with any of its obligations, express or implied, under the Contract and the term **'Defective'** shall be construed accordingly.
- 1.1.41 **"Defect Liability Period"** shall have the meaning ascribed thereto in Article 18.2.
- 1.1.42 **"Dispute"** shall have the meaning ascribed thereto in Article 30.1.
- 1.1.43 **"Drawings and Documents"** shall have the meaning ascribed thereto in Article 4.2.2.
- 1.1.44 **"Effective Date"** shall mean the date of issuance of Letter of Acceptance (LOA) to Contractor
- 1.1.45 **"Engineer-in-Charge"** shall mean the person appointed or designated as such by the Owner and shall include those who are expressly authorised by the owner to act for and on its behalf. This shall include the PMC or CONSULTANT for the project wherever the Contract so reasonably admits.
- 1.1.46 **"Equipment and Materials"** shall mean any and all machinery, equipment, materials and other items, including spare parts, incorporated or intended to be incorporated in the WORK and specified additional works (whether later incorporated in the WORK, surplus or otherwise) or to be used in the operation and maintenance thereof.
- 1.1.47 **"Event of Force Majeure"** shall have the meaning ascribed thereto in Article 25.1.
- 1.1.48 **"Excluded Taxes"** shall mean:

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 8 / 131	
		REV. 0	

- (1) All Taxes on corporates and/or individuals income, profit, real and personal property;
 - (2) All applicable payroll, withholding, social security, workers' compensation and employment taxes and contributions imposed under any law in connection with or measured by compensation (including without limitation wages and salaries) paid to or for the benefit of employees of Contractor or Subcontractors/sub-vendors (including without limitation taxes, health and welfare funds, minimum wages, provident fund, employee state insurance, gratuity, pensions and annuities, disability insurance and all other similar social payments under labour laws or otherwise under Applicable Laws generally including any payments required to be made under the Building and Other Construction Workers Welfare Cess Act, 1996); and
 - (3) All Taxes applicable on Contractor's Equipment.
- 1.1.49 **“Exhibit”** means formats/enclosures attached to the Conditions of Contract.
- 1.1.50 **“Expert Reference Notice”** shall have the meaning ascribed thereto in Article 30.2.
- 1.1.51 **“Facility”** shall mean as defined in Special Conditions of Contract.
- 1.1.52 **“Final Acceptance Certificate”** shall have the meaning ascribed thereto in Article 17.4.1.
- 1.1.53 **“Final Acceptance”** shall mean the issuance of the Final Acceptance Certificate by Owner to Contractor.
- 1.1.54 **“Final Invoice”** shall have the meaning ascribed thereto in Article 14.3.1(l).
- 1.1.55 **“Final Payment Due Date”** shall have the meaning ascribed thereto in 14.3.2(f).
- 1.1.56 **“Final Payment”** shall have the meaning ascribed thereto in Article 14.3.1(l).
- 1.1.57 **“Foundations and Structures”** shall mean the foundations, concrete structures, steel structures for the civil work of the WORK.
- 1.1.58 **“Foreign Currency component (i.e. any one/two Foreign Currency out of USD, EURO, GBP)”** shall have the meaning ascribed thereto in Article 13.1.1.
- 1.1.59 **“General Warranties”** shall have the meaning ascribed thereto in Article 18.2.
- 1.1.60 **“Good Industry Practice”** shall mean standards, methods, techniques and procedures that are employed by leading international contractors in the LNG industry, in projects similar to the Project.
- 1.1.61 **“Goods Customs Duties”** shall have the meaning ascribed to it in Article 13.3.5(a).
- 1.1.62 **“Goods and Service Tax (GST) law”** shall mean the Central Goods and Service Tax Act, 2017, the Integrated Goods and Service Tax Act, 2017, the Union Territory Goods and Service Tax Act, 2017, the Goods and Service Tax (Compensation to States) Act 2017, applicable State GST legislations including Gujarat Goods and Service Tax Act, 2017 and all the rules made thereunder, relevant notifications, press releases, circulars, clarifications and orders issued thereunder and any amendments made thereto and any reference to Goods and Service Tax payable means tax payable under any of the aforementioned laws.”
- 1.1.63 **“Governmental Authority”** shall mean, in respect of a country, the government (central, state and local) or any ministry, directorate, department or political subdivision thereof and any Person exercising executive, legislative, judicial, regulatory or administrative functions of or pertaining to government or law or any other governmental entity, instrumentality, agency, authority, corporation, committee or commission under the direct or indirect control of any such government.
- 1.1.64 **“Guaranteed Mechanical Completion Date”** shall mean as defined in Special Conditions

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 9 / 131 REV. 0	

of Contract.

- 1.1.65 **“Gujarat Maritime Board”** or **“GMB”** shall mean the Gujarat Maritime Board established under the (Indian) Gujarat Maritime Board Act, 1981 or any successor Governmental Authority having similar jurisdiction over the port of Dahej.
- 1.1.66 **“Hazardous Materials”** means any pollutant, contaminant, solid waste, hydrocarbon product or toxic, flammable, explosive, carcinogenic, corrosive or radioactive substance, emission or material, or any similar substance, emission or material or any material specifically termed as any of the above and regulated under or subject to any Applicable Law.
- 1.1.67 **“HSE Plan”** shall have the meaning ascribed thereto in Article 4.12.3(a).
- 1.1.68 **“IGST”** shall mean Integrated Goods and Service Tax leviable under Goods and Service Tax law
- 1.1.69 **“Independent Expert”** shall have the meaning ascribed thereto in Article 30.2.2A.
- 1.1.70 **“Indian Rupee Portion”** shall have the meaning ascribed thereto in Article 13.1.1.
- 1.1.71 **“Indirect Tax”** shall mean taxes imposed under the Goods and Service Tax law on supply of goods and/or services, taxes levied under Customs Act, 1962 and allied legislations (and delegated legislations thereunder) on import of goods or any other similar taxes
- 1.1.72 **“Input to Other Contractors Drawings and Documents”** shall have the meaning ascribed in Article 4.2.2.
- 1.1.73 **“Interface Manager”** shall have the meaning ascribed to it in Article 5.3.1.
- 1.1.74 **“Key Site Personnel”** shall have the meaning ascribed thereto in Article 5.4.2.
- 1.1.75 **“Latent Defect Liability Period”** shall have the meaning ascribed thereto in Article 18.2.1.
- 1.1.76 **“Lender”** means the banks, financial institutions, non-banking financial companies (NBFC) duly registered with the Reserve Bank of India, mutual funds and agents or trustees of debenture / bond holders or other Persons, including their successors and assigns, who have [provided]/[agreed to provide] the Owner with the debt financing necessary for the development of the Project and/or construction of the Project.
- 1.1.77 **“Letter of Acceptance”** shall have the meaning ascribed thereto in the recitals to the Contract whereby Owner gave formal acceptance to Contractor of Contractor’s bid and instructed Contractor to perform the Work.
- 1.1.78 **“LNG”** shall mean liquefied natural gas.
- 1.1.79 **“Loan Agreement”** shall mean any agreement, note, bond, indenture, political risk insurance policy, credit agreement, debt repayment or refinancing instrument, reimbursement agreement, mortgage, security agreement, guarantee, registration statement, disclosure statement, subordination agreement, partnership agreement, lease agreement, participation agreement or other financing document, including any modifications, extensions, renewals or replacements, relating to the interim or long-term financing (or any refinancing) of the Project which are to be executed between Owner and the Lenders or the relevant parties thereto.
- 1.1.80 **“Licensor/Process Licensor”**, if applicable, shall mean the Process Licensor for the Facility or of any part thereof as per Technical section of Bidding Document.
- 1.1.81 **“Losses”** means all costs, damages, liabilities verdicts, judgements, settlements, fines, penalties and expenses (including court costs and expenses and reasonable costs and expenses of legal counsel) with respect to actions, suits, demands, causes of action, claims or investigations incurred by an indemnified party in connection with an event to which it is

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 10 / 131	
		REV. 0	

entitled for indemnification under the Contract (including any court costs and expenses and reasonable costs and expenses of legal counsel incurred by such indemnified party for legal action to enforce such indemnification obligations).

- 1.1.82 “**Mandatory Spare Parts**” shall mean those spares recommended by Contractor included in the Contract Price for unplanned maintenance and listed in Technical Section.
- 1.1.83 “**Mandatory Spares Work Items**” shall mean the items of Work ascribed thereto in Exhibit-D.
- 1.1.84 “**Materials Customs Duties**” shall have the meaning ascribed thereto in Article 13.3.6(b).
- 1.1.85 “**Mechanical Completion Certificate**” shall mean the certificate issued by the Owner under Article 17.1.6(a)
- 1.1.86 “**Mechanical Completion**” shall mean the issuance of the Mechanical Completion Certificate by the Owner to the Contractor.
- 1.1.87 “**Mechanical Completion Guarantee**” shall have the meaning ascribed to it in Article 19.1.1.
- 1.1.88 “**Milestone**” shall mean those milestones indicating completion of specified portions of the Work as ascribed thereto in Exhibit C or as agreed between Contractor and Owner.
- 1.1.89 “**MMTPA**” shall mean million metric tonnes per annum.
- 1.1.90 “**Monthly Customs Duties Payment Due Date**” shall have the meaning ascribed thereto in Article 14.3.2(a).
- 1.1.91 “**Monthly Customs Invoice**” shall have the meaning ascribed thereto in Article 14.3.1(a) (2).
- 1.1.92 “**Monthly Invoice**” shall have the meaning ascribed thereto in Article 14.3.1(a)(2).
- 1.1.93 “**Monthly Payment Due Date**” shall mean the Monthly Progress Payment Due Date or the Monthly Customs Payment Due Date, as the case may be.
- 1.1.94 “**Monthly Payment**” shall have the meaning ascribed thereto in Article 14.3.2(a).
- 1.1.95 “**Monthly Progress Invoice**” shall have the meaning ascribed thereto in Article 14.3.1(a)(1).
- 1.1.96 “**Monthly Progress Payment Due Date**” shall have the meaning ascribed thereto in Article 14.3.2(a).
- 1.1.97 “**NG**” means natural gas;
- 1.1.98 “**Notice**” shall have the meaning ascribed thereto in Article 30.1.2.
- 1.1.99 “**Notice of Default**” shall have the meaning ascribed to it in Article 27.1.2.
- 1.1.100 “**Offshore / Foreign Services Work Items**” shall mean the items of Work set out in Table E of Exhibit D.
- 1.1.101 “**Offshore / Foreign Supplies Work Item**” shall mean the items of Work set out in Table D of Exhibit D.
- 1.1.102 “**Onshore / Indigenous Services Work Items**” shall mean the items of Work set out in Table G of Exhibit D.
- 1.1.103 “**Onshore / Indigenous Supplies Work Items**” shall mean the items of Work set out in Table F of Exhibit D.
- 1.1.104 “**Operating and Maintenance Manuals**” shall have the meaning ascribed thereto in Article 17.1.5.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 11 / 131	
		REV. 0	

- 1.1.105 **“Other Contractor(s)”** shall mean any other contractor including EPC contractor(s) employed by PLL for design, engineering, procurement, testing, maintenance (O&M), construction, commissioning, services, expansion, addition of new facilities including Topsides facilities of Third Berth (Jetty) or contractor for regas expansion or petrochemical facilities or any other works etc.
- 1.1.106 **“Owner’s Liability Insurance”** shall have the meaning set forth in Article 2 of Exhibit I (Insurance).
- 1.1.107 **“Owner’s Personnel Expenses”** shall have the meaning ascribed thereto in Article 8.3.
- 1.1.108 **“Owner’s Project Management Consultant”** shall have the meaning ascribed thereto in Article 10.2.
- 1.1.109 **“Owner’s Property Insurance”** shall have the meaning set forth in Article 3 of Exhibit I (Insurance).
- 1.1.110 **“Owner’s Representative”** shall have the meaning ascribed thereto in Article 10.1.1.
- 1.1.111 **“Owner’s Risks”** shall have the meaning ascribed thereto in Article 21.2.4.
- 1.1.112 **“Owner”** means **Petronet LNG Limited**, a company duly incorporated and existing under the Indian Companies Act, 1956, with its registered office at World Trade Centre, Nauroji Nagar, New Delhi, 110 029, India.
- 1.1.113 **“Parties”** shall have the meaning ascribed thereto in the preamble to the Contract Agreement.
- 1.1.114 **“Party”** shall have the meaning ascribed thereto in the preamble to the Contract Agreement.
- 1.1.115 **“Payment Milestones”** shall have the meaning ascribed thereto in Article 12.1.
- 1.1.116 **“Performance Bank Guarantee”** shall mean the first demand payment bank guarantee to be delivered by Contractor to Owner in accordance with Article 14.9, in the form attached as Attachment A2 to the Conditions of Contract.
- 1.1.117 Deleted
- 1.1.118 **“Performance Month”** shall have the meaning ascribed to it in Article 14.3.1(a)(1).
- 1.1.119 Deleted
- 1.1.120 Deleted
- 1.1.121 Deleted
- 1.1.122 **“Persons”** shall include natural persons, bodies corporate, limited liability companies, partnerships and other legal entities.
- 1.1.123 **“PLL GST”** shall have the meaning ascribed to it in Article 13.5.2
- 1.1.124 **“Pre-Commissioning”** shall mean as defined elsewhere in the Technical Section of the Bidding Document.
- 1.1.125 **“Pre-qualified Subcontractors”** shall have the meaning ascribed thereto in Article 6.1.2
- 1.1.126 **“Pre-qualified Suppliers”** shall have the meaning ascribed thereto in Article 6.3.1.
- 1.1.127 **“Preliminary Change Order”** shall have the meaning ascribed to it in Article 15.2.
- 1.1.128 **“Price Bid”** shall mean the price bid submitted by the Contractor in its capacity as a bidder during the tendering process preceding the execution of this Contract.
- 1.1.129 **“Permanent Works”** means the permanent works to be executed by the Contractor (including

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 12 / 131	
		REV. 0	

all permanent structures and all work intended to form a continuing function after Completion of the Works) in accordance with the Contract.

- 1.1.130 **“Project Manager”** shall have the meaning ascribed thereto in Article 5.1.1.
- 1.1.131 **“Project”** shall mean design, engineering, procure equipment, materials, supplies and to provide necessary personnel to erect, construct, test and commission and turn over the **“Facility”** (as hereinafter defined), on a turnkey fixed lump-sum price and time basis.
- 1.1.132 **“Prolonged Suspension Remedial Period”** shall have the meaning ascribed to it in Article 27.2.
- 1.1.133 **“Proprietary Information”** shall have the meaning ascribed thereto in Article 29.1.1(a).
- 1.1.134 Deleted
- 1.1.135 Deleted
- 1.1.136 **“Punch List Items”** shall have the meaning ascribed in Clause 17.1.6 (b).
- 1.1.137 **“Quality Assurance”** shall have the meaning ascribed thereto in Article 4.11.1.
- 1.1.138 **“Relevant Date”** shall mean the last date for submission of the Bid/revised Bid, if any.
- 1.1.139 **“Remedial Period”** shall have the meaning ascribed to it in Article 27.1.2.
- 1.1.140 **“Request”** shall have the meaning ascribed thereto in Article 30.1.1.
- 1.1.141 **“Scope of Work”** shall mean the activities, services, work and schedule set forth in Technical Section of Bidding Document.
- 1.1.142 **“Site Manager”** shall have the meaning ascribed thereto in Article 5.2.1.
- 1.1.143 **“Site”** means the land, location, right of way and/or places provided by Owner where the Works are to be executed and to which Plant and Equipment and Materials are to be delivered and any other place as may be specifically designated in the Contract as forming part of the Site or designated as such by the Owner.
- 1.1.144 **“Specifications”** means all general and technical specifications and directions attached to and forming a part of the Bidding Documents which describe the purpose, scope, design and technical criteria of the Works including, the method and manner of performing the Works, the quality and quantity of the Works to be performed and the materials to be supplied under the Contract and includes all modifications or amendments made thereto by EIL/Owner.
- 1.1.145 **“Subcontract”** means any contract awarded to a Subcontractor.
- 1.1.146 **“Subcontractor”** shall mean any Person performing or providing Work (and, related Equipment and Materials) pursuant to a subcontract with Contractor or with another Person which is engaged under a direct or indirect subcontract with Contractor.
- 1.1.147 **“Supplier”** shall mean any Person or entity which is a manufacturer, vendor or other seller of Equipment and Materials and is not a Subcontractor.
- 1.1.148 **“Taxes”** shall include taxes, duties, levies, cess and similar imposts by whatever name called whether in the nature of Indirect Tax or direct taxes and whether or not imposed at the federal, state, municipal or any other level.
- 1.1.149 **“Technical Documents”** shall mean the technical documents and specifications included in Bidding Document, inclusive as they may be amended from time to time in accordance with the terms hereof.
- 1.1.150 **“Temporary Facilities”** shall mean temporary buildings and service installations, computer equipment and the like installed and to be installed at the Site for temporary use in connection

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 13 / 131	
		REV. 0	

with the Work, including but not limited to the buildings and facilities referred to in Scope of Work.

- 1.1.151 **“Warranty Period”** shall have the meaning ascribed thereto in Article 18.2.3.
- 1.1.152 **“Week”** shall mean a period of seven (7) consecutive Days.
- 1.1.153 **“Work Advance Repayment Bank Guarantee”** shall have the meaning ascribed thereto in Article 14.2.1(d).
- 1.1.154 **“Work Advance”** shall mean the recoverable advance payment of a portion of the Contract Price made by Owner to Contractor in accordance with Article 14.2.1(d).
- 1.1.155 **“Work Items”** shall mean the Offshore Supplies Work Items, the Offshore Services Work Items, the Onshore Supplies Work Items, the Onshore Services Work Items, Construction and Erection Work Items and the Mandatory Spares Work Items listed in Exhibit D (Contract Price Schedule).
- 1.1.156 **“Work Product”** shall have the meaning ascribed thereto in Article 22.4.1.
- 1.1.157 **“Work Value”** shall have the meaning ascribed thereto in Article 27.3.1(c).
- 1.1.158 **“Work”** shall have the meaning ascribed thereto in Article 2.1.7.

1.2 **Interpretation**

1.2.1 In the interpretation of this Contract, unless the context otherwise requires:

- (1) Any references to one gender shall include the other genders and the singular shall include the plural and *vice versa*;
- (2) In determination of any period of days for occurrence of an event or the performance of any act or thing, the period shall be deemed to be inclusive of the day on which the event happens or the act or thing is done;
- (3) Unless otherwise stated, a reference to the Preamble, any Recital, an Article, sub- Article, paragraph, subparagraph, Annex, Exhibit, Attachment, Schedule is a reference to the preamble, recital, Article, sub-Article, paragraph, subparagraph, Annex, Exhibit, Attachment, Schedule or Recital of this Contract;
- (4) A reference to any agreement is a reference to that agreement and all annexes, attachments, exhibits, schedules, appendices and the like incorporated therein, as the same may be amended, modified, supplemented, waived, varied, added to, substituted, replaced, renewed or extended, from time to time, in accordance with the terms thereof;
- (5) Any reference to a statute or statutory provision or order or regulation made hereunder shall include:
 - (a) all subordinate legislation made from time to time under that provision (as amended, modified, re-enacted or consolidated from time to time); and
 - (b) such statute, statutory provision, order or regulation as from time to time amended, modified, re-enacted or consolidated;

Provided that in case of any inconsistency, contradiction, difference, or ambiguity in interpretation, scope or applicability this document and Exhibit, the interpretation of language in later shall prevail over this document

- (6) The terms include and including shall be deemed to be followed by the words “without limitation”, whether or not so followed;
- (7) Any reference to a Person shall include such Person’s successors and assigns;

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 14 / 131	
		REV. 0	

- (8) A reference to a “writing” or “written” includes printing, typing, facsimile (fax), electronic mail and letter, and other means of reproducing words in a visible form;
- (9) Any date or period set forth in this Contract shall be such date or period as such date or period may be extended pursuant to the terms of this Contract;
- (10) Any reference to the term "herein" "hereto" "hereunder" and words of similar purport refer to this Contract in its entirety;
- (11) A reference to Contractor shall include the consortium, if applicable, referred to in the recitals to this Contract and each Consortium Member, if applicable;
- (12) A reference to “month” shall mean a calendar month and a reference to “day” shall mean a calendar day of twenty-four consecutive hours beginning at 00.00 hrs (midnight) and ending at 24.00 hrs (midnight) as referred to local time at site, unless otherwise specified;
- (13) The descriptive headings of Articles are inserted solely for convenience of reference and are not intended as complete or accurate descriptions of the content thereof and shall not be used to interpret the provisions of this Contract; and
- (14) A reference to “**Persons**” or “**persons**” shall include natural persons, partnership firms, trusts, corporate entities or unincorporated associations, including any joint venture, and/or any Governmental Authority;
- (15) A reference to any person’s “personnel” shall include such person’s employees, officers, consultants, representatives, advisors and agents, and any reference to the Contractor's personnel shall include its Subcontractor’s personnel; and
- (16) The rule of interpretation which requires that an agreement be interpreted against the Person or Party drafting it, shall have no application in the case of this Contract.

1.2.2 **CONTRACT**

The documents forming the Contract are to be taken as mutually explanatory of one another. If there is an ambiguity or discrepancy in the documents, the Engineer-in-Charge shall issue necessary clarifications or instructions to the Contractor, and the order of precedence of the documents shall be as follows:

- a) Contract Agreement
- b) Detailed Letter of Acceptance along with its enclosures
- c) Letter of Acceptance
- d) Job Specifications
- e) Drawings
- f) Technical Specifications
- g) Special Conditions of Contract
- h) Conditions of Contract
- i) Exhibits to Conditions of Contract
- j) Instruction to Bidders
- k) Other Documents

Note: Any Amendment/change order issued after signing of formal contract shall take precedence over respective clauses of formal contract and its annexures.

 PETRONET LNG LIMITED	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 15 / 131	 EIL
		REV. 0	

In case any ambiguity or doubt with respect to the scope, interpretation or meaning of any information, data, requirement, drawing, document, term or other content of the Technical Documents or any Exhibit, the explanation, interpretation or meaning provided by the Owner to such information, data, requirement, drawing, document, term or other content of the Technical Documents or any Exhibit, shall be final and binding on the Contractor.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 16 / 131	
		REV. 0	

ARTICLE 2 - CONTRACTOR'S WORK

2.1 The Work

2.1.1 The Contractor shall:

- (1) Provide, furnish and perform, or cause to be provided, furnished and performed, on a turnkey basis all necessary design, engineering, procurement, supplies, installation, erection, construction, testing, commissioning, and turning over services, activities and work (including all rectification and remedial services, activities and work relating to defects and deficiencies) for the Facility; and
- (2) Provide or arrange for all necessary and sufficient Contractor's Equipment and experienced personnel having the requisite expertise and experience, for the above activities;

in accordance with the Scope of Work and the other terms, provisions and requirements of this Contract, including the Contract Schedule and the Technical Documents and, even where not specifically described in the Scope of Work and the other terms, provisions and requirements of this Contract, including the Contract Schedule and Technical Documents, if:

- a) It may be reasonably inferred in accordance with Good Industry Practice that the providing, furnishing or performing or causing the provision, of such additional items or work was contemplated as part of the Work (including the Technical Documents); or
- b) The providing, furnishing or performing or causing the provision, furnishing and performance of such additional items is necessary in order for the Contractor to satisfy the Completion Guarantees and the warranties set forth in this Contract and to make the Facility operable and capable of performing as specified in the Technical Documents and/or as otherwise necessary in order to comply with the requirements of this Contract.

2.1.2 Without limiting the ambit of Article 2.1.1 wherever this Contract describes any portion of the Work in general terms, but not complete in detail, the Contractor agrees that the Work shall include any incidental work, activities and services which may be reasonably inferred as required or necessary to complete and render the Facility operable in accordance with the terms and conditions of this Contract and the Owner shall have no obligation or responsibility whatsoever (except as specifically set forth in this Contract) with respect to the completion of the Facility.

2.1.3 After Mechanical Completion of the Facility, the Contractor shall provide assistance during system dry-out (as applicable as per Technical part), assistance during Pre-commissioning/Commissioning and shall provide all necessary and sufficient experienced personnel having the requisite expertise for the prompt performance of any rectification and remedial work required until Final Acceptance of the Facility in accordance with this Contract.

2.1.4 The Parties acknowledge and agree that this Contract is a lump-sum firm fixed price time certain turnkey contract and Contractor's obligation to provide, furnish and perform its services, activities and work under this Contract includes, the Contractor providing the Owner with the Facility, complete in every detail as per Scope of Work, within the agreed time and for the purposes specified in the Contract and to do and furnish to the Owner everything necessary in connection herewith.

2.1.5 Except as otherwise expressly provided in this Contract, the Contractor agrees and acknowledges that the Contractor shall perform all of its obligations and responsibilities under this Contract at its own risk, cost and expense.

2.1.6 The Contractor shall ensure that the Facility shall be fit and suitable for its intended purpose (including attaining the Completion Guarantees) as evidenced by, or reasonably to be inferred from, this Contract and shall fully comply with this Contract.

2.1.7 All the obligations, work, services, activities and responsibilities of Contractor as more fully set forth in this Contract, including the Technical Documents and the obligations under this Article 2 are hereinafter collectively referred to as the **"Work"**.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 17 / 131	
		REV. 0	

2.1.8 Work undertaken, Equipment and Materials (including components thereof), Contractor's Equipment, labour and personnel and additional items provided pursuant to this Article 2 shall not give rise to any adjustment or variation in the Contract Price, the Contract Schedule or any other term or condition of this Contract and shall be included in and comprise the Work for all purposes of this Contract.

2.2 Refer Special Conditions of Contract

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 18 / 131	
		REV. 0	

ARTICLE 3 - CONTRACTOR'S ACCEPTANCE OF THE WORK AND SITE

3.1 Acceptance of the Work Generally

3.1.1 Contractor acknowledges that it has:

- (1) Entered into this Contract for the consideration set forth herein and after due and careful inquiry of all matters relating hereto, to its complete satisfaction.
- (2) Satisfied itself in respect of all pertinent matters which may have a bearing upon the performance of this Contract and the Work, including:
 - (a) The nature and magnitude of the Work;
 - (b) The Applicable Laws and all environmental risks, conditions and applicable restrictions;
 - (c) The calculation and sufficiency of the Contract Price;
 - (d) Achievement of the Completion Guarantees;
 - (e) Determination of the Contract Schedule;
 - (f) Quality and quantity of the Equipment and Materials and Contractor's Equipment required for the performance of the Work;
 - (g) Access to the Site and the Work Site;
 - (h) Availability of all labour and personnel;
 - (i) The character and quality of the Work to be performed;
 - (j) General and local conditions;
 - (k) Disposal, handling and storage of materials;
 - (l) Good Industry Practices;
 - (m) Currency exchange rate fluctuations;
 - (n) Applicable Laws in relation to Taxes; and
 - (o) The interface with Existing Facilities
 - (p) All other pertinent, relevant or related matters and conditions.

3.2 Acceptance of the Site

3.2.1 Contractor acknowledges that:

- (1) The Facility shall be designed and engineered for erection and installation and performance in accordance with this Contract at the Site; and
- (2) Contractor has thoroughly investigated and satisfied itself as to all general, local and marine, seawater and groundwater conditions at the Site and the areas and waters adjacent thereto, including but not limited to:
 - (a) Sea, river and land transportation and access and right of way to the Site, including the availability and condition of roads and ports and rights-of-way, conditions affecting transportation, access and egress;
 - (b) Conditions for handling and storage of materials at the Site;
 - (c) Availability and quality of labour, water, sand, rock and power;
 - (d) Rainfall and other climatic conditions, tides, currents, soundings and ground water, humidity and other hydrological and atmospheric conditions (including the monsoons);

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 19 / 131	
		REV. 0	

- (e) Topography, ground surface, subsurface, seismic, shore, harbour, marine (including sea currents), seawater, seabed, hydrographic and bathymetric conditions;
- (f) The nature and quantity of surface, subsurface and marine (including seabed and its subsurface) or obstacles to be encountered;
- (g) Equipment, machinery and materials required by Contractor prior to and during performance of its obligations hereunder;
- (h) Availability of housing and other relevant social and urban infrastructure;
- (i) Any and all other pertinent, relevant or related matters and conditions.

3.3 No Claim for Actual Conditions

- 3.3.1 Contractor acknowledges that all appropriate allowances for the matters and conditions referred to in Articles 3.1 and 3.2 and those pertaining to the Work or to this Contract generally have been taken into account in calculating the Contract Price, determining the Contract Schedule and the other terms and conditions of this Contract.
- 3.3.2 Contractor's failure to acquaint itself and consider any applicable condition, situation, requirement or other matter referred to in Articles 3.1 and 3.2 and those pertaining to the Work or to this Contract generally, will neither relieve it from the responsibility for successfully performing this Contract, nor entitle the Contractor to a Change Order, adjustment of Contract Price or Contract Schedule for reasons relatable to such failure.
- 3.3.3 Except as otherwise expressly stated in this Contract:
 - (1) The Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Work;
 - (2) The Contractor accepts total responsibility for having foreseen all difficulties and costs and expenses of successfully completing the Work; and
 - (3) No increase in the Contract Price, or extension of the Contract Schedule based in whole or in part upon any discrepancy between the actual conditions encountered by Contractor and those which Contractor anticipated, or any unforeseen difficulties or costs generally, shall be considered by the Owner or effected.
- 3.3.4 The Contractor acknowledges that all engineering data and information and data and information relating to geo-technical and sub-surface at the Site have been made available to the Contractor by the Owner in the Scope of Work and the Technical Documents, generally or otherwise, directly and indirectly, solely for the convenience of the Contractor. The verification and interpretation of the above data and information shall be at the sole risk and responsibility of the contractor.
- 3.3.5 The Contractor agrees that the Owner shall have no liability for the adequacy, correctness, accuracy or completeness of data and information made available to the Contractor by the Owner, and the Owner makes no representation or warranty, express or implied, as to the adequacy, accuracy, correctness or completeness of any such data or information.
- 3.3.6 Contractor further agrees that it shall protect, indemnify and hold Owner/PMC harmless from and against any and all Losses arising directly or indirectly from or incurred by reason of the use of any data and information made available to the Contractor by the Owner/PMC, by any Person to whom Contractor has supplied such data and information or any portion thereof including the Contractor himself, his Subcontractors and Suppliers, and their respective employees, agents, personnel and consultants.
- 3.3.7 Furthermore, Contractor hereby waives any claims it may otherwise have against any Person that has prepared, compiled, provided any data and information made available to the Contractor by the Owner, arising due to any reason whatsoever, including without limitation, from the use thereof by

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 20 / 131 REV. 0	

Contractor or by other Persons to whom Contractor has supplied such data and information.

- 3.3.8 Specifically and without limitation, Contractor agrees and warrants that it shall independently and fully verify, check and establish the adequacy, correctness, accuracy and completeness of all data and information which it may require for any purposes related directly or indirectly to this Contract, its obligations hereunder or for any other reasons, at its sole risk and cost.

ARTICLE 4 - PERFORMANCE AND RESPONSIBILITIES

4.1 Standards and Professional Performance

- 4.1.1 Contractor shall perform the Work and all of its obligations and responsibilities under this Contract using due care and diligence in a professional manner, using sound engineering and design principles sound project management and supervisory procedures and in accordance with Good Industry Practice such that besides complying with every requirement and obligation set forth in this Contract and Applicable Law, the Contractor also ensures that the Facility are fit for the intended purpose of the Owner, as described in the Contract.
- 4.1.2 Contractor represents and warrants that it has the requisite skills, experience, expertise and capacity to perform the Work in the foregoing manner and to satisfy and fulfil all of its obligations and responsibilities under this Contract.

4.2 Design and Engineering, Instruction Manuals and Setting-Out

4.2.1 Design and Engineering

Contractor shall cause and ensure that the design and engineering of the Facility to conform with the design criteria set forth in the Technical Documents.

4.2.2 Documents, Drawings and Instruction Manuals

- (a) Contractor shall submit to Owner/PMC for approval within the time periods specified in Section D of Exhibit H (General Project Requirements and Procedures) such designs, drawings, samples, patterns, models, maintenance manuals and operating manuals (collectively, the “**Drawings and Documents**”) as may be specified herein or therein, or as may be reasonably required in order to enable Owner to move, assemble, establish conjunction points, maintain, dismantle, reassemble and adjust all components of the Facility. The Contractor shall submit the Drawings and Documents along with native files to the Owner/PMC within the time periods specified in or agreed pursuant to the terms of Section D of Exhibit H (General Project Requirements and Procedures) or as specified by the Owner, and in a manner that ensures that it does not deviate from the Contract Schedule
- (b) After Owner’s/PMC’s receipt of any Drawings and Documents, Owner/PMC shall signify its approval or disapproval of such Drawings and Documents, where appropriate, in accordance with and within the time periods specified in Exhibit H (General Project Requirements and Procedures).
- (c) Contractor shall be responsible for any discrepancies, errors or omissions in the Drawings and Documents and other particulars supplied by it whether or not such Drawings and Documents and particulars have been approved by Owner/PMC.
- (d) If errors, omissions, ambiguities, inadequacies or other defects or deficiencies are found in any Drawings and Documents, such Drawings and Documents and the Work based on such Drawings and Documents shall be corrected at Contractor’s cost and expense notwithstanding any consent or approval or deemed consent or deemed approval of the Owner/PMC of such Drawings and Documents. Contractor shall not depart from any approved Drawings and Documents unless approved in writing in advance by the Owner/PMC. Any consent or approval or deemed consent or deemed approval of Owner/PMC shall in no way relieve Contractor of his obligations under this Contract or give rise to any liabilities for the Owner/PMC.
- (e) Contractor shall prepare and submit the drawings and documents related to the design and engineering inputs required by the Owner/PMC for Other Contractor(s) as described in the Technical Documents as to be prepared and submitted by the Contractor as per the terms of the contract (the “**Input to Other Contractors Drawings and Documents**”) in a timely manner, so that such approved drawings and documents are submitted to Owner within the time period set out in the Technical Documents.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 22 / 131 REV. 0	

4.2.3 Setting-Out

- (a) Contractor shall be responsible for the true and proper setting-out of the Facility in accordance with the Scope of Work and the Technical Documents and for the correctness of the positions, levels, dimensions and alignment of all parts of the Facility and for the providing of all necessary instruments, appliances and labour in connection therewith.
- (b) For avoidance of doubt, any error in the positions, levels, dimensions or alignment of any part of the Facility shall constitute a breach of Contractor's General Warranties set forth in Article 18.
- (c) Contractor shall correct any such error and the costs associated therewith shall be for Contractor's own account. Inspection by Owner of any setting-out of any line or level shall not in any way relieve Contractor of its responsibility for the correctness thereof. Contractor shall carefully protect and preserve all reference points, aids and data used in setting-out the Facility.

4.3 Procurement

4.3.1 General

- (a) Except for items expressly stated as being required to be provided by Owner pursuant to this Contract, Contractor shall provide all Equipment and Materials, Contractor's Equipment, procure services of others, supplies, utilities, power and fuel required for the construction of Facility, the performance of the Work and for the purposes of this Contract generally.
- (b) The Contractor shall carry out all procurement activities in relation to the Work in accordance with this Article 4.3, the Scope of Work as per Technical Section and Section E of Exhibit H (General Project Requirements and Procedures).
- (c) If requested by the Contractor, Owner shall endeavour to provide free of cost power and water at its Existing Facilities to the Contractor for the construction of the Facility and the performance of the Work, including, Commissioning, to the extent available at one point designated by Owner within the Existing Facilities.

Provided that:

- (1) Contractor acknowledges that providing such power and water is not a responsibility or obligation of Owner and that Owner makes no representation or warranty, express or implied as to its ability to actually provide such power, and water;
- (2) Contractor acknowledges that any interruptions, delays, default or short supply, deficiency of quality and quantum, of any kind and for any duration whatsoever, in the providing of such power and water by Owner shall not be construed as a failure of Owner and the Contractor shall at all times continue to remain responsible for providing and maintaining power, water, required for the construction of the Facility and the performance of the Work.
- (3) In the event that the Owner agrees to make available power and water to the Contractor, the Contractor shall be responsible, in manner allowed by the Owner, for drawing such power, water, from the Existing Facilities of the Owner or any other nearby facility outside PLL boundary as communicated by Owner for the performance of the Work as more fully described in the Technical Documents. For avoidance of doubt it is clarified that all temporary arrangements for execution of the same are part of Scope of Work of the Contractor.

4.3.2 Equipment to be New and Suitable

Contractor shall ensure that all Equipment and Materials shall be new and of the most suitable grade (or where any grade is specified herein, of such specific grade) of their respective kinds for the purposes and uses intended, and meets all specifications prescribed under this Contract, if any.

4.3.3 Compliance with Equipment Codes and Standards

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 23 / 131	
		REV. 0	

Contractor shall ensure that all Equipment and Materials and all systems, components and parts of the Facility shall comply with

- (1) The codes and standards specified in the Technical Documents;
- (2) The Scope of Work as per Technical Section.
- (3) The Applicable Laws; and
- (4) The requirements of all relevant Governmental Authorities and the terms and conditions of any Authorisations.

4.3.4 Warranties of Equipment and Materials and Contractor's Equipment

- (a) Contractor shall obtain the best possible warranties and guarantees with respect to materials and workmanship of all Equipment and Materials from all Subcontractors and Suppliers of Equipment and Materials for the benefit of Owner.
- (b) All such warranties and guarantees shall be so written as to survive all Owner and Contractor inspections, tests and approvals. Specifically, wherever the Contractor has the benefit of a warranty in respect of any Equipment and Material used and such warranty is written so as to survive the Defect Liability Period and / or Latent Defect Liability Period, the Contractor shall ensure that such benefit is transferred to the Owner at the end of such Warranty Period.
- (c) In no event shall the Contractor's obligations or warranties under this Contract be diminished by the warranties and guarantees provided by Subcontractors and Suppliers.

4.3.5 Additional Facilities

Contractor shall procure and provide all and any additional facilities required outside the Site for the performance of the Work.

4.4 Construction, Erection and Installation Methods and Conduct at the Site

4.4.1 Construction Methods

- (a) Contractor shall construct the Facility and erect and install the Equipment and Materials in accordance with this Contract and the latest revisions and innovations practicable consistent with the engineering and design of the Facility and the Contract Schedule, provided that such revisions and innovations are commercially proven as of the date hereof.
- (b) Contractor shall also perform its Work under this Contract to incorporate, consistent with the Contract Schedule, experience gained in the course of design, engineering, procurement, construction, erection, installation, testing, commissioning or operation of other similar facilities constructed or supplied by Contractor.

4.4.2 Contractor's Equipment

- (a) Contractor shall cause all Contractor's Equipment to be in sound operating condition, safe and fit for the purpose and use intended and to have a sufficient supply of spare parts to avoid delays in the Work resulting from loss of use of any Contractor's Equipment.
- (b) All Contractor's Equipment shall be subject to inspection and approval from time to time by Owner for the purpose of ensuring conformity with Article 4.4.2(a). Any such inspection or approval by the Owner shall in no way relieve Contractor of his obligations under the terms and conditions of this Contract.
- (c) Any Contractor's Equipment which is found by the Owner to be not in conformity with the terms of this Contract, shall be promptly repaired or suitably replaced by the Contractor at its cost and expense.

4.4.3 Maintenance of Work Sites

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 24 / 131	
		REV. 0	

- (a) Contractor shall keep the Work Site and all construction thereupon reasonably clean and otherwise free from accumulation of waste materials, rubbish and other debris resulting from performance of the Work.
- (b) Contractor's labour camp and housing colony shall be maintained outside the Site and to acceptable local standards of hygiene and shall be kept reasonably free of debris, litter and malodour.
- (c) On or before the Provisional Acceptance, the Contractor shall remove from the Work Site all petroleum, waste materials, rubbish and other debris, as well as all the Contractor's Equipment and any other tools, construction equipment, machinery and surplus material to which the Owner does not hold title and shall leave the Work Site in a neat, clean and usable condition.

4.4.4 Preservation of and Non-Interference with Existing Facilities

- (a) The Contractor acknowledges that the Owner's Existing Facilities are being used and operated by the Owner and that third parties have and may be engaged in future by the Owner to perform work and services in relation to the Existing Facilities as well as other work and services at the Site. The Owner and such third parties shall continue to carry out activities at the same time as the Contractor is executing and performing the Work. The Contractor further acknowledges that the Work involves the execution of interfaces between the Facility and the Owner's Existing Facilities and other contractors for future facilities at Dahej Terminal.
- (b) The Contractor shall protect from damage all existing structures, improvements or utilities at or near the Site, and shall promptly repair and restore any damage thereto resulting from the Contractor's failure to protect the same in carrying out its obligations hereunder, except for ordinary wear and tear reasonably resulting from the execution of the Work. Any such repair or restoration shall be at the Contractor's cost and expense and shall not be reimbursable. The Contractor shall perform the Work in a manner that will not unreasonably disrupt or interfere with the Existing Facilities or with the productive capacities or the performance of activities of any other Person at the Site. In the event the Contractor's activities are likely to disrupt or interfere with the Existing Facilities or the activities of any other Person at the Site, the Contractor shall provide at least thirty (30) days' prior notice to the Owner of such activity, and shall conduct such activity in compliance with any instructions or directions that the Owner may give in response to the Contractor's above notice.
- (c) The Contractor shall ensure that:
 - 1) the Work and other activities related to this Contract do not spill over outside the Work Site; However, till such time (and for such time only) as the interfaces between the Work, the Existing Facilities and with the Other Contractors are being executed and performed, at and for which time, limited access for the purposes of this Contract shall be granted by the Owner to the Contractor
 - 2) the Work Site is barricaded in a manner that ensures that there is no possibility of intentional or inadvertent interference with the activities of any other Person at the Site.

It otherwise complies with the express requirements set forth in Exhibit H (General Project Requirements and Procedures) as regards interference with Existing Facilities or any other Person at the Site.

4.4.5 Preservation of Vegetation

Contractor shall preserve and protect all existing vegetation such as trees (but not shrubs or grass) on or adjacent to the Site, which is not to be removed and which does not unreasonably interfere with the Work, subject to all Applicable Laws and Authorisations.

4.4.6 Safety and Pollution Control

- (a) Contractor shall construct the Facility in accordance with the safety and pollution control criteria set forth in the Technical Documents, Applicable Laws and in accordance with terms and conditions contained in various Authorisations secured for the Work by the Owner or the Contractor.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 25 / 131 REV. 0	

- (b) In addition, Contractor shall take all precautions to prevent pollution or contamination of the air, land or water arising out of the performance of the Work (whether at the Site or elsewhere).

4.4.7 Hazardous Materials

- (a) Contractor shall take all precautions to prevent its staff, labour and other Persons from unauthorised tampering with any Hazardous Materials discovered at the Site or introduced to or existing at the Site prior to the commencement of Contractor's activities at the Site. Contractor shall, immediately upon discovery of such Hazardous Materials, advise the Owner. In the case of a discovery of Hazardous Materials, the Contractor shall follow the procedures set forth in Article 4.4.7(e).
- (b) Contractor shall be responsible at its cost and expense for the handling, treatment, storage, removal, remediation, avoidance, or other appropriate action (if any), with respect to Hazardous Materials present at, or, in or under, or migrating and / or emanating to or from the Site that:
- (1) Were brought or caused to be brought on the Site by any act or omission of Contractor or any Subcontractor pursuant to the performance of the Work;
 - (2) Were handled, treated or stored at the Site by Contractor or any Subcontractor in violation of any Applicable Law; or
 - (3) Were the result of any act or omission of Contractor or any Subcontractor;
- including the payment of any fines and penalties resulting from acts or omissions with respect to handling such Hazardous Materials.
- (c) Owner shall have the sole discretion to approve the action, if any, to be taken by Contractor with respect to the handling, treatment, storage, removal, remediation, avoidance or other appropriate action (if any) with respect to any such Hazardous Materials:
- Provided that, notwithstanding anything contained to the contrary herein, it shall be the responsibility of the Contractor to ensure complete compliance with all requirements imposed by the Applicable Law and terms and conditions accompanying any authorizations.
- (d) Contractor shall prepare and provide all required notices, disclosures, updates and reports to Governmental Authorities with jurisdiction over the subject matter and, concurrently, shall provide a copy of same to Owner
- (e) If Contractor encounters or discovers any Hazardous Materials in or on the Site, Contractor shall:
- (1) Suspend performance of the Work to the extent required to avoid any imminent or substantial safety or health hazard until action sufficient to protect the interests of Owner, Contractor, any Subcontractor and their respective employees, representatives and agents is taken;
 - (2) Notify Owner immediately; and
 - (3) Thereafter follow the directions of Owner.
- (f) After receipt of any such notification under Article 4.4.7(e) (2), the, Owner shall instruct Contractor to remove such materials. If Contractor suffers material delay and / or incurs cost in following such instructions and if such delay and / or cost would not have been as of the Effective Date foreseeable by an experienced contractor, Contractor shall be entitled, within fifteen (15) days of its receipt of such instructions, to submit a preliminary change order in accordance with Article 15.2 for a determination of an adjustment to the Contract Schedule and / or the Contract Price. Provided however, no such entitlement shall be available to the Contractor for or in relation to removal of any Hazardous Materials in circumstances specified under Article 4.4.7(b) above.

4.4.8 Navigation, Fishing and Removal of Impediments to Navigation

- (a) Contractor shall not act or permit a Subcontractor or their respective personnel to violate Applicable Law, the rules and regulations of any Governmental Authority or the terms and conditions of any Authorisation in respect of any activities, including navigation and / or fishing at or near the Site or

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 26 / 131	
		REV. 0	

along any approach to the Site.

- (b) Contractor shall be responsible for securing the safety of navigation and maintaining the conservatory requirements of the Gujarat Maritime Board in respect of any structure or craft or equipment which may be used in connection with the Work.
- (c) Contractor shall not in any way obstruct the navigation channel in the vicinity of the Work.

4.4.9 Archaeological and Antiquities Remains

- (a) All archaeological or antiquities remains, including fossils, coins, articles of value or antiquity and structures and other remains or items of geological or archaeological interest discovered on the Site, shall be placed under the care and authority of the Owner and, to the extent permitted by Law, shall be the property of Owner.
- (b) The Contractor shall take all precautions to prevent its personnel and other Persons from removing or damaging any archaeological or antiquities remains.

Contractor shall, immediately upon discovery of archaeological or antiquities remains, advise Owner, who may issue instructions for dealing with such archaeological or antiquities remains.

- (c) After receipt of such notice, Owner shall decide:
 - (1) To procure removal of such article or item (and Contractor shall, if requested by Owner, manage the activities on the Site of any subcontractor employed by Owner to carry out such removal); or
 - (2) To instruct Contractor to remove such article or item; or
 - (3) Otherwise deal with such archaeological or antiquities remains as required by Applicable Law, or as determined by the Owner.
- (d) If Contractor suffers material delay and / or incurs cost in following such instructions and if such delay and / or cost would not have been foreseeable by an experienced contractor as of the Effective Date, the, Contractor shall be entitled, within five (5) days of its receipt of such instructions, to submit a preliminary change order in accordance with Article 15.2 for a determination of an adjustment to the Contract Schedule and / or the Contract Price:

Provided however that, Owner shall have no obligation to determine any such adjustment if Contractor fails to submit a preliminary change order within such specified time period.

4.5 Compliance with Applicable Laws and Regulations

4.5.1 Compliance

- (a) Contractor shall and shall ensure that its Subcontractors and their respective personnel abide by all Applicable Law, relating to the performance of the Work and by all rules and regulations of those Governmental Authorities and Persons who have control or jurisdiction over the Site (including the timely payment of any and all fees, assessments, or other governmental charges and registrations with relevant agencies or other Governmental Authorities required in connection therewith) and with the terms and conditions of any Authorisations. Contractor shall ensure that the provisions of MSME Act and other applicable acts are complied with, while dealing with its Subcontractors for giving effect to the provisions of this Contract.
- (b) Contractor represents that it is fully aware of all of the Applicable Laws, terms and conditions of any Authorisations, business practices and plant rules and regulations which must be complied with when performing the Work.
- (c) The Contractor shall pay all amounts, including tax, cess, fees, contribution, gratuity and any payment of whatsoever nature, it is liable to be made to any Governmental Authority in respect of or relating to the Work unless otherwise expressly provided in this Contract. Any payment thus due shall be

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 27 / 131	
		REV. 0	

remitted to the concerned Governmental Authority at the appropriate time required under Applicable Law and the Contractor shall furnish the receipts for payment thereof to the Owner. The Contractor shall be liable and responsible for any such payments and shall therefore keep the Owner indemnified of all liability arising out of or in connection with payment or non-payment or on default in making any such payment.

- (d) Upon the Owner's, request, the Contractor shall promptly furnish to the Owner, such information relating to the Contractor, its Subcontractors and their respective personnel as the Owner may be required to furnish to any Governmental Authority

4.5.2 Related Compliance Obligations

Contractor shall:

- (1) Take all reasonable care that the Work is performed with the minimum possible impact on the environment and local community in respect of land and occupants affected by or adjacent to the Work;
- (2) Have responsibility prior to Provisional Acceptance for administration and co-ordination with the Governmental Authorities, as necessary, of any testing or the taking of any other action necessary to demonstrate the Facility's or the Work's compliance with all Applicable Laws as well as the Authorisations required for or issued in connection with the development, construction, erection, commissioning and operation of the Facility;
- (3) Provide the Owner with a copy of all communications with any such authorities and at least five (5) days prior written notice to Owner in respect of any meeting with any such authorities (with Contractor responsible for procuring any necessary permission for the attendance of a representative of Owner at any such meeting); and
- (4) Carry out its obligations under this Contract so as not to cause or contribute to any breach by, or violation of, Owner of any agreement entered into by Owner in connection with the Work which was provided to the Contractor or the terms of which were notified to the Contractor or any Applicable Law or Authorisation.

4.5.3 Security Regulations

- (1) Contractor shall comply with the security provisions and procedures laid down in respect of the Work as specified by Owner, or required or mandated by the Gujarat Maritime Board (GMB), the Indian Navy and Coast Guard, any mandate of local police verification or any other relevant Governmental Authority or Authorizations.
- (2) Contractor shall ensure that any vessel (Indian registered as well as foreign registered) entering the Dahej Port has the requisite permission and clearance from the Owner and other Govt Authorities including Customs or as required pursuant to Applicable Laws.
- (3) Contractor agrees that Owner may deny permission to any Person to enter the Site in case the required procedures are not complied with or such Person arrives at the Site without advance notice or is otherwise considered a security risk by the Owner.
- (4) Contractor shall be responsible for keeping unauthorized Persons off the Site. Authorized persons shall be limited to personnel of the Contractor and its Subcontractors and other persons specifically authorized by Owner.
- (5) Contractor shall provide all security for the Site (including, fencing, lighting, guarding and watching of the Work at all times) and shall comply with security arrangements established to maintain the security on the Site as developed and agreed to between Owner, Contractor and Other Contractor(s).

4.6 Permits and Licenses

- 4.6.1 Contractor shall obtain and maintain all Authorisations for the performance of the Work (irrespective of whether the same are required to be procured in the name of Contractor or Owner), other than those

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 28 / 131	
		REV. 0	

expressly set forth in Article 10.5.1.

- 4.6.2 Specifically, where an Authorisation by its very nature can only be procured by the Owner, the Owner shall at the Contractor's request, execute such documents and complete such formalities as are necessary for presentment of the application or other Authorisation related documents to the relevant Governmental Authority or other Person. However, the foregoing shall in no circumstances be construed as relieving the Contractor from his obligations under Article 4.6.1 for which he shall remain primarily and fully responsible or as imposing any responsibility on the Owner in respect of procurement of Authorisations other than as specifically mentioned in Articles 4.6.5 and 10.5.1.

- 4.6.3 Without limiting the ambit of Article 4.6.1, Authorisations required to be obtained and maintained by the Contractor shall include but not limited to:

- (1) Registrations;
- (2) Licenses (including import licenses);
- (3) Naval and Coast Guard Authorisations;
- (4) Permits (including immigration, temporary residence, work and exit permits).

which are required by Applicable Law for the performance of the Work and to allow Contractor and its Subcontractors to perform and complete the Work in accordance with the Contract Schedule.

- 4.6.4 Contractor's access to the Site when navigating by sea shall be in accordance with the Authorisation(s) issued by the Gujarat Maritime Board.
- 4.6.5 If requested by Contractor, Owner shall provide Contractor reasonable assistance in obtaining and maintaining such Authorisations. Contractor shall not be entitled to any adjustment to the Contract Schedule or the Contract Price or any other terms of this Contract relating to any delay or failure to obtain or maintain any such Authorisations.

4.7 Co-operation with Owner, Other Consultants and Contractors

- 4.7.1 Contractor recognises and acknowledges that Contractor, other contractors, consultants and Owner's personnel have been and may be, engaged by Owner to advise Owner and to perform other work and services at the Site in respect of the Project and the Existing Facilities and that consultants and advisers have been and may be engaged by the Lenders to advise with respect to the Project and the Existing Facilities.
- 4.7.2 Contractor shall co-operate with Owner's consultants (including Owner's Project Management Consultant), other contractors, Lenders' consultants and advisers and Owner's personnel (as well as any workmen of any legally constituted public authority who may be working on or near the Site in respect of any work related to or not related to this Contract) and co-ordinate its activities with the activities of such Persons under Owner's direction.
- 4.7.3 In particular, where the work being done by any such Persons (specified in Article 4.7.2) affects the Contractor's performance of the Work, or the Contractor's performance of the Work affects the performance of the work and services of the Persons (specified in Article 4.7.2), the respective rights of Contractor and such persons involved shall be determined by Owner to secure the completion of the relevant portions of the Project in general harmony. To this effect, an interface co-ordination procedure shall be prescribed by the Owner in consultation with the Contractor and other contractors for performance of Work and work to be performed by the other contractors for the Project, existing facilities or any other work such interface co-ordination procedure shall be duly complied with the Contractor.
- 4.7.4 Contractor shall consult with Owner's Representative concerning issues relating to the Work and compliance with this Contract at all reasonable times requested by Owner and participate in periodic meetings at the Site or other location agreed between Owner and Contractor for the purpose of reviewing the progress of the Work and for technical discussions and discussions relating to the

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 29 / 131	
		REV. 0	

Contract Schedule or any matter related to the Contract.

- 4.7.5 The frequency of such periodic meetings shall be established by notice from Owner/PMC to Contractor. Further details of Owner's requirements in connection with such periodic meetings are set forth in Annex H1 of Exhibit H (General Project Requirements and Procedures).
- 4.7.6 If Contractor suffers any material delay in following the instructions of Owner for co-ordinating with the persons referred to in Article 4.7.2 and if: (i) such delay would not have been foreseeable by an experienced contractor; or (ii) such delay could not have been mitigated by the Contractor through reasonable reprogramming of its activities or by taking such other actions as may be expected of an experienced contractor; Contractor shall be entitled, within fifteen (15) days of its receipt of such instructions, to submit a Preliminary Change Order for a determination of an adjustment to the Contract Schedule without any adjustment to the Contract Price.
- 4.7.7 The Contractor hereby acknowledges that failure to comply with its obligations under this Article 4.7 may result in claims by the Other Contractors against the Owner. The Contractor hereby undertakes to indemnify the Owner in respect of any such claim if and to the extent that it arose as a result of a breach by the Contractor of its obligations under this Article 4.7. The Contractor's obligation under this Article 4.7 shall survive any termination of this Contract.
- 4.7.8 Save as provided in Article 4.7, the Contractor hereby releases and forever discharges the Owner from all actions, suits, claims, demands, costs and other liabilities of any nature (whether in contract, tort or under Applicable Laws) which the Contractor now has or at any time may have, or, but for the execution of this Contract, might have had against the Owner arising out of or in connection with the performance, or any negligent performance, by any of the persons referred to in Article 4.7.2, of any of their individual or collective obligations under any agreement in relation to the Project; or any failure or alleged failure on the part of the Contractor to perform any of its obligations under this Contract.

4.8 Notification of Suits and Claims; Owner's Right to Defend

4.8.1 Contractor to Notify

- (a) Contractor shall give Owner immediate written notice of any suit, legal proceedings or action filed or communication including a notice, claim or show cause notice issued against or to Contractor arising out of the performance of the Work, this Contract, or any contracts which the Contractor may have entered into with third parties in relation to the Work.
- (b) Contractor shall promptly furnish to Owner copies of all papers received by Contractor or otherwise in the possession of the Contractor, pertinent to any such suit or action.

4.8.2 Owner's Right to Defend

- (a) If requested by Owner, Contractor shall do any and all things necessary or appropriate to effect an assignment and subrogation in favour of Owner of all Contractor's rights and claims, except against Owner, arising from or growing out of any suit, action or claim referred to in Article 4.8.1 and shall authorise Owner or Owner's designated representatives to exercise any such rights and settle or defend any such claims or take charge of any such litigation affecting Contractor.

4.8.3 Provision in Subcontracts

Contractor shall cause a provision similar to this Article 4.8 to be inserted in all of its subcontracts.

4.9 Office Space for Owner

- 4.9.1 Contractor shall, from time to time (including during the basic and detailed engineering phase of the

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 30 / 131	
		REV. 0	

Work) provide office space and support at its office outside the Site for around five (5) of the Owner's or Owner's Representative personnel and all secretarial assistance, telephone and computers along with a high speed internet connection for data transmission, and projector facilities for conferencing purpose as may be reasonably requested by Owner or Owner's Representative, at its own cost.

- 4.9.2 Contractor shall also procure that each of the Suppliers of Equipment and Materials provide office space for 2 persons, including appropriate office support, for Owner or Owner Representative personnel for the period during the performance of the Work.

4.10 No Payment to Influence Bid

- 4.10.1 The Contractor (in case of consortium, each member of consortium) represents, warrants and agrees that no Person was or has been retained or employed to solicit this Contract upon any arrangement or understanding for the payment of any commission, fee or other compensation of any kind, except for compensation to bona fide employees of Contractor.
- 4.10.2 The Contractor further represents and warrants that neither it nor any of its Affiliates nor any of its or their respective personnel have made, received, provided or offered and the Contractor agrees that neither it nor any such other entity or Person shall make, receive, provide or offer, any gift, entertainment, payment, loan or other consideration for the purpose of influencing the procurement of any particular Equipment and Materials or Contractor's Equipment or the acceptance of any particular Supplier or Subcontractor or otherwise for the purpose of influencing any person to any course of conduct in any way relating to or affecting this Contract.
- 4.10.3 Without in any way limiting the nature of breaches which could constitute 'material breaches' or this Contract for the purposes of Article 27, Parties hereby expressly agree that breach of the foregoing representations and warranties or agreements shall constitute a material breach of this Contract and shall give Owner the right to immediately terminate this Contract pursuant to Article 27.1.2 without any notice.
- 4.10.4 The Contractor shall cause a provision similar to this Article 4.10 to be inserted in all its contracts with Subcontractors.

4.11 Quality Assurance

- 4.11.1 Contractor shall institute a system for quality assurance complying with and in accordance with the details set forth in Section B of Exhibit H (General Project Requirements and Procedures) (the "Quality Assurance").
- 4.11.2 Compliance with the Quality Assurance system shall not relieve Contractor of its duties, obligations or responsibilities under this Contract. Details of all procedures and required compliance documents shall be submitted by Contractor to Owner for its review prior to the commencement of each design and execution stage of the Work as described in Exhibit H (General Project Requirements and Procedures).
- 4.11.3 Contractor acknowledges that the Scope of Work includes provisions relating to Quality Assurance, preparation of training manuals and Quality Assurance manuals and other documentation requirements and providing training for Owner's personnel.

4.12 Responsible for Safety and Safe Working Conditions and Security

4.12.1 General

- (a) With regard to safety and safe working conditions, Contractor shall:

- (1) Be fully responsible for safe working conditions including for any emergency situation like epidemic, pandemic, etc. and for the safety of all Persons or invitees entitled to enter or be on

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 31 / 131	
		REV. 0	

the Site (including keeping the Site and the Work clear of unnecessary obstructions so as to avoid danger to these persons);

- (2) Ensure that construction tools, construction equipment, Temporary Facilities and other items used in performance of the Work, whether purchased, rented or otherwise provided by Contractor or its Subcontractors, are in a safe condition and are capable of performing their intended functions;
 - (3) Not cause, permit or tolerate a hazardous, unsafe, unhealthy or environmentally unsound condition or activity in performance of the Work;
 - (4) Have the right to and shall, refuse entry onto the Work Site by, or to directly remove from the Work Site, any Person(s) who fails to comply with Contractor's safety regulations at the Work Site and shall promptly notify Owner of any such incidents;
 - (5) Cause, enforce and support a "drug-free workplace" policy with such provisions as may be prescribed by the Owner;
 - (6) Provide any temporary works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Work, for the use and protection of the public and owners and occupiers of adjacent land.
 - (7) Ensure that its personnel (including Subcontractors' personnel and invitees entitled to enter or be on the Site), construction tools, construction equipment, vehicles, Temporary Facilities and other items used in performance of the Work do not interfere with the safety, security and work of the other contractor(s) performing work in areas of the Site other than the Work Site.
- (b) If Contractor becomes aware of the existence of any condition or a violation of any safety and health standards or Applicable Laws, the Contractor must immediately notify Owner and take all steps in accordance with Applicable Laws as are necessary to eliminate, terminate, abate or rectify the condition or violation.

4.12.2 Preventive Measures

- (a) Contractor shall take all measures to maintain the health and safety of Persons and to prevent injury to Persons or damage to any property on the Site, or in the vicinity thereof, as a result of Contractor performing the Work.
- (b) Such measures shall include without limitation:
 - (1) The prevention of fires;
 - (2) The furnishing of temporary construction fences, flagmen, warning signs and barricades;
 - (3) The elimination of excess dust or smoke emission;
 - (4) The protection of any overhead utility lines, underground pipes, conduits or cables; and
 - (5) The protection of the Existing Facilities, existing Work or facilities or work in progress by Contractor or others.

Protection or prevention requisites required in response to any emergency situation including but not limited to Covid-19 or any other pandemic / emergency situation and stringent of the available guidelines to be followed

- (c) Should Owner request that Contractor provide safeguards reasonably required for the protection of persons or property as required by Article 4.12.1 or this Article 4.12.2 and, should Contractor fail to comply with such request within a reasonable time, Owner may provide such safeguards at Contractor's cost and expense.

4.12.3 Safety Inspections; Suspension of Work

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 32 / 131	
		REV. 0	

- (a) Contractor shall comply with and implement the ‘Health Safety and Environment Plan’ set forth in Exhibit H (General Project Requirements and Procedures) (the **“HSE Plan”**).
- (b) Owner may periodically inspect or cause to be inspected, the Contractor’s operations, construction tools and Contractor’s Equipment and the Work Site to monitor the Contractor’s compliance with the HSE Plan and obligations under this Article 4.12. Without assuming responsibility for the HSE Plan, Owner may:
 - (1) Revoke the permission of any Person to enter the Work Site;
 - (2) Require the Contractor to repair or replace Contractor's Equipment, at the Contractor’s cost and expense, that are unsafe or incapable of safely doing the intended Work with safe and capable tools and equipment;
 - (3) Perform corrective measures if Contractor fails to do so at Contractor’s cost and expense; or
 - (4) Suspend Contractor’s performance of all or a portion of the Work if Contractor or any of its Subcontractors fails to comply with, administer or enforce a provision of the HSE Plan.
- (c) Contractor shall not be entitled to any extension of the Contract Schedule or an adjustment to the Contract Price for any suspension of Work under this Article 4.12.

4.13 Contractor’s Responsibility for Access to Site

4.13.1 Contractor shall:

- (1) Be responsible for obtaining any and all necessary Authorisations required for use of public roads and infrastructure in connection with the performance of the Work;
- (2) Obtain and maintain all rights of way, easements and such other access rights necessary and required for it, its Subcontractors and Suppliers and such other personnel (including personnel transporting goods or supplies) to be used in connection with the Work to access the Site;
- (3) Be responsible to improve and strengthen, if required and maintain or arrange with the relevant Governmental Authorities for such authorities to improve and strengthen, if required and maintain all access roads necessary and required (and of sufficient size and capacity) for Contractor, its Subcontractors and Suppliers and such other personnel (including personnel transporting goods or supplies) to access the Site for performance of the Work and in accordance with this Contract and the Contract Schedule; and
- (4) Ensure that such access roads to the Site shall not be exclusive to Contractor’s use and access, but shall be available for use by Owner and such other persons as shall need to access the Site in connection with the Work or this Contract.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 33 / 131	
		REV. 0	

ARTICLE 5 - CONTRACTOR'S PERSONNEL

5.1 Project Manager

- 5.1.1 Within fifteen (15) days of the Effective Date, Contractor shall have designated (with the prior approval of Owner) a competent and experienced person having appropriate qualifications to serve as Contractor's project manager, who shall be responsible for the administration, supervision, co-ordination and execution of Contractor's obligations hereunder (the **"Project Manager"**).
- 5.1.2 If the Owner withholds consent in respect of the appointment of a person as the Project Manager or subsequently revokes its consent for the appointment of a person as the Project Manager or if the Project Manager fails to carry out the duties assigned to it or otherwise fails to fulfil such role (in the sole opinion of the Owner), the Contractor shall immediately take steps to nominate another suitable person for appointment as the Project Manager in accordance with the procedure set out at Article 5.4.5.
- 5.1.3 The Project Manager shall be authorised to bind Contractor for all purposes under this Contract and notices, approvals and consents given to or received from the Project Manager shall have the same effect as if given to or received from Contractor. The Project Manager position shall be subject to Article 5.4 as a 'Key Site Personnel'.
- 5.1.4 The Project Manager may delegate any powers, functions and authority to any competent person and may at any time revoke the delegation. Any delegation or revocation shall not take effect until Owner has received prior notice signed by the Project Manager, naming the person and specifying the powers, functions and authority being delegated or revoked.
- 5.1.5 Unless in the exercise of powers assigned to the Site Manager hereunder, any communication by Contractor to Owner shall be signed by the Project Manager or otherwise delivered in writing through the Project Manager's office.
- 5.1.6 The Contractor shall not, without the prior approval of the Owner, which approval shall not be unreasonably withheld, revoke the appointment of the Project Manager or appoint a replacement.
- 5.1.7 In the event or circumstances that no Project Manager holds office, for any reason whatsoever, the proposal manager of the Contractor shall be deemed to be the Project Manager for the purposes of Article 5.1.3 and Article 5.1.5.

5.2 Site Manager

- 5.2.1 Within fifteen (15) days of the Effective Date, Contractor shall have designated in addition to the Project Manager (with the prior approval of Owner) a competent and experienced person with appropriate qualifications to act as construction manager, who shall direct, survey and manage all the activities at the Site to ensure the performance of the Work in accordance with this Contract (the **"Site Manager"**).
- 5.2.2 The Site Manager shall co-ordinate the daily activities of the works supervisors appointed by the Contractor and shall report to the Owner's Representative, as soon as practicable, any events that may adversely affect or have adversely affected the normal performance of the Work.
- 5.2.3 The Site Manager shall operate from an office to be located at Site. The Site Manager position shall be subject to Article 5.4 as a Key Site Personnel.
- 5.2.4 The Site Manager may delegate any of its powers, functions and authority to any competent person and may at any time revoke such delegation. Any delegation or revocation shall not take effect until Owner has received prior notice signed by the Site Manager, naming the person and specifying the powers, functions and authority being delegated or revoked:

Provided that, the Site Manager may not further delegate such powers, functions and authority delegated to him by the Project Manager as are specifically mentioned in Article 5.1.5.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 34 / 131 REV. 0	

5.3 **Interface Manager**

- 5.3.1 Within thirty (30) days of the Effective Date, Contractor shall have designated (with the prior approval of Owner) a competent and experienced person with appropriate qualifications, to act as interface manager, who shall direct, survey, manage and co-ordinate all the activities related to establishing and maintaining an interface with Other Contractors appointed by the Owner in relation to the Project or any other works, so that the Work is performed pursuant to the requirements set out in, or inferred from this Contract (the “**Interface Manager**”).
- 5.3.2 The Interface Manager shall not be permitted to delegate its powers, functions and authority without prior consent of the Owner, except to the Project Manager.

5.4 **Key Site Personnel**

- 5.4.1 In addition to the Project Manager, the Interface Manager and the Site Manager, Contractor shall be obligated to provide and have available at all relevant times at no cost to Owner, sufficient personnel having the experience, expertise and skills necessary to perform all obligations required of Contractor continuously and diligently in order for the Work to be completed in accordance with the terms of this Contract.
- 5.4.2 Each individual that is to fulfil the positions of key personnel at the Site is identified in Section A of Exhibit H (General Project Requirements and Procedures) (the “**Key Site Personnel**”).
- 5.4.3 Key Site personnel shall be fluent in speaking and writing English and shall possess relevant skill, expertise experience in engineering, construction, erection, procurement and project management of facilities of the type similar to the Facility.
- 5.4.4 Contractor may propose the appointment or replacement of a Key Site Personnel from time to time as necessary or desirable subject to the approval procedures set forth below.
- 5.4.5 Without prejudice to the timelines set out at Articles 5.1.1 and 5.2.1 for the appointment of the Project Manager and the Site manager respectively, in proposing the appointment of any Key Site Personnel or any replacement thereof, Contractor shall provide Owner with resumes detailing the experience and qualifications of each of such personnel. Following such proposal, the prior approval of Owner shall be required before each person is assigned and accepted as one of the Key Site Personnel. Owner agrees to approve or disapprove any such personnel within fourteen (14) days of receipt of the relevant resumes, provided that before the expiration of such fourteen (14) day period, the Owner may request supplemental information regarding such personnel. If supplemental information is requested, the Contractor shall supply the requested information within five (5) days of its receipt of such request and Owner shall have five (5) days after its receipt, of such information to approve or disapprove the relevant personnel. Failure of the Owner to approve or disapprove any such personnel within the time periods provided herein shall constitute the Owner's approval of such personnel. If any such personnel proposed by Contractor are not approved by the Owner, Contractor shall provide the Owner with the resumes of one or more alternative persons within five (5) days of Owner's notice to Contractor of its disapproval and the procedures set forth above shall apply.
- 5.4.6 Key Site Personnel may be transferred, replaced, removed or changed only after Owner has approved the Contractor's proposed replacement for any such Key Site Personnel in accordance with the procedures set forth in this Article 5.4.
- 5.4.7 Contractor may terminate the employment of any Key Site Personnel for cause and, in the event of any such termination or in the event of the death, retirement or resignation of any Key Site Personnel, the Owner shall have the right to approve the Contractor's proposed re- placement for any such Key Site Personnel in accordance with the procedures set forth in this Article 5.4.
- 5.4.8 Contractor agrees that Key Site Personnel shall be assigned at all appropriate times exclusively for the performance of Contractor's obligations under this Contract and such Key Site Personnel may

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 35 / 131	
		REV. 0	

not perform any other services for Contractor or its Affiliates, or otherwise perform any services inconsistent with their primary responsibility to perform Contractor's obligations under this Contract.

- 5.4.9 Key Site Personnel shall not be absent from the Site for business not related to the Work without prior notification to the Owner and the Contractor shall submit to the Owner the details of the persons who will substitute the Key Site Personnel during such Key Site Person's absence in advance and Contractor shall obtain Owner's prior approval if such absence may extend beyond seven (7) days.
- 5.4.10 The Contractor agrees that all Key Site Personnel shall be assigned solely to the performance of Contractor's obligations hereunder.

5.5 Demobilisation

- 5.5.1 Contractor shall, at ninety percent (90%) completion of the construction phase of the Work, prepare and submit to Owner a detailed demobilisation schedule for the Contractor's Equipment and its personnel by discipline.
- 5.5.2 Contractor shall co-ordinate at all times with Owner extensions to labour and contract assignments in accordance with planned manpower schedules.

5.6 Approval of Foreign Nationals

- 5.6.1 Before the assignment of any foreign nationals to be resident in India in relation to the Work, the, Contractor shall provide Owner with resumes detailing the experience of each of such personnel and Owner's prior written consent shall be required for each such assignment.
- 5.6.2 Owner agrees to approve or disapprove any such personnel within fifteen (15) days of its receipt of the relevant resumes, provided that before the expiration of such fifteen (15) day period, Owner may request supplemental information regarding such personnel. If supplemental information is requested, Contractor shall supply the requested information within five (5) days of its receipt of such request and Owner shall have five (5) days after its receipt of such information to approve or disapprove the relevant personnel.
- 5.6.3 Failure of Owner to approve or disapprove any personnel within the time periods provided shall constitute Owner's approval of such personnel. If any personnel proposed by Contractor are disapproved by Owner, Contractor shall provide Owner within fifteen (15) days following its receipt of the notice of disapproval with the resumes of one or more alternative persons and the procedures set forth above shall apply.

5.7 Termination of Personnel

- 5.7.1 At Owner's written request, Contractor shall promptly terminate the assignment of any personnel whom Owner deems unable or unwilling to perform its assigned services in a diligent and timely manner or whom the Owner deems insubordinate, careless or disruptive to the performance of the Work, or who has, in the Owner's opinion, engaged in any misconduct or illegal activities, and the Contractor shall nominate a suitable replacement who shall be subject to the approval of Owner.
- 5.7.2 All costs associated with termination and replacement of such personnel shall be borne by the Contractor.

5.8 Exclusive Service

- 5.8.1 Contractor Agrees that all Key personnels shall be assigned solely to the performance of the Contractor's obligations hereunder.

5.9 Personnel to have Required Documents

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 36 / 131	
		REV. 0	

- 5.9.1 Contractor shall ensure that all personnel of Contractor and of its Subcontractors performing the Work are and at all times shall be, in possession of all such documents (including, without limitation, valid visas, work permits and security clearances) as may be required by all Applicable Laws.

5.10 Labour Relations

- 5.10.1 Contractor shall give to Owner prompt written notice of any labour dispute or anticipated labour dispute which may be expected to affect the performance of the Work.
- 5.10.2 In particular, the Site Manager shall immediately report to Owner's Representative any conflicts or disorderly conduct concerning the labour force at the Site assigned to the Work by Contractor or any Sub contractor in order to establish any measures that may be necessary to avoid any influence or affect of such conduct on Owner's or any other person's personnel.

5.11 Notification of Personnel Irregularities

- 5.11.1 Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst its personnel and to preserve peace and protection of persons and property on and near the Site.
- 5.11.2 Contractor shall give prompt notice to Owner of any such anticipated or actual unlawful, riotous or disorderly conduct.
- 5.11.3 Contractor shall give to Owner prompt written notice of any misappropriation or theft of Owner's property or assets by submitting a misappropriation or theft report.

5.12 Non-Interference in Political Affairs

- 5.12.1 Contractor shall ensure that none of its non-Indian personnel shall interfere with or participate in the political affairs of India or any political subdivision thereof and Contractor shall immediately remove from India at its cost and expense any personnel violating this restriction.

5.13 Benefits

- 5.13.1 Contractor shall contract for the provision of such social benefits for its employees and those of its Subcontractors as may from time to time be required by Applicable Law in the jurisdictions where its obligations pursuant to this Contract are performed.

5.14 Records of Contractor's personnel

- 5.14.1 For the term of this Contract, the Contractor shall submit to the Owner details showing the number of and details pertaining to each class of Contractor's personnel on a monthly basis.

5.15 Provision in Subcontracts

- 5.15.1 Contractor shall cause provisions similar to Articles 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 5.10, 5.11, 5.12, 5.13 and 5.14 to be inserted in all of its subcontracts.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 37 / 131	
		REV. 0	

ARTICLE 6 - SUBCONTRACTORS AND SUPPLIERS

6.1 Construction Subcontracting with Approval

- 6.1.1 The Contractor shall not subcontract the whole of the Work and shall comply with the procedures and requirements of Exhibit H (General Project Requirements and Procedures) for any subcontract of any of its obligations to be performed under this Contract.
- 6.1.2 In particular, Contractor shall enter into any such subcontract only
- (1) In the case of any subcontract with a value in excess of US\$100,000 (USD one hundred thousand), upon the prior written approval of the Owner with respect to the Subcontractor and the terms and conditions of the contract between Contractor and such Subcontractor (except price); For avoidance of doubt, it is clarified that Contractor shall submit the relevant PTR's & eligibility criteria document as set forth in Exhibit H for owner's approval even for Subcontractors, if any, listed in Technical Section (List of Pre-qualified Subcontractors and Suppliers) ("**Pre-qualified Subcontractors**")..
- 6.1.3 All Subcontractors shall have all appropriate Authorisations and or be appropriately licensed to perform the subcontract work.
- 6.1.4 Contractor shall promptly give Owner/PMC written notice of the name of each Pre-qualified Subcontractor which Contractor intends to select to perform any aspect of the Work and shall furnish to Owner/PMC for approval, such information concerning such Subcontractor, as may be necessary to enable Owner/PMC to determine compliance with the Technical Documents and other requirements of this Contract, including:
- (1) A brief description of the subcontract work to be performed by such Subcontractor; and
 - (2) A technical analysis of such Subcontractor's bid; and
 - (3) The intended commencement and time period of the subcontractor's work; and
 - (4) Such other information as may be requested by Owner.
- 6.1.5 Subject to the provisions of IFB/NIT, A minimum of the following activities shall be performed by the Contractor directly and shall not be sub-contracted:
- (i) Overall Project Management
 - (ii) Planning, Scheduling, Monitoring
 - (iii) Procurement Services including procurement (except for procurement of cement, steel & aggregate)
 - (iv) Quality Assurance including HSE
 - (v) Construction Management
 - (vi) Commissioning
- 6.1.6 Additionally, the Contractor must deploy its own manpower for planning, supervision and quality of works at site including Project Manager(s), Quality Control Engineer(s) for various disciplines, Planning Engineer(s) and front line supervisors for Civil, Electrical, Mechanical, Piping and Instrumentation jobs. Sub-contracting of these activities shall not be permitted under any circumstances.
- 6.1.7 Nothing in this Contract generally or in this Article 6 specifically shall be construed to relieve the Contractor of any of its obligations under this Contract for which it shall continue to remain completely and fully liable as if no Subcontractor had been appointed, or to affect the Owner's rights vis-à-vis the Contractor.

6.2 Engineering Sub-Contractor

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 38 / 131 REV. 0	

- 6.2.1 Subject to the provisions of IFB/NIT, the Contractor/ Engineering sub-contractor executing residual process design and detailed engineering shall follow inter alia the methodology mentioned below:
- 6.2.2 Residual Process Design and detailed Engineering shall be done by the Contractor or specified Engineering Subcontractor identified by the Contractor in his Bid and approved by the Owner. No other or further subcontracting shall be permitted
- 6.2.3 The Residual process Design and detailed Engineering shall be carried out at the Principal International Design Office of the Contractor / Engineering Subcontractor, as the case may be, with adequate strength of technical personnel and support design aids.
- 6.2.4 In the case of Residual Design Engineering and/or Detailed Engineering being done by engineering subcontractor, the Contractor shall locate its Lead Engineers of the respective disciplines viz Civil, Structural, Pressure Vessels, Static & Rotating Equipment, Piping, Electrical and Instrumentation at the design Centre (office) of the engineering subcontractor to control, monitor and approve the engineering design work/deliverables of the engineering subcontractor prior to their issue for Review or Construction, as applicable. Such placement shall be a pre-condition for the issue of any drawings for review or construction, to which end the Contractor shall keep the Owner informed of such deployment with particulars of the Lead Engineers deployed, and the relevant dates of their deployment, and all drawings issued for review or construction shall be countersigned by the concerned Lead Engineer. All interactions on Design/ Review/ Discussions with Owner/ Owner's representative shall be done under single point responsibility of the Contractor.
- 6.2.5 After start of construction work, the Contractor and/or its engineering subcontractor, as the case may be, shall position at work site a field engineering team essentially consisting of General Civil, Piping and Structures initially and followed by Electrical and Instrumentation who have been involved in carrying out the design at the design centre in order to closely co- ordinate with site construction group to resolve any issues related to design/construction and provide additional drawings/documents as required. Other specialists as required shall also be deployed. The field engineering team shall be equipped with all their design aids (both hardware and software) and with effective communication network facilities with their Principal International Design Office.

6.3 Approval of Suppliers

- 6.3.1 Subject to terms of Exhibit H, without the prior written approval of the Owner, the Contractor shall not procure any Equipment and Materials from any Subcontractor or Supplier other than those set forth in Technical Section of Bidding Document (the "**Pre- qualified Suppliers**").
- 6.3.2 Contractor shall promptly notify the Owner of the name of each Pre-qualified Supplier which Contractor intends to select to manufacture or supply Equipment and Materials and shall furnish to Owner for approval such information concerning such Equipment and Materials as may be necessary to determine its compliance with the Technical Documents and other requirements of this Contract, including:
 - (1) A description of such item of Equipment and Materials;
 - (2) A technical analysis of such Pre-qualified Supplier's bid including the technical specifications of such item; and
 - (3) The purchase order and bid tabulation, if any, (in each case excluding price) of each such item.
- 6.3.3 Nothing in this Contract generally or in this Article 6 specifically shall be construed to relieve the Contractor of any of its obligations under this Contract for which it shall continue to remain completely and fully liable as if no Suppliers were involved with the Project or as affecting the Owner's rights vis-à-vis the Contractor.
- 6.3.4 The Contractor shall cause provisions similar to Article 6.3 to be inserted in all of its contracts with its Subcontractors and ensure that the provisions of Article 6.3 are complied with by every

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 39 / 131	
		REV. 0	

Subcontractor.

6.4 Approval of Equipment and Materials by Owner

- 6.4.1 Contractor shall furnish Owner for approval full information concerning the Equipment and Materials which it contemplates incorporating in or using in connection with the Facility so as to ensure compliance with the Technical Documents.
- 6.4.2 Equipment and Materials purchased without obtaining any required approvals from Owner may subsequently be rejected and the cost and expense thereof shall be for the account of Contractor and not reimbursable.
- 6.4.3 Should any Equipment and Materials required to be so submitted for approval be installed or used by Contractor or a Subcontractor without approval by the Owner in accordance with Article 6.4.1, they may subsequently be rejected and the cost thereof, including the cost and expense of all services and labour relating thereto, shall be to the account of Contractor and not reimbursable. For the avoidance of doubt, Owner's approval shall not relieve nor excuse Contractor from fulfilling its obligations and responsibilities (including satisfying its guarantees and warranties) under this Contract.
- 6.4.4 The Contractor shall cause provisions similar to Article 6.4 to be inserted in all of its contracts with its Subcontractors and ensure that the provisions of Article 6.4 are complied by every Subcontractor.

6.5 Responsibility for Subcontractors and Suppliers

- 6.5.1 Contractor shall require all Subcontractors and Suppliers to perform their work in conformity with all applicable provisions of this Contract and, notwithstanding any approval by Owner of any Subcontractor or subcontract, or Supplier or purchase order, as the case may be and notwithstanding that any Subcontractor is a Pre-qualified/approved Subcontractor and any Supplier is an Pre-qualified Supplier, Contractor shall be responsible for and warrants the work and services of all Subcontractors and Suppliers as if performed by Contractor.
- 6.5.2 Any such approval by Owner shall not relieve Contractor of any of its duties, responsibilities, obligations, warranties or liabilities under this Contract.
- 6.5.3 Specifically, the Contractor shall be responsible for the acts or defaults of any Subcontractor or Supplier or such Subcontractor's or Supplier's agents or employees, as if they were the acts or defaults of the Contractor and the Contractor's personnel.

6.6 Assignment, Termination of Subcontracts and Purchase Orders

- 6.6.1 All agreements, arrangements or relationships entered into by the Contractor with a Subcontractor, Supplier or third party in relation to the Work or this Contract shall be in writing.
- 6.6.2 No subcontract or purchase order shall bind or purport to bind or create any obligations, directly or indirectly for the Owner. An express acknowledgment of Owner's non privity to any contracts which the Contractor may enter in to with Subcontractors or Suppliers and waiver of any right of such Subcontractors or Suppliers to proceed against the Owner shall form part of and be included in every contract which the Contractor enters into with Subcontractors, Suppliers or other third parties in general.
- 6.6.3 Additionally, every subcontract or purchase order or other contract entered into by the Contractor with third parties in relation to the Work shall contain a provision permitting assignment thereof (including assignment of warranties) to Owner upon Owner's written request. Contractor shall include in all subcontracts and purchase orders the right of unilateral written termination by

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 40 / 131	
		REV. 0	

Contractor of all or a portion of such subcontract or purchase order and, if requested by Owner, shall exercise such right of termination.

6.6.4 Each subcontract and purchase order shall also state that in the event of a total or partial termination, Subcontractor or Supplier may claim only its properly supported out-of-pocket costs plus a reasonable amount to compensate Subcontractor or Supplier for demonstrable (to Owner's satisfaction) related charges for the terminated portions.

6.6.5 In addition, such subcontract and purchase order shall state that title to materials or partially completed work whose full costs are included in the termination charges shall pass to Contractor or Owner, as Owner shall direct and that Contractor shall advise Subcontractor or Supplier what disposition shall be made of such materials or work.

6.7 No Payments after Default

6.7.1 Contractor shall promptly notify the Owner in writing of any Subcontractors or Suppliers which are in default under the terms of their subcontracts or purchase orders, as the case may be.

6.7.2 Contractor shall not make any payments to any Subcontractor or Supplier who may be in default of the terms of its subcontract or purchase order, unless in Contractor's reasonable judgement such payments are required to cause such Subcontractor or Supplier to cure such default. When payments are not so required, Owner will determine with Contractor an equitable basis for making any further payments in such cases and will confirm such basis in writing.

6.8 Final Payments to Subcontractors and Suppliers

6.8.1 The Contractor shall not pay any Subcontractor or Supplier in full until such Subcontractor or Supplier has issued a certificate or release satisfactory to the Owner that such subcontract or purchase order has been fully performed including statutory compliances and that no property used in connection with the Work is subject to any unsatisfied lien or claim as a result of the performance or non-performance of such Subcontractor or Supplier.

6.9 Information, Assignment

6.9.1 Contractor shall promptly furnish Owner with such information in relation to Subcontractors and Suppliers as Owner may reasonably request and with a copy of each agreement (excluding the price) between Contractor and each of its Subcontractors and Suppliers.

6.9.2 In the event of termination of this Contract prior to Final Acceptance, Contractor shall deliver a copy of each such agreement to Owner with price so that Owner can decide whether or not to exercise its right of assignment. This provision shall survive the termination of this Contract for any reason whatsoever.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 41 / 131	
		REV. 0	

ARTICLE 7 - SHIPMENT

7.1 Notice of Shipment

7.1.1 Contractor shall comply with and follow the procedures for shipment set forth in Section E of Exhibit H (General Project Requirements and Procedures).

7.1.2 In particular, at least prior to arrival of each shipment in India, Owner and Owner's insurance company providing insurance will receive from the Contractor, the notice of shipment. Such notice shall set forth the following information concerning such shipment:

- (1) A reference to the date, parties and subject matter of this Contract;
- (2) A description of, or that part of, the Equipment and Materials contained in such shipment;
- (3) The date of embarkation and departure;
- (4) The port of origin;
- (5) The means of shipment (air or sea);
- (6) The estimated date of arrival in India;
- (7) The port of entry in India;
- (8) The value of the shipment;
- (9) The approximate weight and volume (gross and net);
- (10) The name, flag and owner of the vessel if shipment is by sea or the designation of the aircraft if shipment is by air; and
- (11) The number and value of bill of lading or airfreight bill.

Contractor shall ensure that a provision similar to this Article 7.1 is included in all agreements with Suppliers.

7.1.3 Contractor shall be responsible for packing, loading, transporting, receiving, unloading, storing and protecting all Equipment and Materials notwithstanding the terms of any contract between the Contractor and any third party with respect to the Equipment and Materials. Specifically, the Contractor, shall after proper painting, pack and crate all Equipment and Materials in a manner suitable for road/ rail/ ocean / air transportation to and storage in a tropical and humid climatic region in accordance with internationally accepted export practices and in such a manner so as to protect them from damage and deterioration in transit by road, rail, air and / or sea and during storage at the Site till the time of utilisation.

7.2 Shipping Documents

7.2.1 Prior to arrival of each shipment in India, the Contractor shall ensure that the Owner will receive by courier (or by certified air mail, if Owner so agrees) five (5) sets of each of the following documents (including two (2) sets of originals of the shipping documents specified at (1) below):

- (1) Shipping documents consisting of full set clean "onboard"
 - (a) Bill of lading, freight prepaid, for goods dispatched by sea; or
 - (b) Airway bill, freight prepaid, for goods dispatched by air;
- (2) Declaration made by Contractor in such form as shall be specified by Owner to the insurer providing the "All Risk" Marine Cargo Insurance specified in Exhibit I (Insurance) stating that such Equipment and Materials are covered by such insurance;

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 42 / 131	
		REV. 0	

- (3) Commercial invoice with itemised prices duly signed by Contractor;
- (4) Packing lists for each separate package;
- (5) Statement of Contractor that the Equipment and Materials are in accordance with the Contract and having attached all previously issued certificates and test certificates concerning the Equipment and Materials being shipped;
- (6) Certificate of origin;
- (7) Export license, if any;
- (8) Any other documents specified in Section E of Exhibit H; and
- (9) Any other documents needed for import clearance.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 43 / 131	
		REV. 0	

ARTICLE 8 - TRAINING AND OBSERVATIONS

8.1 General

- 8.1.1 Contractor shall provide, or cause Supplier to provide at a location acceptable to the Owner, the equipment specific training program set forth in the Technical Section. Contractor shall provide reasonable office space with appropriate communication facilities (telephone, audio and video conferencing facilities and high-speed internet connection) for this purpose at the locations where these services are being performed.
- 8.1.2 For the avoidance of doubt, it is hereby acknowledged by the Contractor that the consideration for equipment specific training specified in the Technical Section and provision of office space along with common facility and their running cost is included in the Contract Price.

8.2 Right to Observe

- 8.2.1 In addition to the specific training programs provided for herein, Owner shall have the right to post its personnel and its designated representatives to all offices of Contractor where the Work is being performed in order to observe and make inquiries concerning the Work and such persons may attend all meetings relating to performance of the Work.
- 8.2.2 Contractor shall at its own cost provide reasonable office space (including desks and chairs) for the Owner's personnel in relation to its obligations under Article 8.2.1.

8.3 Costs of Training and Observation

Owner shall be responsible for all travel, hotel and meal expenses, salaries, allowances and social benefits payable under Applicable Law of India in respect of its personnel and designated representatives ("**Owner's Personnel Expenses**"), in connection with training, instruction and observation programs referred to in Articles 8.1 and 8.2.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 44 / 131	
		REV. 0	

ARTICLE 9 - ACCOUNTING RECORDS AND AUDIT

9.1 Accounting Records

- 9.1.1 Contractor agrees to establish and maintain records and books of account, showing the cost of all items of labour, materials, equipment, supplies, services and all other expenditures of whatever nature and all cash and trade discounts, rebates, allowances, credits, salvage and commissions in respect thereof, which are reimbursable to Contractor under this Contract or which are the subject of an adjustment in the Contract Price pursuant to Article 13.4. The Contractor shall maintain the above records for a period of seven (7) years after Final Acceptance or the date of any termination of this Contract, whichever is earlier.
- 9.1.2 The system of accounting to be employed by Contractor shall be in accordance with accounting practices and as per principles in International Financial Reporting Standard (IFRS) or as approved in advance by Owner and the Contractor's records and books of account referred to above and all supporting documents shall be maintained in such a manner as to provide an audit trail and as to facilitate any examination and audit thereof by the Owner or any of the Owner's consultants or representatives.
- 9.1.3 The provisions of Article 9.1 shall survive the termination of this Contract for any reason whatsoever.

9.2 Inspection and Audit

- 9.2.1 Owner shall have the right to request the Contractor for all necessary information and supporting documentation for all items referred to in Article 9.1. In the event the Contractor fails to provide such information and supporting documentation, Owner or its authorised representatives or agents shall have the right to examine and audit, during business hours, all books, statements, accounts, correspondence, instructions, specifications, plans, drawings, receipts, memoranda, accounting documents and other records of Contractor and Subcontractors in so far as they may be pertinent.
- 9.2.2 Contractor shall cause all of its and each of its Subcontractor's documentation referred to in Article 9.1 and above in this Article 9.2 to be preserved and made available for examination and audit for a period of seven (7) years after Final Acceptance or the date of any termination of this Contract, whichever is earlier.
- 9.2.3 The foregoing right of examination and audit shall extend, but shall not be limited to, calculations of unit rates, percentages, per diem charges or other similar fixed amounts or man- hours worked or estimated to be worked which are to provide the basis of reimbursements to Contractor under this Contract and adjustments of the Contract Price.
- 9.2.4 The provisions of Article 9.2 shall survive the termination of this Contract for any reason whatsoever.

9.3 Owner's Right to Readjustment

- 9.3.1 Notwithstanding the execution by Owner of any approval, certificate of performance or payment to the Contractor or any Subcontractor or Supplier, Owner shall be entitled to a refund from the Contractor in the event that any examination and audit of the documentation referred to in Article 9.2 above establishes that the Contractor or any Subcontractor or Supplier did not incur any part of the amount claimed from Owner.
- 9.3.2 The provisions of Article 9.3 shall survive the termination of this Contract for any reason whatsoever.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 45 / 131	
		REV. 0	

ARTICLE 10 - OWNER'S RESPONSIBILITIES

10.1 Owner's Representative

- 10.1.1 Within fifteen (15) days of the Effective Date, the Owner shall have designated a representative who shall be authorised to represent the Owner in connection with all matters pertaining to Owner under this Contract and notice given to and received from Owner's Representative shall have the same effect as if given to or received from Owner (the "**Owner's Representative**").
- 10.1.2 Owner shall notify Contractor of the designation of Owner's Representative by delivering to the Contractor a letter naming such person.
- 10.1.3 Owner may, in its discretion, replace the Owner's Representative by prior written notice to Contractor of such replacement.
- 10.1.4 Owner's Representative may from time to time delegate any of his duties to assistants and may at any time revoke any such delegation. Any such delegation or revocation shall be in writing and shall not take effect until a copy has been delivered to Owner and Contractor.

10.2 Project Management Consultant

- 10.2.1 Project Management Consultant (PMC) for this Project means **Engineers India Limited (EIL)** having its registered office at 1, Bhikaiji Cama Place, New Delhi – 110066 is the Project Management Consultant (PMC) for the whole Project. (the "**Owner's Project Management Consultant**").
- 10.2.2 The Owner's Project Management Consultant will be responsible for co-ordinating on behalf of Owner, with Contractor (and its Interface Manager, Site Manager and Project Manager) as necessary in the course of the Work and shall advise Owner and work with Contractor in connection therewith.
- 10.2.3 As and when requested by the Owner, the Contractor shall extend all reasonable coordination and assistance to the Owner's Project Management Consultant to enable it to perform its duties and obligations to the Owner.

10.3 Site

- 10.3.1 Upon the Contractor's compliance with all Contract terms necessary for accessing the Work Site, including adherence to security protocols and the site's work permit system, the Contractor shall be free to access the Work Site from the date of issue of LOA.
- 10.3.2 Refer Special Conditions of Contract.

10.4 Approvals

- 10.4.1 Owner/PMC shall review and, where appropriate, shall endeavour to approve all Drawings and Documents submitted by Contractor pursuant to and within the time periods provided in Exhibit H (General Project Requirements and Procedures).

10.5 Permits and Licenses

- 10.5.1 Owner shall obtain and maintain the environmental clearance required for the Project from the Ministry of Environment and Forests, Government of India and the State Pollution Control Board, State of Gujarat.
- 10.5.2 If requested by Owner, Contractor shall provide all required assistance to Owner in obtaining and maintaining the aforementioned clearances. The Contractor shall adhere to the terms and condition of the aforementioned clearances at all times.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 46 / 131	
		REV. 0	

10.6 **Failure of Owner**

- 10.6.1 Save for the obligation of the Owner set out in Articles 10.1, 10.2 and 10.3, if the Contractor suffers any verifiable delay and / or incurs any verifiable costs from the failure on the part of the Owner to perform any of its obligations under this Article 10, then Contractor shall be entitled, within thirty (30) days of the Owner's failure to meet such obligation, to submit a preliminary change order in accordance with Article 15.2 for a determination of an adjustment to the Contract Schedule without any adjustment to Contract Price.

Provided however that, Owner shall have no obligation to determine such adjustment if Contractor fails to submit a preliminary change order within such specified time period.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 47 / 131	
		REV. 0	

ARTICLE 11 - EFFECTIVENESS

11.1 Effective Date

- 11.1.1 The Parties agree that this Contract shall be deemed to have become effective, and taken full force and effect and the Parties shall become bound by all terms and conditions of this Contract from the date on which the Owner issued the Letter of Acceptance (the “**Effective Date**”), which is to the Contractor, and the Work shall have commenced from the Effective Date.
- 11.1.2 The Contractor agrees, represents and warrants that upon issuance of the Letter of Acceptance it immediately commenced the Work and proceeded regularly, continuously, expeditiously and diligently with the Work. Notwithstanding anything to the contrary in this Contract, the Letter of Acceptance or any other document or instrument related hereto or thereto, the Contractor agrees that all Work performed prior to the date of execution of this Contract shall be fully in compliance with the terms and conditions of this Contract and the Parties agree that all such Work, rights and obligations and liabilities of the Parties with respect thereto shall be, and will be deemed to be governed by this Contract.
- 11.1.3 The Parties agree that on the date of execution of this Contract, the Letter of Acceptance shall be deemed to be terminated and shall be of no force and effect *ab initio*, and shall not, in any event, govern any rights, obligations or liabilities of the Parties whether arising upon or after the date of issuance of the Letter of Acceptance, or arising prior to, upon or after the date of execution of this Contract, all of which rights, obligations and liabilities shall be governed by this Contract.

11.2 Execution of Contract

- 11.2.1 Contractor shall have achieved satisfaction of each of the following conditions:
- (1) Within thirty (30) days from the Effective Date, Owner shall have received the duly executed original of the Performance Bank Guarantee and the Performance Bank Guarantee shall be in full force and effect.
 - (2) Refer Special Conditions of Contract
 - (3) Execution of Contract within forty-five (45) days from the Effective Date as per Exhibit-U

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 48 / 131	
		REV. 0	

ARTICLE 12 - CONTRACT SCHEDULE

12.1 Milestones

- 12.1.1 The Contractor represents and warrants that it commenced the Work from the Effective Date and that it proceeded regularly, continuously, expeditiously and diligently with the Work from the Effective Date.
- 12.1.2 Parties hereto agree that time is of the essence and the Milestones shall be accomplished by Contractor on or before the dates fixed in the Contract Schedule or, in the event only a month is specified in the Contract Schedule, on or before the last day of such month.
- 12.1.3 Notwithstanding anything contained in Article 14, if any Milestone(s) amongst the listed below in this Article 12.1 (hereinafter the “**Payment Milestones**”) is not completed on or before the respective date or last day of the respective month indicated, as the case may be, then, in addition and without prejudice, to any other rights which Owner may have under this Contract, Owner shall not be required to make any further payments to Contractor of the Contract Price (other than any payments of amounts due and payable under this Contract relating to the purchase of Equipment and Materials) until such time as all Payment Milestones which have not been completed on the date required have been completed.
- 12.1.4 In such an event, specified in Article 12.1.3, the Contractor shall not submit any further Monthly Progress Invoice in respect of Offshore Services Work Item, Onshore Services Work Item and Construction and Erection Work Item.
- 12.1.5 If Contractor believes or is aware that any Milestone may not be or has not been completed in accordance with the Contract Schedule, it shall immediately give detailed written notice thereof to Owner specifying the reason and the remedial action that Contractor proposes to take.
- 12.1.6 The Payment Milestones are specified in Special Conditions of Contract.
- Contractor shall notify Owner in writing when Contractor believes any Payment Milestone has been met. Owner shall, within fourteen (14) days after the receipt of Contractor’s notice, issue a certificate to Contractor stating the date on which the Payment Milestone was achieved or reject the request giving its reasons and specifying the work required to be done by Contractor to enable the Payment Milestone to be met.

12.2 Project Execution Plan

- 12.2.1 Within forty-five (45) days of the Effective Date, Contractor shall submit to Owner, for approval by Owner a detailed program showing how Contractor proposes to perform the Work in accordance with the Contract Schedule, as further described in Section C of Exhibit H (General Project Requirements and Procedures).
- 12.2.2 After Owner's approval of such detailed program, Contractor shall comply therewith Contract Schedule. Such program may thereafter be modified only with Owner's prior written consent.

12.3 Priority of Work

- 12.3.1 The designation herein of certain obligations of Contractor as Milestones shall not reduce or relieve the responsibility of Contractor to complete all or any portion of the Work in the shortest practicable time.
- 12.3.2 To this end Contractor shall give the Work the highest priority; that is, no other job of Contractor

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 49 / 131	
		REV. 0	

shall take precedence over the Work nor shall Contractor make any allocation of its resources and personnel which would have the effect of delaying the timely performance of the Work.

12.4 Maintenance of Contract Schedule

12.4.1 If, at any time:

- (a) The rate of progress of any Work is not sufficient enough to ensure that such Work will be completed within the Contract Schedule; and/or
- (b) Progress of any Work has fallen (or will fall) behind the Contract Schedule; then, notwithstanding the Owner's other rights under this Contract or Applicable Law:
 - (a) The Contractor shall prepare and submit to the Owner, for its approval, a revised program and supporting report for achieving the overall Contract Schedule, describing the revised methods which the Contractor proposes to adopt in order to expedite the progress of Work and complete the Work within the Contract Schedule; and
 - (b) The Contractor shall, at its cost and expense, instruct Contractor's personnel to work such overtime and furnish such additional personnel, resources and Contractor's Equipment as may be necessary and required to comply with and meet the Contract Schedule.

The acceptance of such revised program by Owner shall in no way be construed as Owner's approval for adjustment in Contract Schedule.

12.4.2 If such revised methods cause Owner to incur additional costs other than Owner's Personnel Expenses, Contractor shall pay these costs to Owner upon demand.

12.5 Adjustments of Contract Schedule

12.5.1 The Contract Schedule shall be subject to adjustment only:

- (a) As provided in 4.4.7 (Hazardous Materials), 4.4.9 (Archaeological and Antiquities Remains), 4.7.6 (Co-operation with Owner, Other Consultants and Contractors), 10.6.1 (Failure of Owner), 15.3 (Change Orders), 16.8 (Additional Tests), 21.2.3 (Making Good Loss or Damage to the Facility), 23.1.3 (Owner and Contractor to Procure Insurance), 25.3 (Force Majeure), and 26.3 (Suspension) or
- (b) When the Parties otherwise agree in writing that the Contract Schedule shall be adjusted.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 50 / 131	
		REV. 0	

ARTICLE 13 - PRICE

13.1 Contract Price

- 13.1.1 The total price to be paid by or on behalf of Owner to Contractor in full consideration for the performance by Contractor of its obligations and responsibilities under the Contract, including the Work, shall be a fixed and firm lump sum price as indicated in the Letter of Acceptance, which shall be subject to adjustment only as provided under Article 13.4 (the Foreign Currency Portion and the Indian Rupee Portion, as the same may be so adjusted, together, the “**Contract Price**”). The detailed breakup of the Contract Price is provided in Contract Price Schedule (Exhibit-D) of the Contract. The Party(ies) acknowledge and agree that the Contract Price is a sum of the prices for separable Work Items specifically identified under the Contract.
- 13.1.2 In case of consortium, without limiting the joint and several responsibility of the Contractor in any manner, for the sake of convenience, the Contract Price referred to above is the aggregate of the price payable by the Owner as tabulated in Contract Price Schedule (Exhibit-D) towards the specific scope of work, indicated in Technical Section of the Contract.

13.2 Amounts Included in the Contract Price

- 13.2.1 Except as specifically excluded under the terms of this Contract or specifically reimbursable or payable by the Owner to the Contractor under the terms of the Contract, the Contract Price includes all taxes, duties, cess, tariffs including Contractor Taxes, any and all direct, indirect and ancillary charges/levies, personnel costs, cost of Equipment and Materials, cost of the Contractor’s Equipment, cost of services, costs and expenses of whatsoever nature (whether direct, indirect or ancillary) incurred by or imposed/imposable on the Contractor, Subcontractors and Suppliers in the performance of the Work, all profit, license, royalty and other fees, the cost of all Mandatory Spare Parts, accessories, consumable materials and special tools to be provided under this Contract and all fees, insurance premiums, export license fees and other charges relating to or arising out of this Contract and the performance of the Work and, in each case, all deductions and withholdings thereupon.

Except as otherwise provided in the Contract, no additional amounts over and above the Contract Price may be recovered by the Contractor on account of Taxes.

13.3 Taxes and Customs Duties

- 13.3.1 The Contractor shall bear and pay all Contractor Taxes in connection with this Contract. All Indirect Taxes forming part of the Contract Price shall be reimbursed by the Owner, only on submission of documentary proof of payment of such Taxes and within the limits indicated in individual price schedules showing break-up of the Contract Price (as per the various Work items along with Indirect Taxes thereon), subject to the Contractor having issued appropriate declarations/ documents.
- 13.3.2 The Contractor shall strictly adhere to and undertake all acts, omissions and compliances required under Applicable Laws including Goods and Service Tax Laws in a timely manner to ensure that the Owner is able to avail the input tax credit/set off/rebate/refund of Taxes including Goods and Service Tax (along with cesses and surcharges, if relevant) , on the supply of goods and services (including supply of imported Equipment and Materials) made by the Contractor to the fullest extent possible under law, as applicable from time to time. In this regard, without limiting the generality of the foregoing obligation in any manner whatsoever, the Owner reserves the right to specify, for the supplies of goods/services envisaged under this Contract by the Contractor, the particular compliances to be undertaken (including aspects like (i) whether Contractor should charge IGST or CGST-plus-SGST; (ii) from where the billing should be undertaken; (iii) whether the Contractor should be responsible to generate the E-Way Bill; (iv) the format of invoices/credit and debit notes/advance receipt vouchers (including raising of e-invoices and E-Way bills wherever required); (v) maintenance of ‘Compliance Rating’ above a PLL specified threshold; etc and the relevant timelines for such

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 51 / 131 REV. 0	

compliances based on the Goods and Service Tax law.

13.3.2 A) The Contractor undertakes to immediately notify the Owner whenever the Contractor becomes aware of any reduction in the Taxes as applicable in relation to this Contract whether or not such Taxes form part of Contractor Taxes (and Contract Price). Any failure to so notify will be considered a breach and dealt with by the Owner as per the provisions of this Contract.

13.3.3 Specific obligations of the Contractor apropos Taxes including under Goods and Service Tax law

- (a) The Contractor acknowledges that any failure in the foregoing obligations (including undertaking the ones specifically instructed by the Owner, if any) can cause significant losses to the Owner in the form of loss of input tax credit of input side taxes including Goods and Service Tax, statutory interest liability on such credit loss (including under Goods and Service Tax Law) and adverse impact on compliance rating and thus, undertakes to carry out this foregoing obligation with sincerity, due diligence and without any delay or demur.
- (b) The Parties agree that the Contractor shall deposit the applicable Taxes including Goods and Service Tax in accordance with the procedure and timelines prescribed under the Applicable Law including Goods and Service Tax Law. Any failure by the Contractor to deposit Taxes in full or in part in a timely manner which results in denial of input tax credit of Taxes including Goods and Service Tax to the Owner shall be recoverable along with applicable interest and penalty thereon from the Contractor.
- (c) Without prejudice to any other indemnification obligation under this Contract, the Contractor agrees, at all times, to hold harmless and indemnify the Owner from and against all claims, liabilities, expenses, proceedings, costs and losses that may be suffered or incurred by the Owner which may arise out of or in connection with any failure by the Contractor to adhere to its obligations under clause 13.3.2, 13.3.4 and this clause 13.3.3. In this regard, the Contractor also hereby agrees to indemnify the Owner from any costs, claim or liability arising out of any claim or action or omission by any employee or consultant or agent or outsourced staff of the Contractor. Owner may, in its sole discretion, decide to recover such loss either by way of deduction from payment due to the Contractor or invoking the remedy under clause 14.9.5.
- (d) The Contractor acknowledges and agrees that it has undertaken the requisite due diligence to understand the impact of Taxes and factor the same in the Contract Price appropriately and that it shall be solely responsible for the tax positions adopted by it while arriving at the Contract Price. The Contractor agrees to indemnify and keep indemnified and saved harmless at all times the Owner against any loss, cost, expenses or damage suffered or incurred by the Owner, by reason of the tax positions adopted by the Contractor being rejected by any Governmental Authority.

13.3.4 Payment of Taxes

- (a) The Contractor shall pay the Contractor Taxes as and when due, in accordance with Applicable Law.
- (b) All Contractor Taxes shall be deemed to be included in the Contract Price. Notwithstanding the foregoing and any other provision to the contrary in this Contract, in no event shall Owner be or become liable to pay or otherwise be responsible for the payment of any Contractor Taxes.
- (c) The Contractor shall be responsible for all procedural compliances related to the payment of Taxes (including Contractor Taxes) under the Contract and shall solely be responsible for any proceedings initiated by any Governmental Authority, in respect of any non-payment, short- payment, non-compliance, penalty, interest or other such issue apropos the payment of Taxes, and for all liabilities and expenses related to such proceedings. In the event, any proceedings are initiated against the Owner by any Governmental Authority for failure/delay of the Contractor to pay any Taxes, then the Contractor shall fully indemnify and compensate the Owner for any cost, liability, penalty, interest and legal fees as a result of such proceedings.
- (d) Notwithstanding any scenario where the Owner is being held to be liable to pay any Contractor Tax or a demand being served on the Owner by any Governmental Authority for the payment of any

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 52 / 131 REV. 0	

Contractor Tax, the Contractor shall continue to remain liable for such Contractor Tax. If the Contractor fails to meet its obligation to pay any Contractor Tax on its own accord or as directed by the Owner, the Owner may pay such Contractor Tax to the relevant Governmental Authority and: (i) the Owner may withhold all costs, expenses and damages incurred by Owner relating to such payment of Contractor Tax from any payment required to be made to the Contractor; and/or (ii) the Contractor shall be liable for and shall reimburse Owner upon demand for all costs, expenses and damages incurred by Owner relating to such payment of Contractor Tax by the Owner, within the time specified by the Owner.

- (e) Notwithstanding anything contrary in the Contract, any Taxes (and costs pertaining to insurance, transportation etc) that may become leviable on fresh supplies arising out of (a) replacement of Equipment and Materials necessitated under Warranty, (b) replacement of Equipment and Materials necessitated because they are found to be ‘dead on arrival’ or (c) any other replacements, shall be borne solely by the Contractor with no recourse to the Owner and no right to claim any additional amount over and above the Contract Price.

13.3.5 Customs duties on goods of foreign origin, where applicable

- (a) Following shall be applicable for Equipment and Materials to be imported from outside India:
- (i) The Contractor will be bound by the option of import transaction pattern as chosen by it amongst the following two options as available to the Contractor while submitting the Price Bid as a bidder:

Option 1: Where import of Equipment and Materials shall be done on Owner’s name and IE code and made available to the bidder/Contractor for carrying out the Work

OR

Option 2: Where import of Equipment and Materials shall be done on bidder/Contractor’s name and IE code and subsequently supplied to the Owner as a part of Work.

- (ii) Where the Contractor opted for Option 1, it shall supply such imported Equipment and Materials entirely on Owner’s account. These Equipment and Materials shall be consigned to the Owner and import shall be done on Owner’s name and IE code on high-sea sales agreement basis (or transfer outside India otherwise) on the basis of value as per approved billing break-up. Separate order for such imported supplies shall be issued under this Contract. However, the Contractor shall be responsible for all the procedural aspects in this regard like all the formalities for high sea sales agreement (if applicable), all coordination with customs and other authorities, customs clearance, payment of customs duty on behalf of the Owner etc. The Goods Customs Duties on such imported Equipment and Materials shall be paid by the Owner to the government on its own account (the Contractor will assist the Owner in this regard).

In this scenario, the CFR values of Equipment and Materials (but not the Contractor’s Equipment and the raw materials and components for manufacture of goods in India for onshore supply) supplied from a foreign country in connection with the Work are set forth separately in Table D of Exhibit D (Contract Price Schedule) and the import duties (taxes and duties including the basic custom duty, cesses, surcharges, IGST or CGST and SGST etc payable under Applicable Laws on import of such Equipment and Materials) as mentioned in Table D under Exhibit D (the “**Goods Customs Duties**”), being excluded from Contractor Taxes, are not included in the Contract Price and shall be borne by the Owner subject to the terms of this Contract.

- (iii) Where the Contractor opted for Option 2, Contractor shall ensure that such Equipment and Materials to be imported from outside India shall be imported by the Contractor under its own IE code and the Contractor shall be responsible for bearing and paying the applicable Goods Customs Duties as well as all the procedural aspects in this regard like all coordination with customs and other authorities, customs clearance, payment of customs duty etc.
- (iv) In the second scenario, the CFR values of Equipment and Materials (but not the Contractor’s

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 53 / 131 REV. 0	

Equipment and the raw materials and components for manufacture of goods in India for onshore supply) supplied from a foreign country in connection with the Work are set forth separately in Table D of Exhibit D (Contract Price Schedule) and the Goods Customs Duties on import of such Equipment and Materials as mentioned in Table D under Exhibit D are included in the Contract Price (to the extent the same are not available as a credit/set-off to the Contractor against its output GST liability) like other Contractor Taxes forming part of the Contract Price and shall be reimbursed by the Owner subject to the terms of this Contract.

- (b) The Contractor shall be responsible for the timely payment of all Goods Customs Duties to the relevant Governmental Authorities whether on behalf of the Owner or on its own behalf, as applicable, and shall comply with Section E of Exhibit H (General Project Requirements and Procedures).
- (c) Upon the Owner's receipt of a written notice from the Contractor that any Goods Customs Duties have been paid by the Contractor on behalf of the Owner, as applicable (together with relevant receipts evidencing such payment) and provides evidence, satisfactory to the Owner, that the relevant Equipment and Materials have been cleared by the relevant Government Authorities, the Owner shall reimburse to the Contractor the amount of such Goods Customs Duties paid by the Contractor, which shall, in no event exceed the amount of import/customs duties and the prescribed rate of IGST or CGST and SGST on such imports as per applicable customs duty rates depending on classification under Customs Tariff and the prescribed rate of IGST or CGST and SGST on such imports):

Provided however that, no reimbursement shall be made by the Owner in respect of any Goods Customs Duties to the extent such duties were imposed on a CFR value of import exceeding the CFR value of import set forth in Table D of Exhibit D (Contract Price Schedule):

Provided further that, the Owner shall not reimburse any Goods Customs Duties relating to the import, re-import, export or re-export of any replacement Equipment and Materials for which Contractor is responsible under this Contract.

Provided furthermore that in no event, reimbursement of Goods Customs Duties by the Owner will cumulatively exceed the total amount quoted as total import duty applicable on import of various sub-categories/Components of Offshore Supply Work Items in Table D of Exhibit D (Contract Price Schedule).

The Contractor shall exercise due care and diligence in proper classification of Equipment and Materials and payment of Goods Customs Duties (whether on behalf of the Owner or its own behalf). In case the Owner is exposed to any penal action (duty demand, interest and/or penalty) by any Governmental Authority for incorrect classification, declaration and/or valuation of the Equipment and Materials, or the Owner is of the opinion that excess Goods Customs Duties have been paid by the Contractor than what would have been payable, for any reason attributable to the Contractor, such excess amount would be to the account of the Contractor and would not be reimbursed by the Owner. The Contractor shall however continue to perform all other activities envisaged in the Contract

Apropos the foregoing, the Contractor shall, towards the end of the detailed engineering phase of the Work, prepare a detailed schedule documenting each item to be imported under this Contract upon payment of Goods Customs Duties, their respective classifications in the schedule to the Customs Tariff Act, applicable rates of import duties including basic customs duty, cesses, surcharges and IGST rates as applicable on each such item on the date of submission of the Price Bid. This would be used as an aid in case of discussions apropos Change in Law vis a vis import duties.

13.3.6 Customs duties on raw material imported for manufacture in India for Onshore Supplies

- (a) The CFR values of raw material and components to be imported by Contractor for use in the manufacture of Equipment and Materials in India are set forth separately for each item in Table L of Exhibit D
- (b) The Contractor shall bear and pay all import/customs duties and IGST on imports in respect of the

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 54 / 131	
		REV. 0	

import of such raw materials and components as required by Applicable Law of India (the “**Materials Customs Duties**”). The Parties acknowledge and agree that the Materials Customs Duties are included in the Contract Price.

13.3.7 Customs duties on Contractor’s Equipment

The Contractor shall bear and pay and observe all formalities (including filing requisite declarations or returns and providing necessary deposits) in respect of, any and all customs duties on Contractor’s Equipment brought to India and/or re-exported out of India.

13.3.8 Clearance, Handling, Etc.

- (a) The Contractor shall be fully responsible for port and customs clearance, including stevedoring, handling, unloading, loading, storage and inland transportation of Equipment and Materials and Contractor’s Equipment to storage godown(s), yard(s), or the Site.
- (b) Any custom duty and IGST on such materials and components shall be payable directly by the Contractor to the relevant Governmental Authorities and the Contractor shall be responsible for providing any requisite documentation relating to the same (subject to reimbursement by the Owner in the case of any Goods Customs Duties under Article 13.3.2).
- (c) The Contractor shall be fully responsible at its cost and expense for any delays, penalties, charges, fines, losses, if any, in connection therewith or any incremental or increased customs duties relating to any incorrect declaration or inadequate documentation.

13.3.9 Personal Income Tax

- (a) The Contractor shall ensure that all expatriate personnel of the Contractor and all local personnel directly employed by the Contractor in India in connection with the Work shall pay personal income tax as required by Applicable Law.
- (b) The Contractor shall also ensure that Contractor is undertaking proper withholding tax compliances in relation to payments, if any, made to individuals hired on contract basis and who are not under direct employment to Contractor.
- (c) The Contractor shall calculate and collect this income tax and pay it directly to the relevant Governmental Authorities in India. The Contractor shall ensure a provision similar to this Article 13.3.9 shall be included in all subcontracts with Subcontractors.

13.3.10 Owner's Right to Withhold

- (a) All payments to the Contractor shall be subject to applicable withholding (whether applicable as of the date of this Contract or imposed /required by any municipal, local, state or national government authorities or any other Governmental Authority at any time during the subsistence of the Contract) or statutory deductions as required in respect of income tax as well as any other Taxes (including but not limited to withholding under Building and Other Construction Workers’ Welfare Cess, if applicable). The Owner shall issue necessary tax deduction/withholding certificates to the Contractor. In case there is any shortfall in tax withholding, the same shall be recoverable along with applicable interest and penalties by the Owner from the Contractor.
- (b) In case the Contractor desires income tax deduction or withholding at a lower rate/value, under any legislation, double taxation treaty and/or under any advance ruling and/or advance assessment of the relevant Governmental Authority, then the Contractor shall be responsible for obtaining the necessary Authorisation/advance ruling from the relevant Governmental Authority, certifying/authorising the deduction/withholding of Tax at a lower rate/value and shall provide the Owner with the original copy of such Authorisation. For the avoidance of doubt, it is hereby clarified that the time taken by the

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 55 / 131 REV. 0	

Contractor for obtaining the above documentation shall be excluded when calculating any time period set out under the provisions of this Contract for such payment by the Owner.

- (c) Without limiting the generality of the foregoing sub-clauses (a) and (b), in case the Contractor / Consortium / Consortium Member(s) is / are eligible to claim benefit of the double taxation avoidance agreement (“DTAA”) that India has executed with its country of residence, such Member(s) shall be required to obtain a ‘tax residency certificate’ from the tax authorities in its country of residence and furnish it to the Owner well before the date on which the Owner is liable to withhold taxes under the applicable laws, i.e., the date of actual payment or credit thereof in books of accounts, whichever is earlier. The tax residency certificate shall have such details as may be prescribed by the Indian revenue authorities. In case the tax residency certificate is not provided by Contractor to Owner in time as specified, in such a situation, if amount of taxes required to be withheld gets reduced later on as compared to the amount of taxes already withheld by the Owner (since determination of taxes withheld made in absence of tax residency certificate), then, the Owner would not be under any liability to pay the higher and differential amount of taxes already withheld to the Contractor. However, such higher and differential amount of taxes withheld shall be duly reflected in withholding tax certificate issued by the Owner to the Contractor.
- (d) Without limiting the generality of the foregoing sub-clauses (a) and (b), in case the Contractor / Consortium / Consortium Member(s) do not have/ constitute a permanent establishment in India in accordance with the provisions of the respective DTAA, then the Contractor / Consortium / Consortium Member(s) shall also furnish a declaration to that effect to the Owner. Independent of that, the Owner stands authorized to make its own assessment of the facts and determine whether the Contractor is having a permanent establishment in India or not, since such declaration of having a permanent establishment in India, provided by the Contractor, is not binding either on Revenue Authorities or the Owner.
- (e) It will be the responsibility of the Contractor to obtain Permanent Account Number in India and undertake mandatory tax compliances like filing of tax return etc.

13.4 Adjustments of Contract Price

- 13.4.1 The Contract Price is subject to adjustment only as provided in Articles 4.4.7 (Hazardous Materials), 4.4.9 (Archaeological and Antiquities Remains), 13.5 (Goods and Service Tax), 15.3 (Change Orders), 16.3 (Cost of Examination and Reconstruction), 16.8 (Additional Tests), 18.3.2 (Obligation to Remedy Breach), 21.2.3 (Making Good Loss or Damage to the Facilities) and 26.3 (Suspension) and Article 24 (Change of Law). Parties expressly agree that the list of Articles specified in this Article 13.4.1 in accordance with which the Contract Price may be subject to an adjustment is exhaustive and that no adjustments to the Contract Price shall be available for any other reason or purpose whatsoever.
- 13.4.2 Any adjustment (whether an increase or a decrease) to the Contract Price shall be calculated:
 - (i) If it is possible to derive the rate(s) for such work or items of work from any of the items of material and / or work covered in the Contract Price Schedule (Exhibit D), the rate(s) for works / items shall be the rate(s) arrived at on the basis of such derivation. The opinion of the-Engineer-in-Charge as to whether or not the relative rates can be derived from the rates for material and / or work included in the Contract Price Schedule (Exhibit D) and the consequent derivation of rate(s) on basis thereof shall be final and binding upon the CONTRACTOR.
 - (ii) If, in the opinion of the Engineer-in-charge, the relative rate(s) shall not be derivable within the provisions of paragraph(i) hereof above, the relative rate(s) shall be the rate(s) for the work or items of work settled as follows:

An analysis of the rate for work or items shall be prepared by taking (if amid so far as applicable): -

- A) Issue rate(s) for Materials supplied by the OWNER, if applicable;

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 56 / 131	
		REV. 0	

- B) Materials supplied by the CONTRACTOR and incorporated in permanent works at the rate(s) (if any) for material specified in the relevant Schedule forming part of the Contract; and
 - C) Man-Day Rate / Labour cost at rate(s) for labour, if any, which can be derived from Schedule of Rate (Exhibit D)
- (iii) The opinion of the Engineer-in-Charge as to the quantity of material and / or Man-Day/ labour involved shall be final and binding on the CONTRACTOR.
- (iv) The Owner reserves the right to mutually discussed the rates of material and man-day involved for any adjustment to the Contract Price; and
- (v) In the event of any item of material or man-day involved not being covered by the relevant schedule forming part of Contract for time purpose of determining the rates in terms of items (B) and / or (C) of paragraph (ii) above, market rates shall be taken into account for such items of materials and man-day as are not covered by the relevant schedules forming part of the contract and there shall be added thereto 15% (fifteen percent) to cover CONTRACTOR's supervision, overheads and profits. For the purpose of clarification, it is stated that 15% (fifteen percent) addition shall apply only for any item not covered by the relevant schedule of the Contract.
- (vi) The opinion of the Engineer-in-Charge as to whether or not any -particular item(s) of material(s) or man-day involved is covered by the relevant Schedule(s) and if not as to the market rate(s) thereof shall be final and binding upon the CONTRACTOR.
- (vii) If any alteration, amendment or modification shall, in the opinion of the Engineer-in- charge (whose opinion in this behalf shall be final and binding upon the CONTRACTOR) result in a reduction or increase or change in the work or supply covered by the lump sum Price so as to render unreasonable the lump sum Price, the OWNER and the CONTRACTOR shall negotiate a suitable increase or reduction, as the case may be, in the lump sum Price, and failing agreement on a negotiated rate for the item by appropriate reduction/increase, as the case may be, the Engineer-in-Charge shall fix the reduction or increase as he considers -reasonable in the circumstances to the lump sum Price, and the lump sum Price shall be deemed to be accordingly amended to the extent applicable to the work covered by the alteration or amendment.
- (viii) The rate(s) for any work determined in accordance with provisions of above Clause shall for the purpose of the Contract with respect of the work or items of work or supply affected by such amendment, alteration or modification be deemed to be rate(s) for such work or item(s) of work within the Schedule of Rates, or the lump sum Price, as the case may be.
- 13.4.3 Except as otherwise agreed, in the event of any change in the Contract Price, the Parties shall make the necessary consequential changes in order to allocate such change equitably over the then remaining instalments for the payment of the Contract Price.

13.5 Goods and Service Tax

- 13.5.1 The Contractor shall duly obtain requisite GST registrations in and for all necessary locations including the Site, bear and pay all taxes under Goods and Service Tax law for or in relation to the Work and Additional Works (other than the PLL GST) and the same is included by the Contractor in the Contract Price..
- 13.5.2 PLL GST shall mean the Goods and Service Tax payable by PLL to the Government under the reverse charge basis under Goods and Service Tax law i.e. under section 9(3) of the Central Goods and Service Tax Act, 2017, section 5(3) of the Integrated Goods and Service tax Act, 2017 read with Notification No. 13/2017-Central Tax (Rate) dated 28.06.2017 and Notification No. 10/2017- Integrated Tax (Rate) dated 28.06.2017 which are specifically listed by the Contractor in Exhibit D.

PLL GST would primarily include IGST payable by PLL in relation to services provided or to be

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 57 / 131	
		REV. 0	

provided by the Contractor from outside India, if any, where such Contractor does not establish a business in India or does not have a fixed establishment in India, or does not have his permanent address or usual place of residence in India, and such services necessarily relate to the Project and are specifically listed by the Contractor in Exhibit D.

In the event PLL becomes liable to pay any Goods and Service Tax (for or in relation to services that necessarily relate to the Project, other than PLL GST, and where such services are specifically listed/otherwise included in Exhibit D), then PLL shall be entitled to deduct the same from the Contract Price.

- 13.5.3 The GSTN no. for PLL Petrochemical complex is 24AAACP8148D2ZL. Contractor shall submit its invoices at Dahej Site mentioning the GSTN number of Dahej.

All payment shall be released from Dahej Site.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 58 / 131	
		REV. 0	

ARTICLE 14 - PAYMENT

14.1 Payment of Contract Price

- 14.1.1 The Contract Price shall be paid in progress payments as set forth in Exhibit G (Payment Schedule) upon the satisfaction of payment terms specified therein and upon the presentation by Contractor of an invoice for the relevant amount of payment (together with such documents as are required in respect thereof as set forth in Exhibit G (Payment Schedule) in accordance with the procedures provided under this Article 14.
- 14.1.2 In case of Consortium, the Owner shall if so communicated in writing by the Consortium Leader, make payments to the individual Consortium Member against supporting individual invoices of each individual Consortium Member submitted by the Consortium Leader, in accordance with this Contract.
- 14.1.3 In case of Consortium, the Parties expressly agree that any payments made by the Owner to the Consortium Members in accordance with the aforesaid invoices or instructions shall discharge the Owner of all liabilities in respect of the said invoices.

14.2 Work Advance Payments and Repayment Bank Guarantees

14.2.1 Work Advance and Bank Guarantee

- (a) Contractor, if requested, shall be paid recoverable interest-bearing mobilization advance up to a maximum of 10% (ten percent) of awarded Contract Price. The mobilization advance will attract an interest rate as specified in Special Conditions of Contract.
- (b) As per above details for '**Mobilization/ Work Advance**', the Contractor shall have provided the Owner with an unconditional first demand bank guarantee issued by an Acceptable Bank in the form provided in Attachment A-3 for an equivalent amount equal to one hundred ten percent (110%) of the advance amount (so as to enable recovery of not only principal amount but also the interest portion, if so required) and which shall be valid and maintained in full force and effective until recovery or refund of the full amount of the Work Advance pursuant to Article 14.2. (the "**Work Advance Repayment Bank Guarantee**"). Alternatively, the Contractor has the option to furnish a Composite Bank Guarantee to cover both mobilization advance as well as performance bank guarantee as per Article 14.10
- (c) The Mobilization / Work Advance shall not be paid in less than two instalments (each maximum of 5%) subject to the fulfilment of the following conditions:

FIRST INSTALLMENT: 5% (Five percent) of Contract Price shall be payable as the first instalment of mobilization advance, after fulfilling the following requirement by the contractor:

- a. Signing of the contract agreement by the Contractor;
- b. Submission of the Performance Bank Guarantee, as per the provisions of Article 14.9, and
- c. Submission of the Work advance guarantee/ Composite BG.

SECOND INSTALLMENT: Balance 5% (Five Percent) of Contract Price subject to the fulfilment of the following conditions: a) After the contractor has constructed a site office, storage shed, mobilization of piling rigs, deputed Site Manager at site and has physically mobilized and is ready to start the Works to the entire satisfaction of the Engineer-in-Charge ;b) Submission of Work Advance Guarantee/ Composite BG.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 59 / 131	
		REV. 0	

- (d) Upon receipt of the Performance Bank Guarantee, as per the provisions of Article 14.9, receipt of the Work Advance Repayment Bank Guarantee and upon the execution of the Contract and the Contractor's written request stating that the above conditions have been met and that the Work Advance has become payable, the, Owner shall pay to the Contractor an advance on the Contract Price equal to ten percent (10%) of the Contract Price (the **“Work Advance”** or the **“Advance Payments”**- in two instalments as mentioned in Article 14.2.1(c) above), such Advance Payments shall be made within a period of thirty (30) days from the receipt of the Contractor's above request. The Advance Payments as made by the Owner to the Contractor shall be liable to Goods and Service Tax which shall be payable by the Contractor. In order to receive such Advance Payment, the Contractor shall issue an advance receipt voucher in the form and manner as provided under the Goods and Service Tax law.
- (e) The Contractor shall be entitled, on a quarterly basis, on certification of Owner to reduce the amount of the Work Advance Repayment Bank Guarantee for such amounts which have been recovered pursuant to Article 14.2.2.

14.2.2 Recovery of Advance Payments and Interest

- (a) The Advance Payments shall be considered as an advance payment for the payment obligations of the Owner in respect of the Contract Price and shall be recovered by the Owner in the following manner.
- (b) The Advance Payments shall be used towards and allocated to, the payment of the amount equal to twelve percent (12%) of the gross amount of each invoice that is due and payable by the Owner to the Contractor under Article 14.3 (and that has been duly certified by the Owner and not in dispute) (the **“12% Amount”**) such that the full amount of the Advance Payments shall have been recovered and allocated when eighty five percent (85%) of the Contract Price is to be invoiced in accordance with the Contract Price Schedule (Exhibit D) and Article 14.3.
- (c) In the event that the Contract Price shall have been paid in full and the Advance Payments shall not have been fully recovered, the remainder of the Advance Payments shall be immediately returned by Contractor to Owner or at Owner's sole discretion shall be used to offset and shall be deducted from, the payment of any other amounts owed by Owner to Contractor under this Contract.
- (d) The recovery by the Owner of the Advance Payments shall be secured by the Work Advance Repayment Bank Guarantee such that Owner may demand payment under the Work Advance Repayment Bank Guarantee to the extent the Owner has not recovered the Advance Payments at the recovery rate based on the 12% Amount on the basis of the Contract Price Schedule (Exhibit D) or to the extent it has not recovered the full amount of the Advance Payments at the time eighty five percent (85%) of the Contract Price has been invoiced under the Contract Price Schedule (Exhibit D) and, in any event, when Contractor is required to return the Advance Payments in full in the event of non-performance or termination of this Contract in accordance with the terms hereof or upon the exercise by Owner of any right or remedy under this Contract.
- (e) The recovery of Advance Payment shall be made along with applicable interest on outstanding Work Advance applicable from the date of disbursement, till the date of invoice payment. The GST on interest, if applicable, shall also be recovered from the Contractor.

14.3 Invoices and Payment

14.3.1 Monthly Invoices

- (a) Subject to Article 12.1, the [Contractor]/ [Consortium Leader] shall submit to Owner on a monthly basis by the fifth (5th) day of each month:

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 60 / 131	
		REV. 0	

- (1) Invoices for progress payment in respect of Work performed during the immediately prior month (the **“Performance Month”**), (and in case of the first invoice after execution of the Contract invoices for progress payment in respect of Work performed up to the immediately prior month), such invoices, (the **“Monthly Progress Invoices”**); and
- (2) A separate invoice in respect of Goods Customs Duties, where leviable and described in Exhibit G (Payment Schedule) (the **“Monthly Customs Invoice”**) (each of the Monthly Progress Invoice and Monthly Customs Invoice, a **“Monthly Invoice”**).
- (3) The amount invoiced shall be determined based on the payment terms set forth in Exhibit G (Payment Schedule).
- (4) Within forty five (45) days of the Effective Date, Contractor shall submit to Owner, for approval by Owner a projected invoicing schedule, indicating the amounts anticipated to be invoiced during the whole performance of the Work. Such approved invoicing shall not be modified without Owner’s written consent.

The Contractor shall, along with each Monthly Progress Invoice provide a declaration to the Owner as to whether the services were performed by the Contractor’s business establishment in India or a country other than India. The Parties acknowledge and agree that the applicable withholding tax rate would depend on the specific facts and the prevailing legal position in respect thereto.

- (b) With each of the Monthly Progress Invoices, the Contractor shall provide a separate invoice in respect of each of the categories of Work described in Exhibit G (Payment Schedule), as applicable.
- (c) The Contractor shall submit a cover note with each Monthly Invoice, listing each such separate invoice and the amount billed therein and the total of the amount billed in all such separate invoices.
- (d) The Contractor shall raise the Monthly Invoice and undertake all other compliances strictly in the form and manner prescribed under the provisions of the Applicable Tax Laws including Goods and Service Tax Law (including provisions pertaining to e-invoicing and E-way bills, as may be relevant). In case the Owner is exposed to any penal action or non-availability of input tax credit on account of incorrect particulars declared in the invoice raised by the Contractor or on account of invoice raised/goods dispatched in a wrong manner, such amounts would be liable to be reimbursed by the Contractor to the Owner/deducted by the Owner from payments to be made to the Contractor under this Contract apart from other remedies available to the Owner under this Contract.
- (e) Each Monthly Invoice shall be submitted by the Contractor in the form prescribed by the Owner for certification by the Owner’s Representative and in accordance with Applicable Law. Each Monthly Invoice shall include, without limitation:
 - (1) A list of the Work Items and the Components comprising such Work Items to which the invoice relates (together with the portion of the Component Value invoiced set forth opposite to each respective Component) or, in the case of a Monthly Customs Invoice, the amount of customs duties to be reimbursed;
 - (2) The basis for the amount invoiced (such as, the meeting of specified progress milestones and, if applicable, the progress of Work performance) in accordance with Exhibit G (Payment Schedule) and a certification from Owner’s Representative towards the progress measurement in accordance with Exhibit H; or, in the case of a Monthly Customs Invoice, proof of payment of the Goods Customs Duties;
 - (3) A certification by the Contractor as to the invoice’s truth and accuracy and
 - (4) The signature of the Project Manager.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 61 / 131 REV. 0	

- (f) Each such Monthly Invoice shall set forth the gross amount due to the Contractor in respect of the Work referenced therein in accordance with Exhibit G (Payment Schedule) and the net amount to be paid after adjusting the gross amount for recovery of the Advance Payment pursuant to Article 14.2.2, deduction of Tax at source, any Price Reduction under this Contract due to the Owner and any other amounts owed by the Contractor to the Owner. Independent of the Contractor's determination of net amount payable to it by the Owner, the Owner is free to make an independent assessment of all the elements of the invoice, including but not limited to the amount required to be withheld under applicable laws, unless the Contractor furnishes an appropriate and valid lower withholding tax certificate (which certificate shall be verifiable through the official website of the Indian Income Tax Department) supporting such determination thereof.
- (g) Separate Monthly Invoices shall be made in respect of amounts to be paid in separate currencies.
- (h) In the event the Monthly Invoice submitted by Contractor is not accompanied by all relevant and requisite documents, details and such items as required under this Contract, the Owner's Representative shall return such incomplete Monthly Invoice within a period of ten (10) days from the date of receipt of such Monthly Invoice. In such event, the payment period of fifteen (15) days as provided in Article 14.3.2 for such resubmitted Monthly Invoice shall commence on the date of its proper resubmission.
- (i) In the event the Owner has any objections with respect to a Monthly Invoice or a portion of such Monthly Invoice, the Owner shall notify Contractor of such objection within ten (10) days following Owner's receipt of such Monthly Invoice.
- (j) If the Owner raises any objection with respect to a Monthly Invoice, the Contractor shall resubmit such Monthly Invoice within a period of ten (10) days after receiving the Owner's objection, either revising the Monthly Invoice to address the Owner's objections or rejecting such objections. Thereafter, if the Owner, within ten (10) days of receiving the resubmitted Monthly Invoice, raises further objections, the Parties may, unless otherwise agreed, follow the process listed in Article 30 to resolve the issue and the Owner shall pay to the Contractor any amount of such Monthly Invoice that is not in dispute by the Monthly Payment Due Date as provided under Article 14.3.2.
- (k) No amount shall be included in any Monthly Invoice in respect of Work that in the Owner's Representative's determination has not been performed, does not meet the specified Milestones or does not comply with this Contract or has been previously paid.
- (l) The Contractor shall submit, within one (1) month of Provisional Acceptance, a final invoice for final payment in full of any unpaid amount of the Contract Price (after adjustments on account of Contract Price Reduction under this Contract) due to the Contractor from the Owner for the performance of the Work (such payment referred to as the **"Final Payment"** and such invoice referred to as the **"Final Invoice"**).
- (m) The Final Invoice shall be subject to all provisions of this Article 14.3.1, payment of which is subject to the provisions of Articles 14.3.2 and 14.8.

14.3.2 Due Date for Payment

- (a) Subject to the requirements and conditions under Articles 12.1, 14.3.1 and 14.8, the Owner shall pay the undisputed amount of each Monthly Progress Invoice and Monthly Customs Invoice, if any, (the **"Monthly Payment"**) submitted by the Contractor pursuant to Article 14.3.1, for the Monthly Progress Invoice within fifteen (15) days after the date of receipt of hard copy by the Owner of such invoice (**"Monthly Progress Payment Due Date"**) and for the Monthly Customs Invoice within fifteen (15) days of receipt by Owner of such invoice (**"Monthly Customs Duties Payment Due Date"**).
- (b) The undisputed amount will be paid after accounting and adjustments for any recovery of Advance Payments, Tax to be deducted at source and / or any other amount owed by Contractor to Owner as of such date.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 62 / 131	
		REV. 0	

- (c) The payment of the Monthly Invoices by Owner shall be deemed as an advance towards the payment of the Contract Price which, subject to the provisions of this Contract, shall be due on the Final Payment Due Date (after accounting and adjustments for any recovery of Advance Payments, Tax to be deducted at source and/or any other amount owed by Contractor to Owner).
- (d) The payment of the Monthly Invoices by Owner shall not be deemed to be acceptance by Owner of the Work performed as measured by such invoices and shall not preclude Owner's requiring Work that is not in accordance with this Contract to be removed, repaired or otherwise rectified or replaced or Owner's non-acceptance of the Work as a whole.
- (e) The Final Payment shall not become due until Contractor has furnished to Owner:
 - (1) Certification as to the value of the Work performed through the date of the Final Invoice and that Contractor has fulfilled all of its obligations under this Contract through such date (except to the extent waived by Owner);
 - (2) Proof to the Owner's satisfaction that the Contractor has filed appropriate income tax returns in India for the last financial year in respect of the payments made by the Owner to Contractor under this Contract; and
 - (3) Evidence satisfactory to Owner that all Punch List Items have been addressed, rectified and /or completed to Owner's satisfaction.
- (f) The Final Payment shall be made on certification by Owner's Representative within forty five days (45 days) after receipt by Owner of the Final Invoice, complete in all respects (the "**Final Payment Due Date**").
- (g) If a Monthly Payment Due Date or the Final Payment Due Date falls on a holiday or a day on which banks are not open for normal business operation in the relevant city in India or in the relevant city where the payment is to be received by Contractor, then the Monthly Payment Due Date or the Final Payment Due Date, as the case may be, shall be the next following day when banks are open for normal business operation in both the relevant city in India and the relevant city where the payment is to be received by Contractor.

14.3.3 Deleted

14.4 [NOT USED]

14.5 Deleted

14.6 Deductions From Contract Price

- 14.6.1 All costs, damages, expenses, taxes or other amounts which Owner may have paid, for which Contractor is liable under this Contract may be claimed by Owner by billing Contractor.
- 14.6.2 The Owner shall notify Contractor of any and all such claims, supporting such claims with the appropriate vouchers or explanations, to enable Contractor to properly identify such claims.
- 14.6.3 Any such claims billed by Owner to Contractor except those under dispute between Parties shall be due and payable within fifteen (15) days of Contractor's receipt of such bill and if not paid by Contractor within the said period, Owner shall be entitled to deduct the amount, from any amount due or becoming due to Contractor under this Contract (without precluding any remedy Owner may have in law or equity to recover such claims).

14.7 Computerized Contractors Billing System

- 14.7.1 The Contractor shall prepare its invoices using computer systems with formats and codification schemes and such other compliant features as approved in advance in writing by the Owner.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 63 / 131	
		REV. 0	

- 14.7.2 The Contractor shall in addition to its submission of the hard copy of each invoice concurrently submit the data therein in electronic media in a format approved in advance in writing by Owner.
- 14.7.3 The Contractor shall also ensure the correctness and consistency of data so submitted with the hard copy of the bill submitted for payment.

14.8 General Terms of Payment

14.8.1 Currencies and Accounts

- (a) All payments by Owner shall be made in the currencies in which the Contract Price is specified. Such payments shall be made in accordance with the provisions of Article 14.8.3.
- (b) If funds are not received in the account or accounts designated by the Contractor, the Owner shall furnish upon Contractor's written request documentary substantiation that all acts necessary to initiate the transfer of such funds have been taken by Owner's bank or banks.
- (c) All costs associated with such wire transfer and incurred in India shall be for Owner's account and all other costs shall be for Contractor's account.

14.8.2 Effect of Payment

- (a) Notwithstanding anything contained in this Contract, or in the Applicable Laws or equity requiring a contrary interpretation, the making of any payment by Owner under this Contract shall in no event constitute the acceptance of any Work performed by Contractor pursuant to this Contract.
- (b) Except for the Final Acceptance Certificate, no other certificate or payment against an invoice or on general account shall be taken to be acceptance by Owner of the due performance of this Contract or any part thereof or the validity of any claim by Contractor in connection therewith.

14.8.3 Methodology of Payment

- (a) In case of payment in Indian Rupees under this Contract, the payment due to Contractor shall be made by Owner or a facility agent or other entity, by whatever name called, acting on behalf of Lenders, by account payee cheque or pay order or direct transfer from a designated bank account or any other mode of payment as may be mutually agreed to between Contractor and Owner or required by the Lenders.
- (b) In case of payment in [Foreign Currency component] under this Contract, the payment due to Contractor shall be made by Owner or a facility agent or other entity by whatever name called, acting on behalf of Lenders, by wire remittance from an offshore bank account or by direct disbursement by or on behalf of any Lender (including any relevant export credit agencies) or otherwise as may be mutually agreed between Contractor and Owner or required by the Lenders.
- (c) In making the above payments, Owner and Contractor shall ensure compliance with all Applicable Laws of India.
- (d) The payment in [Foreign Currency component] shall be subject to approval of the Reserve Bank of India, if required under Applicable Laws of India. If any payment is subject to the approval of the Reserve bank of India or any other Authorisation from a Governmental Authority, then the Owner shall be responsible for obtaining such approval or Authorisation. For the avoidance of doubt, it is hereby clarified that any time taken by the Owner to obtain the above approval/Authorisation shall be excluded when calculating any time period specified/mandated under the provisions of this Contract for such payment by the Owner..
- (e) The date of cheque / advice / instruction by Owner to its bank, a Lender, a facility agent or other entity by whatever name called, on behalf of Lenders, shall be deemed as the date of payment by the Owner.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 64 / 131	
		REV. 0	

- (f) In no event shall Owner be responsible if such payment cheque is mislaid by Contractor or misappropriated by unauthorised Person(s) or a wire transfer is misdirected due to the account designation of the Contractor for the wire transfer being wrongly provided by the Contractor.
- (g) On receipt of any payment under this Contract, Contractor shall issue a stamped receipt to Owner duly signed by an authorised signatory of Contractor as evidence of having received the payment. [On payment being made directly to the Consortium Member(s), the receipt issued by the respective Consortium Member(s) and forwarded by the Consortium Leader to the Owner, shall be a sufficient discharge of such an obligation vis-à-vis the Contractor.]
- (h) Without prejudice to the other provisions of this Contract, Owner shall have no obligation to pay Contractor any payment or any further payment as the case may be, under this Article 14 if Contractor fails to execute the Contract and provide to Owner, upon execution of this Contract, the Performance Bank Guarantee.
- (i) Owner shall make payment for [Foreign Currency component] Portion of Contract Price in respective currency in which the Contract Price is specified, only to the non-Indian Consortium Member/ Foreign Contractor. Any payment of [Foreign Currency component] Portion to the Indian Consortium Member/ Indian Contractor shall be made only in equivalent Rupees at the 'Bills Buying Rate' as published in the 'card rate' of State Bank of India prevailing on the relevant due date of payment.
- (j) Payment for GST on Offshore Services to Indian contractor shall be made in INR only considering exchange rate mentioned on tax invoices raised to PLL and as per amount reflected on GST portal.

14.9 Performance Bank Guarantee

- 14.9.1 Within thirty (30) days from the Effective Date, the Contractor shall provide Owner with an irrevocable, unconditional, first demand bank guarantee issued by an Acceptable Bank in the form of Attachment A-2 for an amount equal to ten percent (10%) of the Contract Price which shall remain valid and effective and be maintained in full force until the date of Provisional Acceptance or date of Deemed Completion, whichever is earlier and shall be reduced to five percent (5%) of the Contract Price upon Provisional Acceptance or date of Deemed Completion, whichever is earlier and shall remain valid and effective and be maintained in full force until the date that occurs ninety (90) days after Final Acceptance (the "**Performance Bank Guarantee**").
- 14.9.2 If Final Acceptance of the Work has not occurred within thirty (30) days prior to the scheduled expiry of the Performance Bank Guarantee, Contractor will arrange for an extension of the Performance Bank Guarantee or, if Contractor fails to extend the Performance Bank Guarantee, Owner shall be entitled to receive the undrawn amount there under pending Final Acceptance, provided that the amount so received shall be treated as a cash retention and shall be released upon the submission of a new bank guarantee acceptable to Owner or upon the expiration of the ninety day (90) period after Final Acceptance whichever is earlier.
- 14.9.3 In the event that the Contract Price is increased during the Contract Validity Period for any reason whatsoever, the value of the Contract Performance Bank Guarantee shall be increased proportionately by the Contractor within Thirty (30) Days to ensure that it remains an amount which is equivalent to 10% of the revised Contract Price, as determined by Engineer-in-Charge.

Till such time when contractor was required to submit additional PBG as per above conditions, PLL will retain the amount equivalent to additional PBG from its bill and same will be released to Contractor after submission of additional PBG.
- 14.9.4 In the event that the bank issuing the Performance Bank Guarantee, at any time during the subsistence of the Performance Bank Guarantee, no longer meets the requirement of an Acceptable Bank, or in case of the State Bank of India, if the State Bank of India, in the sole discretion of the Owner no longer remains creditworthy, as the case may be, the Contractor shall furnish a replacement Performance Bank Guarantee to the Owner (within thirty (30) days of the

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 65 / 131	
		REV. 0	

Owner's demand), which shall be issued by a bank (other than State Bank of India, if applicable) that meets the requirements of an Acceptable Bank.

- 14.9.5 The Owner shall have an unqualified option under the Performance Bank Guarantee to draw on the guarantee and claim the amount thereunder in the event of Contractor's failure to honour any of its obligations, responsibilities or commitments under this Contract and/or in respect of any amount due from Contractor to Owner. For the avoidance of doubt, the Owner's above right shall not be affected by any termination of this Contract and shall survive any termination of this Contract.
- 14.9.6 In the event Owner draws on the Performance Bank Guarantee, in part or in full, to recover the amount of reduced price as per Article 20, Contractor shall immediately restore the value of the Performance Bank Guarantee to such value which existed prior to drawl of the Performance Bank Guarantee to recover reduced price payable under Article 20. In the event Contractor fails to restore the Performance Bank Guarantee then the Contractor shall not be entitled for issuance of the Provisional Acceptance Certificate or any further payments under this Contract.
- 14.10 **Composite Bank Guarantee (CBG)**
Refer Special Conditions of Contract.
- 14.11 **Additional Performance Bank Guarantee For AMC**
For details refer Special Conditions of Contract.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 66 / 131	
		REV. 0	

ARTICLE 15 - CHANGE ORDER

15.1 Changes

- 15.1.1 Owner shall have the right at any time by written notice to Contractor to make changes to the Work, whether such changes be modifications, alterations, deletions or additions. Contractor agrees to effect such changes in the Work as Owner may from time to time request.
- 15.1.2 Any request by Owner for a change shall be delivered to Contractor in writing and shall be sufficiently definite and detailed to give Contractor an adequate basis on which to prepare a Preliminary Change Order pursuant to Article 15.2.
- 15.1.3 Upon receipt of Owner's request for a change, Contractor shall prepare a Preliminary Change Order and deliver the same to Owner within ten (10) days time following Contractor's receipt of such request.
- 15.1.4 Throughout the performance of the Work Contractor shall have a continuing obligation to suggest to Owner for Owner's consideration:
- (1) All such changes as Contractor considers desirable; and
 - (2) Such other changes known to Contractor as may be necessary to incorporate significant new developments in technology which are applicable or appropriate to the Facility.
- Contractor shall submit any such suggestion in the form of a Preliminary Change Order.

15.2 Preliminary Change Orders

- 15.2.1 Each Preliminary Change Order submitted by the Contractor to Owner pursuant to Article 15.1 (and Articles 21.2.3 and 26.3 and) or Articles 4.4.7, 4.4.9, 4.7.6, 10.6.1, 16.3 or 16.8.3, 23.1.3 or Article 24 shall be in writing and be accompanied by detailed schedule of rates, detailed breakup of quantities along with all relevant supporting documents, all relevant information and data as will be reasonably required by the Owner to evaluate properly the proposed execution of the work in question, the effect, if any, on the Work, the Contract Schedule, the Completion Guarantees and the Contract Price and such other matters as the Owner shall request. The Contractor shall give notice in writing to the Owner regarding the claim of Change Order within thirty (30) days from the date of happening of the event or circumstances on which the Contractor bases his claim for such change.
- 15.2.2 Owner shall reject or approve at its sole discretion each preliminary change order as expeditiously as proper consideration of the nature of the change may reasonably permit.
- 15.2.3 The cost of all work involved in preparing the information and data required to accompany the Preliminary Change Order and for any additional analytical or investigative work requested by Owner in connection therewith is included in the Contract Price.
- 15.2.4 For the avoidance of doubt, it is hereby clarified that no Preliminary Change Order shall be valid if the Contractor fails to submit a Preliminary Change Order within the time period set out in the relevant provisions of this Contract for the submission of such Preliminary Change Order. The Owner shall not in any way be liable in respect of any claim for Change Order by the Contractor unless notice of such claim shall have been given by the Contractor to the Owner in the manner and within the time prescribed in this article.

15.3 Change Orders

- 15.3.1 Except as provided in Article 15.4, Contractor shall not act upon any Preliminary Change Order unless the Parties shall have executed a written change order (which may be the Preliminary Change Order signed by both Parties) incorporating the changes in question and providing for any change in the Contract Schedule, any increase or reduction of the Contract Price and/or the Completion Guarantees, in each

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 67 / 131	
		REV. 0	

case resulting from such change in the Work (any such executed and written change order, the “**Change Order**”).

- 15.3.2 Any adjustment of the Contract Price shall take into account, among other things, the elimination or avoidance of Work to be performed resulting from the changes in the Work and from assistance given by Owner.

15.4 Performance of Change Pending Contract

- 15.4.1 If Owner and Contractor fail to agree on the effect of a proposed change upon the Contract Price, the Contract Schedule or the Completion Guarantee, and as a result, a Change Order referred to in Article 15.3 is not executed, the Owner may nevertheless require Contractor to perform the Work as changed, by delivering to the Contractor a Change Order signed by the Owner, and Contractor shall complete all work specified in such Change Order and the dispute shall be resolved as provided in Article 30:

Provided that, if the dispute is only in relation to the effect on the Contract Price then the Owner shall pay to the Contractor in accordance with the Contract, such amount as has been ascertained by Owner as payable for such Change Order pending the resolution of the dispute. The Contractor's performance of the Work as changed by a Change Order, shall not prejudice either Party's position regarding the effects of such change.

15.5 Variations in Price

- 15.5.1 Except as otherwise provided in this Contract any increase or reduction of the Contract Price resulting from any permitted change under this Article 15 shall be for the account of Owner, provided that no increase in the Contract Price shall be granted with respect to a change if:

- (1) The providing of the additional services is necessary in order for the Contractor to satisfy its responsibility to make the Facility operable and capable of performing as contemplated under this Contract and to ensure that the Facility when completed shall be as specified in the Technical Documents and the Work is performed in accordance with this Contract;
- (2) The additional services are required because of delays in the Contract Schedule attributable to Contractor, to late deliveries of Equipment and Materials or Contractor's Equipment or to labor shortages or relate to any rectification or remedy of defects or deficiencies required under this Contract;
- (3) The additional services are required because of a breach of any of the Completion Guarantee or warranties under this Contract; or
- (4) The change relates to re-performance of any of the Work because of Contractor's failure to follow Owner's specifications.

Adjustments in the Contract Price shall be made only in accordance with Article 13.4.

15.6 Not Considered Changes

- 15.6.1 Without prejudice to any other provision of this Contract, the following shall not be considered under any circumstances as changes in or within the Work, nor shall any of the following be taken into account when calculating the effect upon the Contract Price of changes in or within the Work nor shall any of the following of themselves be considered the basis for any adjustment of the Contract Price:

- (1) Any escalation in the cost of Equipment and Materials or labour;
- (2) Any increase in manpower hourly rates;
- (3) Currency fluctuations in respect of costs included within the Contract Price; and
- (4) Any change in the sourcing of Equipment or Materials.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 68 / 131	
		REV. 0	

- 15.6.2 It is agreed that the Work shall be subject to further detailing by the Parties from time to time and that, such detailing shall not be considered as a change in Work. In addition, a request by Owner that Contractor perform services or provide Equipment and Materials or Contractor's Equipment not specifically included within the Scope of Work shall not be considered a request for a change in the Work if it is reasonable to infer that the services, Equipment and Materials or Contractor's Equipment requested were intended to be within the Work or are necessary to make the Facility operable and capable of performing as specified in the Technical Documents and in this Contract.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 69 / 131	
		REV. 0	

ARTICLE 16 - RIGHT TO INSPECT

16.1 Inspection, Examination and Testing

- 16.1.1 All design, engineering, Equipment and Materials and workmanship supplied by Contractor or for which Contractor is responsible shall be subject during normal business hours to inspection, examination and testing by Owner or Owner's designated consultants and representatives at any and all times during design, engineering, manufacture, procurement, fabrication and construction and at any and all places where such design, engineering, manufacture, procurement, fabrication and construction are carried on:

Provided such inspection, examination and testing shall to the extent possible be carried out in conjunction with Contractor's similar activities and, if not, upon prior consultation with Contractor in order to avoid any unnecessary delay in the performance of the Work.

- 16.1.2 In furtherance of the foregoing, Contractor shall arrange for Owner to have access to all places where manufacture or preparation of Equipment and Materials or construction activities are being carried out.
- 16.1.3 In respect of the Work which Owner is entitled to examine, inspect, measure and/or test, Contractor shall give notice to Owner whenever any such Work is ready and before it is covered up, put out of sight or packaged for storage or transport. Owner shall then either carry out the examination, inspection, measurement or testing without unreasonable delay, or give notice to Contractor that Owner does not require to do so within three (3) working days after receipt of Contractor's notice for such examination, inspection, measurement or testing at Site; provided further that in case of shop tests at the place of manufacture of Equipment and Materials the provisions of Article 16.7.2 shall apply.
- 16.1.4 If Contractor fails to give such notice, it shall, if and when required by Owner, uncover the Work and thereafter reinstate and make good, all at Contractor's cost and expense.
- 16.1.5 Owner shall be responsible for the Owner's Personnel Expenses in connection with inspection, examination and testing.

16.2 Rejection and Replacement

- 16.2.1 Owner and its designated consultants and representatives shall have the right to reject any portion of the Work which is defective, deficient, not within specifications provided in the Technical Documents or not according to Good Industry Practice or is of faulty workmanship and require its repair or replacement. Rejected and other defective or deficient workmanship shall be satisfactorily repaired.
- 16.2.2 Rejected and other defective Equipment and Materials shall be satisfactorily repaired or replaced with proper Equipment and Materials. All costs and expenses associated with such repairs and replacements shall be for the account of Contractor and not reimbursable.
- 16.2.3 After completion of the necessary repairs or replacements the relevant Equipment and Materials shall be subject to further inspection, examination and testing by Owner and its designated consultants and representatives, all the costs and expenses of which shall be for Contractor's account
- 16.2.4 If Contractor fails to proceed promptly with the replacement of rejected Equipment and Materials and the correction of defective workmanship, Owner may, by contract with third parties or otherwise, replace such Equipment and Materials or correct such workmanship and/or may terminate this Contract pursuant to Article 27.1.2 and Contractor shall be liable and reimburse Owner upon demand for all costs, expenses and damages incurred by Owner relating to such replacement or correction.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 70 / 131	
		REV. 0	

16.3 Cost of Examination and Reconstruction

- 16.3.1 Should it be considered necessary or advisable by Owner at any time before Provisional Acceptance of the Facility to make an examination of Work already completed, by removing or tearing out same, Contractor shall on request promptly furnish all necessary facilities, labour and material for so doing.
- 16.3.2 All costs of removing and tearing out any completed part of the Work and the costs associated with its satisfactory reconstruction (including charges for services rendered in connection therewith) shall be for the account of Contractor and not reimbursable, except when upon removing or tearing such Work it is found by the Owner to be in accordance with the Contract and the notice on inspection was provided by the Contractor in accordance with the Article 16.1 in which case Contractor shall be entitled, to submit, within five (5) days of the completion of such examination of the Work by the Owner, a Preliminary Change Order in accordance with Article 15.2 for a determination of an adjustment to the Contract Price.

16.4 Contractor to Furnish Supplies and Services for Inspection

- 16.4.1 Contractor shall furnish at each location where inspection, examination and testing is carried out pursuant to Article 16, all reasonable facilities, assistance, labour, equipment, materials, utilities, apparatus and instruments necessary for the safe and convenient inspection and testing of material and workmanship that may be required pursuant to this Contract.
- 16.4.2 Contractor shall also furnish Owner and Owner's designated consultants and representatives with access to records of all performance inspections undertaken by Contractor, Subcontractors and/or Suppliers.
- 16.4.3 All inspections, examinations and tests by Owner or its designated consultants and representatives shall be performed in such manner that the same does not unnecessarily delay the Work.
- 16.4.4 To the extent provided therein, tests shall be conducted in accordance with applicable provisions of the Technical Documents.

16.5 Inspection on behalf of Governmental Authorities

- 16.5.1 Third parties acting pursuant to the requirements of Applicable Laws of India shall have the same rights of inspection, examination and testing as are granted to Owner pursuant to this Article 16.
- 16.5.2 Such third parties shall also be entitled to request such additional inspections, examinations and testing as they deem appropriate and, for avoidance of doubt, no such inspection or testing required under Applicable Law shall entitle Contractor to an increase in the Contract Price.

16.6 Consequences of Inspection or Failure to Inspect

- 16.6.1 The right of inspection, examination and testing by Owner, its designated consultants and representatives provided herein is intended solely for Owner's benefit, it being understood that no exercise of or failure to exercise such right shall relieve Contractor of any of its obligations hereunder or prejudice any of Owner's rights under this Contract.

16.7 Shop Tests

16.7.1 Performance of Shop Tests

- (a) Contractor shall perform shop tests on the Equipment and Materials at the place of manufacture thereof in order to determine whether the Equipment and Materials conform to the Technical Documents.
- (b) The method and procedure for such testing shall be in accordance with Exhibit H (General Project

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 71 / 131	
		REV. 0	

Requirements and Procedures) and the Technical Documents.

- (c) Where the relevant method of testing is not specified in the Technical Documents, Contractor shall at least three (3) months prior to the performance of such tests submit to Owner for approval a proposal for such method of testing.
- (d) Contractor shall provide all equipment, materials, supplies, personnel and utilities for such shop tests.

16.7.2 Notice of Shop Tests

- (a) Contractor shall give at least fifteen (15) days, in the case of shop tests conducted in India and twenty one (21) days, in the case of shop tests conducted outside India), prior written notice to Owner of all shop tests specified in Article 16.7.1 and, unless otherwise agreed by Owner, all such shop tests shall be conducted in the presence of Owner's Representative or any other person designated by the Owner.
- (b) Owner shall communicate, within seven (7) days after receipt of Contractor's notice, its intention to participate in the shop tests.

16.7.3 Results of Shop Tests

- (a) Contractor shall submit the results of the shop tests specified in Article 16.7.1 to Owner for approval.
- (b) If the results of such tests do not satisfy the requirements of the Technical Documents, Contractor shall promptly take such corrective action at its cost and expense as may be necessary to cure the defects or deficiencies revealed by the shop tests and shall thereafter re-perform, at its cost and expense the relevant shop tests.
- (c) All costs and expenses incurred by Owner as a result of the re-performance of such tests shall be for Contractor's account.
- (d) Upon successful completion of shop tests the Supplier of the relevant Equipment and Materials shall execute a certificate of quality therefor.

16.8 Additional Tests

- 16.8.1 If any additional test not provided for under this Contract (including the Technical Documents) is requested to be conducted by the Owner, in connection with the Work (the "**Additional Tests**"), such Additional Tests along with any effect such Additional Tests may have on the Contract Schedule shall be borne by Contractor if the results of such Additional Tests show that workmanship and materials are not in accordance with the provisions of this Contract.
- 16.8.2 The Contractor shall further be responsible for rectification of the defect and/or replacement of the defective part of the Work.
- 16.8.3 If any Additional Tests show that workmanship and material are in accordance with the requirements of the Contract, then Contractor shall be entitled to submit a Preliminary Change Order in accordance with Article 15.2 for a determination of an adjustment to the Contract Schedule to the extent that such Additional Tests had a material effect on Contractor meeting deadlines of the Contract Schedule and all reasonable costs and expenses of Contractor related to such Additional Tests shall be for the Owner's account.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 72 / 131	
		REV. 0	

ARTICLE 17 - ACCEPTANCE PROCEDURES, MECHANICAL COMPLETION, PROVISIONAL ACCEPTANCE AND FINAL ACCEPTANCE

17.1 Mechanical Completion

17.1.1 Plan for Pre-Commissioning Pre-Operating Tests; Mechanical Completion; Commissioning Assistance

Not later than one hundred and eighty (180) days prior to the anticipated date for Mechanical Completion, Contractor shall submit to Owner for its approval procedures and schedules, in accordance with the Technical Section and Exhibit H (General Project Requirements and Procedures.

- (1) Mechanical completion, Pre-Commissioning, Assistance for commissioning of Facility shall be as referred in Document No. **B862-79-41-PCS-101**.

The facility shall also be checked by respective unit's licensor representatives. CONTRACTOR should be required to liquidate punch list/ checklist items of the licensor checklist also.

CONTRACTOR shall liquidate all the checklist agreed between CONTRACTOR/OWNER/PMC and issue points agreed certificate between in form of FORMAT – III.

- (2) A plan of pre-operating tests for systematic checking, using water, nitrogen, or air, as applicable, of all equipment, valves, piping systems, instrumentation and controls for the purpose of allowing the Facility to be operated, for adjustment purposes under safe conditions prior to the introduction of the initial feedstocks (collectively, the “**Pre- Operating Tests**”) which shall include purging to achieve the desired degree of drying set out in the Technical documents using nitrogen, as applicable. Contractor shall maintain the Facility under this condition till commencement of Commissioning.

17.1.2 Performance of Pre-operating Tests

- (a) Contractor shall give at least ten (10) days prior written notice to Owner of all Pre- Operating Tests to be performed under this Article 17.1.2 and all Pre-Operating Tests shall be conducted in the presence of Owner or Owner's Representative and Lenders' representative.
- (b) Contractor shall perform the Pre-Operating Tests specified in the plan of pre-operation tests prepared under Article 17.1.1 to ensure that the Facility conform to the Technical Documents and to verify the completion of requirements for the issue of the Mechanical Completion Certificate.

17.1.3 Result of Pre-operating Tests

- (a) Contractor shall submit results of the Pre-Operating Tests performed under Article 17.1.2 to Owner for approval.
- (b) If the results of such tests do not demonstrate, to the satisfaction of Owner, the fulfilment of the requirements of the Technical Documents and / or for Mechanical Completion, Contractor shall promptly, at its cost and expense, take such corrective action, repair, rebuild and / or replace, as may be necessary, to rectify and remedy the defects or deficiencies revealed by the Pre-Operating Tests and / or notified by Owner and Contractor shall thereafter re-perform, at its cost and expense, the relevant Pre- Operating Tests.
- (c) This process of conducting Pre-Operating Tests, verification that the results satisfy the requirements of the Technical Documents and Mechanical Completion, the taking of corrective action or repair, rebuilding or replacement, as may be necessary, by Contractor to rectify and remedy defects and deficiencies and re-performance of relevant Pre-Operating Tests shall be repeated, at the cost and expense of Contractor, as necessary until the Pre-Operating Test results demonstrate to the satisfaction of Owner the achievement of the requirements of the Technical Documents and Mechanical Completion.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 73 / 131 REV. 0	

- (d) All costs and expenses incurred by Owner, other than Owner's Personnel Expenses, as a result of any re-performance of such tests shall be to Contractor's account and Contractor shall reimburse Owner for such costs and expenses upon demand.

17.1.4 Delay in Performance of Pre-operating Tests

- (a) If, in the discretion of Owner, the Pre-Operating Tests are being unduly delayed, Owner may require Contractor to perform such tests within seven (7) days of Owner's receipt of the notice under Article 17.1.2.
- (b) If Contractor fails to carry out such tests within such seven (7) day period, Owner may itself carry out such tests. All such tests undertaken by Owner shall be at the risk, cost and expense of Contractor.
- (c) If any portion of the Facility fails to satisfy the requirements of Article 17.1.2, the provisions of Article 17.1.3 shall apply as if Contractor had performed the relevant Pre-Operating Test provided that Contractor shall have the right, before taking any corrective action or any repair, rebuilding or replacement under Article 17.1.3, to re- perform the relevant Pre-Operating Test originally undertaken by Owner.
- (d) All costs and expenses incurred by Owner under this Article 17.1.4 shall be for Contractor's account and Contractor shall reimburse Owner for such costs and expenses upon demand by Owner with in the time specified by Owner.

17.1.5 Operating and Maintenance Manuals

- (a) Not later than one hundred and fifty (150) days prior to the anticipated date of Mechanical Completion, Contractor shall supply to Owner with three (3) copies for its review, in accordance with Exhibit H (General Project Requirements and Procedures), the operating and maintenance manuals for Owner to be able to operate and maintain the Facility in accordance with commercial standards, Good Industry Practice, OEM's recommendations and this Contract (the "**Operating and Maintenance Manuals**"). The Operating and Maintenance Manuals shall be in sufficient detail to enable Owner or its nominated representative to fully operate the Facility and inspect, maintain, adjust, dismantle and re-assemble all parts of the Facility with the minimum of interference to its commercial operation.
- (b) The Facility shall not be considered complete for the purposes of Mechanical Completion until all manuals, drawings and documents necessary to maintain and operate the Facility have been supplied to Owner in accordance with this Article 17.1.5.

17.1.6 Certificate of Mechanical Completion

- (a) Contractor shall notify Owner in writing when Contractor believes the conditions required under this Article 17.1.6 have been satisfied and that the Facility are mechanically complete and are tight and internally and externally clean and properly adjusted and may request that Owner issue a certificate (the "**Mechanical Completion Certificate**").
- (b) Owner shall upon request of Contractor issue the Mechanical Completion Certificate provided that each of following conditions shall have been fulfilled to the satisfaction of Owner in respect of the Facility (or waived by Owner):
- (1) Contractor shall have completed all Work in accordance with this Contract, except for Commissioning and Performance Test and other Work under Articles 17.3 to 17.6 (inclusive) and except for such items, not exceeding half percent (0.5%) of Contract Price in value in aggregate for the Facility which do not have an adverse effect on the safety, functioning, operability or integrity of use of the Facility for its intended purpose and the list of any such items with the estimated value for completion of each such item shall have been submitted to and approved by, Owner (the "**Punch List Items**");
 - (2) All Pre-commissioning and Pre-Operating Tests shall have been completed and Contractor shall

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 74 / 131	
		REV. 0	

have provided Owner with any and all test certifications or reports as requested by Owner (including Pre-Commissioning records for the Facility) in respect of such tests;

- (3) Contractor shall have provided the complete and final Operating and Maintenance Manuals in accordance with Article 17.1.5 and Exhibit H (General Project Requirements and Procedures).
- (c) Owner shall, within seven (7) days after the receipt of Contractor's request for issuance of the Mechanical Completion Certificate either:
 - (1) Issue a Mechanical Completion Certificate stating the date on which the conditions set out in this Article 17.1.6 were all satisfied; or
 - (2) Reject the request giving its reasons where appropriate and specifying the Work required to be done by Contractor to enable the conditions set out in this Article 17.1.6 to be met.
- (d) The date stated for Mechanical Completion in the Mechanical Completion Certificate shall be, for all purposes of this Contract, the date on which Mechanical Completion has been achieved and the date which the foregoing conditions were satisfied.
- (e) Single Mechanical Completion Certificate shall be issued for the complete Facility.

17.2 **DELETED**

17.3 **Provisional Acceptance**

“Provisional Acceptance” shall mean the issuance of the Mechanical Completion Certificate by Owner to Contractor.

17.3.1 **DELETED**

17.3.2 **DELETED**

17.3.3 **DELETED**

17.3.4 **Work after Provisional Acceptance**

- (a) Any Punch List Item notified by Owner to Contractor as requiring remedy of defect or completion shall be so remedied or completed by Contractor, at its cost and expense, within the time stated in such notice by Owner.
- (b) In the event that Contractor fails to effect the rectification or completion by the time stated, Owner shall have the right to perform such work at Contractor's cost and expense.

17.4 **Final Acceptance**

17.4.1 **Requirements for Final Acceptance**

- (a) Contractor may by written notice to Owner request Owner to issue a certificate for final acceptance of the Work (the **“Final Acceptance Certificate”**) after the end of the period that occurs twenty-four (24) months after the Provisional Acceptance, provided that each of the following conditions shall have been fulfilled to the satisfaction of Owner (or expressly waived by Owner):
 - (1) Any and all Contract Price reduction has been effected in respect of the Completion Guarantees and any other amounts payable under this Contract by Contractor shall have been paid;
 - (2) Any Punch List Item as requiring rectification or completion hereunder shall have been so rectified

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 75 / 131	
		REV. 0	

or completed by Contractor to Owner's satisfaction; or Owner shall have been paid in full any costs and expenses incurred by it under Article 17.3.4;

- (3) Any additional Work specified in the Provisional Acceptance Certificate to be completed by Contractor shall have been completed on schedule and to Owner's satisfaction;
- (4) Any and all defects in respect of the Facility arising during the Defect Liability Period shall have been remedied and / or rectified to Owner's satisfaction; and
- (5) There shall be no claim by Owner against Contractor outstanding under this Contract, nor any claim against Owner by Contractor and any of Contractor's Subcontractors.

17.4.2 Final Acceptance Certificate

- (a) Owner shall, within fourteen (14) days after the receipt of Contractor's request for the Final Acceptance Certificate either:
 - (1) Issue a Final Acceptance Certificate stating the date on which the conditions set out in Article 17.4.1 were all satisfied; or
 - (2) Reject the request giving its reasons where appropriate and specifying the Work required to be done by Contractor to enable the conditions set out in Article 17.4.1 to be met.
- (b) The date stated in the Final Acceptance Certificate shall be, for all purposes under this Contract, the date on which Final Acceptance has taken place.
- (c) Notwithstanding the foregoing, the Final Acceptance Certificate may be withheld by Owner in the event that any component of the Facility needs to be repaired or replaced, until expiration of the Warranty Period for such repaired or replaced components pursuant to Article 18.2.
- (d) In the event that Owner issues the Final Acceptance Certificate before expiration of the Warranty Period for such repaired or replaced components, it is expressly agreed that such issuance shall be without prejudice to the extension of the Warranty Period for such repaired or replaced components pursuant to Article 18.2, which shall continue fully in force.

17.5 Effect of Certain Approvals and Acceptances

The obligations of Contractor hereunder shall not, except as expressly provided herein, be reduced or affected by any inspection, test, approval or payment, whether preliminary or final, or by any confirmation of Mechanical Completion and / or Provisional Acceptance, it being agreed that the obligations of Contractor hereunder shall continue until fully satisfied and until the expiration of any general or specific warranty periods provided for herein.

17.6 Corrective Action Plan Approval

- (a) Prior to any corrective action, repair, replacement and / or rebuilding that Contractor is obligated to perform under this Article 17 or any other provision of this Contract, Contractor shall first submit for Owner's approval its plan in connection with such corrective action, repair, replacement and / or rebuilding any and all other documents requested by the Owner in this regard..
- (b) If Contractor is required to rectify or remedy any defects or deficiencies in the Work pursuant to this Article 17 or which result from a breach of Contractor's Completion Guarantee set forth in Article 19 or Contractor's warranties set forth in Article 18 or otherwise in accordance with the terms of this Contract, the costs associated with any corrective action, repair, rebuilding and / or replacement to rectify and remedy such defects or deficiencies including all costs and expenses incidental thereto, such as demolition for access, removal, disassembly, transportation, customs clearance, manufacture (including costs to expedite), reinstallation, reconstruction, repair, retesting and re-inspection necessary to correct the defect or deficiency and to demonstrate the Work to

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 76 / 131	
		REV. 0	

conform to the requirements of the Contract, shall be borne by the Contractor.

- (c) Notwithstanding any previous test or certification Owner may instruct Contractor to:
- (1) Remove from the Site and replace any Equipment any Materials which is not in accordance with this Contract;
 - (2) Remove and re-execute any Work which is not in accordance with this Contract; and / or
 - (3) Execute any Work which is urgently required for the safety of the Work, whether because of an accident, unforeseeable event or otherwise.
- (d) If Contractor fails to diligently take any corrective action, repair, replace and / or rebuild as required under this Article 17 or otherwise under this Contract, or to follow instructions under Article 17.6(c), Owner shall be entitled at its sole discretion and at Contractor's risk, cost and expense, to have such corrective action, repair, replacement and / or rebuilding or instructions carried out by itself or by third parties and Contractor shall pay and reimburse Owner all costs and expenses incurred by Owner in connection therewith and Contractor shall protect, defend, indemnify and hold harmless Owner from and against any Losses arising directly or indirectly or incurred by reason of such Contractor's failure.

17.7 DELETED

17.8 Prolonged Delay by Owner to Commission:

Pursuant to the Mechanical Completion by the Contractor, in case Commissioning is delayed (due to factors not attributable to contractor) up to 6 (Six) months, after Mechanical completion and liquidation of all checklist points, the Owner shall upon the Contractor providing an additional bank guarantee (valid for 1 (One) year or such extended period as may be required, all bank charges shall be borne by the Contractor) of equivalent amount of payments held against commissioning assistance & commissioning, release the amount due and payable under the Contract as if the Contractor has successfully provided commissioning assistance. Notwithstanding anything contained herein, the payment of any of the aforesaid amounts will not release the Contractor of any obligation or liability under the Contract including the obligation to carry out Commissioning Assistance.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 77 / 131	
		REV. 0	

ARTICLE 18 - GENERAL WARRANTIES

18.1 General Warranties

18.1.1 Contractor warrants that all Work performed by Contractor and Subcontractors, including inspections performed by Contractor and Subcontractors under this Contract, shall be executed with due care and diligence and shall be adequate, fit and sufficient for the purposes intended, in accordance with the provisions of Article 4 and in conformity with the terms of this Contract and free of defects and deficiencies, including that:

- (1) The design and engineering of the Facility shall satisfy the minimum requirements set forth in the Technical Documents and shall be free of defects and deficiencies. Such engineering and design shall be such that the Facility shall function properly in accordance with the terms of this Contract and the Technical Documents and shall meet all safety, and operability criteria as specified in this Contract;
- (2) The fabrication, construction and installation of the Facility shall be in accordance with the designs, drawings and specifications prepared in accordance herewith and approved by Owner and all workmanship of Contractor and Subcontractors shall be in full conformity with the requirements of this Contract and free of defects and deficiencies (including latent defects and deficiencies);
- (3) All Equipment and Materials shall be new and in full conformity with the Technical Documents and other requirements of this Contract, shall be of specified quality and where quality is not specified then of suitable quality for the purposes and uses intended and shall be free of defects and deficiencies (including latent defects);
- (4) The Facility shall be fit for the purposes and uses intended and capable of operation in the manner contemplated hereby and as provided in the Technical Documents.
- (5) Contractor shall ensure Control Systems support, from all Control Systems Suppliers, as specified in the Technical Documents.

18.1.2 Contractor's obligation to design, engineer, procure and construct the Facility correctly and in accordance with this Contract and its warranties set forth above shall not be reduced or affected by any approval, inspection, test, acceptance or payment by the Owner, including approvals granted by the Owner in relation to any designs, Drawings and Documents or specifications.

18.2 Duration of General Warranties

18.2.1 Contractor's warranties under Article 18.1 (the “**General Warranties**”) shall commence on the Effective Date and shall continue through the period ending twenty-four (24) months after the date of Provisional Acceptance (the “**Defect Liability Period**”) and in the case of any latent defects in respect of Foundations and Structures, shall continue through the period ending five (5) years after the date of Provisional Acceptance (the “**Latent Defect Liability Period**”) and shall not be affected by any approval, inspection, test, acceptance or payment. For avoidance of doubt and notwithstanding anything contained in this Contract, for work performed on piled foundations, the General Warranties shall continue through the Defect Liability Period and the Latent Defect Liability Period.

18.2.2 In case Contractor performs corrective action and / or repairs, rebuilds and/or replaces any part of the Facility pursuant to its obligations under this Contract, the part so corrected, repaired, rebuilt or replaced will be covered by the same warranty as the original part and, if such correction, repair, rebuilding or replacement should occur after Provisional Acceptance of the Facility, the General Warranties shall be extended with respect to the part so corrected, repaired, rebuilt or replaced for a period of, in the case of the Defect Liability Period for the Facility, twenty four (24) months and, in the case of the Latent Defect Liability Period for the relevant Foundations and Structure, five (5)

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 78 / 131	
		REV. 0	

years, from the date of such correction, repair, rebuilding and/or replacement. If the relevant equipment/system as a whole are affected by a defect or deficiency the General Warranties shall be extended in respect of the entire relevant equipment/system for a period of twenty-four (24) months, from the date of such correction, repair, rebuilding or replacement.

Provided that, the extension of the General Warranties with respect to the part or whole of the Facility, as the case may be, shall not under any circumstance extend in respect of the Defect Liability Period for the Facility beyond forty-eight (48) months and in respect of the Latent Defect Liability Period for the Facility beyond seven (7) years from the Date of Provisional Acceptance of the relevant Facility.

18.2.3 The Defect Liability Period and the Latent Defect Liability Period, as each such period may be extended in accordance with the terms of this Contract, are, together, referred to in this Contract as the **“Warranty Period”** which expression shall include any extension thereof in accordance with the terms of this Contract.

18.2.4 In computing the Warranty Period for any portion or the whole of the Facility the time shall not be counted during which such portion or whole of the Facility is shut down because of a correction of any breach of Contractor's warranties under this Contract.

18.3 Procedures in the Event of Breach of General Warranties

18.3.1 Notice

Owner shall give Contractor written notice of any breach in Contractor's General Warranties which occurs during the Warranty Period.

18.3.2 Obligation to Remedy Breach

- (a) In case of a breach of either of the General Warranties during a Warranty Period, the Contractor shall be obligated to effect at its own cost and expense, in the shortest practicable time, such corrective action, repairs, rebuilding and / or replacements as are necessary to remedy the breach and any damage caused to the Facility as the case may be as the result of such breach
- (b) In case of any defect or deficiency in the Work arising after Provisional Acceptance which has not resulted from a failure by Contractor to perform its obligations under this Contract, Contractor shall at the request of Owner nevertheless correct such defect or deficiency and shall be entitled to reimbursement for any additional costs associated with the correction thereof.
- (c) The amount of such reimbursement shall be agreed between the Parties.

18.3.3 Program for Repairs and Replacements

- (a) As soon as practicable and in any event within five (5) days after the receipt by Contractor of Owner's notice of breach of a General Warranty, Contractor will submit for Owner's approval under Article 17.6, a plan for taking corrective action and/or making the repairs, rebuilding and/or replacements required to remedy such breach.

18.3.4 Owner's Recourse

- (a) In case of Article 18.3.2(a) above, If Contractor does not begin its plan for corrective action, repairs, rebuilding and/or replacements within the time mutually agreed or if Contractor and Owner fail to reach agreement on such a program within ten (10) days of the receipt by Contractor of Owner's notice of such breach, Owner, after advising Contractor in writing shall be entitled at its sole option:

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 79 / 131	
		REV. 0	

- (1) to perform or have third parties perform such work as is necessary to remedy and rectify or cause to be remedied and rectified such breach at Contractor's risk, cost and expense, or to pursue such other rights or remedies as may be available to it under this Contract or Applicable Law and the Contractor shall protect, defend, indemnify and hold the Owner harmless from any Losses arising directly or indirectly or incurred by reason of such breach; or
 - (2) If the defect, deficiency or damage deprives Owner of substantially the whole benefit of the Work or any major part of the Work, without prejudice to any of its other rights under the Contract or Applicable Law terminate the Contract pursuant to Article 27.1.2, as a whole, or in respect of such major part which cannot be put to the intended use.
- (b) Without prejudice to any other rights and remedies, under the Contract or otherwise, Owner shall then be entitled to recover all sums paid for the Work or for such part (as the case may be), and the cost of dismantling the same, clearing the Site and returning Equipment and Materials to Contractor.

18.3.5 Other Rights and Remedies

- (a) The rights and remedies of Owner provided by this Article 18.3 are in addition to any other rights and remedies provided by Applicable Law. The provisions of Article 18 shall survive any termination of this Contract.

18.4 Disclaimer

18.4.1 Notwithstanding any other provision of this Article 18, Contractor makes no warranties against ordinary wear and tear of the Equipment and Materials or the Facility occurring after Provisional Acceptance of the Work (unless otherwise specifically provided in warranties and guarantees obtained from Suppliers) or the effects of the failure by Owner to operate the Facility in accordance with the Operating and Maintenance Manuals or the effects of the operation of any equipment beyond the Supplier's guaranteed operating range, as applicable.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 80 / 131	
		REV. 0	

ARTICLE 19 - COMPLETION GUARANTEE AND WARRANTIES

19.1 Completion Guarantees

19.1.1 Completion Guarantee for Mechanical Completion

Without limiting the effect of and without prejudice to Owner's rights with respect to, the General Warranties set forth in Article 18, Contractor guarantees and warrants that Mechanical Completion of the Facility shall occur no later than the Guaranteed Mechanical Completion Date (the **"Mechanical Completion Guarantee"** or the **"Completion Guarantee"**).

19.1.2 Deleted

19.1.3 Effect of Breach of Completion Guarantee

In addition to Owner's rights under Article 27, if Contractor breaches the Completion Guarantee set forth in Article 19.1.1, Owner shall be entitled to reduce the Contract Price in respect thereof as provided under Article 20.1.

19.2 DELETED

19.3 The provisions of Article 19 shall survive any termination of this Contract.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 81 / 131	
		REV. 0	

ARTICLE 20 - PRICE REDUCTION SCHEDULE

20.1 Price Reduction Schedule for delay in Mechanical Completion Guarantee

20.1.1 Price Reduction Schedule for Delay

Without prejudice to Owner's rights pursuant to Article 27 relating to termination of this Contract and any other remedy under this Contract and the Applicable Laws, the Owner shall be entitled, to reduce the Contract Price for delay in providing Mechanical Completion Guarantee and the said reduction in price shall be computed in the manner specified in Article 20.1.2.

Any breach of Mechanical Completion Guarantee of Facility for which this clause is invoked shall constitute a deficiency of work by the Contractor and the Contract Price payable by the Owner to the Contractor shall stand reduced to the extent of the reduction in price as per calculation provided in clause 20.1.2. The Contractor shall issue a credit note in favour of the Owner for the deficiency in work to the tune of the amount equivalent to amount mentioned herein under clause 20.1.2, in accordance with the provisions of Goods and Service Tax law; failing which, the owner shall have a right to collect the same separately by deducting the amount from any of the pending Monthly Invoices of the Contractor.

20.1.2 Price Reduction Schedule

The Owner shall be entitled at its option, to deduct an amount from Contract Price for delay beyond the Mechanical Completion Guarantee at the rate of half percent (0.5%) of Contract Price per week provided that in the event the delay is not for a whole week, the damages shall be calculated pro rata at the applicable rate for delay for part of the week. The aggregate amount of reduction in price under this Article 20.1 shall not exceed in aggregate five percent (5%) of Contract Price.

20.2 DELETED

20.3 Limitation on Contract Price Reduction Schedule

20.3.1 The maximum amount that can be reduced from the Contract Price, by the Owner pursuant to this Articles 20.1 shall not exceed five percent (5%) of the Contract Price, in aggregate.

20.3.2 The Contract Price Reduction under this Article 20 shall not relieve Contractor from its obligations to complete the Work, or from any other duties, obligations or responsibilities under this Contract and/ or other Applicable Law.

20.3.3 The provisions of Article 20 shall survive termination of this Contract.

20.3A For the purpose of Price reduction Schedule under Article 20.1.2 and 20.3.1, 'Contract Price' shall be inclusive of Goods Custom Duties (if the imports are undertaken as per Option-I of Import Transaction Pattern) and PLL GST.

20.4 Acknowledgement of Parties

20.4.1 The Contractor hereby acknowledges and agrees that its failure to meet the Completion Guarantee or any of the Completion shall cause the Owner substantial damage.

20.4.2 The Parties acknowledge that time is of the essence in this Contract. Contractor and Owner agree that the Price Reduction Schedule for each such guarantee under this Article 20 are reasonable, considering the damages that the Owner would sustain in the event of failure to satisfy each such

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 82 / 131	
		REV. 0	

guarantee and that such amounts are agreed upon and fixed.

- 20.4.3 The Parties agree that these are a genuine pre-estimate of the losses / damages which will be suffered on account of the breach of such guarantees and the prescribed Price Reduction Schedule shall be effected, without there being any proof of the actual loss or damages caused by such breach.
- 20.4.4 The decision of the Owner in regard to the breach of the Completion Guarantee shall be final and binding on the Contractor.

20.5 Payments

20.5.1 Manner of payment - Offset and Deduction

- (a) Any scenario where reduction in Contract Price is applicable under this Article 20, shall constitute a deficiency in Work by the Contractor and the Contract Price payable by the Owner to the Contractor shall stand reduced to the extent of the Contract Price Reduction Schedule is applicable. The Contractor shall issue a credit note in favour of the Owner for the deficiency in Work of the amount applicable for reduction in Contract Price in accordance with the provisions under the Goods and Service Tax Law; failing which, the same shall either be collected separately by deducting from any of the pending Monthly Invoices of the Contractor or from any other payment remaining to be paid to the Contractor in accordance with Article 14.
- (b) If no such payments remain to be paid or if the aggregate amount of such payments remaining to be paid is less than the amount payable by Contractor under this Article 20, Owner shall deliver an invoice to Contractor for the amount due on the balance thereof and Contractor shall pay such amount upon demand.
- (c) The provisions of this Article 20 shall be without prejudice to the Owner's rights under this Contract or Article 27 and shall survive the termination of this Contract.

20.5.2 Effect of subsequent Acceptance of a Work Item

- (a) Neither subsequent issuance of a Mechanical Completion Certificate, the Completion Certificate or a Provisional Acceptance Certificate shall affect Contractor's obligation, if any, to make payments due in accordance with this Article 20.

20.6 Goods and Service tax (GST), if any, for Price Reduction

The Parties acknowledge and agree that if in the opinion of the Owner any GST is payable on the aforementioned Price Reduction, such GST shall also be recovered from the Contractor by the Owner by enhancing the amount of reduction of Contract Price vide the aforementioned Price Reduction Schedule suitably to include the applicable GST on such reduction.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 83 / 131	
		REV. 0	

ARTICLE 21 - USE AND POSSESSION OF FACILITY; RISK OF LOSS

21.1 Care of the Facility

Contractor shall be responsible until Provisional Acceptance of the Facility for the care, custody and control of the Facility and for all Equipment and Materials, goods and materials intended for incorporation into the Facility and for any loss or damage to the Facility, Equipment and Materials and such goods and materials during such period except as specifically provided under this Contract.

After Provisional Acceptance, the Owner shall be responsible for any loss or damage to the Facility and releases Contractor there from except as provided in this Clause 21.

The Contractor shall also be responsible for any damage or loss to the Facility which occurs as a result of a deficiency or defect or breach of any warranty for which Contractor is responsible under this Contract and for the care of any outstanding Work which it has undertaken to carry out upto the expiry of the Warranty Period and any Equipment and Materials until such outstanding Work is complete.

21.2 Making Good Loss or Damage to the Facility

21.2.1 In the event that any part of the Facility or any Equipment and Materials, shall suffer loss or damage while Contractor has responsibility therefor, the same shall be made good by Contractor at its own cost and expense.

21.2.2 Contractor shall also at its own cost and expense make good:

- (1) Any loss or damage to the Facility occasioned by it in the course of operations carried out by it at the Site for the purpose of complying with its obligations under this Contract; and
- (2) Any loss or damage to the Facility, if and to the extent that such loss or damage is caused by the negligence, breach of contract or breach of Applicable Law of the Contractor, any Subcontractor or their respective personnel.

21.2.3 In the event that any part of the Facility shall suffer loss or damage which is caused by any of Owner's Risks while Contractor has responsibility for the care thereof as provided in Article 21.1, Contractor shall, unless instructed by Owner to do otherwise, make good the same and the requirement for such making good shall be treated as instructions to carry out a change under Article 15.1 and Contractor shall be entitled to submit a Preliminary Change Order for a determination of an adjustment to the Contract Schedule and/ or Contract Price.

21.2.4 For the purposes of this Article 21.2, the "Owner's Risks" are:

- (1) Use of the Work or any part thereof by Owner or any Person contracted to, or acting under the instructions or at the direction of Owner; and
- (2) The acts or omissions or breaches of contract or of statutory duties of the Owner, its personnel or other Persons for whom Owner is responsible; and
- (3) War and nuclear perils:

Provided that, in respect of aforesaid sub Article (1) and (2), Owner's Risks shall exclude risks arising due to Owner's operations or any acts or omissions of the Owner's personnel, while performing duties in accordance with Contractor's directions or its supervision.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 84 / 131	
		REV. 0	

ARTICLE 22 - TITLE

22.1 Title to Equipment and Materials and Contractor's Equipment

The Contractor agrees that title to all Equipment and Materials shall pass to Owner from the Contractor Supplier or Subcontractor pursuant to Section E of Exhibit H (General Project Requirements and Procedures). The Contractor shall, however, retain care, custody, and control of such Equipment and Materials and exercise due care in relation to the Equipment and Materials until (a) Provisional Acceptance or (b) termination of this Contract, whichever shall occur first. Such transfer of title shall in no way affect Owner's rights under any other provision of this Contract.

22.2 Warranty of Title

- 22.2.1 The Contractor warrants and guarantees good title, complete in all respects and free from encumbrances, to all Equipment and Materials, in each case procured or otherwise furnished by the Contractor, Supplier or any Subcontractor.

22.3 Protection of Title

- 22.3.1 For the purpose of protecting the Owner's interest in all Equipment and Materials to which title has passed to Owner but which remains in the possession of any another person, the Contractor shall take or cause to be taken all steps necessary under the Applicable Laws of the appropriate jurisdictions to protect Owner's title and to protect Owner against claims by other parties with respect thereto and in accordance with Section E of Exhibit H (General Project Requirements and Procedures).
- 22.3.2 If, after notice in writing from the Owner to obtain a discharge of an encumbrance or claim by any other person over the Facility or any part thereof, the Contractor, within a reasonable period of time, (1) fails to obtain such discharge, or (2) fails to effectively provide for such discharge or (3) fails to secure the Owner against any such lien or claim, in a manner acceptable to the Owner, the Owner shall have the right, at its discretion, upon notice in writing to the Contractor, to obtain discharge of such encumbrance or claim by way of agreement, payment or otherwise.
- 22.3.3 Contractor shall reimburse Owner for all amounts expended by Owner to obtain such discharge as specified in Article 22.3.2, including all costs legal fees and expenses.
- 22.3.4 To the extent reasonably required, Contractor shall cause such Equipment and Materials to be suitably marked with an identifying mark or symbol indicating that such Equipment and Materials are the property of Owner.

22.4 Ownership of Designs, Drawings, etc.

- 22.4.1 All designs, drawings, specifications, data, computer printouts, documents, reports, studies, manuals, programs, analyses, Drawings and Documents and all other items produced by the Contractor or Subcontractors or Supplier to the Owner, in the performance of the Work, and any and all rights, including any intellectual property rights in such items (herein collectively referred to as the “**Work Product**”) shall be treated as work made for hire and shall become and remain the property of Owner in accordance with Applicable Law.
- 22.4.2 Contractor shall deliver the Work Product (properly sorted and indexed) to Owner in accordance with the provisions of this Contract and in any event upon termination of this Contract.
- 22.4.3 The Contractor absolutely and completely transfers and assigns to the Owner all the rights, benefits, title and interest that the Contractor may have in the Work Product and the Owner shall be the exclusive owner of and shall have all rights, benefits, interest and an exclusive, clear and marketable

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 85 / 131	
		REV. 0	

title in and to the Work Product. The Parties agree that the Owner's failure to exercise any rights in relation to the Work Product or part thereof, shall not lead to a lapse of its rights therein. The assignment of rights to the Owner shall be perpetual and global, and will not be limited to any particular territory or geographical area. The Contractor agrees and acknowledges that it shall have no rights in the Work Product unless otherwise provided in this Contract.

- 22.4.4 Without the Owner's prior written approval, the Contractor shall not retain or use the Work Product or retain any copies of the Work Product. However, with and subject to the Owner's prior written approval, the Contractor may retain and use permitted copies of the Work Product for the Contractor's internal general know-how only.
- 22.4.5 The Contractor represents, warrants and undertakes that Work Product shall not infringe the right of any third party, and that the Contractor shall do and execute, or arrange for the doing and execution of, each necessary act, document and thing at its own cost, that the Owner may consider necessary or desirable to perfect its right, title and interest of in and to the Work Product in accordance with Applicable Law.
- 22.4.6 The Contractor appoints the Owner as its agent or attorney with full authority to sign and execute all contracts, assignments, deeds, notices and other documents, which may be necessary or required to give effect to any of the provisions of this Article 22, in the event of failure or refusal by the Contractor to observe and perform its obligations under this Article 22.
- 22.4.7 The Contractor shall indemnify, defend, save and keep the Owner harmless against any Losses suffered or incurred by the Owner, its personnel, agents or representatives, arising out of or in connection with any claim made against the Owner or the Contractor, for actual or alleged infringement of a third party's right in the Work Product.
- 22.4.8 The Contractor shall ensure that provisions similar to this Article 22 shall be included in all its contracts with any third parties in relation to the creation of any Work Product, including contracts with its personnel, Suppliers and Subcontractors.
- 22.5 The provisions of this Article 22 shall survive any termination of this Contract.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 86 / 131	
		REV. 0	

ARTICLE 23 - INSURANCE

23.1 Owner and Contractor to Procure Insurance

- 23.1.1 The Contractor shall provide insurance in accordance with the terms and conditions set forth in Exhibit I (Insurance) and comply with Contractor's obligations regarding Owner's insurance as set forth in Exhibit I (Insurance).
- 23.1.2 The Contractor shall also use all reasonable endeavours to ensure that its Subcontractors maintain insurance similar to the insurance required to be maintained by Contractor in accordance with Section 1 of Exhibit I (Insurance) with limits of liability and levels of deductibles as mandated by Applicable Law and if not mandated by Applicable Law then as acceptable to Contractor.
- 23.1.3 The Owner shall provide the Contractor all relevant documents evidencing that the 'Owner Property Insurance' and the 'Third Party Liability' insurance in accordance with Exhibit I (Insurance) is in place before start of the construction at Site. In the event of a delay in providing the above documents beyond the start of construction at Site, Contractor shall be entitled to submit a Preliminary Change Order in accordance with Article 15.2 for a determination of an adjustment to Contract Schedule only.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 87 / 131	
		REV. 0	

ARTICLE 24 - CHANGE OF LAW

24.1 Procedure & Impact of Change in Law

24.1.1 If at any time during the term of the Contract, the Owner believes a Change in Law has any impact on the Contract Price and / or Scope of Work, the Owner may submit to the Contractor a request for Preliminary Change Order and Contractor shall submit a Preliminary Change Order for a determination of an adjustment to the Contract Price and Completion Guarantee and / or Scope of Work.

24.1.2 However, a request for Preliminary Change Order or a Preliminary Change Order due to Change in Law shall be submitted and a Party shall be entitled for a Change Order only in respect of Equipment and Materials and for services and construction, stated in Exhibit D

24.1.3 The impact of Change in Law arising out of change in Taxes on Contract Price, for the purpose of Articles 24.1.2 and 24.1.3, in the Change Order, if any, shall be limited to the extent of '*change in Indirect Tax liability*' on value of Equipment and Materials or CIF value of raw material and components or value of services or construction, as applicable, and indicated by the Contractor in the Contract Price Schedule.

The '*change in Indirect Tax liability*' shall be the difference between the Indirect Tax liability as per '*new impact of Indirect Tax*' and the liability as per existing '*impact of Indirect Tax*' which shall be supported by relevant documentation including evidence of payment of such taxes at the new rates.

The '*existing impact of Indirect Tax*' shall be, the quantum of Indirect Tax specified in the Contract Price Schedule.

The '*new impact of Indirect Tax*' shall be the new quantum of Indirect Tax paid or to be paid by the Contractor due to Change in Applicable Tax Law.

24.1.4 **If delay in performance of the Contract beyond overall Contract Schedule is not attributable to Contractor**, then the Parties agree and acknowledge that after the Guaranteed Mechanical Completion Date, any upward revision in the Contract Price on account of '*change in Indirect Tax liability*' shall be borne by **the Owner**, but any downward revision of the Contract Price on account of '*change in Indirect Tax liability*' shall be for the benefit of the Owner.

24.1.5 In case the delay in performance of the Contract beyond overall Contract Schedule is attributable to the Contractor, then the Parties agree that no benefit shall accrue to the Contractor under this Article, nor shall the Contractor be entitled to any compensation, however, any downward revision of the Contract Price on account of '*change in Indirect Tax liability*' shall be for the benefit of the Owner.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 88 / 131	
		REV. 0	

ARTICLE 25 - FORCE MAJEURE

25.1 Events of Force Majeure

25.1.1 “**Event of Force Majeure**” shall mean any of the following events or circumstances or combination of the following events or circumstances which are beyond the reasonable control of the affected Party, which could not have been prevented by Good Industry Practice or by the exercise of reasonable diligence, skill and care, and which or any consequences of which, have a direct, material and adverse effect/impact upon the performance by the affected Party of its obligations under this Contract:

- (1) Fire, flood, lightning, storm, Cyclone, typhoon, tornado, earthquake, landslide, subsidence, washout or epidemic, which may or may not resulting in quarantine restrictions or any other similar acts of God;
- (2) War (whether declared or undeclared), riot, civil war, blockade, insurrection, acts of public enemies, terrorism or civil disturbance, in each case, occurring in India;
- (3) Lawful strikes or lockouts or other industrial action /disturbance occurring in India other than those occurring at the Site and other than those (i) solely affecting the Party claiming the same as an Event of Force Majeure; or (ii) and attributable to such Party’s policies regarding labour, compensation or employment or labour related conditions; and
- (4) Non-discriminatory acts of any Governmental Authority.

25.1.2 Notwithstanding the foregoing, Event of Force Majeure shall not include:

- (1) Weather conditions reasonably to be expected for the climate in the geographic area of the Project including the monsoon season;
- (2) Any Site condition or event arising therefrom;
- (3) The occurrence of any manpower or material, equipment shortage; or
- (4) Any delay, default or failure (direct or indirect) in obtaining materials, equipment and/, or performing services by any Subcontractor, Supplier or worker or any agent thereof, performing any Work other than delay, default or failure (financial or otherwise) of a Subcontractor or Supplier or any agent of any thereof.

25.2 Certain Delays not Excused

25.2.1 Notwithstanding that an Event of Force Majeure otherwise exists, the provisions of this Article 25 shall not excuse:

- (1) Late delivery of Equipment or Materials caused by Contractor, Suppliers or Subcontractors or by inefficiencies on the part of Contractor, Suppliers or Subcontractors;
- (2) Late performance by Contractor, any Supplier or any Subcontractor caused by Contractor's, any Supplier's or any Subcontractor's failure to hire an adequate number of personnel or labour or by inefficiencies on the part of Contractor, any Supplier or any Subcontractor;
- (3) Submission of Drawings and Documents for approval at such a time which does not leave sufficient time to permit an orderly review thereof prior to manufacture or procurement;
- (4) Delays resulting from unfavourable weather or unsuitable ground conditions or from any other similar cause;

unless Contractor also establishes to the reasonable satisfaction of Owner that the delay or late performance arises out of an occurrence other than described in Articles (1), (2), (3) or (4) of this Article 25.2 which is beyond the reasonable control of Contractor, Subcontractors and Suppliers and that a reasonable alternative which is an acceptable source of services or Equipment and Materials, as the

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 89 / 131 REV. 0	

case may be, is demonstrably unavailable.

25.3 Implications; Notice; Procedure

- 25.3.1 Immediately following the date of commencement of any Event of Force Majeure, if either Party desires to invoke such Event of Force Majeure as a cause for delay in the performance of any obligation hereunder, it shall notify the other Party in writing of such date and the nature and expected duration of such Event of Force Majeure.
- 25.3.2 Within a reasonable time following the date of such notice of such Event of Force Majeure, the Party having invoked such Event of Force Majeure as a cause for such delay shall submit to the other Party reasonable proof of the nature of such delay and its effect upon the time of performance.
- 25.3.3 The Parties shall thereupon consult with one another concerning the effect of such delay upon the Contract Schedule and subsequently the Contract Schedule shall be suitably/equitably adjusted by the Parties to take into account such effect and the ability of the Contractor to reschedule activities to avoid or minimise overall delays resulting from the Event of Force Majeure.
- 25.3.4 Both Parties shall make all reasonable efforts to prevent and reduce to a minimum and mitigate the effect of any delay occasioned by any Event of Force Majeure including recourse to alternate acceptable sources of services, Equipment and Materials and Contractor's Equipment.
- 25.3.5 The cost and loss sustained by either Party shall be borne by the respective Parties for the period during which Force Majeure period lasts.
- 25.3.6 For avoidance of doubt only Contract Schedule shall be suitably/equitably adjusted by the Parties to take into account such effect of Force Majeure.

25.4 Payment during Force Majeure

- 25.4.1 During a period of stoppage of the Work caused by an Event of Force Majeure, the Owner shall be required to pay to the Contractor the amounts of Contract Price for such part of the Work which has been completed prior to occurrence of the Event of Force Majeure except when the means and source of payment by the Owner have been affected on account of occurrence of an Event of Force Majeure.
- 25.4.2 Upon termination of the Event of Force Majeure affecting the Owner's means and sources of payment, Owner shall resume payments of such amounts of Contract Price (it being understood that no interest shall be payable in respect of such resumed payments) with the invoice dates therein adjusted to reflect the period during which scheduled payments were not made.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 90 / 131	
		REV. 0	

ARTICLE 26 - SUSPENSIONS

26.1 Suspension

26.1.1 Owner may at any time and from time to time and for any reason, by written notice to Contractor, suspend further performance of the Work (such notice, a “**Notice of Suspension**”). Any Notice of Suspension shall specify the date of commencement of the suspension and the estimated duration of the suspension. Upon the date specified in any such notice of suspension Contractor shall:

- (1) Promptly suspend further performance of the Work and during the period of such suspension shall properly care for and protect all Work in progress and all property of Owner which pursuant to the terms of this Contract is subject to the supervision of Contractor in whatever state of completion;
- (2) Place no further subcontracts or purchase orders for materials, services, work or facilities in respect of the Work except to the extent expressly requested by Owner; and
- (3) Unless otherwise directed by Owner, use all reasonable endeavours to suspend on the most favourable terms available to Contractor all purchase orders, subcontracts and rental and lease agreements to the extent affected by such suspension and otherwise minimise any additional costs associated with such suspension.

26.1.2 Contractor shall promptly deliver to Owner copies of all such Work Products in progress and all such property as may be requested by Owner. Owner may at any time terminate the suspension by written notice to Contractor specifying the effective date of termination and Contractor shall use its best efforts to resume performance of its obligations pursuant to this Contract immediately upon receipt of such notice.

26.2 Costs During Suspension

26.2.1 During a suspension, Contractor shall not be entitled to payment of the Contract Price which would have otherwise been ordinarily payable during the relevant period of such suspension, except for such part of the Work which has been completed prior to the date of suspension specified in the notice of suspension.

26.2.2 Upon resumption by Contractor of all activities affected by a suspension, Owner shall resume payments of the Contract Price (it being understood that no interest shall be payable in respect of such resumed payments) with the payment dates therein adjusted to reflect the period during which scheduled payments were not made.

26.3 Consequences of Suspension

26.3.1 Owner's instructions under Article 26.1 shall be treated as instructions to carry out a change under Article 15.1, except to the extent that the suspension instructed by Owner is necessary by reason of default, breach, failure or non-performance on the part of Contractor.

26.3.2 To the extent such instructions are treated as a request for a change under Article 15.1 in accordance with the immediately preceding Article 26.3.1:

- (1) Contractor shall be entitled to submit to Owner a Preliminary Change Order for a determination of an adjustment to the Contract Schedule and/or the Contract Price; and
- (2) Owner shall reimburse Contractor for reasonable, proper, verified and unavoidable costs incurred by Contractor as a direct result of such suspension, including costs of demobilisation and re-mobilisation and cancellation charges that Contractor must pay Subcontractors and/or Suppliers as a result of such suspension.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 91 / 131 REV. 0	

ARTICLE 27 - TERMINATION

27.1 Owner's Right to Terminate

The Owner shall have the right to terminate this Contract in accordance with this Article 27.1.

27.1.1 Convenience

The Owner may terminate this Contract at will, for its convenience, at any time and without cause, by giving the Contractor not less than thirty (30) days' prior written notice, and the Contract shall stand terminated on the last day of the above mentioned thirty (30) day period.

27.1.2 Default

(a) Each of the following events shall be a **“Contractor Event of Default”**:

- (1) The Contractor assigns or transfers this Contract or any right, obligations or interests herein, except as specifically permitted under Article 31.2;
- (2) DELETED ;
- (3) The interest of Contractor shall devolve upon any Person otherwise than as herein permitted;
- (4) The Contractor fails to make timely payment for labour, services, equipment, materials or supplies as is required under Applicable Law or any contractual arrangement, or disregards, or breaches any Applicable Laws or requirements of any competent Governmental Authority or instructions of the Owner in relation to this Contract;
- (5) Except for the reasons stated in Article 25, Contractor abandoned the Contract, or fails, neglects, refuses or is unable at any time during the course of the Work to perform the Work at a rate deemed sufficient by Owner to give reasonable assurance that Contractor will complete the Work in accordance with the Contract Schedule;
- (6) The Contractor otherwise commits a material breach of its obligations under this Contract;
- (7) Failure of the Contractor on account of any inter se dispute or difference between the Partners of the Contractor's Consortium leading to any delay or failure in the completion of the Works.

(b) In the case of a Contractor Event of Default which can be remedied within a period of thirty (30) days:

- (1) The Owner shall provide a notice to the Contractor informing it of such Contractor Event of Default (**“Notice of Default”**) and requiring the Contractor to remedy such Contractor Event of Default within a period of thirty (30) days from the date of the receipt of the Notice of Default (**“Remedial Period”**).
- (2) In the event that the Contractor fails, neglects, refuses or is unable to remedy such Contractor Event of Default within the Remedial Period, the Owner shall have a right to terminate the Contract with immediate effect by notifying the Contractor of its decision to terminate the Contract. For avoidance of doubt, it is hereby clarified that the Owner's above right to terminate the Contract shall not be affected by any actions taken by the Contractor to remedy a Contractor Event of Default after the expiry of the Remedial Period.

(c) In the case of a Contractor Event of Default which cannot be remedied or cannot be remedied within a period of thirty (30) days:

- (1) The Owner may terminate this Contract with immediate effect by notifying the Contractor of its decision to terminate the Contract.
- (2) Without prejudice to the generality of above or otherwise limiting the scope of sub-Articles (a) or (c) above, a breach of Article 4.10 and the Contractor Event of Default specified at Article

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 92 / 131	
		REV. 0	

27.1.2(a)(5) shall each be deemed to be a Contractor Event of Default which cannot be remedied.

- (3) In case of default by the Contractor, the Owner shall have the absolute right to terminate the Contract as specified above and award the balance work at the risk and cost of the Contractor. The decision of Engineer in Charge shall be final in such case.

27.1.3 Bankruptcy; Liquidation

- (a) If the Contractor or a Parent Guarantor (if applicable) voluntarily or involuntarily becomes the subject of proceedings under any bankruptcy or insolvency law, or other law or procedure for the relief of financially distressed debtors, or is unable, or admits in writing its inability, to pay its debts as they mature, or takes or suffers any action for its liquidation or dissolution, or has a receiver or liquidator appointed for all or any part of its assets and, in the event any act of the aforesaid character is involuntary, the consequences thereof are not cured within a period of thirty (30) days of commencement of such proceedings or action, or are incapable of being cured, the Owner may terminate this Contract with immediate effect by notifying the Contractor of its decision to terminate the Contract.
- (b) In the event that such notice is not given for any reason, Contractor [and the individual Consortium Members] shall remain fully responsible for its [their] obligations set forth in this Contract at the times required.

27.2 Contractor's Right to Terminate

The Contractor shall have the right to terminate this Contract only in accordance with this Article 27.2.

27.2.1 DELETED

27.2.2 Prolonged Suspension

If performance of the Work is suspended by Owner pursuant to Article 26.1 for:

- (1) A period of at least six (6) consecutive months; or
- (2) An aggregate period of twelve (12) months (other than by reason of the Contractor's default or non-performance under this Contract).

The Contractor may provide a notice to the Owner, requiring the Owner to revoke the suspension of Work under Article 26.1 within a period of thirty (30) days of the receipt of the Contractor's notice ("**Prolonged Suspension Remedial Period**").

- (a) If the Owner has not revoked the suspension of Work under Article 26.1 within the Prolonged Suspension Remedial Period, the Contractor may terminate the Contract with immediate effect, within a period of thirty (30) days after the expiry of the Prolonged Suspension Remedial Period, by notifying the Owner of its decision to terminate this Contract.
- (b) In the event that the Contractor does not terminate the Contract within a period of thirty (30) days after the expiry of the Prolonged Suspension Remedial Period, the Contractor's notice of Prolonged Suspension Remedial Period shall lapse and the Contractor shall not have the right to terminate the Contract without providing a fresh notice to the Owner.

27.3 Effect of Termination by Owner

If this Contract is terminated by Owner pursuant to the provisions of Article 27.1, the following provisions shall apply:

27.3.1 For Convenience

- (a) In the case of termination by Owner pursuant to Article 27.1.1, the Owner shall pay to Contractor an

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 93 / 131	
		REV. 0	

amount equal to 'A' minus 'B' calculated as set forth hereunder.

- (b) 'A' equals:
- (1) Any portion of the Contract Price due on the date of termination and remains unpaid (the **"Contract Price Portion"**); plus
 - (2) Reasonable, proper, verified and unavoidable costs incurred by Contractor as a direct result of such termination, including costs of demobilisation and any cancellation charges that Contractor must pay Subcontractors and / or Suppliers as a result of such termination.
- (c) 'B' equals the excess, if any, of:
- (1) The aggregate amount of the Contract Price paid prior to the termination plus the Contract Price Portion *less*
 - (2) An amount equal to the percentage of Work actually completed by the termination date multiplied by the Contract Price (the **"Work Value"**).
- (d) If when finally determined the amount B above exceeds the amount A above, Contractor shall pay to Owner the amount of such excess within thirty (30) days after receipt of an invoice therefor.
- (e) Contractor shall make every effort to minimise the charges referred to in sub-Article (b)(2) above, including the application of equipment and work performed to other projects where practicable.
- (f) Contractor, as a condition of receiving payment under this Article 27.3.1, shall execute all papers and take all other steps which may be required to vest in Owner all rights, set-offs, benefits, title and interest of Contractor in and to Equipment and Materials and Work to become the property of Owner and in and to subcontracts, purchase orders and other commitments (as specified by Owner) entered into by Contractor for the benefit of the Project.
- (g) All amounts payable to Contractor pursuant to this Article 27.3.1 shall be mutually agreed upon by Owner and Contractor.

27.3.2 For Bankruptcy or Default

In the case of termination of the Contract by the Owner pursuant to Articles 27.1.2 or 27.1.3:

- (a) The Contractor shall not, pending settlement of the Owner's claims by reason of such termination, be entitled to receive any further payment and shall protect, defend, indemnify and hold the Owner harmless from and against all Losses arising directly or indirectly from or incurred by reason of such termination and, in any event, the Owner shall not be liable to the Contractor for any amount of the Contract Price in excess of the Work Value.
- (b) In addition, should the aggregate amount of the Contract Price actually paid prior to termination exceed the Work Value, Contractor shall pay to Owner an amount equal to such excess within thirty (30) days after receipt of an invoice from Owner therefor.
- (c) Accrued or actual or potential liabilities of the Contractor under this Contract, including under Articles 17, 18, 19, 20, 21 and 28, for acts and omissions with respect to Work partially or fully completed at the time of termination shall not be affected by any such termination.
- (d) In furtherance of the foregoing, Owner shall have the right (either with or without the use of Contractor's materials, equipment, tools and instruments, Drawings and Documents) to finish the Work itself or with the assistance of third parties and Contractor shall be liable for the excess of the total cost of the Work actually incurred by Owner to all parties, persons or entities over the price for the Work originally contracted for hereunder.
- (e) In particular, to complete the Work, Owner shall have the right to take possession of and use, or to permit any third party to use, all Contractor's Equipment, tools and vehicles on or about the Site which are the property of Contractor and Contractor shall have no right to any payment or allowance in respect of such use.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 94 / 131	
		REV. 0	

- (f) Upon completion of the Work, all such Contractor's Equipment, tools and vehicles shall be returned to Contractor without payment or allowance of any kind, subject to the right of Owner (which shall constitute a lien on such Contractor's Equipment, tools and vehicles) to sell the same and apply the proceeds to any claim which Owner may then have against Contractor.
- (g) Owner shall have the right at its sole discretion to select third parties to assist in or undertake such completion of the Work, such selection to be based upon such criteria as Owner may determine.
- (h) Owner shall, in so completing the Work, make such expenditures as in Owner's sole judgement are necessary therefor.

27.4 Effect of Termination by Contractor

27.4.1 If this Contract is terminated by Contractor pursuant to the provisions of Article 27.2, Owner shall have the obligations set forth under Article 27.3.1 as if the Contract had been terminated pursuant to the provisions of Article 27.1.1.

27.5 Effect of Termination Generally

27.5.1 If this Contract is terminated for any reason pursuant to this Article 27, Contractor shall take immediate steps to bring its services to a close in a prompt and orderly manner and shall make every effort to keep expenditures for that purpose to a minimum and place no further orders or subcontracts for plant, equipment, materials, work or services.

27.5.2 Contractor shall preserve and protect all Work and Work Product and all property of Owner subject to Contractor's supervision, shall deliver or relinquish such Work and Work Product and such other property to or as directed by Owner and shall assign and transfer to Owner such of Contractor's subcontracts, purchase orders and other commitments as Owner may request and promptly procure cancellation upon terms satisfactory to Owner of all remaining Contractor's subcontracts, purchase orders and commitments related to the Work.

27.5.3 It is further specifically understood that Owner may in the event of such termination require Contractor to promptly remove all property of the Contractor located at the Site, subject to Owner's lien for any claims against Contractor.

27.5.4 Except as otherwise provided in this Article 27, Contractor shall be entitled on the termination to any payments of or compensation whatsoever for any loss of profit or anticipated profit, loss of opportunities or consequential damages or the incurring of expenditure in the expectation of completing the whole of the Works.

27.6 Survival

The termination of this Contract shall not affect the rights, obligations or liabilities of any Party accrued prior to such termination.

The provisions of this Contract, which are expressly mentioned to survive its termination, and any other provisions of this Contract that by their nature are required to survive the termination of this Contract, including Articles 27.3, 27.4, 27.5 and 27.6, shall survive any termination of this Contract for any reason.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 95 / 131	
		REV. 0	

ARTICLE 28 - INDEMNIFICATION

28.1 Indemnification by Owner

28.1.1 Owner shall protect, defend, indemnify and hold the Contractor harmless from and against any and all Losses arising from injury to or death of third parties or damage to or loss of property of third parties arising directly or indirectly out of acts or omissions of Owner in the performance by Owner of its obligations under this Contract, except where such performance has been done in accordance with the directions or instructions of the Contractor, or to the extent such Losses are caused by the actions or impermissible inactions, negligence or wilful misconduct, or breach of, this Contract by the Contractor, its Affiliates, Subcontractors or Suppliers or any of their respective personnel.

28.2 Indemnification by Contractor

28.2.1 Contractor shall protect, defend, indemnify and hold Owner harmless from and against:

- (1) Any and all Losses arising directly or indirectly from or incurred by reason of the acts or omissions of the Contractor, its Affiliates, Subcontractors or Suppliers or any of their respective personnel during the performance of the Contractor's obligations under this Contract, without limitation, whether or not resulting from any defect in or condition of the premises on which the Work is or is to be performed or of any equipment thereon, including any such Losses arising from injury to or death or damage to or loss of property except injury to or death of persons or damage to or loss of property to the extent caused by the negligence or intentional or wilful misconduct of Owner
- (2) Any and all Losses arising directly or indirectly from or incurred by reason of claims or sanctions or penalties imposed by any Governmental Authorities or others for any actual or asserted failure by any of Contractor, its Affiliates, Subcontractors or Suppliers or any of their respective personnel to comply with any Applicable Law or Authorisations or with any rules and regulations applicable to it or them or to obtain or maintain any Authorisations;
- (3) Any and all Losses:
 - (a) Arising directly or indirectly from or incurred by reason of any failure of Contractor or any Subcontractor or Supplier:
 - (i) To pay, in a timely manner, any Taxes relating to income or any other taxes required to be paid by such Person;
 - (ii) To make any payments in respect of Taxes in a timely manner which are to be paid by such Person in connection with the performance of its obligations relating to this Contract, including, in the case of Contractor, any Contractor Taxes which it is required to pay pursuant to the terms of this Contract (including pursuant to Article 13.3); or
 - (iii) To file Tax returns in a timely manner as required by Applicable Laws or comply with reporting or filing requirements under Applicable Law relating to Taxes, including, in the case of Contractor, the Contractor Taxes; or
 - (b) Arising directly or indirectly from or incurred by reason of any misrepresentation by or on behalf of the Contractor or any Subcontractor or Supplier to any competent authority in respect of taxes or Contractor Taxes.

Nothing in this Article 28.2.1(3) shall restrict any Person's right to contest the amount of any tax or other liability owed to a competent authority provided such contest is bona fide and made in good faith; and

- (4) Any and all Losses arising directly or indirectly from or incurred by reason of Hazardous Materials introduced to the Site or any other location by the Contractor, its Affiliates, Subcontractors or Suppliers or their respective personnel in the performance of the Work.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 96 / 131	
		REV. 0	

- (5) Any and all Losses arising directly or indirectly from or incurred by reason of non-compliance with Applicable Laws by the Contractor, its Affiliates, Subcontractors or Suppliers or their respective personnel.
- (6) Any and all Losses arising directly or indirectly from or incurred by reason of any breach of representations or warranties given by the Contractor, its Affiliates, Subcontractors or Suppliers or their respective personnel under or in relation to this Contract.

28.3 Infringement Indemnity

28.3.1 Contractor shall protect, defend, indemnify and hold Owner harmless from and against any and all Losses arising directly or indirectly from or incurred by reason of any claim or allegation asserted against Owner that the Equipment and Materials, the Facility or part thereof, or any Work Product, methods, designs or things furnished or specified by Contractor or any Subcontractor or Supplier under this Contract, or any use thereof; or (iii) any methods, processes or acts employed by Contractor or any Subcontractor or Supplier in connection with the performance of the Work, constitutes an infringement or violation of any proprietary rights or confidential information or intellectual property, including, but not limited to patent, trade secret, information, confidentiality rights, know-how, copyright (statutory or non-statutory), un-patented invention or any unauthorised use of the work of others.

28.4 Effect of Insurance

28.4.1 The obligations of the Contractor to indemnify and hold the Owner harmless from and against claims referred to in this Article 28 or other provisions of this Contract shall not be limited or reduced by any insurance provided in accordance with Article 23, except to the extent that the proceeds of any such insurance shall be applied to reduce claims made against Owner.

28.5 Limitation on Liability

28.5.1 The aggregate liability of Contractor to Owner (whether based on contract, indemnity, warranty, guarantee or tort, including negligence and strict or absolute liability, or arising out of a breach of statutory duty or otherwise) arising out of or in connection with the Work or this Contract, including but not limited to, the Price reduction Schedule under this Contract, shall not exceed fifty percent (50%) of the Contract Price provided that no such limit shall apply in respect of:

- (1) Any Loss resulting from any fraud, intentional or willful misconduct or illegal or unlawful acts or omissions of Contractor or any Subcontractor or any Supplier or any of their respective personnel; or
- (2) Any liability pursuant to Contractor's indemnity obligations under Articles 13.3, 28.2 and 28.3;

and provided that such limitation shall exclude any amounts recovered by Contractor under the insurance policies taken out and maintained by Owner pursuant to the provisions of this Contract.

28.5.2 In all cases the Party establishing or alleging a breach of contract or a right to be indemnified in accordance with this Contract shall be under a duty to take all necessary measures to mitigate the loss which has occurred provided that it can do so without unreasonable inconvenience or cost.

28.6 Defense of Claims

28.6.1 Contractor shall at its own expense defend any suit or proceeding based on any claim asserted against Owner and indemnified under this Article 28 or any other provision of this Contract.

28.6.2 Owner shall give Contractor such assistance as Contractor may reasonably require in the defence of such suit and shall have the right to be represented therein by counsel of its own choosing at its own expense.

28.6.3 If Contractor fails to defend diligently any such suit or proceeding, Owner may settle the claim which is

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 97 / 131	
		REV. 0	

the basis thereof without the consent of Contractor and without relieving Contractor of its obligation to indemnify Owner.

28.7 Elimination of Infringement

28.7.1 In case the Facility, any part thereof, any use thereof in the reasonable contemplation of the Parties or any process or apparatus forming part of or contained in any of the Facility is in any suit or proceeding held to constitute infringement of any third party's rights and its use is enjoined, the Contractor will promptly at its own risk, cost and expense either:

28.7.2 In case the Facility, any part thereof, any use thereof in the reasonable contemplation of the Parties or any process or apparatus forming part of or contained in any of the Facility, except for those furnished by or directed to use by the Owner, is in any suit or proceeding, held to constitute an infringement of any third party's rights and its use is enjoined, the Contractor will promptly, at its own risk, cost and expense either:

- (1) Procure for Owner the right to continue using such process or apparatus; or
- (2) Replace such process or apparatus with a non-infringing process or apparatus of equal utility and efficiency to the satisfaction of the Owner; or
- (3) Modify such process or apparatus in a way satisfactory to Owner so that it becomes non-infringing;

28.8 Survival

28.8.1 The provisions of this Article 28 and any other provision under this Contract providing for an indemnity shall survive any termination of this Contract.

28.9 Persons Included Within Indemnity

28.9.1 In this Article 28 or any other provision of this Contract providing for an indemnity, the term Owner as the indemnified party, shall include Owner, its Affiliates and their respective personnel or any of them as the context may require and Contractor as the indemnified party shall include Contractor, its Affiliates and their respective personnel or any of them as the context requires.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 98 / 131 REV. 0	

ARTICLE 29 - PROPRIETARY INFORMATION; COMPUTER DATA; LICENSES AND INVENTIONS

29.1 Proprietary Information of Owner

29.1.1 Proprietary Information Defined

- (a) As used in this Article 29, “**Proprietary Information**” shall mean all information which Contractor, directly, indirectly or by any means whatsoever, acquires from Owner or its Affiliates or Licensor or from the performance of the Work or any other information concerning the technical and business activities and know-how of Owner or its Affiliates, except information falling into any of the following specific categories:
 - (1) Information which, prior to the time of disclosure hereunder, is lawfully in the public domain;
 - (2) Information which, after disclosure hereunder, enters the public domain, except where such entry is the result of Contractor’s actions or impermissible inactions;
 - (3) Information, other than that obtained from third parties which, prior to disclosure hereunder, was already lawfully in Contractor's possession either without limitation on disclosure to others or which subsequently becomes free of such limitation; and
 - (4) Information obtained by Contractor from a third party who is lawfully in possession of such information and not subject to a contractual or fiduciary duty to Owner or any of its Affiliates or subsidiaries with respect to said information.
- (b) Proprietary Information shall not be deemed to be within the foregoing categories of exceptions merely because such information is merged, mixed or accompanied with more general information in the public domain or in Contractor's possession or otherwise exempted from categorisation as Proprietary Information under Article 29.1.1(a).
- (c) In addition, no combination of features shall be deemed to be within the foregoing categories of exceptions merely because individual features are in the public domain or in Contractor's possession. A combination of features shall only be deemed to be within the foregoing categories if the combination itself and its principle of operation are in the public domain or in Contractor's possession.
- (d) All drawings, specifications, blueprints, calculations, data, reports and other documents, as well as information, improvements in connection with the Work prepared by or supplied to the Contractor by the Owner shall be deemed to be Proprietary Information unless specifically stated otherwise.

29.1.2 Contractor's Procedures

- (a) Contractor represents that it has a policy and procedure designed to protect trade secret rights and its own proprietary information including notices to its personnel to prevent unauthorised publication and disclosure of such information.
- (b) Contractor agrees that Proprietary Information shall be subject to such policy and procedure. In addition, Contractor agrees that it shall not disclose any Proprietary Information nor use Proprietary Information other than on Owner's behalf except as Owner may otherwise authorise in writing.
- (c) If disclosure to a third party is so authorised by the Owner, the, Contractor shall enter into a confidentiality agreement with said third party containing terms and conditions no less stringent with respect to use or disclosure of Proprietary Information than those contained in this Article 29.1.

29.1.3 Documents

- (a) Contractor also agrees to safeguard any documents and electronic data which Owner may supply to

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 99 / 131	
		REV. 0	

Contractor hereunder. Contractor may make copies of such documents and electronic data only to the extent necessary for the performance of the Work. On completion of the Work, Contractor agrees to return to Owner all documents and electronic data supplied by Owner and to destroy all copies thereof.

- (b) Should Contractor, however, desire to retain certain documents and electronic data and receives Owner's written approval therefor, Contractor shall treat said documents and electronic data as Proprietary Information.

29.1.4 Confidentiality Agreements with Third Parties

- (a) Contractor also agrees to promptly enter into confidentiality agreements with third parties upon Owner's request and to keep in force confidentiality agreements concerning third parties' proprietary information, which agreements shall permit Contractor to use such parties' proprietary information for the Work.

29.2 Contractor's Confidential Information

- 29.2.1 It is not Owner's desire to be afforded access to Contractor's or any Subcontractor's or Supplier's confidential information. It is therefore agreed that any information which Contractor, Subcontractors or Suppliers supply to Owner shall not be subject to any obligation of confidence, notwithstanding any notices on drawings, proposals, graphs, tables, specifications and the like to the contrary and Owner shall not be liable for any use or disclosure of any of such information.
- 29.2.2 Contractor also agrees that it will not disclose to Owner any information which is subject to an obligation of confidence by Contractor, any Subcontractor or Supplier to any third persons.

29.3 Computer Data

- 29.3.1 For purposes of training Owner's personnel and of the operation, maintenance, repair, replacement and duplication of the Facility, Contractor undertakes to assure to Owner access to the Computer Programs and Computer Data used by Contractor in the performance of the Work for use by or on behalf of Owner for ten (10) years from Provisional Acceptance of the each of the Facility and shall deliver all Computer Programs underlying the development of such data (except those in which Contractor or its Subcontractor(s) hold a proprietary interest) together with such supplemental information and Computer Programs as will enable Owner's own computer personnel to understand, use and modify such programs.

29.4 Licenses

- 29.4.1 On or before Provisional Acceptance of the Facility, Contractor shall deliver or cause to be delivered to Owner such licenses to use all patents and other proprietary rights or intellectual property rights or assign such other rights as may be required for Owner in the optimal operation, maintenance and repair of such Facility and in the manner intended.
- 29.4.2 Such licenses shall be in such form as shall be reasonably approved by Owner and shall grant an irrevocable, perpetual, non-exclusive and royalty free right to use the patents, other proprietary rights or intellectual property in question to the Owner.
- 29.4.3 Except as Owner may otherwise agree, Contractor shall cause a provision similar to this Article 29.4 to be inserted in all contracts or agreements which it enters into with any Third Party.

29.5 Inventions

- 29.5.1 Contractor agrees to disclose or cause to be disclosed promptly to Owner all inventions which

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 100 / 131 REV. 0	

Contractor, [any Consortium Member,] or any of its personnel may make as a result of the performance of the Work or which are wholly or in part based upon or derived from Proprietary Information.

- 29.5.2 The rights and title in and to such inventions shall belong to Contractor or the inventor. However, in either case, the Contractor agrees at its expense to execute or cause to be executed all documents and perform or cause to be performed other lawful acts to grant the Owner or any of its Affiliates an irrevocable, non-exclusive, perpetual, royalty free license to use, exercise, make and modify the invention for the purpose of this Project only.
- 29.5.3 Except as Owner may otherwise agree, Contractor shall cause a provision similar to this Article 29.5 to be inserted in all of its contracts with its Subcontractor and shall ensure Subcontractors to comply therewith.

29.6 Survival

- 29.6.1 The provisions of this Article 29 shall survive any termination of this Contract.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 101 / 131	
		REV. 0	

ARTICLE 30 - DISPUTES

30.1 Dispute Resolution

- 30.1.1 In the event of a dispute between the Owner and the Contractor regarding, arising out of, relating to or in connection with this Contract, including, its application, interpretation, breach, termination, validity or invalidity (a **“Dispute”**), prior to the initiation of any legal action or proceeding (but only in accordance with and as permitted by this Contract) in relation to a Dispute, the Owner’s Representative and the Project Manager shall, upon the written request of either Owner or Contractor (a **“Request”**), shall use their best efforts in good faith to reach at a reasonable and equitable resolution to the Dispute .
- 30.1.2 If the Owner’s Representative and the Project Manager are unable to resolve the Dispute within thirty (30) days of receipt by either Party of a Request, either Party may by written notice (a **“Notice”**), refer the matter for resolution by good faith negotiation between their respective senior officers with appropriate decision making power and who shall not have had substantive involvement in the matters involved in the Dispute, unless the Parties otherwise agree.
- 30.1.3 If the senior officers are unable to resolve the Dispute within sixty (60) days of receipt by either Party of a Notice (or such other period as may be mutually agreed), either Party may resort to the other Dispute resolution provisions set forth in this Article 30.
- 30.1.4 If the Owner’s Representative and the Project Manager acting under Article 30.1.1 or senior officers of both Parties acting under Article 30.1.2 are able to settle the Dispute, their mutual agreement shall be set forth in a written document and such document executed by all Parties in the form of a legally binding agreement.
- 30.1.5 The Parties agree to use their best efforts to attempt to resolve all Disputes promptly, equitably and in good faith.

30.2 Expert Determination Regarding Variations

- 30.2.1 This Article 30.2 shall apply if:
- (1) Dispute relates to amendments or adjustments to be made in respect of a Preliminary Change Order or a Change Order; and
 - (2) Such Dispute has not been resolved in accordance with Article 30.1
- 30.2.2 If the Parties are unable to agree on any amendments or adjustments to be made in respect of a Change Order or a Change Order pursuant to Article 15, then either Party may by written notice to the other Party (an **“Expert Reference Notice”**) require such matter to be determined by *a panel of two (2) Independent Experts*.
- 30.3.2A) *Each Party shall appoint (and inform the other party) , an independent consultant experienced in engineering and construction of international hydrocarbon projects or LNG terminal construction projects or Mega Petrochemical Projects to act as the independent expert in relation to such Disputes arising under this Contract for an initial term to be agreed between the Parties and such “Independent Expert”*.
- 30.3.2B) Each Party shall submit to the Independent Expert a concise statement together with necessary supporting documentation of the adjustment and / or amendment that such Party believes is fair and reasonable.
- 30.2.3 The Independent Expert shall, at such time review the statements submitted by the Parties under Article 30.2.2A and within ten (10) days, or as otherwise mutually agreed to by both Parties (depending on the complexity of the issue in dispute) determine the fair and reasonable amendment or adjustment.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 102 / 131 REV. 0	

30.2.4 The Independent Expert shall be entitled to make a determination that is fair and reasonable, taking into account:

- (1) The terms and conditions contained in this Contract;
- (2) Relevant facts; and
- (3) Good Industry Practice; in that order.

30.2.5 The Parties agree to use their best efforts to attempt to resolve all Disputes promptly, equitably and in good faith and further agree to provide in a timely manner each other with reasonable non-privileged records, information and data pertaining to any such Dispute.

30.2.6 Any determination made by the Independent Expert in relation to any Preliminary Change Order under Article 30.2.6, which is acceptable to both Parties shall be set out in a written document and such document shall be executed by all Parties in the form of a legally binding agreement.

30.2.7 If:

- (1) The Parties fail to agree upon the selection of the “**Independent Expert**” within thirty (30) days of the Expert Reference Notice; or
- (2) The Independent Expert fails to make a determination within the time limits set forth in Article 30.2.3; or
- (3) A Party determines that the Independent Expert’s determination is unacceptable;

any Party may initiate arbitration in accordance with Article 30.3 by serving upon the other Party a formal demand for arbitration.

Parties expressly agree that the only recourse available to the Parties against a determination (or non determination) of the Independent Expert shall be under the arbitration mechanism set forth hereunder and not recourse to litigation in the Courts of India or elsewhere.

30.3 Arbitration

30.3.1 In the event the Parties are:

- (1) Unable to resolve any Dispute of the nature described in Article 30.2.1 in accordance with Article 30.1 or 30.2; or
- (2) Unable to resolve any Dispute in accordance with Article 30.1 (in the event that the Dispute is not of the nature described in Article 30.2.1);

the Dispute in question shall be resolved in accordance with the following provisions:

30.3.2 Submission of Disputes

- (a) Subject to Article 30.3.1, any Dispute shall be settled exclusively and finally by arbitration.
- (b) It is specifically understood and agreed that any Dispute which cannot be resolved between the Parties in accordance with Article 30.1 or 30.2, as the case may be, shall, upon election by either Party, and in accordance with the provisions hereof, be submitted to arbitration irrespective of the magnitude thereof or the amount in controversy. Specifically, neither Party may attempt to litigate the Dispute in the Courts of India or elsewhere.
- (c) In any such arbitration, both Parties shall be entitled to present positions and rely upon information supplemental to or different to that relied upon for purposes of any attempted disputes resolution pursuant to Article 30.1 or 30.2. However, in all cases where a dispute was submitted to the Independent Expert for determination under Article 30.2 and a determination rendered, such determination shall be placed before the arbitral tribunal so that such determination may also be

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 103 / 131	
		REV. 0	

considered by the arbitral tribunal in making its award.

30.3.3 Arbitration Rules

Any arbitration referred to in Article 30.3.1 shall be conducted in accordance with the provisions of the (Indian) Arbitration and Conciliation Act, 1996.

30.3.4 Number of Arbitrators

The arbitral tribunal shall consist of three arbitrators.

30.3.5 Place of Arbitration

The seat of arbitration shall be at New Delhi, India.

30.3.6 Language of Arbitration

The language to be used in the arbitration shall be English and any award shall be rendered in English language.

30.3.7 Finality and Enforcement of Award

- (a) Any decision or award of the arbitral tribunal shall be final and binding upon the Parties.
- (b) The Parties hereto expressly and irrevocably agree that the arbitral award may be enforced against the Parties to the arbitration proceeding or their assets wherever they may be found and that a judgement upon the arbitral award may be entered in any court having jurisdiction.

30.3.8 Appointment

- (a) Each of the Owner and the Contractor shall appoint one arbitrator each. The appointed arbitrator(s) shall have significant experience in international engineering, procurement and construction agreements and, in particular, the implementation and interpretation of engineering, procurement and construction contracts for international hydrocarbon projects or liquefied natural gas facilities or Mega Petrochemical Projects.
- (b) The two arbitrators so appointed shall jointly appoint a third arbitrator who shall be presiding arbitrator.
- (c) In the event of the failure by any Party to appoint an arbitrator within thirty (30) days from the date of the receipt of the notice from the other Party and / or failure by the two arbitrators appointed by the Parties under Article 30.3.8(b) to appoint the third arbitrator within a period of thirty (30) days, such arbitrator / (s) shall be appointed in accordance with the provisions of the Arbitration and Conciliation Act, 1996.

Provided however that, in all cases, the presiding arbitrator shall only be a person who is an:

- (1) Former judge of Supreme Court or High court; (or)
- (2) Has significant experience in international engineering, procurement and construction agreements and in particular, the implementation and interpretation of engineering, procurement and construction contracts for international hydrocarbon projects or liquefied natural gas facilities.

30.4 Continuation of Performance

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 104 / 131 REV. 0	

30.4.1 Pending final resolution of any Dispute, the Parties shall continue to perform their respective obligations hereunder.

30.5 Governing Law and Jurisdiction

This Contract shall be governed by the laws of India. Subject to **the provisions of** Article 30.3, courts of New Delhi, India, shall have exclusive jurisdiction over any matter arising out or in relation to this Contract.

30.6 Survival

The provisions of this Article 30 shall survive any termination of this Contract.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 105 / 131	
		REV. 0	

ARTICLE 31 - MISCELLANEOUS

31.1 Independent Contractor

- 31.1.1 The Contractor is an independent contractor under this Contract and shall have complete charge of all personnel performing any work under this Contract.
- 31.1.2 The Contractor shall perform all work in accordance with its own methods and shall be fully responsible for the Work performed by it or on its behalf hereunder in accordance with the terms of this Contract.
- 31.1.3 The Contractor shall not be deemed to be an agent or partner of the Owner for any purpose pursuant to this Contract. Nothing contained herein shall be construed as constituting any relationship with the Owner other than that of Owner and independent contractor, nor shall it be construed as creating any relationship whatsoever between Owner and Contractor's personnel or Subcontractors or any of their personnel. Neither the Contractor nor any Subcontractor nor any of their personnel are or shall be deemed to be employees of the Owner.

31.2 Assignment

- 31.2.1 This Contract shall be binding upon and shall inure to the benefit of the Parties hereto and their respective successors and duly permitted assigns. The Contractor shall not without the prior written consent of the Owner assign this Contract or any of its rights or obligations hereunder to any third person. Any such assignment without the Owner's consent or any such purported assignment shall be void.
- 31.2.2 Owner shall not without the prior written consent of Contractor (which consent shall not be unreasonably withheld or delayed) assign any or all of its rights, obligations and interests under this Contract to any third Person:
- Provided that no such consent shall be required for an assignment by the Owner to any Lender or its agent or its nominee or any Affiliate of Owner or any promoter of Owner.
- 31.2.3 In particular, Contractor hereby consents to the grant and creation by Owner of a security interest in and assignment of this Contract and any and all of Owner's rights, title and interests in and under this Contract in favour of any Lender or its security agent or trustee.
- 31.2.4 In furtherance of the same. Contractor does hereby consent to give full effect to such security interest and assignment, and to enter into/ execute such agreements and consents and deliver such legal opinions as are reasonably customary and required by the Lenders in connection with such assignment.

31.3 Entire Contract; Modifications; Headings

- 31.3.1 The Contract constitutes the entire agreement between the Owner and the Contractor concerning the subject matter hereof.
- 31.3.2 Deleted
- 31.3.3 No oral or written modification, amendment, rescission, waiver or other change of this Contract or any of its terms or provisions shall be valid or legally binding on the Parties, unless made in writing and duly executed by or on behalf of both Parties, including without limitation, any purported modification, amendment, rescission, waiver or other change of this Article 31.3 itself.
- 31.3.4 Headings in this Contract are for the purpose of convenience only and shall not have any effect on the interpretation of any clause in this Contract.

31.4 Waiver

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 106 / 131	
		REV. 0	

The failure of either Party to insist upon strict adherence to any term of this Contract on any occasion shall not be considered a waiver of any right thereafter to insist upon strict adherence to that term or any other term of this Contract. Any waiver must be made in writing.

31.5 Language

The language of this Contract shall be English.

31.6 Metric System

All weights and measures to be made hereunder shall be expressed in the metric system, including, without limitation, drawings, plans, specifications, designs, surveys, estimates, reports and all other documents and Work originated by Contractor. Contractor shall require all Subcontractors' and Suppliers' documents to be expressed in the metric system.

31.7 Notices

31.7.1 All notices and communications required to be given under this Contract by one Party to the other shall be in writing and in English Language and shall be addressed to the relevant addressee Party at the address given below or at such address as it may from time to time notify in writing:

(1) **The Owner**

Attn: Mr

Title

Address

Email:

(2) **The Contractor**

ATTN: Mr.

Title

Address

Tel:

Email

31.7.2 All such notices and communications shall be sent by facsimile transmission or by overnight courier (if for inland delivery) or international courier (if for overseas delivery) and shall be effective:

- (1) If sent by facsimile, when sent (on receipt of a confirmation to the correct facsimile number); and
- (2) If sent by courier:
 - (a) One (1) day after deposit with an overnight courier if for inland delivery; and
 - (b) Four (4) days after deposit with an international courier if for overseas delivery.

31.7.3 Notwithstanding anything contained to the contrary in this Contract or in the Applicable Laws, all notices and communications of any nature whatsoever, including without limitation, payment invoices, Drawings and Documents, reports, certificates and schedules to be given by the Contractor to the Owner shall be given by the [Contractor]/ [Consortium Leader] only and any notice or communication given by any Person other than the [Contractor]/ [Consortium Leader] shall not be valid and binding

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 107 / 131 REV. 0	

on the Owner[, unless the Owner and the Consortium Members otherwise agree in writing.] .

31.8 Severability

- 31.8.1 The validity of remaining Articles, provisions, terms and parts of this Contract shall not be affected by any other Article, provision, term or part of this Contract being held illegal, unenforceable, void, in conflict with any law or contrary to public policy.
- 31.8.2 In such event, the Parties shall, by amendment of this Contract, properly replace such provision by a reasonable new provision or provisions which, as far as legally possible, shall approximate to the closest possible extent what the Parties intended by such original provision and the purpose thereof.

31.9 Counterparts

This Contract may be executed in one or more counterparts, each of which when so executed will be deemed an original and such counterparts together shall constitute one and the same instrument.

31.10 Publications

Except as may be required by Applicable Law or this Contract, no copy of this Contract shall be released or otherwise delivered by or on behalf of Contractor to any third party and no announcement, statement or publication relating to this Contract or the Work shall be publicly released by or on behalf of Contractor, without the prior written approval of Owner. The Contractor shall cause a provision similar to this Article 31.10 to be inserted in all of its contracts with its Subcontractors and contracts with its Suppliers.

31.11 Joint and Several Responsibility

The division of Scope of Work inter-se the Consortium Members is set out in Consortium Agreement and the Consortium Members shall carry out the Scope of Work in accordance with such division. Notwithstanding the foregoing, the Consortium Leader shall have primary, overall and single point completion responsibility for the Work and liability under this Contract on behalf of all the Consortium Members. Notwithstanding anything contained to the contrary anywhere in this Contract, each Consortium Member, as between itself and Owner, shall be jointly and severally liable for the performance of all of the obligations of the Contractor under this Contract as if each Consortium Member had solely undertaken the Contractor's obligations under this Contract.

31.12 Consortium Agreement

- 31.12.1 The Consortium Members shall not amend or terminate the Consortium Agreement without the prior written consent of the Owner.
- 31.12.2 Any amendment to the Consortium Agreement, or in the case of termination of the existing Consortium Agreement, the new Consortium Agreement, shall be provided by the Consortium Members to the Owner.

31.13 Joint Effort

Preparation of this Contract has been a joint effort of the Parties and the resulting documents shall not be construed more severely against one of the Parties than against the other.

31.14 Non Agency

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 108 / 131 REV. 0	

- 31.14.1 It is expressly understood and agreed by and between Contractor and Owner that Owner is entering into this Contract solely on its own behalf and not on behalf of any other Person or entity.
- 31.14.2 In particular, it is expressly understood and agreed that the Government of India is not a party to this Contract and has no liabilities, obligations or rights thereunder. It is expressly understood that Owner is an independent legal entity with power and authority to enter into contracts, solely in its own behalf under the Applicable Laws of India and general principles of contract law.
- 31.14.3 Contractor expressly agrees, acknowledges and understands that Owner is not an agent, representative or delegate of the Government of India.
- 31.14.4 It is further understood and agreed that the Government of India is not and shall not be liable for any acts, omissions, commissions, breaches or other wrongs arising out of this Contract.
- 31.14.5 Accordingly, Contractor hereby expressly waives, releases and forgoes any and all actions or claims, including crossclaims, impleader claims or counterclaims against the Government of India arising out of this Contract and covenants not to sue to the Government of India as to any manner, claim, cause of action or thing whatsoever arising out of or under this Contract.
- 31.14.6 No official or employee of Owner shall in any way be personally bound or liable for the acts or obligations of Owner under this Contract or answerable for any default or omission in the observance or performance of any of the acts, matters or things which are herein contained.

31.15 DELETED

31.16 Indirect and Consequential Damages

Except as provided in Article 20, neither Party shall be liable to the other Party for any loss of profits, loss of use, loss of production, loss of contracts or any other indirect or consequential damage that may be suffered by the other Party.

31.17 Representations and Warranties

Each Party hereby represents and warrants to the other Parties as follows:

- (a) It has full power and authority to execute, deliver and perform this Contract and the execution of this Contract will be valid and binding upon itself;
- (b) All approvals, filings, consents and authorisations required by it to execute and deliver this Contract have been obtained and are subsisting; and
- (c) The execution and delivery of this Contract do not and will not at any time violate or conflict with any: (i) Applicable Law; (ii) judgment, order, decree or award applicable to it; (iii) provision of its constituent documents; or (iv) agreement, contract, promise, covenant, undertaking, representation or warranty, applicable to or made by it.

31.18 Deleted

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 109 / 131 REV. 0	

ATTACHMENT A1
[NOT USED]

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 110 / 131 REV. 0	

**ATTACHMENT A2: FORM OF
PERFORMANCE BANK GUARANTEE**

(ON NON-JUDICIAL PAPER OF APPROPRIATE VALUE)

To,

**Petronet LNG Limited,
4th Floor, Tower I, World Trade Centre, Nauroji Nagar, New Delhi – 110029, India**

Subject: Bank Guarantee No. _____ dated _____

WHEREAS, _____ (Supplier/Contractor/Consultant Name) a company incorporated under _____ (Act) having its registered office at _____ (hereinafter referred to as the “Contractor” which expression shall unless repugnant to the context or meaning thereof include its successors and permitted assigns) has been issued _____ (LOA/order No.), by M/s Petronet LNG Limited having its registered office at 4th Floor, Tower I, World Trade Centre, Nauroji Nagar, New Delhi – 110029, India (hereinafter referred to as the “PLL” which expression shall unless repugnant to the context or meaning thereof include its successors and assigns) for carrying out _____ (title of contract), for PLL, and further the parties shall enter into an agreement to execute the scope of work under this LOA/order (such agreement shall hereinafter be referred as “Contract”).

WHEREAS as per the _____ (Contract/LOA No.) the Contractor/supplier is obliged to furnish to the PLL an irrevocable, unconditional, payable on first demand, bank guarantee issued by specified financial institutions acceptable to the PLL, as mentioned in the said Contract/LOA No. for the due performance by the Contractor / supplier of the Contract.

AND WHEREAS the Bank (as defined herein below) has affirmed that it is one of the scheduled bank and at the request of the Contractor and for sufficient consideration, the Bank has agreed to issue this performance bank guarantee in favor of the PLL.

AND WHEREAS _____ (Bank Name) having its registered office at _____ and a branch office at _____ (insert name of city in India) India, hereinafter referred to as the “Bank” (which expression shall unless repugnant to the context or meaning thereof be deemed to mean and include its successors), being a scheduled bank in India and acceptable to the PLL, has at the request of the Contractor / supplier / Surety agreed to issue this performance bank guarantee in favour of the PLL.

NOW THEREFORE, the Bank hereby undertakes the pecuniary responsibility of the Contractor to the PLL for the due performance of the Contract and for the payment of any money by the Contractor / supplier to the PLL and hereby issues in favour of the PLL this on demand, irrevocable and unconditional performance and payment bank guarantee (hereinafter referred to as the “Guarantee”) on behalf of the Contractor / supplier in the amount of Indian Rupees (10 % of Total Contract value of INR portion as mentioned in LOA/Contract) and Foreign Currency (i.e. either of US\$/Euro/GBP) (10% of Total Contract value of Foreign Currency Component (i.e. either of US\$/Euro/GBP) as mentioned in LOA/Contract).

The Bank for the purpose hereof unconditionally and irrevocably undertakes to pay to the PLL without any demur, reservation, cavil, protest or recourse; immediately on receipt of first written demand from the PLL, any sum or sums (by way of one or more claims) not exceeding in the aggregate the amount of Indian Rupees _____ (insert an amount) and Foreign Currency Component (i.e. either of US\$/Euro/GBP) _____ (insert an amount) without the PLL requiring to furnish proof or to show / justify to the Bank any ground(s) or reason(s) for such demand for the sum specified therein and notwithstanding any dispute or difference between the PLL and the Contractor in respect of the performance of the Contract or moneys payable by Contractor to the PLL or any matter whatsoever related thereto.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 111 / 131	
		REV. 0	

The Bank acknowledges that any such demand by the PLL of the amounts payable by the Bank to the PLL shall be final, binding and conclusive evidence in respect of the amounts payable by the Contractor / supplier to the PLL.

The Bank hereby waives the necessity for the PLL from demanding the aforesaid amount or any part thereof from the Contractor / supplier before enforcement of this Guarantee and also waives any right that the Bank may have of first requiring the PLL to pursue its legal remedies against the Contractor / supplier, before presenting any written demand to the Bank before enforcement / making payment under this Guarantee.

Notwithstanding the above, the Bank further unconditionally agrees with the PLL that the PLL shall be at liberty, without the Bank's consent and without affecting in any manner the Bank's obligation under this Guarantee, from time to time, to:

- (i) *vary and/or modify any of the terms and conditions of the LOA/Contract,*
- (ii) *extend and/or postpone time for performance of the obligations of the Contractor under the LOA/Contract, or*
- (iii) *forbear or enforce any of the rights exercisable by the PLL against the Contractor under the terms and conditions of the Contract*

and the Bank shall not be relieved from its liability by reason of any such act or omission on the part of the PLL or any indulgence by the PLL to the Contractor or other thing whatsoever which under the law relating to sureties would, but for this provision, have the effect of relieving the Bank of its obligations under this Guarantee.

The Bank's obligations under this Guarantee shall not be reduced by reason of any partial performance of the Contract. The Bank's obligations shall not be reduced by any failure by PLL to timely pay or perform any of its obligation(s) under the Contract.

Any payment made hereunder shall be made free and clear of and without deduction for, or on account of, any present or future taxes, levies, imposts, duties, charges, fees, commissions, deductions or withholdings of any nature whatsoever provided always nothing herein contained will enlarge our liability hereunder beyond the limit of _____ (10 % of Total Contract value in respective portions of INR and Foreign Currency Component (i.e. either of US\$/Euro/GBP) as mentioned in LOA/Contract) as aforesaid

This Guarantee shall be a continuing bank guarantee until its expiry, i.e. _____ and shall not be discharged by the change in constitution of any member of the Contractor and the Guarantee shall not be affected or discharged by the liquidation, winding up, bankruptcy, re organization, dissolution or insolvency of any member of the Contractor or any other circumstances whatsoever.

This Guarantee shall be in addition to and not in substitution or in derogation of any other security held by the PLL to secure the performance of the obligations of the Contractor under the Contract.

The Bank agrees that the PLL at its option shall be entitled to enforce this Guarantee against the surety, as a principal debtor in the first instance without proceeding at the first instance against the Contractor / Contractor.

Without prejudice to any continuing liability to perform obligations under this Guarantee which have arisen prior thereto, the Bank shall be released from any further obligations arising hereunder after _____. The validity of the guarantee may be extended to cover the defect liability period.

This Guarantee shall not be assigned or transferred by the Bank.

This Guarantee is subject to the laws of India. Any suit, action, or other proceeding arising out of this Guarantee or the subject matter hereof shall be subject to the exclusive jurisdiction of courts of New Delhi, India.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 112 / 131 REV. 0	

The Bank has the power to issue this Guarantee in favour of the PLL. The aggregate liability of the Bank under this Guarantee shall not under any circumstance exceed Indian Rupees _____ (insert an amount) and United states Dollar _____ (insert an amount)

In witness whereof the Bank, through its authorized officer, has set its hand and stamp on this _____ day of _____

Notwithstanding anything contained hereinabove:

- I. Our liability under the bank guarantee shall not exceed Rs. _____ and Foreign Currency Component (i.e. either of US\$/Euro/GBP)
- II. The bank guarantee shall be valid upto _____
- III. The beneficiary's right as well the Bank's liability under this guarantee shall stand extinguished unless a written claim or demand is made under this Guarantee on or before _____ (Six month after the expiry of the date of Bank Guarantee)

(Signature)

Name _____

Designation with Stamp

Duly authorized representative

Vide power of attorney No. _____

Dated _____

Witness _____

(On stamp paper of requisite value)

INSTRUCTIONS FOR FURNISHING BANK GUARANTEE

1. Bank Guarantee will be given on non-judicial stamp paper as per stamp duty applicable in State of New Delhi. The non-judicial stamp paper should be in name of the issuing bank.
2. The expiry date should be arrived at by adding 90 days to the Contract completion date plus defect liability period unless otherwise specified in the bidding documents.
3. The Bank Guarantee will be given from Nationalized/Scheduled Banks only.
4. Claim Period shall be Six month after the expiry of the date of Bank Guarantee

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 113 / 131 REV. 0	

Request Letter: Transmission of Bank Guarantee Cover Message <to be submitted by Bidder to BG issuing bank>

Date: _____ The Manager,

(Bank), (Branch)

Sub: Inclusion of unique identifier while transmitting BG cover messages where beneficiary bank is ICICI Bank India

Dear Sir/Ma'am,

I/We, _____, request you to include unique identifier PLNG574440489 in field 7037 of the SFMS cover messages IFN COV 760 (for BG issuance) and IFN COV 767 (for BG amendment) while transmitting the same to the beneficiary bank (ICICI Bank). This is required by Petronet LNG Limited as per their tender/contract requirement.

Thanking You,

The Template for MT 760-COV (SFMS) for issuing bank is mentioned below:

```
{
:7020:
:7022:
:7024: PERFORMANCE / BID SECURITY
:7025: INRxxxxxx
:7026:
:7027:<Date of Issue>
:7029:<Expiry date>
:7030:<Place of Claim Lodgement>
:7031:<Issuing Bank IFSC>
:7032:<Issuing Bank Name>
:7033:<Applicant Name>
:7034: PETRONET LNG LIMITED <Address>
:7035: ICIC0000007
:7036: ICICI BANK LIMITED
:7037: PLNG574440489
```


	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 114 / 131	
		REV. 0	

ATTACHMENT A-3
PROFORMA FOR WORK ADVANCE REPAYMENT BANK GUARANTEE

[On stamp paper of appropriate value]

To,

Petronet LNG Limited

4th Floor, Tower I, World Trade Centre,
Nauroji Nagar, New Delhi – 110029, India

Subject: Bank Guarantee No. [insert]

WHEREAS, [insert] a company incorporated under [insert] having its registered office at [insert] and a company incorporated under [insert] having its registered office at [insert] and a company incorporated under [insert] having its registered office at [insert] (collectively hereinafter referred to as the “**Contractor**” which expression shall unless repugnant to the context or meaning thereof include its successors and permitted assigns) have entered into a Contract for Engineering, Procurement, Construction and Commissioning for _____ (title of contract) at Petronet LNG Limited Dahej, State of Gujarat, India, dated [insert] (hereinafter such agreement, as amended modified or supplemented, referred to as the “**Contract**”) with Petronet LNG Limited a Company duly incorporated and executing under the laws of India having its registered office at 4th Floor, Tower I, World Trade Centre, Nauroji Nagar, New Delhi – 110029, India (hereinafter referred to as the “**Owner**” which expression shall unless repugnant to the context or meaning thereof include its successors and assigns).

WHEREAS, under Article 14.2 of the Contract a payment of ten percent of the Contract Price is payable in advance to the Contractor, as a security for which the Contractor is required to furnish to the Owner an irrevocable, unconditional, first demand bank guarantee issued by specified financial institutions acceptable to the Owner, for a sum equal to 10% (ten percent) of the Contract Price. [The Bank Guarantee taken towards security of ‘Mobilization Advance’ should be at least 110% of the advance so as to enable recovery of not only principal amount but also the interest portion, if so required.]

AND WHEREAS, the Bank (as defined herein below) has affirmed that it is one of the specified financial institutions as envisaged under Article 14.2 of the Contract

AND WHEREAS, [insert] having its registered office at [insert] and a branch office at [insert] India, hereinafter referred to as the “**Bank**” (which expression shall unless repugnant to the context or meaning thereof be deemed to mean and include its successors), being a scheduled bank in India [and having an [insert]] (insert criteria for being an Acceptable Bank unless being issued by State Bank of India) and acceptable to the Owner, has at the request of the Contractor agreed to issue this advance repayment bank guarantee in favour of the Owner.

NOW THEREFORE THIS BANK GUARANTEE WITNESSETH AS FOLLOWS:

1. The Bank hereby undertakes the pecuniary responsibility of the Contractor to the Owner for the repayment of the Work Advance by the Contractor to the Owner and hereby issues in favour of the Owner this irrevocable and unconditional work advance payment bank guarantee (hereinafter referred to as the “**Guarantee**”) on behalf of the Contractor in the amount of Foreign Currency Component (i.e. either of US\$/Euro/GBP) [insert] (insert an amount equal to ten percent (10%) of Foreign Currency Component (i.e. either of US\$/Euro/GBP) of the Contract Price) and Indian Rupees [insert] (insert an amount equal to ten percent (10%) of the Indian Rupee component of Contract Price) (together the Foreign

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 115 / 131	
		REV. 0	

Currency Component (i.e. either of US\$/Euro/GBP) and the Indian Rupee component being equal to ten percent (10%) of the Contract Price). [The Bank Guarantee taken towards security of ‘Mobilization Advance’ should be at least 110% of the advance so as to enable recovery of not only principal amount but also the interest portion, if so required.]

2. The Bank for the purpose hereof unconditionally and irrevocably undertakes to pay to the Owner without any demur, reservation, cavil, protest or recourse; immediately on receipt of first written demand from the Owner, any sum or sums (by way of one or more claims) not exceeding in the aggregate the amount of Foreign Currency Component (i.e. either of US\$/Euro/GBP) [*insert*] (insert an amount equal to ten percent (10%) of the of Foreign Currency Component (i.e. either of US\$/Euro/GBP) of the Contract Price) and Indian Rupees [*insert*] (insert an amount equal to ten percent (10%) of the Indian Rupee component of Contract Price without the Owner needing to prove or to show to the Bank grounds or reasons for such demand for the sum specified therein and notwithstanding any dispute or difference between the Owner and the Contractor in respect of the performance of the Contract or moneys payable by the Contractor to the Owner or the termination of the Contract or any matter whatsoever related thereto. [The Bank Guarantee taken towards security of ‘Mobilization Advance’ should be at least 110% of the advance so as to enable recovery of not only principal amount but also the interest portion, if so required.]
3. The Bank acknowledges that any such demand by the Owner of the amounts payable by the Bank to the Owner shall be final, binding and conclusive evidence in respect of the amounts payable by the Contractor to the Owner.
4. The Bank hereby waives the necessity for the Owner from demanding the aforesaid amount or any part thereof from the Contractor and also waives any right that the Bank may have of first requiring the Owner to pursue its legal remedies against the Contractor, before presenting any written demand to the Bank for payment under this Guarantee.
5. The Bank further unconditionally agrees with the Owner that the Owner shall be at liberty, without the Bank’s consent and without affecting in any manner the Bank’s obligation under this Guarantee, from time to time, to:
 - (i) vary and/or modify any of the terms and conditions of the Contract,
 - (ii) extend and/or postpone the time for performance of the obligations of the Contractor under the Contract, or
 - (iii) forbear or enforce any of the rights exercisable by the Owner against the Contractor under the terms and conditions of the Contract

and the Bank shall not be relieved from its liability by reason of any such act or omission on the part of the Owner or any indulgence by the Owner to the Contractor or other thing whatsoever which under the law relating to sureties would, but for this provision, have the effect of relieving the Bank of its obligations under this Guarantee.
6. The Bank’s obligations under this Guarantee shall not be reduced by reason of any partial performance of the Contract. The Bank’s obligations shall not be reduced by any failure by the Owner to timely pay or perform any of its obligations under the Contract.
7. Any payment made hereunder shall be made free and clear of and without deduction for, or on account of, any present or future taxes, levies, imposts, duties, charges, fees, commissions, deductions or withholdings of any nature whatsoever and by whomever imposed; and where any withholding on a payment is required by law, the Bank shall comply with such

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 116 / 131 REV. 0	

withholding obligations and shall pay such additional amount in respect of such payment such that the Owner receives the full amount due hereunder as if no such withholding had occurred.

8. This Guarantee shall be a continuing bank guarantee and shall not be discharged by the change in constitution of the Contractor and the Guarantee shall not be affected or discharged by the liquidation, winding up, bankruptcy, reorganisation, dissolution or insolvency of the Contractor or any other circumstances whatsoever.
9. This Guarantee shall be in addition to and not in substitution or in derogation of any other security held by the Owner to secure the performance of the obligations of the Contractor under the Contract.
10. The Bank agrees that the Owner at its option shall be entitled to enforce this Guarantee against the surety, as a principal debtor in the first instance without proceeding at the first instance against the Contractor.
11. Without prejudice to any continuing liability to perform obligations under this Guarantee which have arisen prior thereto, the Bank shall be released from any further obligations arising hereunder after *[insert]* (insert the scheduled date for Provisional Acceptance) unless this Guarantee is otherwise extended solely at the discretion of the Owner on account of failure to recover the entire Work Advance from the Contractor by the said date.
12. The Owner may assign this Guarantee to any person and in such case the Owner shall inform the Bank in writing. This Guarantee shall not be assigned or transferred by the Bank.
13. All disputes arising under this Guarantee shall be referred to a tribunal comprising three (3) arbitrators under the (Indian) Arbitration and Conciliation Act, 1996. Each Party to the arbitration shall appoint one (1) arbitrator and the two (2) arbitrators thus appointed shall choose the third arbitrator who will act as a presiding arbitrator of the tribunal (together forming the “**Arbitral Tribunal**”). The decision(s) of the Arbitral Tribunal shall be final and binding on the Parties. The seat of arbitration shall be New Delhi. This sub-Article (13) shall survive the termination or expiry of this Guarantee. The governing law of the arbitration shall be the substantive laws of India.
14. This Guarantee shall be construed and interpreted in accordance with and governed by the laws of India, and subject to sub-Article (13) above the courts at Delhi shall have exclusive jurisdiction over all matters arising out of or relating to this Guarantee.
15. The Bank has the power to issue this Guarantee in favour of the Owner. The aggregate liability of the Bank under this Guarantee shall not under any circumstance exceed Foreign Currency Component (i.e. either of US\$/Euro/GBP) *[insert]* (insert an amount equal to ten percent (10%) of the Foreign Currency Component (i.e. either of US\$/Euro/GBP) of the Contract Price) and Indian Rupees *[insert]* (insert an amount equal to ten percent (10%) of the Indian Rupee component of Contract Price. [The Bank Guarantee taken towards security of ‘Mobilization Advance’ should be at least 110% of the advance so as to enable recovery of not only principal amount but also the interest portion, if so required.]

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 117 / 131 REV. 0	

16. Notwithstanding anything contained herein, This Guarantee shall be valid up to DD/MM/YYYY. A written claim or demand shall be served upon us on or before the said date, after which This Guarantee shall become null and void.

17. Capitalised terms not otherwise defined herein shall have the meanings given to such terms in the Contract.

IN WITNESS WHEREOF the Bank, through its authorised officer, has set its hand and stamp on this *[insert]* day of *[insert]* 2025.

(Signature)

[insert name of signatory]

[insert designation of signatory]

(Duly authorised representative)

Vide power of attorney No. *[insert]*

Dated *[insert]*

Witness *[insert]*

[insert]

INSTRUCTIONS FOR FURNISHING BANK GUARANTEE

1. Bank Guarantee by Indian Bidders will be given on non-judicial stamp paper as per stamp duty applicable in State of New Delhi. The non-judicial stamp paper should be in name of the issuing bank.
2. The Bank Guarantee will be given from any Schedule Indian Bank or any branch of international bank situated in India and registered with RBI as schedule foreign bank only.
3. Claim Period shall be Six month after the expiry of the date of Bank Guarantee

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 118 / 131 REV. 0	

Request Letter: Transmission of Bank Guarantee Cover Message <to be submitted by Bidder/Vendor to BG issuing bank>

Date: _____

The Manager,

(Bank),

(Branch)

Sub: Inclusion of unique identifier while transmitting BG cover messages where beneficiary bank is ICICI Bank India

Dear Sir/Ma'am,

I/We, _____, request you to include unique identifier PLNG574440489 in field 7037 of the SFMS cover messages IFN COV 760 (for BG issuance) and IFN COV 767 (for BG amendment) while transmitting the same to the beneficiary bank (ICICI Bank). This is required by Petronet LNG Limited as per their tender/contract requirement.

Thanking You,

The Template for MT 760-COV (SFMS)for issuing bank is mentioned below:

```
{
:7020:
:7022:
:7024: PERFORMANCE / BID SECURITY
:7025: INRxxxxxx
:7026:
:7027:<Date of Issue>
:7029:<Expiry date>
:7030:<Place of Claim Lodgement>
:7031:<Issuing Bank IFSC>
:7032:<Issuing Bank Name>
:7033:<Applicant Name>
:7034: PETRONET LNG LIMITED <Address>
:7035: ICIC0000007
:7036: ICICI BANK LIMITED
:7037: PLNG574440489
```

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 119 / 131 REV. 0	

ATTACHMENT A-4
FORMAT OF COMPOSITE BANK GUARANTEE

To,

Petronet LNG Limited

4th Floor, Tower I, World Trade Centre,
Nauroji Nagar, New Delhi – 110029, India

Subject: Composite Bank Guarantee No. [insert]

WHEREAS, [insert] a company incorporated under [insert] having its registered office at [insert] and a company incorporated under [insert] having its registered office at [insert] and a company incorporated under [insert] having its registered office at [insert] (collectively hereinafter referred to as the “**Contractor**” which expression shall, unless repugnant to the context or meaning thereof include its successors and permitted assigns) have entered into a Contract for Engineering, Procurement, Construction and Commissioning for _____ (title of contract) at Petronet LNG Limited Dahej, State of Gujarat, India, dated [insert] (hereinafter such agreement, as amended modified or supplemented, referred to as the “**Contract**”) with Petronet LNG Limited a Company duly incorporated and executing under the laws of India having its registered office at **4th Floor, Tower I, World Trade Centre, Nauroji Nagar, New Delhi – 110029, India** (hereinafter referred to as the “**Owner**” which expression shall unless repugnant to the context or meaning thereof include its successors and assigns).

AND WHEREAS the Owner agreed to provide advance (**Work Advance**) to the Contractor a sum equal to ten percent (10%) of the Contract Price for utilization in the performance of the work covered by the said contract (hereinafter referred to as the ‘Work advance’ which expression shall include any and all further advances made by the Owner to the Contractor with reference to the said Contract) on production of an undertaking from a Bank in the nature of a Bank Guarantee in respect of the said advance, which together with interest on the amount of the said advance for the time being outstanding at the rate of 2 % (Two percent) per annum shall, without prejudice to any other mode of recovery available, to the Owner be recoverable by deduction from the gross accepted value of the Running Account (RA) Bills and Final Bill of the Contractor commencing with the first RA Bill.

AND WHEREAS the Contractor is also required to furnish a Bank Guarantee of 10% (ten percent) of the value of the Contract towards Performance of the Contract valid till the end of the defect liability period as specified in the Contract.

AND WHEREAS as a substitute to the above two bank Guarantees the Owner has agreed to accept a undertaking (“Composite Bank Guarantee”) from the Bank in the nature of a Bank Guarantee to cover both the Work advance and the Performance Bank Guarantee, so that Initially the composite BG will be entirely reckoned towards work advance and progressively the portion of composite bank guarantee vacated by the recoveries effected towards work advance shall be reckoned towards security deposit such that the mobilization advance stands fully recovered along with interest accrued thereon, the entire composite bank guarantee shall be reckoned to cover the security deposit for the performance of the contract.

NOW THEREFORE in consideration of the promises as foregoing and at the request of Contractor the Bank hereby irrevocably and unconditionally undertakes to pay to the Owner forthwith on first demand without protest or demur or proof or condition and without reference to the contractor, any and/or all amounts demanded by the Owner in writing from the Bank with reference to this undertaking up to an aggregate limit of 10% (ten percent) of the Contract Price including the INR and Foreign Currency Component (i.e. either of US\$/Euro/GBP)

[The Composite Bank Guarantee taken should be at least 110% of the Work advance so as to enable recovery

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 120 / 131 REV. 0	

of not only principal amount but also the interest portion, if so required.]

AND the Bank doth hereby further agree as follows:-

1. The Bank further unconditionally agrees with the Owner that the Owner shall be at liberty, without the Bank's consent and without affecting in any manner the Bank's obligation under this Guarantee, from time to time, to:
 - a) vary and/or modify any of the terms and conditions of the Contract,
 - b) extend and/or postpone the time for performance of the obligations of the Contractor under the Contract, or
 - c) forbear or enforce any of the rights exercisable by the Owner against the Contractor under the terms and conditions of the Contract and the Bank shall not be relieved from its liability by reason of any such act or omission on the part of the Owner or any indulgence by the Owner to the Contractor or other thing whatsoever which under the law relating to sureties would, but for this provision, have the effect of relieving the Bank of its obligations under this Guarantee.
2. The Bank hereby waives the necessity for the Owner from demanding the aforesaid amount or any part thereof from the Contractor and also waives any right that the Bank may have of first requiring the Owner to pursue its legal remedies against the Contractor, before presenting any written demand to the Bank for payment under this Guarantee.
3. The liability of the Bank to the Owner under this undertaking shall remain in full force and effect, notwithstanding the existence of any difference or dispute between the Contractor and the Owner, the Contractor and the Bank and/or the Bank and the Owner or otherwise howsoever/ touching or affecting these presents or the liability of the Contractor to the Owner, and notwithstanding the existence of any instructions or purported instructions by the Contractor or any other person to the Bank not to pay or for any cause withhold or defer payment to the Owner under these presents, with the intent that notwithstanding the existence of such difference, dispute or instruction, the Bank shall be and remain liable to make payment to the Owner in terms hereof.
4. This Guarantee shall be a continuing bank guarantee and shall not be discharged by the change in constitution of the Contractor and the Guarantee shall not be affected or discharged by the liquidation, winding up, bankruptcy, reorganisation, dissolution or insolvency of the Contractor or any other circumstances whatsoever.
5. The Owner may assign this Guarantee to any person and in such case the Owner shall inform the Bank in writing. This Guarantee shall not be assigned or transferred by the Bank.

The Bank for the purpose hereof unconditionally and irrevocably undertakes to pay to the Owner without any demur, reservation, cavil, protest or recourse; immediately on receipt of first written demand from the Owner, any sum or sums (by way of one or more claims) not exceeding in the aggregate the amount of ____ This undertaking shall be valid for all claims/demands made by the Owner to or upon us upto the midnight of, ____ 20xx provided that the Bank shall upon the written request of the Owner extend this guarantee by a further period of six months.

6. This Composite Bank Guarantee is confirmed to the Owner through Structured Financial Messaging System (SFMS),
7. Any payment made hereunder shall be made free and clear of and without deduction for, or on account of, any present or future taxes, levies, imposts, duties, charges, fees, commissions, deductions or withholdings of any nature whatsoever and by whomever imposed; and where any

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 121 / 131 REV. 0	

withholding on a payment is required by law, the Bank shall comply with such withholding obligations and shall pay such additional amount in respect of such payment such that the Owner receives the full amount due hereunder as if no such withholding had occurred.

8. This Guarantee shall be construed and interpreted in accordance with and governed by the laws of India, and the courts at Delhi shall have exclusive jurisdiction over all matters arising out of or relating to this Guarantee.
9. Notwithstanding anything contained herein:
 - a) The Bank's liability under this guarantee/ undertaking shall not exceed Rs. _____; and Foreign Currency Component _____ (i.e. either of US\$/Euro/GBP)
 - b) This guarantee/ undertaking shall remain in force up to .. and extension(s) thereof;
 - c) The Bank shall be released and discharged from all liability under this guarantee/ undertaking unless a written claim or demand is issued to the Bank on or before or the date of expiry of any extension(s) thereof if this guarantee/ undertaking has been extended.

IN WITNESS WHEREOF the Bank, through its authorised officer, has set its hand and stamp on this [insert] day of [insert] 2025.

(Signature)

[insert name of signatory]

[insert designation of signatory]

(Duly authorised representative)

Vide power of attorney No. [insert]

Dated [insert]

Witness [insert]

[insert]

INSTRUCTIONS FOR FURNISHING BANK GUARANTEE

1. Bank Guarantee by Indian Bidders will be given on non-judicial stamp paper as per stamp duty applicable in State of New Delhi. The non-judicial stamp paper should be in name of the issuing bank.
2. The Bank Guarantee will be given from any Schedule Indian Bank or any branch of international bank situated in India and registered with RBI as schedule foreign bank only.
3. The expiry date of Composite Bank Guarantee shall be arrived at by adding 90 days to the Contract completion date plus defect liability period unless otherwise specified in the bidding documents.
4. Claim Period shall be Six month after the expiry of the date of Bank Guarantee

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 122 / 131 REV. 0	

APPENDIX A

PROCEDURE FOR PUTTING AN AGENCY ON HOLIDAY AND BANNING LIST

DEFINITION:

“Agency” shall mean Bidder / vendor / Contractor / Supplier / Consultant of Petronet LNG Limited (PLL).

“Corrupt practice” means the offering, giving or soliciting of anything of pecuniary advantage value to improperly influence by abuse of entrusted power, the procurement process or in contract execution.

“Fraudulent practice” includes any act or omission committed by an agency / entity by misrepresenting, misleading/submitting false document and or false information or concealment of facts in order to influence the procurement process as well as during the execution of contract.

“Collusive practice” amongst bidders means a scheme or arrangement designed to establish bid prices at artificial non-competitive level and to deprive PLL of the benefit of free and open competition.

“Coercive practice” means impairing or harming or threatening to impair or harm directly or indirectly, any agency or its property to influence the improper actions of an agency, obstruction of any investigation or auditing of a procurement/contract process.

A. INTRODUCTION:

In the course of the bidding / contracting (procurement, works and service contracts), agencies (bidder(s) / vendor(s) / supplier(s) / contractor(s) / consultant(s)) are expected to adopt ethics of highest standards and a high degree of integrity, safety & quality consciousness, commitments and sincerity towards terms and conditions of the tender(s) / order (s) undertaken. Any aberration, deviation and violation from the expected behaviour of the Agencies need to be dealt appropriately by putting the Agencies on holiday or banning list for specific periods so that it becomes a deterrent for all the future transactions.

1. HOLIDAY LIST

An Agency may be put in the Holiday list in case if:

- a. It has refused to accept LOA/LOI/Purchase order/contract (order value 10 Lakhs and above) after the same is issued within the period of Bid validity and as per agreed terms & conditions or,
- b. The materials supplied by the Agency are found to be defective and fails to perform during its use/operation. Premature failure of the work executed by contractor/failure of equipment during the operation, and not giving the desired result as per provision of the contract or,
- c. The rating of the vendor/ consultant come to be POOR as per Procedure For Evaluation Of Performance Of Vendors/ Contractors/ Consultants
- d. It is declared or is in the process of being declared bankrupt, insolvent, wound up, dissolved or partitioned; or
- e. It persistently violates provisions of labor laws/ regulations / rules, safety norms,

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 123 / 131 REV. 0	

environmental norms or other statutory requirements; or

2. **BANNING LIST**

Any Agency can be put in the Banning list in case if:

- a. if it is involved in an instance of Corrupt, Fraudulent, Collusive and Coercive practice against PLL.
- b. it is involved in fraudulent activity, wilful misconduct, misrepresentation, mis-declaration, security considerations or,
- c. it has indulged in any type of forgery or falsification of records; or
- d. the proprietor of the firm, its employee(s), partner(s) or representative(s) is / are convicted by a court of law for offences involving moral turpitude in relation to business dealings.
- e. There is strong justification for believing that the proprietor or employees or representatives of firm have been guilty of malpractices such as bribery, corruption, fraud, substitution of tenders, interpolations, misrepresentation, evasion or default in payment of any tax levied by law.

B. DELETED

C. Procedure To Be Followed For Irregularities Observed At Various Stages

1. Irregularities noticed during Bidding Process:

If any irregularity mentioned in Clause A.2 is observed during bidding process/ bids evaluations stage the bid of such Bidder (s), it shall be rejected after due approval from the competent authority and following the due procedure.

In case the irregularities are found to be true the EMD/ Bid security of such Bidder shall be forfeited.

2. Irregularities noticed after award of contract

(i) During execution of contract:

In case irregularities are found to be true the contract shall be suspended with immediate effect.

The Agency shall be banned / put on holiday list for future business with PLL for a period specified in Clause (D) below from the date of issue of banning / holiday order.

The PBG submitted by such agency against such order/ contract shall also be forfeited.

The amount that may have become due to the contractor on account of work already executed by him shall be payable to the contractor and this amount shall be subject to adjustment against any amounts due from the contractor under the terms of the contract.

(ii) After execution of contract and during Defect liability period (DLP)/ Warranty/ Guarantee Period:

In case irregularities are found to be true, the Agency shall be banned / put on holiday list for future business with PLL for a period specified in Clause (D) below from the date of issue of banning / holiday order.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 124 / 131 REV. 0	

The PBG submitted by such Agency against such order/ contract shall also be forfeited.

(iii) After expiry of Defect liability period (DLP)/ Warranty / Guarantee Period.

In case irregularities are found to be true, the Agency shall be banned / put on holiday list for future business with PLL for a period specified in Clause (D) below from the date of issue of banning / holiday order.

3. Exceptional Cases:

- (i) However, as an exception, the ongoing order(s)/ contract(s) where irregularities has been observed, the Agency may be allowed to complete the supply/ job in case of following situations:
 - a) No adverse performance of the job as per scope of work (performance to be reviewed on quarterly basis) and.
 - b) The supply/ jobs are of critical nature in terms of adverse impact on the Project Completion Schedule and or prospective revenue generation.

(ii) DELETED

- (III)** The Performance Bank Guarantee (PBG), of such Agency against the order (s)/ contract (s) where Agency is allowed to complete the supply/ job in above exceptional case shall not be forfeited on this ground. The contract shall be executed as per terms and conditions of the contract. However, the Agency shall be put on Banning / Holiday List from the date of banning order.

4. Effect of Banning on other ongoing Contracts/ Tenders

- (i) If an Agency is put on Banning / Holiday List, such Agency should not be considered in ongoing tenders/ further tenders.
- (ii) However, if such an Agency is already executing other order(s)/ contracts (s) where no irregularities are observed, the agency should be allowed to continue till its completion without any further increase in scope except those incidentals to original scope mentioned in the Contract.

D. HOLIDAY / BANNING PERIOD

- (i) The Agency can be put on Holiday for a time period ranging from 6 months to 3 years. The committee examining the case shall propose the holiday period in its recommendation.
- (ii) Banning period shall be reckoned from the date of banning order and shall be of 3 years.
- (iii) In exceptional cases where the act of vendor/ contractor is a threat to the National Security, the banning shall be for indefinite period.

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 125 / 131	
		REV. 0	

APPENDIX B

PROCEDURE FOR EVALUATION OF PERFORMANCE OF VENDORS/ CONTRACTORS/ CONSULTANTS

1 GENERAL

A system for evaluation of Vendors/ Suppliers/Contractors/ Consultants and their performance is a key process and important to support an effective purchasing & contracting function of an organization.

Performance of all participating Vendors/ Suppliers/Contractors/ Consultants need to be closely monitored to ensure timely receipt of supplies from a Vendor, completion of an assignment by a Consultant or complete execution of order by a contractor within scheduled completion period. For timely execution of projects and meeting the operation & maintenance requirement of operating plants, it is necessary to monitor the execution of order or contracts right from the award stage to completion stage and take corrective measures in time.

2 OBJECTIVE

The objective of Evaluation of Performance aims to recognize and develop reliable Vendors/ Suppliers/Contractors/ Consultants so that they consistently meet or exceed expectations and requirements.

The purpose of this procedure is to put in place a system to monitor performance of Vendors/ Suppliers/Contractors/ Consultants associated with PLL in Projects and in O&M so as to ensure timely completion of various projects, timely receipt of supplies including completion of works & services for operation and maintenance of operating plants and quality standards in all respects.

3 METHODOLOGY

i) Preparation of Performance Rating Data Sheet

Performance rating data Sheet for each and every Vendor/ Supplier/Contractor/ Consultant for all orders/Contracts with a value of Rs. 7 Lakhs and above is recommended to be drawn up. These data sheets are to be separately prepared for orders/ contracts related to Projects and O&M. Format, Parameters, Process, responsibility for preparation of Performance Rating Data Sheet are separately mentioned.

ii) Measurement of Performance

Based on the parameters defined in Data Sheet, Performance of concerned Vendor/ Supplier/Contractor/ Consultant would be computed and graded accordingly. The measurement of the performance of the Party would be its ability to achieve the minimum scoring of 60% points in the given parameters.

iii) Initiation of Measures:

Depending upon the Grading of Performance, corrective measures would be initiated by taking up the matter with concerned Vendor/ Supplier/Contractor/ Consultant. Response of Vendor/ Supplier/Contractor/ Consultant would be considered before deciding further course of action.

iv) **Implementation of Corrective Measures:**

Based on the response of Vendor/ Supplier/Contractor/ Consultant, concerned Engineer-in- Charge for the Projects and/or OIC in case of O&M would recommend for continuation or discontinuation of such party from the business of PLL.

v) Orders/contracts placed on Proprietary/OEM basis for O&M will be evaluated and, if required, corrective action will be taken for improvement in future.

4 EXCLUSIONS:

The following would be excluded from the scope of evaluation of performance of Vendors/ Suppliers/Contractors/ Consultants:

- i) Orders/Contracts below the value of Rs. 7 Lakhs (increase value).
- ii) One time Vendor/ Supplier/Contractor/ Consultant.
- iii) Orders for Misc./Administrative items/ Nonstock Non valued items.

However, concerned Engineer-in-Charge /OICs will continue to monitor such cases so as to minimize the impact on Projects/O&M plants due to non-performance of Vendors/ Suppliers/Contractors/ Consultants in all such cases.

5 PROCESS OF EVALUATION OF PERFORMANCE OF VENDORS/ SUPPLIERS/ CONTRACTORS/ CONSULTANTS

5.1 FOR PROJECTS

- i) Evaluation of performance of Vendors/ Suppliers/Contractors/ Consultants in case of PROJECTS shall be done immediately with commissioning of any Project.
- ii) On commissioning of any Project, EIC (Engineer-in-charge)/ Project-in-charge shall prepare a Performance Rating Data Sheet (Format- 1) for all Orders and Contracts excluding cases under para 4.0.
- iii) Depending upon the Performance Rating, following action need to be initiated by Engineer-in-charge/Project-in-charge:

S. No.	Performance Rating	Action
1	POOR	Seek explanation for Poor performance
2	FAIR	Seek explanation for Fair performance
3	GOOD	Letter to the concerned for improve performance in future
4	VERY GOOD	No further action

iv) Reply from concerned Vendor/ Supplier/Contractor/ Consultant shall be examined. In case of satisfactory reply, Performance Rating data Sheet to be closed with a letter to the concerned for improving performance in future.

v) When no reply is received or reasons indicated are unsatisfactory, the following actions need to be taken:

A. Where performance rating is “POOR”

Recommend such defaulting Vendor/Supplier/Contractor/ Consultant for putting on Holiday as per “Procedure for Putting an Agency on Holiday and Banning List” As mentioned elsewhere in the Tender document

i) Poor Performance due to reasons other than Quality: **One Year**

- ii) Poor Performance on account of Quality (if any mark obtained against Quality parameter is less than 30): **Two Years**
- iii) Poor Performance leading to termination of contract or Offloading of contract due to poor performance solely attributable to Vendor/Supplier/Contractor/Consultant or Repeated Offence: **Three Years**

Non-performance of a Vendor/Supplier/Contractor/Consultant leading to termination of Contract/ Order such Vendor/ Supplier/ Contractor/Consultant are also to be considered for Holiday.

In all such cases, concerned site will put up recommendation and putting the party on Holiday list as per process defined in “Procedure for putting an agency in Holiday list and Banning list”

B. Where Performance rating is “FAIR”

Recommend for issuance of warning to such defaulting Vendors/Contractors/Consultants to improve their performance.

5.2 FOR CONSULTANCY JOBS

Monitoring and Evaluation of consultancy jobs will be carried out in the same way as described in para 5.1 for Projects except the functions of Project Manager will be performed by concerned In-charges of user Deptts. Such as Project Development, Business Development, HR, Finance, HSE etc.

5.3 FOR OPERATION & MAINTENANCE

- i) Evaluation of performance of Vendors/ Suppliers/Contractors/ Consultants in case of Operation and Maintenance shall be done immediately after execution of order/ contract.
- ii) After execution of orders a Performance Rating Data Sheet (Format attached herewith) shall be prepared for Orders by C&P and for Contracts/Services by respective Engineer-In-Charge excluding cases under para 4.0.
- iii) Depending upon Performance Rating, following action need to be initiated by C&P

S. No.	Performance Rating	Action
1	POOR	Seek explanation for Poor performance
2	FAIR	Seek explanation for Fair performance
3	GOOD	Letter to the concerned for improve performance in future
4	VERY GOOD	No further action

- iv) Reply from concerned Vendor/ Supplier/Contractor/ Consultant shall be examined. In case of satisfactory reply, Performance Rating data Sheet to be closed with a letter to the concerned for improving performance in future.
- v) When no reply is received or reasons indicated are unsatisfactory, the following actions need to be taken:

A. Where performance rating is “POOR”

Recommend such defaulting Vendor/Supplier/Contractor/ Consultant for putting on Holiday as per “Procedure for Putting an Agency on Holiday and Banning List” As mentioned at Annexure I:

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 128 / 131	
		REV. 0	

- i) Poor Performance due to reasons other than Quality: **One Year**
- ii) Poor Performance on account of Quality (if any mark obtained against Quality parameter is less than 30): **Two Years**
- iii) Poor Performance leading to termination of contract or Offloading of contract due to poor performance solely attributable to Vendor/Supplier/Contractor/Consultant or Repeated Offence: **Three Years**

B. Where Performance rating is “FAIR”

Recommend for issuance of warning to such defaulting Vendors/Contractors/Consultants to improve their performance.

FORMATS

FORMAT-1

PETRONET LNG LIMITED

PERFORMANCE RATING DATA SHEET

- i) Project/Work Centre :
- ii) Order/ Contract No. & date :
- iii) Brief description of Items Works/Assignment :
- iv) Order/Contract value (Rs.) :
- v) Name of Vendor/Supplier/Contractor/ Consultant :
- vi) Contracted delivery/Completion Schedule :
- vii) Actual delivery/Completion date :

Performance Parameter	Delivery/Com Performance	Quality Perform	Reliability Performance	Total
Maximum Mark	40	40	20	100
Marks Allocate				

Note:

Remarks (if any)

PERFORMANCE RATING (**)

Note:

(#) Vendor/Supplier/Contractor/Consultant who seek repeated financial assistance or deviation beyond contract payment term or seeking direct payment to the sub-vendor/sub- contractor due to financial constraints, then '0' marks should be allotted against Reliability Performance.

(*) Allocation of marks should be as per enclosed instructions

(**) Performance rating shall be classified as under:

Sl. No.	Range (Marks)	Rating
1	60 & below	POOR
2	61-75	FAIR
3	76-90	GOOD
4	More than 90	VERY GOOD

Signature of Authorised Signatory: Name:

Designation:

Instructions for allocation of marks

1. Marks are to be allocated as under:

1.1 DELIVERY/ COMPLETION PERFORMANCE 40 Marks

Delivery Period/ Completion Schedule	Delay in Weeks	Marks
a) Upto 3 months	Before CDD	40
	Delay upto 4 weeks	35
	” 8 weeks	30
	” 10 weeks	25
	” 12 weeks	20
	” 16 weeks	15
	More than 16 weeks	0
b) Above 3 months	Before CDD	40
	Delay upto 4 weeks	35
	” 8 weeks	30
	” 10 weeks	25
	” 16 weeks	20
	” 20 weeks	15
	” 24 weeks	10
	More than 24 weeks	0

1.2 QUALITY PERFORMANCE 40 Marks

For Normal Cases: No Defects/ No Deviation/ No failure		40 marks
i. Rejection/Defects	Marks to be allocated prorata basis for acc Quantity as compared to Quantity for normal cases	10 marks
ii. When quality Failure endanger System integration and safety of the system	Failure of severe nature - Moderate nature - low severe nature	0 marks 5 marks 10-25 marks
iii. Number of Deviations	1. No deviation: 2. No. of deviations < 2: 3. No. of deviations > 2:	5 marks 2 marks 0 marks

	CONDITIONS OF CONTRACT FOR PDH PP PLANT WITH ETHANE AND PROPANE HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/S. PETRONET LNG LIMITED (PLL) (BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)	PAGE 131 / 131	
		REV. 0	

1.3 RELIABILITY PERFORMANCE

20 Marks

A	FOR WORKS/CONTRACTS	
i)	Submission of order acceptance, agreement, PBG, Drawings and other documents within time	4 marks
ii)	Mobilization of resources as per Contract and in time	4 marks
iii)	Liquidation of Check-list points	4 marks
iv)	Compliance to statutory and HS&E requirements or Reliability of Estimates/Design/Drawing etc. in case of Consultancy jobs	4 marks
v)	Timely submission of estimates and other documents for Extra, Substituted & AHR items	4 marks

B.	FOR SUPPLIES	
i)	Submission of order acceptance, PBG, Drawings and other documents within time	5 marks
ii)	Attending complaints and requests for after sales service/ warranty repairs and/ or query/ advice (upto the evaluation period).	5 marks
iii)	Response to various correspondence and conformance to standards like ISO	5 marks
iv)	Submission of all required documents including Test Certificates at the time of supply	5 marks

RELEASE OF FRONT TO THE CONTRACTOR

[EXHIBIT-B TO CONDITIONS OF CONTRACT]

EIL/OWNER COMMITMENTS VIS-A-VIS CONTRACTOR COMMITMENTS

Extension in time of completion due to delay in release of work fronts

Fronts shall be released to the contractor as per the following.

	Physical Front	Remarks
On award of work	60% encumbrance free site	
At 25% of time period	100%	Time extension due to non-availability of Physical front shall be considered only if the progress of work is corresponding to the work fronts released.

Note: - The above time period shall be read as contractual completion period as mentioned in the Letter of Acceptance.

Other Commitments:

Purchaser Commitment: Graded land will be provided to successful bidder progressively between 01 to 02 months of contract award.

Contractor Commitment: Contractor to provide the Piperack and Reactor structure to PLL/ EIL for execution of piping, electrical & instrumentation related works minimum 08 months before the Mechanical completion.



**CONDITIONS OF CONTRACT
(CoC)
EXHIBIT-C TO CoC (CONTRACT SCHEDULE)**



Rev	00	Page	1	of	3

CONTRACT SCHEDULE
[EXHIBIT - C TO CONDITIONS OF CONTRACT]



**CONDITIONS OF CONTRACT
(CoC)**
EXHIBIT-C TO CoC (CONTRACT SCHEDULE)



Rev 00 Page 2 of 3

1. TIME FOR COMPLETION

NAME OF WORK	TIME OF COMPLETION
CCR PACKAGE FOR PDH PP PLANT WITH ETHANE AND PROPANE STORAGE & HANDLING FACILITIES AT DAHEJ, GUJARAT BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028	24 (Twenty-Four) Months for Guaranteed Mechanical Completion from the date of issue of Letter of Acceptance (LOA) plus 02 months for Commissioning. Prior intimation of 15 days shall be given to Contractor before Commissioning.

Note:

1. The time for completion shall be reckoned from the date of issue of LOA.
2. The time indicated is for completing all the works in all respects as per scope of work, specifications, codes, drawings and instructions of Engineer-in-Charge.
3. It should be noted that the period of completion of all works given above includes time required for mobilisation at site, carrying out the works as per the requirements Contract Document, demobilisation, preparation of all reports in requisite quantities as mentioned in the Bidding document, rectifications, if any, rework etc. complete in all respects to the entire satisfaction of Engineer-in-Charge.
4. Fronts [i.e., Physical front] shall be released to the contractor as per EXHIBIT-B to CoC.

	CONDITIONS OF CONTRACT (CoC) EXHIBIT-C TO CoC (CONTRACT SCHEDULE)									
		Rev	00	Page	3	of	3			

2. PROJECT KEY MILESTONES

Project Milestones as defined below are minimum requirements of the Owner. The Contractor shall propose complementary Milestones and shall develop a detailed Contract Schedule indicating target completion dates as required in Exhibit H.

S. No.	Milestones	Duration from LOA (In Months)
1	Letter of Acceptance (LOA)	0
2	Kick -Off Meeting	02 Weeks
3	Order Placement for CCR Regenerator and Reactors	3
4	60 % Model review	9
5	Completion of piling and foundation works of CCR Regeneration Section	12
6	Delivery of CCR Regenerator and Reactors	16
7	Erection of CCR Regenerator and Reactors	22
8	Mechanical Completion of CCR Package	24
9	Commissioning of CCR Package	26

3. CONTRACT SCHEDULE

To be finalised in accordance with Clause C.1.a of Section C of Exhibit H.

This Contract Schedule will be a level 1 overall project schedule in the activity network form clearly indicating the major Milestones as required but not limited to list provided in Exhibit C 2.

Capitalized terms used in this Exhibit shall, unless defined herein or unless the context requires otherwise, shall have the meaning prescribed to such terms in Article 1.

In case any ambiguity or doubt with respect to the scope, interpretation or meaning of any information, data, requirement, drawing, document, term or other content of the Technical Documents or any Exhibit, the explanation, interpretation or meaning provided by the Owner to such information, data, requirement, drawing, document, term or other content of the Technical Documents or any Exhibit, shall be final and binding on the Contractor.



EXHIBIT D

CONTRACT PRICE SCHEDULE

FOR

**TENDER FOR CCR PACKAGE FOR PDH PP PLANT WITH
ETHANE AND PROPANE STORAGE & HANDLING FACILITIES AT
DAHEJ, GUJARAT OF M/s PETRONET LNG LIMITED
(BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028)**

INDEX TO CONTRACT PRICE SCHEDULE

BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028

NAME OF WORK: CCR PACKAGE FOR PDH PP PLANT WITH ETHANE AND PROPANE STORAGE & HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/s PETRONET LNG LIMITED

NAME OF BIDDER: 0

Sl. No.	Table	Section	Description	No. of Sheets
1			Cover Page	1 Sheet
2			Index to Contract Price Schedule	1 Sheet
3	A		General Instructions / Notes to Contract Price Schedule in Exhibit - D	3 Sheets
4	B	D-1.0	Bid Price	1 Sheet
4.1	C	D-2.0	Break Down of Bid Price	1 Sheet
4.1.1	D	D-2.1.1	Break Down of CFR Value – Offshore Supplies Work Items	1 Sheet
4.1.2	E	D-2.2.1	Breakdown of Bid Price – Offshore Services Work Items	1 Sheet
4.1.3	F	D-2.3.1	Break Down of Bid Price – Onshore Supplies Work Items	1 Sheet
4.1.4	G	D-2.4.1	Break Down of Bid Price – Onshore Services Work Items	1 Sheet
4.1.5	H	D-2.5.1	Break Down of Bid Price – Construction & Erection Work Items	1 Sheet
5		D-3.0	Break Down of Bid Price – Mandatory Spares Work Items	
5.1	I	D-3.1	Mandatory Spares Work Items (Off Shore Supply)	1 Sheet
5.2	J	D-3.2	Mandatory Spares Work Items (On Shore Supply)	1 Sheet
	K		Deleted	
6.1	L	D-4.2.1	Built-in Import Content in Onshore Supplies Work Items	1 Sheet
	M & N		Deleted	
7	O	D-5.1	Prices for Post Warrantee Comprehensive Annual Maintenance Contract Services	1 Sheet

Table A**GENERAL INSTRUCTIONS / NOTES TO CONTRACT PRICE SCHEDULE IN EXHIBIT - D****The Bidder is required to comply with / take into account the following general instructions/ notes while completing Exhibit - D.**

BIDDING DOCUMENT NO.:	JP/B862-101-PM-T-7300/1028
NAME OF WORK:	CCR PACKAGE FOR PDH PP PLANT WITH ETHANE AND PROPANE STORAGE & HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/s PETRONET LNG LIMITED
NAME OF BIDDER:	0
General	1 As stated in Article 13.1 of the Conditions of Contract, it is clearly understood that the Contract Price referred to in Article 13.1 is the 'TOTAL' price payable by the Owner to Contractor in full consideration for the performance by Contractor of its obligations and responsibilities under the Contract. Exhibit - D seeks to provide the individual break-up of the prices for the various scope of work as enumerated in Technical Section , aggregate of which shall be the Contract Price for purposes of Article 13.1 of the Contract.
	2 The reference to Tables/ a Table in Exhibit - D, unless the context otherwise requires, shall be to the Tables/ relevant Table of Exhibit - D. Wherever reference to a Note of this Table A is made in any of the other Tables in Exhibit - D, the Bidder is requested to refer to this Table A.
	3 The Bid Price and break-up thereof in the Tables in Exhibit - D should be filled in figures only.
	4 All Tables contain provision for Price Bid/prices to be quoted in Indian Rupees and/or any one/two Foreign Currency(ies) out of USD/EURO/GBP . Bidder shall quote in maximum two foreign currency. The Bidder is requested to fill up the appropriate currency(ies) as may be applicable for the Component/item mentioned in the Tables. The expenditure to be incurred in Indian Rupees should be quoted in Indian Rupees only. For avoidance of doubt, it is clarified that Bidder can choose maximum two foreign currencies (i.e. from USD/EURO/GBP) while quoting for foreign currency components. Bidder shall choose and declare the foreign currency(ies) component (i.e. from USD/EURO/GBP) in Table B. The foreign currency(ies) declared by the Bidder in Table B shall be applicable for all tables of Exhibit D (i.e. from Table B to Table O).
	5 The Bidder shall not convert the Price Bid/prices quoted in any particular currency into another currency, for instance, to Indian Rupees (in respect of prices quoted in any foreign currency) or to any foreign currency (in respect of prices quoted in Indian Rupees); or undertake any inter-se foreign currency conversion. Without prejudice to the aforesaid, any sum/total/aggregate of prices required to be done in any Table shall be done only in respect of prices quoted in the same currency.
	6 Wherever a Component Value contains more than one (1) item e.g. in Sr. No. 2.1.1.1 of Table D, the price break-up of such items and their per unit rate shall be proposed by the Bidder within six (6) months of Effective Date for the approval of Owner, subject to the condition that the aggregate of the price break-up shall not exceed the Component Value, in the respective currency, mentioned against the respective Component. The determination of such per unit rate for each individual item shall be required for working out the invoice value in respect of each consignment and also payment of Goods Customs Duties, Goods and Service Tax, if applicable
	7 No change in currency shall be permissible after the submission of Bids.
	8 The price for Offshore Supplies Work Items (Section D-2.1.1) shall contain the price of Equipment & Materials (including cost of engineering, if any, involved in the manufacture of such Equipment & Materials) supplied from outside India (Including from SEZs in India) for permanent incorporation in the Works. Goods Customs Duties, if applicable, shall not be added while quoting the price in Section D-2.1.1 if the imports are to be undertaken in the name and IE code of the Owner. If imports are undertaken in the name and IE code of the bidder, the Goods Customs Duties same shall be included in the quoted price.
	9 The price for Offshore Services Work Items (Section D-2.2.1) shall contain the price of design and engineering including detailed engineering, to be rendered outside India, in relation to the Work and cost of any other services to be rendered outside India
	10 The price for Onshore Supplies Work Items (Section D-2.3.1) shall contain the price of Equipment & Materials supplied from within India (but Excluding from SEZs in India) for delivery at Work Site and permanent incorporation in the Works
	11 The price for Onshore Services Work Items (Section D-2.4.1) shall contain the price of residual design and detailed engineering, customs clearance, inland transportation, supervision services, project management, forwarding, mechanical completion and commissioning assistance, carried out in India and cost of any other service, in relation to the Work, rendered in India
	12 The price for Construction and Erection Work Items (Section D-2.5.1) shall contain the price of construction and erection work, including civil construction carried out at Site and supply of all civil material:
	13 Deleted

Table A**GENERAL INSTRUCTIONS / NOTES TO CONTRACT PRICE SCHEDULE IN EXHIBIT - D****The Bidder is required to comply with / take into account the following general instructions/ notes while completing Exhibit - D.**

BIDDING DOCUMENT NO.:		JP/B862-101-PM-T-7300/1028
NAME OF WORK:		CCR PACKAGE FOR PDH PP PLANT WITH ETHANE AND PROPANE STORAGE & HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/s PETRONET LNG LIMITED
NAME OF BIDDER:		0
		14 Reference to provisions of tax legislations in this Exhibit - D are to those applicable on the 'Relevant Date' 15 If GST is payable by PLL under Reverse Charge Mechanism as per Clause 13.5.2 of CoC i.e. PLL GST, the same shall be quoted by Bidder in Column 15 to 17 of Table-E. In the event PLL becomes liable to pay any Goods and Service Tax over and above the quoted GST in Column 15 to 17 of Table-E under Reverse Charge Mechanism as per Clause 13.5.2 of CoC, then PLL shall deduct the same from the Contract Price except for the provisions covered under Article 24 of Conditions of Contract. 16 In case the prices are beyond the limits mentioned under D-2.0, D-2.2.1 & D-2.4.1 of this Table-A, then such additional amount shall be raised by Contractor in the final bill and shall be paid to the Contractor in the final bill / invoice only. Billing schedule shall be prepared as per limits mentioned under D-2.0, D-2.2.1 & D-2.4.1 of this Table-A only. 17 Bidder shall quote for all the items of Contract Price Schedule after careful analysis of cost involved for the performance of the complete item considering all parts of the Bidding Document. 18 Bidder shall submit unpriced part of this schedule without indicating prices. However, bidder to indicate the currency(ies) of quote in unpriced part.
D-1.0 (Table-B)	Note 1	The Price Bid at Section D-1.0 shall be derived from Section D-2.0. In case of any discrepancy between the prices quoted in Section D-1.0 and Section D-2.0, the amount stated in Section D-2.0 shall prevail for evaluation and ordering.
D-2.0 (Table-C)	Note 1	Bidder shall also provide the breakdown of prices quoted in Section D-2.0, in Indian Rupees and/or USD/EURO/GBP component for Offshore Supplies Work Item, Offshore Services Work Items, Onshore Supplies Work Items, Onshore Services Work Items and Construction and Erection Work Items.
	Note 2	After conversion to equivalent INR as per reference exchange rate as per the SBI Bill selling rate of the relevant Foreign Currency as on the first day of the month in which the bid due date / extended bid due date falls, aggregate of 'TOTAL' prices specified at Sr. No. 2.1.1 (Offshore Supplies Work Items), at Sr. No. 2.3.1 (Onshore Supplies Work Items) and at sr. no. D.2.A.1 (Import Duties under Option-I) in Section D-2.0. should not exceed FIFTY FIVE percent (55%) of the aggregate of 'TOTAL' specified at Sl. no. D 2.0, at sr. no. D.2.A.1 (Import Duties under Option-I) and at sr. no. D.2.B.1 (PLL GST) in Section D-2.0.
	Note 3	'TOTAL' for each currency specified at Sl. No. D-2.0 (highlighted in Orange shade), shall match the Price Bid stated in Section D-1.0.
	Note 4	Change in the amount & currency inter-se different Work Items in Section D-2.0 and Components in Sections D- 2.1.1 to D-4.2.1, shall not be permissible after submission of Bid
	Note 5	On no account revision/change in the Lumpsum Price shall be allowed
	Note 6	Bidder shall also provide the breakdown of prices quoted in Section D-2.0, in Indian Rupees and/or any one/two Foreign Currency(ies) out of USD/EURO/GBP component for Offshore Supplies Work Item, Offshore Services Work Items, Onshore Supplies Work Items, Onshore Services Work Items and Construction and Erection Work Items.
D-2.1.1 (Table-D)	Note 1	Details of items and their price break-up shall be provided in Section D-3.1.
D-2.2.1 (Table-E)	Note 1	After conversion to equivalent INR as per reference exchange rate as the SBI Bill selling rate of the relevant Foreign Currency as on the first day of the month in which the bid due date / extended bid due date falls, aggregate of prices quoted in the column 11 to 13 at Sr. No. 2.2.1.1 (Design and detailed engineering) of Section D-2.2.1, PLL GST quoted in the column 15 to 17 at Sr. No. 2.2.1.1 (Design and detailed engineering) of Section D-2.2.1 and price quoted in the column 6 at Sr. No. 2.4.1.1 (Design and detailed engineering) of Section D-2.4.1 should not exceed FIVE percent (5%) of the 'TOTAL' specified at Sl. no. D 2.0, value at sr. no. D.2.A.1 (Import Duties under Option-I) and at sr. no. D.2.B.1 (PLL GST) in Section D-2.0.
D-2.3.1 (Table-F)	Note 1	Details of items and their price break-up shall be provided in Section D-3.2.

Table A**GENERAL INSTRUCTIONS / NOTES TO CONTRACT PRICE SCHEDULE IN EXHIBIT - D****The Bidder is required to comply with / take into account the following general instructions/ notes while completing Exhibit - D.**

BIDDING DOCUMENT NO.:		JP/B862-101-PM-T-7300/1028
NAME OF WORK:		CCR PACKAGE FOR PDH PP PLANT WITH ETHANE AND PROPANE STORAGE & HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/s PETRONET LNG LIMITED
NAME OF BIDDER:		0
D-2.4.1 (Table-G)	Note 1	After conversion to equivalent INR as per reference exchange rate as the SBI Bill selling rate of the relevant Foreign Currency as on the first day of the month in which the bid due date / extended bid due date falls, aggregate of prices quoted in the column 11 to 13 at Sr. No. 2.2.1.1 (Design and detailed engineering) of Section D-2.2.1, PLL GST quoted in the column 15 to 17 at Sr. No. 2.2.1.1 (Design and detailed engineering) of Section D-2.2.1 and price quoted in the column 6 at Sr. No. 2.4.1.1 (Design and detailed engineering) of Section D-2.4.1 should not exceed FIVE percent (5%) of the 'TOTAL' specified at Sl. no. D 2.0, value at sr. no. D.2.A.1 (Import Duties under Option-I) and at sr. no. D.2.B.1 (PLL GST) in Section D-2.0.
D-2.5.1 (Table-H)	Note 1	DELETED
D-3.1 & 3.2 (Table-I & J)	Note 1	Refer technical section for the list of Mandatory Spare Parts.
D-4.2.1	Note 1	DELETED
D-5.1 (Table-O)	Note 1	The Prices for Post Warranty Comprehensive Annual Maintenance Contract (PWCAMC) quoted in TABLE-O, shall not be included in the Contract Price.
	Note 2	The prices for PWCAMC shall remain valid upto the defect liability period. In case of award, the prices for PWCAMC shall remain firm till the completion of scope of PWCAMC. The PWCAMC charges quoted in TABLE-O shall be considered for evaluation. OWNER reserves the right to place the order for PWCAMC before completion of defect liability period
	Note 3	After conversion to equivalent INR as per reference exchange rate as per the SBI Bill selling rate of the relevant Foreign Currency as on the first day of the month in which the bid due date / extended bid due date falls, the total prices for PWCAMC quoted in Table-O should be minimum Zero point Two percent (0.2%) of the aggregate of 'TOTAL' specified at Sl. no. D 2.0, at sr. no. D.2.A.1 (Import Duties under Option-I) and at sr. no. D.2.B.1 (PLL GST) in Section D-2.0. In case a Contractor quotes CPWAMC charges less than above specified limit then the differential amount shall be retained upfront from the Contract Price and shall be distributed on prorata basis for the purpose of payment over the entire CPWAMC period. However, in case CPWAMC order is not awarded by Owner, the same differential amount shall not be paid to the Contractor.

Name of Work: CCR PACKAGE FOR PDH PP PLANT WITH ETHANE AND PROPANE STORAGE & HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/s PETRONET LNG LIMITED

Bidding Document No: JP/B862-101-PM-T-7300/1028

Notes :

1. The lumpsum price quoted in this table should be equal to the 'TOTAL' in the respective currency specified at sl. no. D-2.0 of Table C (i.e. The Total price is displayed in the orange-shaded cell).
2. Bidder to note that the Lumpsum price as per SECTION D-1.0 shall not include prices for "PWCAMC" and the same shall be quoted separately in SECTION D-5.1

Bidder Name :

CONTRACT PRICE SCHEDULE (TABLE B)
SECTION D 1.0- BID PRICE

(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)

Sl. No.	Item Description	Units	Quoted Currency in INR/ Other Currency	Total Lumpsum Price In Figures To be entered by the Bidder
1	CCR PACKAGE WORKS FOR 750 KTA PDH-PP PROJECT, PLL Dahej ON LUMP SUM TURNKEY BASIS WITH SINGLE POINT RESPONSIBILITY INCLUDING BUT NOT LIMITED TO THE FOLLOWING ACTIVITIES OF WORKS: • Overall Project management, Residual Process design and engineering, detailed design and engineering based on BDEP (including HAZOP study, SIL, etc.), Site Survey, HSE, Procurement, Project controls including Planning, scheduling and monitoring, 3D modelling, procurement of bought-out items & supply of CCR Regeneration Section along with Reactors, Lifts, Piperack, all associated equipment, all tagged items, all non-tagged items / instruments / electrical components/ piping components (including interconnection & transfer piping/ all spares etc.), fabrication of equipment, piping, super-structure, all civil works , construction of sub-structures inclusive of underground works such as piping, drains, foundation etc (as detailed in various documents of the tender). • The scope also includes engagement of different agencies as per tender requirements, deployment of resources, destructive and non-destructive testing including all stipulated and statutory inspections (as stated in tender documents), stage wise inspection including third party inspection (shop/site), PWHT, transportation of all the equipment/ materials to work site including Route survey for ODCs as applicable, arranging the land outside the Project Site on his own for construction of ware house/ storage of material and work shop. The work shop shall be provided with monsoon protection for fabrication of structural/ piping/ supports which shall be done by contractor. • The Scope of the Contractor includes, supply, fabrication, transportation, handling at site, erection, installation, construction of Hard stand (as applicable), construction including Construction Management and Supervision, providing temporary platform and hydro-testing of all facilities (as per tender requirements), surface preparation and application of primer & finish paint /Insulations, clearing of all debris from site and disposal of the same to the designated place etc ,any other scope not defined above but required to complete the work in all respect to achieve mechanical completion, pre-commissioning (as per the requirements of Tender documents), start-up & commissioning assistance to Owner, testing for performance guarantee in the presence of Licensor and Owner's Representative etc., training to owner's personnel including supply of required first fill of lubricant, chemical, consumables, special tools and tackles, mandatory spares and commissioning spares and handing over the complete CCR Package to Owner as deliberated in Scope marked drawings of the Tender and also as per scope of work documents as specified in detail in various other chapters of the bidding document. • Completion of all works in all respects as per provisions of the Bidding Document and directions of the Engineer-in-Charge, including any other activity of work required to complete the Plant in all respects to make the Plant functional. • The quoted price shall also include all applicable taxes, Duties, Royalty and Levies as per bidding documents			
1.01	FOREIGN CURRENCY PART-I	Lumpsum	EUR	
1.02	FOREIGN CURRENCY PART-II	Lumpsum	USD	
1.03	INDIAN CURRENCY PART	Lumpsum	INR	

TABLE- C				
SECTION D-2.0 : BREAK DOWN OF BID PRICE				
BIDDING DOCUMENT NO.:		JP/B862-101-PM-T-7300/1028		
NAME OF WORK:		CCR PACKAGE FOR PDH PP PLANT WITH ETHANE AND PROPANE STORAGE & HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/s PETRONET LNG LIMITED		
NAME OF BIDDER:		0		
SL. NO.	DESCRIPTION OF SCOPE OF WORK	FOREIGN CURRENCY COMPONENT		INDIAN CURRENCY COMPONENT
		EUR	USD	INR
D-2.1.1	Offshore Supplies Work Items (as further broken up in Table D) (the prices quoted in this row shall get auto-filled and shall be equal to the 'TOTAL' in the respective currency from Columns 3, 4 & 5 specified at Sr. No. 2.1.1 of Table D) * Goods Customs Duties shall not be added while quoting the price in this row if the imports are to be undertaken in the name and IE code of the Owner [Option-1]. However, the price (in INR) for Goods Customs Duties, if the imports are to be undertaken in the name and IE code of the Bidder/Contractor and thereafter supplied to the Owner, shall be automatically added in the INR column from the Option-2 prices filled below under D.2.A.2 [Option-2].	-	-	-
D-2.2.1	Offshore Services Work Items (as further broken up in Table E) [the prices quoted in this row shall get auto-filled and shall be equal to the 'TOTAL' in the respective currency specified at column 11, 12, & 13 of sl. no. 2.2.1 of Table E]	-	-	-
D-2.3.1	Onshore Supplies Work Items (as further broken up in Table F) [the prices quoted in this row shall get auto-filled and shall be equal to the 'TOTAL' in INR specified at column 6 of Sr. No. 2.3.1 of Table F]			-
D-2.4.1	Onshore Services Work Items (as further broken up in Table G) [the prices quoted in this row shall get auto-filled and shall be equal to the 'TOTAL' in INR specified at column 6 of Sr. No. 2.4.1 of Table G]			-
D-2.5.1	Construction and Erection Work Items (as further broken up in Table H) [the prices quoted in this row shall get auto-filled and shall be equal to the 'TOTAL' in INR specified at column 9 of Sr. No. 2.5.1 of Table H]			-
D-2.0	TOTAL (sum of : D-2.1.1 to D-2.5.1 above)	-	-	-
D.2.A IMPORT DUTIES [Bidder to select any one option among Option-1 or Option-2 below. In case of no selection: Option-2 is default case]				
		(in INR)		
D.2.A.1	(Bidder to select OPTION-1 : Where import of Equipment and Materials shall be done on Owner's name and IE code and made available to the bidder/Contractor for carrying out the Work) Total amount of import duties (taxes and duties including the Basic Custom Duty component, cesses, surcharges, IGST etc on imports) applicable on import of goods falling under each sub-heading/ Component of Offshore Supply Work Items, to be factored for bid evaluation purposes (but not forming part of Contract Price)	SELECT FROM DROPDOWN	0.00	
D.2.A.2	(Bidder to select OPTION-2 : Where import of Equipment and Materials shall be done on bidder/Contractor's name and IE code and subsequently supplied to the Owner as a part of Work.) Total amount of import duties (taxes and duties including the Basic Custom Duty component, cesses, surcharges, IGST etc on imports) applicable on import of goods falling under each sub-heading/ Component of Offshore Supply Work Items (forming part of Contract Price)		0.00	
Note :	The total quantum of import duties shall get auto-filled either in D.2.A.1 or D.2.A.2 based on the Option selected above among Option-1 or Option-2, with option-2 as the default case. This price shall be same as the 'TOTAL' in the Eleventh (11th) column in Table D-2.1.1 (Table-D). The Goods Customs Duties (as defined in clause 13.3.5 of the Conditions of Contract) shall not form the Contract Price if the imports are to be undertaken in the name and IE code of the Owner, the same shall be considered for Price Bid evaluation.			
D.2.B PLL GST as per 13.5.2 of CoC				
		EUR	USD	INR
D.2.B.1	(To be filled by bidders who have chosen ' yes,no ' at column no. 6 of Table-E for GST and GST is payable by PLL under Reverse Charge Mechanism as per Clause 13.5.2 of CoC) Total amount of PLL GST applicable on services falling under each sub-heading/ Component of Offshore Service Work Items, to be considered for Price bid evaluation purposes (but not forming part of Contract Price)	0.00	0.00	0.00
Note :	The total quantum of PLL GST shall get auto-filled here and shall be same as the 'TOTAL' in respective currency specified at column 15, 16 & 17 of sl. no. 2.2.1 of Table E. While PLL GST (as defined in clause 13.5 of the Conditions of Contract) shall not be added while quoting the Bid/Contract Price, the same shall be factored for Price Bid evaluation. The PLL GST (as defined in clause 13.5 of the Conditions of Contract) shall not form the Contract Price, the same shall be considered for Price Bid evaluation.			

TABLE - D										
SECTION D-2.1.1 : BREAK DOWN OF CFR Value – OFFSHORE SUPPLIES WORK ITEMS										
BIDDING DOCUMENT NO.:		JP/B862-101-PM-T-7300/1028								
NAME OF WORK:		CCR PACKAGE FOR PDH PP PLANT WITH ETHANE AND PROPANE STORAGE & HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/s PETRONET LNG LIMITED								
NAME OF BIDDER:		0								
SL. NO.	DESCRIPTION OF COMPONENT	CFR value for Component			Basic Custom Duty	Other Custom related Duties (Otherthan SWS, IGST)	Social Welfare Surcharge (SWS)	IGST or CGST & SGST	GST Cess, if applicable	Goods Custom Duties-Amount of import duties (taxes and duties including the Basic Custom Duty component, cesses, surcharges, IGST or CGST & SGST etc on imports) applicable on import of goods falling under each sub-heading/ Component of Offshore Supply Work Items
		FOREIGN CURRENCY COMPONENT PRICE		INDIAN CURRENCY COMPONENT PRICE						
		EUR	USD	INR						
1	2	3	4	5	6	7	8	9	10	11 = 6 + 7 + 8 + 9 + 10
2.1.1.1	MECHANICAL EQUIPMENT OTHER THAN PIPING									
2.1.1.1(a)	Reactors including Internals									
2.1.1.1(b)	Regenerator, Hopper, Fines Filters etc.									
2.1.1.1(c)	All pumps, Blowers with drivers and all associated Auxiliaries and accessories as required..									
2.1.1.1(d)	All Packaged items with all auxiliaries .									
2.1.1.1(e)	All Dryers including internals (as applicable)									
2.1.1.1(f)	All Columns including internals									
2.1.1.1(g)	All Vessels & Drums including internals									
2.1.1.1(h)	All Exchangers & electric heater									
2.1.1.1(i)	Chain Pulley, EOT crane and handling equipment									
2.1.1.1(j)	Lift									
2.1.1.1(k)	Miscellaneous Equipment / Items, any other Equipment not mentioned above but required to complete the Work.									
2.1.1.2	PIPING									
2.1.1.2(a)	A/G PIPING MATERIALS along with all valves, fittings, flanges, fasteners, spring support etc. excluding Fire-fighting system									
2.1.1.2(b)	UNDER GROUND PIPINGS along with all valves, fittings, flanges, fasteners, spring support etc. excluding firefighting system.									
2.1.1.2(c)	Special valves in CCR-Regenerator Package									
2.1.1.3	ELECTRICAL									
2.1.1.3(a)	All electrical equipment, Lighting, Earthing & Lightning Protection equipment with all associated auxiliaries and accessories as mentioned elsewhere in the tender document.									
2.1.1.3(b)	All Cabling, cable trays, supports, etc.									
2.1.1.3(c)	Distribution Transformers, PCC and MCC in the sub-station.									
2.1.1.4	INSTRUMENTATION									
2.1.1.4(a)	Analyser:O2 Analyzers (Paramagnetic types), H2 Analyser inclusive of Analyser Shelter									
2.1.1.4(b)	All Analyser, PH and H2O other than specified in 2.1.1.4(a)									
2.1.1.4(c)	Special on-off valves, Catalyst tight valve, Gas tight valves									
2.1.1.4(d)	Control Valves / PSVs/ Shut Down Valves									
2.1.1.4(e)	All Field Instruments,instrumentation valves etc.									
2.1.1.4(f)	Nucleonic level transmitter, Multipoint thermocouple									
2.1.1.4(g)	Cabling, Cable Ducts/Trays, Junction Boxes and others									
2.1.1.5	Catalyst /chemicals /Absorbent/ lubricants (Except Owner supplied catalyst) for first fill operation as per tech. specifications.									
2.1.1.6	UG/AG Fire-fighting System.									
2.1.1.7	Special tools and tackles									
2.1.1.8	Other Item required for Completion of Work (Bidder to specify)									
	a)									
	b)									
	c)									
	d)									
	e)									
2.1.1.9	Mandatory Spares Work Items(Refer Note 1 of Table A for Section D - 2.1.1)	-	-	-	-	-	-	-	-	-
2.1.1	TOTAL (sum of Sl. Nos. 2.1.1.1 to 2.1.1.9 above)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Note a : * While Goods Customs Duties (as defined in clause 13.3.5 of the Contract) shall not be added while quoting the Bid/Contract Price if the imports are to be undertaken in the name and IE code of the Owner, the same shall be factored for Price Bid evaluation.										
Note b : Mandatory spares prices shall be automatically indicated here for each currency component stated in the row 3.1 in Section D-3.1 in Table I										
Note c : For Offshore Supplies Work Items quoted on a CFR basis, the 'CIF' value' of the Offshore Supplies shall be arrived at by adding the Insurance @1% component to the CFR value of the Offshore Supplies.										
Note d : The Total Goods & Custom Duties Amount quoted by the bidder in this Table-D shall get auto-filled in Table-C (either in Sl. No. D.2.A.1 or D.2.A.2 based on the selection among Option-1 or Option-2, with Option-2 as the default case)										

TABLE- E																
SECTION- D 2.2.1 : BREAKDOWN OF BID PRICE – OFFSHORE SERVICES WORK ITEMS																
BIDDING DOCUMENT NO.:		JP/B862-101-PM-T-7300/1028														
NAME OF WORK:		CCR PACKAGE FOR PDH PP PLANT WITH ETHANE AND PROPANE STORAGE & HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/s PETRONET LNG LIMITED														
NAME OF BIDDER:		0														
SL. NO.	Description of Component	Basic price of Component quoted in the Price Bid (A)			Whether IGST or CGST and SGST is applicable on Component and payable by Contractor as per the Contract (ie., 'yes; yes' response in Column 6), rate of IGST or CGST and SGST in % (B) (Refer Note a below)	If IGST or CGST and SGST is applicable and payable by Contractor as per the Contract (ie., 'yes; yes' response in Column 6), rate of IGST or CGST and SGST in % (B) (Refer Note a below)	If IGST or CGST and SGST is applicable and payable by Contractor as per the Contract, amount of IGST or CGST and SGST C = (A)/(B)			TOTAL of prices of Components (including any item thereof) and the IGST or CGST and SGST on the Components (including any item thereof), if applicable and payable by Contractor as per the Contract, which will be the 'TOTAL' price of Components to be included in the Price Bid D = A+C			If IGST or CGST and SGST is applicable and payable by Owner under PLL GST as per the Contract, amount of IGST or CGST and SGST F = (A) * E (Refer Note a below)	If IGST or CGST and SGST is applicable and payable by Owner under PLL GST as per the Contract, amount of IGST or CGST and SGST F = (A) * E (Refer Note a below)	If IGST or CGST and SGST is applicable and payable by Owner under PLL GST as per the Contract, amount of IGST or CGST and SGST F = (A) * E (Refer Note a below)	If IGST or CGST and SGST is applicable and payable by Owner under PLL GST as per the Contract, amount of IGST or CGST and SGST F = (A) * E (Refer Note a below)
		EUR	USD	INR			EUR	USD	INR	EUR	USD	INR				
1	2	3	4	5	6	7	8 = 3 * 7	9 = 4 * 7	10 = 5 * 7	11 = 3 + 8	12 = 4 + 9	13 = 5 + 10	14	15 = 3 * 14	16 = 4 * 14	17 = 5 * 14
2.2.1.1 (Refer Note 1 of Table A for Section D-2.2.1)	Design and detailed engineering				SELECT FROM DROPDOWN	0.00%		-	-	-	-	-	- 18.00%	-	-	-
2.2.1.2	Project management				SELECT FROM DROPDOWN	0.00%		-	-	-	-	-	- 18.00%	-	-	-
2.2.1.3	Others (Bidder to specify)															
	a)				SELECT FROM DROPDOWN	0.00%		-	-	-	-	-	- 18.00%	-	-	-
	b)				SELECT FROM DROPDOWN	0.00%		-	-	-	-	-	- 18.00%	-	-	-
	c)				SELECT FROM DROPDOWN	0.00%		-	-	-	-	-	- 18.00%	-	-	-
	d)				SELECT FROM DROPDOWN	0.00%		-	-	-	-	-	- 18.00%	-	-	-
	e)				SELECT FROM DROPDOWN	0.00%		-	-	-	-	-	- 18.00%	-	-	-
2.2.1	TOTAL (sum of Sl. Nos. 2.2.1.1 to 2.2.1.3 above)	-	-	-			-	-	-	-	-	-		-	-	-
Note a: For the Component(s) where the response in Column 6 is 'yes; no', Bidder to indicate the value of such Component(s) of the Offshore Services Work Items and whether such items would be liable to GST in the hands of the Owner on a reverse charge basis as PLL GST as defined in clause 13.5.2 of the Conditions of Contract. While such PLL GST shall not be added while quoting the Bid/Contract Price, the same shall be factored for Price Bid evaluation. Bidder to ensure correct option from the dropdown is selected. Bidder to Choose correct option suitably as explained: i) YES; YES if GST is applicable and payable by the contractor ii) YES; NO if GST is applicable and payable by Owner on RCM basis iii) NO; NO if GST is not applicable. Financial Implications arising due to incorrect filling/declaration shall be on bidder's account.																

TABLE- F					
SECTION D- 2.3.1 : BREAK DOWN OF BID PRICE – ONSHORE SUPPLIES WORK ITEMS					
BIDDING DOCUMENT NO.:		JP/B862-101-PM-T-7300/1028			
NAME OF WORK:		CCR PACKAGE FOR PDH PP PLANT WITH ETHANE AND PROPANE STORAGE & HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/s PETRONET LNG LIMITED			
NAME OF BIDDER:		0			
SL. NO.	DESCRIPTION OF COMPONENT	Basic price for Component quoted in the Price Bid (Refer Note b and c below)	GST Details (Refer Note a and b below)		TOTAL' price of the Component to be included in the Price Bid (Refer Note d below)
		A	B		[C= A+ Amount in B]
		In INR	Rate	Amount (IN INR)	Amount (IN INR)
1	2	3	4	5 = 3 * 4	6 = 3 + 5
2.3.1.1	MECHANICAL EQUIPMENT OTHER THAN PIPING				
2.3.1.1(a)	Reactors including Internals		0.00%	0.00	0.00
2.3.1.1(b)	Regenerator, Hopper, Fines Filters etc.		0.00%	0.00	0.00
2.3.1.1(c)	All pumps, Blowers with drivers and all associated Auxiliaries and accessories as required..		0.00%	0.00	0.00
2.3.1.1(d)	All Packaged items with all auxiliaries .		0.00%	0.00	0.00
2.3.1.1(e)	All Dryers including internals (as applicable)		0.00%	0.00	0.00
2.3.1.1(f)	All Columns including internals		0.00%	0.00	0.00
2.3.1.1(g)	All Vessels & Drums including internals		0.00%	0.00	0.00
2.3.1.1(h)	All Exchangers & electric heater		0.00%	0.00	0.00
2.3.1.1(i)	Chain Pulley, EOT crane and handling equipment		0.00%	0.00	0.00
2.3.1.1(j)	Lift		0.00%	0.00	0.00
2.3.1.1(k)	Miscellaneous Equipment / Items, any other Equipment not mentioned above but required to complete the Work.		0.00%	0.00	0.00
2.3.1.2	PIPING				
2.3.1.2(a)	A/G PIPING MATERIALS along with all valves, fittings, flanges, fasteners, spring support etc. excluding Fire-fighting system		0.00%	0.00	0.00
2.3.1.2(b)	UNDER GROUND PIPING along with all valves, fittings, flanges, fasteners, spring support etc. excluding firefighting system.		0.00%	0.00	0.00
2.3.1.2(c)	Special valves in CCR-Regenerator Package		0.00%	0.00	0.00
2.3.1.3	ELECTRICAL				
2.3.1.3(a)	All electrical equipment, Lighting, Earthing & Lightning Protection equipment with all associated auxiliaries and accessories as mentioned elsewhere in the tender document.		0.00%	0.00	0.00
2.3.1.3(b)	All Cabling, cable trays, supports, etc.		0.00%	0.00	0.00
2.3.1.3(c)	Distribution Transformers, PCC and MCC in the sub-station.		0.00%	0.00	0.00
2.3.1.4	INSTRUMENTATION				
2.3.1.4(a)	Analyser:O2 Analyzers (Paramagnetic types), H2 Analyser inclusive of Analyser Shelter		0.00%	0.00	0.00
2.3.1.4(b)	All Analyser, PH and H2O other than specified in 2.3.1.4(a)		0.00%	0.00	0.00
2.3.1.4(c)	Special on-off valves, Catalyst tight valve, Gas tight valves		0.00%	0.00	0.00
2.3.1.4(d)	Control Valves / PSVs/ Shut Down Valves		0.00%	0.00	0.00
2.3.1.4(e)	All Field Instruments,instrumentation valves etc.		0.00%	0.00	0.00
2.3.1.4(f)	Nucleonic level transmitter, Multipoint thermocouple		0.00%	0.00	0.00
2.3.1.4(g)	Cabling, Cable Ducts/Trays, Junction Boxes and others		0.00%	0.00	0.00
2.3.1.5	Catalyst /chemicals /Absorbent/ lubricants (Except Owner supplied catalyst) for first fill operation as per tech. specifications.		0.00%	0.00	0.00
2.3.1.6	UG/AG Fire-fighting System.		0.00%	0.00	0.00
2.3.1.7	Special tools and tackles		0.00%	0.00	0.00
2.3.1.8	Any other material / item required for completion of the package works but not specifically identified and covered above for completion of Units. (BIDDER TO SPECIFY).				
	a)		0.00%	0.00	0.00
	b)		0.00%	0.00	0.00
	c)		0.00%	0.00	0.00
	d)		0.00%	0.00	0.00
	e)		0.00%	0.00	0.00
2.3.1.9	Mandatory Spares Work Items (Refer Note 1 of Table A for Section D - 2.3.1) [Refer Note e below]	0.00		0.00	0.00
2.3.1	TOTAL (sum of Sr. Nos. 2.3.1.1 to 2.3.1.9 above)	0.00		0.00	0.00
Note a: GST indicated in Table F represents the tax leviable on the supply to PLL by the Bidder Note b: Materials Customs Duties (built-in) shall be part of the basic price. Note c: Deleted Note d: Bidder may refer to Central Goods and Service Tax Act, 2017, Integrated Goods and Service Tax Act, 2017 and applicable State Goods and Service Tax law Note e: Mandatory spares prices shall be automatically indicated here for each Component stated in the row 3.2 in Section D-3.2 in Table J.					

TABLE- G**SECTION D- 2.4.1 : BREAK DOWN OF BID PRICE – ONSHORE SERVICES WORK ITEMS**

BIDDING DOCUMENT NO.: JP/B862-101-PM-T-7300/1028					
NAME OF WORK: CCR PACKAGE FOR PDH PP PLANT WITH ETHANE AND PROPANE STORAGE & HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/s PETRONET LNG LIMITED					
NAME OF BIDDER: 0					
SL. NO.	DESCRIPTION OF COMPONENT	Basic price of Component quoted in the Price (Refer Note a below) A	CGST and SGST or IGST (Refer Note a below) B		TOTAL' price of Component (including any item thereof) to be included in the Price Bid C = A + Amount in B
		Amount	Rate	Amount	Amount
		In INR		In INR	INR
1	2	3	4	5 = 3 * 4	6 = 3 + 5
2.4.1.1	Residual design and detailed engineering (Refer Note 1 of Table A for Section D- 2.4.1)		0.00%	0.00	0.00
2.4.1.2	Project management		0.00%	0.00	0.00
2.4.1.3	Supervision		0.00%	0.00	0.00
2.4.1.4	Inland transportation		0.00%	0.00	0.00
2.4.1.5	Customs clearance		0.00%	0.00	0.00
2.4.1.6	Forwarding		0.00%	0.00	0.00
2.4.1.7	Mechanical completion		0.00%	0.00	0.00
2.4.1.8	Testing, Pre-Commissioning and Commissioning Assistance		0.00%	0.00	0.00
2.4.1.9	PGTR		0.00%	0.00	0.00
2.4.1.10	Others (Bidder to specify)				
	a)		0.00%	0.00	0.00
	b)		0.00%	0.00	0.00
	c)		0.00%	0.00	0.00
	d)		0.00%	0.00	0.00
	e)		0.00%	0.00	0.00
2.4.1	TOTAL (sum of Sr. Nos. 2.4.1.1 to 2.4.1.10 above)	0.00		0.00	0.00

TABLE- H								
SECTION-D- 2.5.1 : BREAK DOWN OF BID PRICE – CONSTRUCTION & ERECTION WORK ITEMS								
BIDDING DOCUMENT NO.:			JP/B862-101-PM-T-7300/1028					
NAME OF WORK:			CCR PACKAGE FOR PDH PP PLANT WITH ETHANE AND PROPANE STORAGE & HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/s PETRONET LNG LIMITED					
NAME OF BIDDER:			0					
SL. NO.	DESCRIPTION	Basic price of Component quoted in the Price Bid	CGST and SGST or IGST (Refer Note a below)		Other Indirect Tax on the Component, if any			TOTAL price of Component to be included in Price Bid D = A + Amount in B + Amount in C
		A	B		C			Amount
		Amount In INR	Rate %	Amount In INR	Nature	Rate %	Amount In INR	
1	2	3	4	5 = 3 * 4	6	7	8 = 3 * 7	9 = 3 + 5 + 8
2.5.1.1	Piling Works		0.00%	-		0.00%	-	-
2.5.1.2	Structural, Civil & UG works including supply of materials		0.00%	-		0.00%	-	-
2.5.1.3	Mechanical Works - Fabrication / installation							
2.5.1.3 (a)	Reactors including Internals		0.00%	-		0.00%	-	-
2.5.1.3 (b)	Regenerator, Hopper, Fines Filters etc.		0.00%	-		0.00%	-	-
2.5.1.3 (c)	All pumps with drivers and all associated auxiliaries and accessories as required.		0.00%	-		0.00%	-	-
2.5.1.3 (d)	All Packaged items with all auxiliaries : Calcination-dryer,oxychlorination water package,Caustic tatic Mixer,Chlorination Agent Satic Mixer etc.		0.00%	-		0.00%	-	-
2.5.1.3 (e)	All Dryers including internals (as applicable)		0.00%	-		0.00%	-	-
2.5.1.3 (f)	All Columns including internals		0.00%	-		0.00%	-	-
2.5.1.3 (g)	All Vessels and drums including internals		0.00%	-		0.00%	-	-
2.5.1.3 (h)	All Exchangers, Electrical Heaters etc.		0.00%	-		0.00%	-	-
2.5.1.3 (i)	Lift		0.00%	-		0.00%	-	-
2.5.1.3 (j)	Chain Pulley, EOT crane and handling equipment		0.00%	-		0.00%	-	-
2.5.1.3 (k)	Blowers with drivers and all associated auxiliaries and accessories as required		0.00%	-		0.00%	-	-
2.5.1.3 (l)	Installation of stack / Ducting modules		0.00%	-		0.00%	-	-
2.5.1.3 (m)	Above Ground Piping (A/G) PIPING works along with all valves, fittings, flanges, fasteners, etc. excluding fire-fighting system		0.00%	-		0.00%	-	-
2.5.1.3 (n)	UNDER GROUND (U/G) PIPING works along with all valves, fittings, flanges, fasteners, etc. excluding fire-fighting		0.00%	-		0.00%	-	-
2.5.1.4	Electrical works		0.00%	-		0.00%	-	-
2.5.1.5	Instrumentation Works		0.00%	-		0.00%	-	-
2.5.1.6	Training for Instrumentation as per scope		0.00%	-		0.00%	-	-
2.5.1.7	DCS FAT participation charges		0.00%	-		0.00%	-	-
2.5.1.8	Work Related to FIM (Free Issue materials)		0.00%	-		0.00%	-	-
2.5.1.9	Chemicals, oil, lubricants filling		0.00%	-		0.00%	-	-
2.5.1.10	UG/AG Fire-fighting system.		0.00%	-		0.00%	-	-
2.5.1.11	Insulation with weather proofing including supply of materials		0.00%	-		0.00%	-	-
2.5.1.12	Painting including supply of materials		0.00%	-		0.00%	-	-
2.5.1.13	Fire proofing including supply of materials		0.00%	-		0.00%	-	-
2.5.1.14	Loading of Catalyst , Chemicals etc., as per bidding document		0.00%	-		0.00%	-	-
2.5.1.15	Handing over of Mandatory Spares		0.00%	-		0.00%	-	-
2.5.1.16	Any other activity not mentioned above but required for completion of package works (BIDDER TO SPECIFY)							
	a)		0.00%	-		0.00%	-	-
	b)		0.00%	-		0.00%	-	-
	c)		0.00%	-		0.00%	-	-
	d)		0.00%	-		0.00%	-	-
	e)		0.00%	-		0.00%	-	-
2.5.1	TOTAL (sum of Sl. Nos. 2.5.1.1 to 2.5.1.16)	0.00		0.00			0.00	0.00
Note a:	Bidder may refer to the Central Goods and Service Tax Act, 2017, Integrated Goods and Service Tax Act, 2017 and applicable State Goods and Service Tax law while quoting the price.							

TABLE-I										
SECTION- D-3.0 - BREAK DOWN OF BID PRICE – MANDATORY SPARES WORK ITEMS										
SECTION- D-3.1 - MANDATORY SPARES WORK ITEMS (OFF SHORE SUPPLY)										
BIDDING DOCUMENT NO.:		JP/B862-101-PM-T-7300/1028								
NAME OF WORK:		CCR PACKAGE FOR PDH PP PLANT WITH ETHANE AND PROPANE STORAGE & HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/s PETRONET LNG LIMITED								
NAME OF BIDDER:		0								
SL. NO.	DESCRIPTION OF MANDATORY SPARES (Refer Note 1 of Table A for Section D 3.1 & D-3.2)	Basic Price (CFR) in			Basic Custom Duty	Other Custom related Duties (Otherthan SWS, IGST)	Social Welfare Surcharge (SWS)	IGST or CGST & SGST	GST Cess, if applicable	Goods Custom Duties - Amount of import duties (taxes and duties including the Basic Custom Duty component, cesses, surcharges, IGST or CGST & SGST etc on imports) applicable on import of goods falling under each sub-heading/ Component of Offshore Supply Work Items
		EUR	USD	INR	INR	INR	INR	INR	INR	INR
1	2	3	4	5	6	7	8	9	10	11 = 6 + 7 + 8 + 9 + 10
3.1.1	Electrical									-
3.1.2	Instrumentation									-
3.1.3	Mechanical									-
3.1.4	Others (Bidder to Specify)									
	a)									-
	b)									-
	c)									-
	d)									-
	e)									-
3.1	TOTAL (sum of Sl. Nos. 3.1.1 to 3.1.4)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Note a: Goods Custom Duties shall not be added while quoting the price in this TABLE I if the imports are to be undettaken in the name and IE Code of the Owner										
Note b: Mandatory spares TOTAL prices for each currency component shall be automatically indicated in the row 2.1.1.9 in Section D-2.1.1 in Table D.										
Note c: For Offshore Supplies Work Items quoted on a CFR basis, the 'CIF value' of the Offshore Supplies shall be arrived at by adding the Insurance @1% component to the CFR value of the Offshore Supplies										

TABLE- J					
SECTION- D-3.2 - MANDATORY SPARES WORK ITEMS (ON SHORE SUPPLY)					
BIDDING DOCUMENT NO.		JP/B862-101-PM-T-7300/1028			
NAME OF WORK:		CCR PACKAGE FOR PDH PP PLANT WITH ETHANE AND PROPANE STORAGE & HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/s PETRONET LNG LIMITED			
NAME OF BIDDER:		0			
SL. NO.	DESCRIPTION OF MANDATORY SPARES (Refer Note 1 of Table A for Section D 3.1 & D-3.2)	Total Price A	GST Details (Refer Notes a below) B		TOTAL Price of Component to be included in Price Bid in INR (Refer Note a below) C = A + Amount in B
		Amount in	RATE	Amount in	Amount in
		INR	%	INR	INR
1	2	3	4	5 = 3 * 4	6 = 3 + 5
3.2.1	Electrical		0.00%	-	-
3.2.2	Instrumentation		0.00%	-	-
3.2.3	Mechanical		0.00%	-	-
3.2.4	Others (Bidder to Specify)				
	a)		0.00%	-	-
	b)		0.00%	-	-
	c)		0.00%	-	-
	d)		0.00%	-	-
	e)		0.00%	-	-
3.2	TOTAL (sum of Sl. Nos. 3.2.1 to 3.2.4)	-		-	-
Note a:	Bidder may refer to Central Goods and Service Tax Act, 2017, Integrated Goods and Service Tax Act, 2017 and applicable State Goods and Service Tax law while quoting the price.				
Note b:	Mandatory spares TOTAL prices shall be automatically indicated in the row 2.3.1.9 in Section D-2.3.1 in Table F.				

TABLE- L

SECTION D-4.2 : SCHEDULE OF TAXES AND DUTIES

SECTION D-4.2.1 - BUILT-IN IMPORT CONTENT IN ONSHORE SUPPLIES WORK ITEMS

BIDDING DOCUMENT NO.:		JP/B862-101-PM-T-7300/1028							
NAME OF WORK:		CCR PACKAGE FOR PDH PP PLANT WITH ETHANE AND PROPANE STORAGE & HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/s PETRONET LNG LIMITED							
NAME OF BIDDER:		0							
Sl. No.	Description of the Component supplied under Onshore Supplies Work Items	Custom Tarrif Code	Country of ORIGIN	CFR value of imported raw material and components included in the Component stated in column 2.	Basic Custom Duty on Imported raw material and components	Other Custom related Duties on Imported raw material and components (Otherthan SWS, IGST)	Social Welfare Surcharge (SWS)	IGST applicable onimported raw material and components	GST Cess, if applicable on imported raw material and components
				Amount in	RATE	RATE	RATE	RATE	RATE
				INR	%	%	%	%	%
1	2	3	4	5	6	7	8	9	10
1									
2									
3									
4									
5									
6									
7									
8									
9									
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13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
4.2.1	TOTAL (sum of Sl. Nos. 1 to 25)			0					
Note a:	Bidder may refer to Central Goods and Service Tax Act, 2017, Integrated Goods and Service Tax Act, 2017 and applicable State Goods and Service Tax law while quoting the price.								
Note b:	The values quoted in this form shall be considered for capping purpose for variation in BCD, SWS etc.								

TABLE - O**SECTION D-5.1 -PRICES FOR POST WARRANTEE COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT SERVICES**

BIDDING DOCUMENT NO.:		JP/B862-101-PM-T-7300/1028			
NAME OF WORK:		CCR PACKAGE FOR PDH PP PLANT WITH ETHANE AND PROPANE STORAGE & HANDLING FACILITIES AT DAHEJ, GUJARAT OF M/s PETRONET LNG LIMITED			
NAME OF BIDDER:		0			
SL. NO.	DESCRIPTION	UNIT	IN INDIAN RUPEES (INR) EXCL. GST	GST RATE IN %	TOTAL AMOUNT INCL. GST
I	Comprehensive post warrantee Annual charges for maintenance of ANALYSER SYSTEMS after defect liability period of all types comprising of deployment of minimum one Supervisor including supply of spare parts and deployment of extra personnel required for repair or replacement of the above systems for the following periods:				
a	First year after expiry of defect liability period	LUMPSUM		0.00%	0.00
b	Second year after expiry of defect liability period	LUMPSUM		0.00%	0.00
c	Third year after expiry of defect liability period	LUMPSUM		0.00%	0.00
d	Fourth year after expiry of defect liability period	LUMPSUM		0.00%	0.00
e	Fifth year after expiry of defect liability period	LUMPSUM		0.00%	0.00
I	TOTAL PRICES (a + b+c+d+e)	LUMPSUM	0.00		0.00
II	Comprehensive post warrantee Annual charges for maintenance of LIFTS after defect liability period of all types comprising of deployment of minimum one Supervisor including supply of spare parts and deployment of extra personnel required for repair or replacement of the above systems for the following periods:				
a	First year after expiry of defect liability period	LUMPSUM		0.00%	0.00
b	Second year after expiry of defect liability period	LUMPSUM		0.00%	0.00
c	Third year after expiry of defect liability period	LUMPSUM		0.00%	0.00
d	Fourth year after expiry of defect liability period	LUMPSUM		0.00%	0.00
e	Fifth year after expiry of defect liability period	LUMPSUM		0.00%	0.00
II	TOTAL PRICES (a + b+c+d+e)	LUMPSUM	0.00		0.00
III	TOTAL PWCAMC PRICES = I + II	LUMPSUM	0.00		0.00



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-E TO CoC (QUALIFICATION AND EXPERIENCE OF KEY
SUPERVISORY PERSONNEL AND PENALTY FOR THEIR NON-
MOBILISATION



Rev	00	Page	1	of	1+5

QUALIFICATION AND EXPERIENCE OF KEY SUPERVISORY
PERSONNEL AND PENALTY FOR THEIR NON-MOBILISATION

[EXHIBIT - E TO CONDITIONS OF CONTRACT]

प्रमुख निर्माण कार्मिकों के लिए अपेक्षित योग्यता एवं अनुभव और तैनाती न करने पर जुर्माना

QUALIFICATION & EXPERIENCE REQUIREMENT OF KEY CONSTRUCTION PERSONNEL AND PENALTY FOR THEIR NON- MOBILIZATION

1	01.07.2020	Revised & Updated	DG	RK	AKK	SKS
0	12.06.2015	Doc. No. 9-1940-0001 Rev 1 has been revised and issued as Standard	DJ	RK	MD	SC
Rev. No	Date	Purpose	Prepared by	Checked by	Standards Committee Convenor	Standards Bureau Chairman
					Approved by	

Abbreviations:

CV	:	Curriculum Vitae
EPC	:	Engineering, Procurement & Construction
EPCC	:	Engineering, Procurement, Construction & Commissioning
ISO	:	International Organization for Standardization
NDT	:	Non Destructive Testing
QA/QC	:	Quality Assurance /Quality Control
RT	:	Radiography Testing
UT	:	Ultrasonic Testing

Construction Standards Committee

Convenor: Sh. A K Kundu, ED (Construction)

Members: Sh. Janak Kishore, ED (Projects)
Sh. Biswajit Mandal, Sr. GM (SCM)
Sh. Udayan Chakravarty, Sr. GM (Piping)
Sh. Ravindra Kumar, GM (Construction)
Sh. Debasish Ghosal, GM (Construction)
Sh. Pankaj Kumar Rai, AGM (Construction)

CONTENTS

- 1. QUALIFICATION & EXPERIENCE (POST QUALIFICATION) 4**
- 2. PENALTY FOR NON-MOBILIZATION OF KEY CONSTRUCTION PERSONNEL.... 5**

Qualification & Experience (Post Qualification)

CATEGORY	QUALIFICATION & EXPERIENCE (POST QUALIFICATION) REQUIRED			
Resident Construction Manager/ Resident Engineer/Site-In-Charge	Degree or Diploma in Engineering with minimum following relevant experience in construction:			
	Awarded value (Rs) →	< 10 Cr. Works	10 - 50 Cr. Works	> 50 Cr. Works
	Degree holders	5 yrs	10 yrs	15 yrs
	Diploma holders	8 yrs	13 yrs	20 yrs
Lead Discipline Engineer (Mechanical, Civil, Electrical, Instrumentation)	Degree or Diploma in relevant Engineering discipline with following minimum experience in Construction:			
	Awarded value (Rs) →	≤ 10 Cr. Works	10-50 Cr. Works	> 50 Cr. Works
	Degree holders	3 yrs	5 yrs	10 yrs
	Diploma holders	5 yrs	8 yrs	13 yrs
Lead Welding / NDT Engineer	Degree or Diploma in Mechanical Engineering/ Metallurgy with the minimum following experience in Welding & NDT (Non Destructive Testing) and possessing valid Level-II certificate in the relevant NDT methodology (RT/UT)			
	Awarded value (Rs) →	≤ 10 Cr. Works	10-50 Cr. Works	> 50 Cr. Works
	Degree holders	3 yrs	5 yrs	10 yrs
	Diploma holders	5 yrs	8 yrs	13 yrs
Lead QA/QC Engineer	Degree or Diploma in Engineering with following experience (refer Note 1 also) :			
	Awarded value (Rs) →	≤ 10 Cr. Works	10-50 Cr. Works	> 50 Cr. Works
	Degree holders	3 yrs of construction experience of which minimum 1 years in QA/QC	5 yrs of construction experience of which minimum 2 years in QA/QC	10 yrs of construction experience of which minimum 3 years in QA/QC
	Diploma holders	5 yrs of construction experience of which minimum 3 years in QA/QC	8 yrs of construction experience of which minimum 5 years in QA/QC	13 yrs of construction experience of which minimum 6 years in QA/QC
Lead Planning Engineer	Degree or Diploma in Engineering with following experience in Planning & Scheduling			
	Awarded value (Rs) →	≤ 10 Cr. Works	10-50 Cr. Works	> 50 Cr. Works
	Degree holders	3 yrs	5 yrs	8 yrs
	Diploma holders	5 yrs	8 yrs	13 yrs
Safety Officer / Supervisor	As per HSE Specification enclosed elsewhere in the bidding document.			

Warehouse- In- Charge/ Materials Manager	Diploma in Engineering or Diploma in Materials Management or Graduate in any stream with min. following experience in Warehousing/ Stores Management:			
	Awarded value (Rs) →	≤ 10 Cr. Works	10-50 Cr. Works	> 50 Cr. Works
	Experience	3 years	5 yrs.	10 yrs.
Quantity Surveyor	Degree or Diploma in Engineering with minimum following experience in quantity estimation, field measurement, bill preparation etc. in Construction field:			
	Awarded value (Rs) →	≤ 10 Cr. Works	10-50 Cr. Works	> 50 Cr. Works
	Degree holders	2 yrs	3 yrs	5 yrs
	Diploma holders	4 yrs	6 yrs	8 yrs
Discipline Engineer	Degree in relevant Engineering Discipline with minimum 2 years of relevant experience in construction or Diploma in relevant Engineering Discipline with minimum 4 years of relevant experience in Construction. Welding / NDT engineer shall possess valid Level-II certificate in the relevant NDT methodology (RT/UT).			

NOTES : (For Table)

1. For Mechanical, Composite, EPC or EPCC Contracts of value more than Rupees 50 crores, the Lead QA/QC Engineer shall be a qualified internal auditor for ISO 9001.
2. CVs of key construction personnel proposed to be deployed shall be submitted to Owner/Engineer-in-Charge prior to their mobilization at site. The mobilization of key personnel shall be done at site subject to prior approval of their CVs by Owner/Engineer-in-Charge.

PENALTY FOR NON - MOBILIZATION OF KEY CONSTRUCTION PERSONNEL

Penalty for non-mobilization per day per person after the contractual mobilization period / mobilization schedule agreed during Kick off meeting / jointly agreed between contractor and PMC / Owner based on front availability etc.

- Rs. 7000/- for Resident Construction Manager/ Resident Engineer/ Site-in-Charge.
- Rs. 4000/- for Lead QA/QC Engineer, Lead Planning Engineer, Warehouse In-charge, Lead Discipline Engineers, Lead Welding / NDT Engineer and the Quantity surveyor.
- Safety Officer (As per HSE Specification).

NOTES : (For Penalty Clauses)

- a) All intervening off days (Sundays etc.) and holidays will be counted for levy of penalty.
- b) Mobilized personnel shall not be demobilized till contractual completion or based on consent of Engineer-in-Charge, else penalties as above shall be applied.
- c) Total of above penalties shall not exceed 2% of the awarded contract value.

	CONDITIONS OF CONTRACT (CoC) EXHIBIT-F TO CoC (PROFORMA FOR APPROVAL OF SUB-CONTRACTOR)					
		Rev	0	Page	1	of 4

EXHIBIT- F

PROFORMA FOR APPROVAL OF SUB- CONTRACTOR

	CONDITIONS OF CONTRACT (CoC) EXHIBIT-F TO CoC (PROFORMA FOR APPROVAL OF SUB-CONTRACTOR)	 Rev 0 Page 2 of 4

Approval of Construction Sub-Contractor

1.	NAME OF CONTRACTOR	:	
2.	NAME OF WORK LOCATION	:	
3.	NAME OF PROPOSED SUB-CONTRACTOR	:	
4.	SCOPE OF WORK PROPOSED TO BE SUB-CONTRACTED (BRIEF) BY THE CONTRACTOR	:	
5.	ESTIMATED VALUE OF THE PROPOSED WORK TO BE SUB-CONTRACTED (INR):	:	
6.	QUALIFYING CRITERIA FOR SUB-CONTRACTOR:	:	
6.1		:	
i)	Similar Work experience: 1 (One) Contract of 50% of estimated value of proposed work to be sub-contracted, in last 7 years: OR 2 (Two) Contracts each of 40% of estimated value of proposed work to be sub-contracted, in last 7 years: OR 3 (Three) Contracts each of 30% of estimated value of proposed work to be sub-contracted, in last 7 years:	:	
ii)	Annual Turnover The annual turnover in any last 3 (three) financial years shall not be less than 50% of the estimated annualized (*) value of proposed work to be sub-contracted; as per the audited annual financial results of immediate preceding three financial years	:	
iii)	Networth shall be at positive as per the immediate preceding year's Audited financial results.	:	
iv)	Working Capital: Proposed sub-contractor should have minimum	:	



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-F TO CoC (PROFORMA FOR APPROVAL OF SUB-CONTRACTOR)



Rev 0 Page 3 of 4

	working capital equal to 10% of the estimated annualized (*) value of proposed work to be sub-contracted as per the immediate preceding year's audited financial results. In case proposed sub-contractor is unable to meet the working capital requirement as above, the proposed sub-contractor can supplement the working capital with a fund based line of credit from any scheduled bank in India or a commercial bank having Net Worth more than equivalent INR 100 Cr. In such a case, proposed sub-contractor shall furnish a declaration from the Bank for availability of unutilized fund based line of credit for the working capital of 10% of the estimated annualized (*) value of proposed work to be sub-contracted, in the format enclosed in the Bidding Document.		
	(*) For works having scheduled completion period of less than 12 months, annualization of value of proposed work to be sub-contracted for calculation of Annual Turnover & Working Capital shall not be done.		
7.	EXPERIENCE AND FINANCIAL DETAILS OF PROPOSED SUB-CONTRACTOR	:	
i)	Contract Value of similar work executed (as evidenced by work Order & Completion Certificate) During the last 7 years	:	
ii)	Annual Average Turnover during last 3(three) years (as evidenced by Balance Sheets)	:	
iii)	Networth as per latest annual balance sheet/ Profit & loss account	:	
iv)	Working Capital	:	
8	CRITERIA FOR QUALIFICATION OF SUB-CONTRACTOR	:	
i)	Sl.No. 7(i) > 6 (i)	:	YES / NO
ii)	Sl.No. 7 (ii) > 6 (ii)	:	YES / NO
iii)	Sl.No. 7 (iii) should be positive	:	YES / NO

	CONDITIONS OF CONTRACT (CoC) EXHIBIT-F TO CoC (PROFORMA FOR APPROVAL OF SUB-CONTRACTOR)				
		Rev	0	Page	4 of 4

iv)	Sl.No. 7 (iv) > 6 (iv)	:	YES / NO
9	Based on above information, we M/s_____ (Name of CONTRACTOR) propose M/s._____ (Name of proposed sub-contractor) as our sub-contractor for the above mentioned works. We understand that notwithstanding above approval, we shall remain fully responsible for the performance of the said sub-contractor and any failure of the sub-contractor shall not absolve/relieve us of our responsibility to complete the works as per the terms and conditions of the Contract.		

NOTE: CONTRACTOR to fill all the details in the above proforma. Further, CONTRACTOR shall also fill-in the details at Sl.No.5 above based on the estimated value of the proposed work to be sub-contracted.

(STAMP & SIGNATURE OF CONTRACTOR)

PAYMENT SCHEDULE

[EXHIBIT - G TO CONDITIONS OF CONTRACT]



**CONDITIONS OF CONTRACT
(CoC)**
EXHIBIT-G TO CoC (PAYMENT SCHEDULE)



Rev 00 Page 2 of 9

Sr. No.	DESCRIPTION																
1.0	<u>ON ACCOUNT PAYMENTS</u> The CONTRACTOR, if so required, shall submit further breakup for various activities through a billing schedule for Design and Engineering, Procurement and Supplies and Construction which will be reviewed and approved by Engineer-In –Charge within 30 days of submission of complete document in this regard by CONTRACTOR. For the purpose of billing for each discipline under Construction, further break up such as Civil and Structural, Mechanical, Piping, Electrical, Instrumentation, Insulation, Painting, etc. shall be made which will be reviewed and approved by Engineer-in-charge. The CONTRACTOR shall be paid monthly running account bills at stages of completion of individual item/work, based on the value assessment by Engineer-in-charge in the following manner after deductions of necessary dues payable by CONTRACTOR to the OWNER in accordance with various provisions made elsewhere in this document. Subject to the other provisions of the Contract documents, on account payments shall be made as follows:																
1.1	<u>DESIGN & ENGINEERING ONSHORE [2.4.1.1 of TABLE-G] & OFFSHORE SERVICES [2.2.1.1 of TABLE-E]</u> <table> <tr> <td>i)</td><td>55% on submission of drawings and P&IDs (defined for review category in tender document) and their approval under Code II on pro- rata basis.</td></tr> <tr> <td>ii)</td><td>15% submission of drawings and P&IDs (defined for review category in tender document) and their approval under Code I on pro- rata basis.</td></tr> <tr> <td>iii)</td><td>5 % on submission and approval of 3D model at 30%, 60%, 90% stages and final issuance to site on pro-rata basis.</td></tr> <tr> <td>iv)</td><td>5% on Completion of “project documentation & data handover system” at 30%, 60% & 90% and final handover to site stage.</td></tr> <tr> <td>v)</td><td>10 % on submission of As Built drawings for the Facility along-with its electronic files against the CONTRACTOR’s certified Running Account Bill(s) along with operation and instruction manuals</td></tr> <tr> <td>vi)</td><td>5% on Mechanical Completion of the Facility against the CONTRACTOR’s certified Running Account Bill(s).</td></tr> <tr> <td>vii)</td><td>4% (Four percent) on Completion of Assistance in Commissioning against the CONTRACTOR’s certified Running Account Bill(s).</td></tr> <tr> <td>viii)</td><td>1% (One percent) on completion of all jobs against the CONTRACTOR’s certified Final Bill.</td></tr> </table>	i)	55% on submission of drawings and P&IDs (defined for review category in tender document) and their approval under Code II on pro- rata basis.	ii)	15% submission of drawings and P&IDs (defined for review category in tender document) and their approval under Code I on pro- rata basis.	iii)	5 % on submission and approval of 3D model at 30%, 60%, 90% stages and final issuance to site on pro-rata basis.	iv)	5% on Completion of “project documentation & data handover system” at 30%, 60% & 90% and final handover to site stage.	v)	10 % on submission of As Built drawings for the Facility along-with its electronic files against the CONTRACTOR’s certified Running Account Bill(s) along with operation and instruction manuals	vi)	5% on Mechanical Completion of the Facility against the CONTRACTOR’s certified Running Account Bill(s).	vii)	4% (Four percent) on Completion of Assistance in Commissioning against the CONTRACTOR’s certified Running Account Bill(s).	viii)	1% (One percent) on completion of all jobs against the CONTRACTOR’s certified Final Bill.
i)	55% on submission of drawings and P&IDs (defined for review category in tender document) and their approval under Code II on pro- rata basis.																
ii)	15% submission of drawings and P&IDs (defined for review category in tender document) and their approval under Code I on pro- rata basis.																
iii)	5 % on submission and approval of 3D model at 30%, 60%, 90% stages and final issuance to site on pro-rata basis.																
iv)	5% on Completion of “project documentation & data handover system” at 30%, 60% & 90% and final handover to site stage.																
v)	10 % on submission of As Built drawings for the Facility along-with its electronic files against the CONTRACTOR’s certified Running Account Bill(s) along with operation and instruction manuals																
vi)	5% on Mechanical Completion of the Facility against the CONTRACTOR’s certified Running Account Bill(s).																
vii)	4% (Four percent) on Completion of Assistance in Commissioning against the CONTRACTOR’s certified Running Account Bill(s).																
viii)	1% (One percent) on completion of all jobs against the CONTRACTOR’s certified Final Bill.																
1.2	<u>SUPPLIES</u>																
1.2.1	<u>SUPPLIES</u>																
	Subject to the other provisions of Contract documents, on account payments for the supplies will be made as follows:																
i)	10% (Ten percent) of the price of Offshore materials & 10% (Ten percent) of the price																



**CONDITIONS OF CONTRACT
(CoC)**
EXHIBIT-G TO CoC (PAYMENT SCHEDULE)



Rev 00 Page 3 of 9

Sr. No.	DESCRIPTION		
		of Onshore materials as per billing break-up against placement of order. This payment shall be released after submission of Rolling Bank Guarantee for an equivalent amount of advance payment being released with a validity till receipt of materials at Fabrication Yard/Project premises plus 03 Months claim period. Bank Guarantee issued by CONTRACTOR to secure the advance paid against placement of order shall stand reduced, on quarterly basis, based on the value of receipt of material at Fabrication Yard/ Project premises.	
	ii)	A. OFFSHORE MATERIAL (AGAINST SHIPMENT OF THE GOODS)	
		55% (fifty five percent) of the price of Offshore materials as per billing breakup for which shipment of goods has occurred (provided, the Contractor furnishes to the Owner the relevant shipping documents evidencing the shipment of the goods and the value of the goods shipped).	
		This payment shall be released after submission of Rolling Bank Guarantee for an equivalent amount of payment with a validity till receipt of materials at Fabrication Yard/Project premises plus 03 Months claim period and on submission of the following documents with the CONTRACTOR's invoice:	
		a)	Signed invoice(s)
		b)	A full set of certified copies of clean bills of lading/ airway and 4 (four) non-negotiable copies.
		c)	Certificate of country of origin issued by a competent authority.
		d)	Packing list and Phytosanitary Certificate for packing material as per international norms.
		e)	Inspection Release Note as per QAP approved by OWNER/ PMC or waiver certificate issued by OWNER/ PMC.
		f)	Any other document or literature required for customs clearance
		g)	Export License (if any)
		h)	Test Certificate (if any)
		B. ONSHORE MATERIALS [AGAINST RECEIPT OF MATERIALS AT PROJECT PREMISES / FABRICATION YARD]	
		55% (fifty five percent) of the price of Onshore materials as per billing breakup on receipt of the materials at Fabrication Yard/Project premises.	
		Payment against Receipt of Materials at Fabrication yard/Project premises, as the case may be, shall be released on submission of the following documents with the CONTRACTOR's invoice:	
		a)	Signed Invoice(s)
		b)	Packing list.
		c)	Inspection Release Note as per QAP approved by OWNER/ PMC or waiver certificate issued by OWNER/ PMC.



CONDITIONS OF CONTRACT (CoC)



EXHIBIT-G TO CoC (PAYMENT SCHEDULE)

Rev 00 Page 4 of 9

Sr. No.	DESCRIPTION		
		d)	Photocopy of Railway Receipt/LR.
		e)	E-way Bill
	iii)	On Issue of Certificate of Verification and Good Condition at Site (i.e. Owner/PMC has inspected and accepted and agreed to the value of goods so received and the goods receipt voucher has been prepared), against Contractor's Certified Running Account Bill(s) :	
		15% (Fifteen percent) of price of Offshore material as indicated in billing breakup and 15% (Fifteen percent) price of Onshore materials as indicated in billing breakup on submission of: (a) Verification of Third Party Inspection certificate as per QAP approved by OWNER/PMC; (b) Certificate of Verification and Good Condition issued by Owner/ PMC after receipt of material at site. This payment shall be released on pro-rata basis.	
	iv)	10% (ten percent) of price of Offshore material as indicated in the billing breakup and 10% (Ten percent) of price of Onshore materials as indicated in the billing breakup on fabrication and erection/installation, alignment and grouting as required including testing where involved and required CONTRACTOR's certified running Accounts Bill(s).	
	v)	5% (five percent) of price of Offshore materials for relative materials as indicated in the billing breakup and 5% (five percent) of price of onshore material as indicated in the billing breakup on Mechanical Completion Certificate issued by Owner of the Facility/Works against the CONTRACTOR's certified Running Account Bill(s); and	
	vi)	4% (Four percent) of price of the Offshore materials as indicated in the billing breakup and 4% (Four percent) of the price of onshore materials as indicated in the billing breakup on Completion of Assistance in Commissioning against the CONTRACTOR's certified Running Account Bill(s).	
	vii)	1% (One percent) of price of the Offshore materials as indicated in the billing breakup and 1% (One percent) of price of Onshore materials as indicated in the billing breakup on completion of all jobs against the CONTRACTOR's certified Final Bill.	
1.2.2	(C) INLAND TRANSPORTATION WITHIN INDIA (Sl. No. 2.4.1.4 of Table G)		
	I.	Payment of the amount payable against inland transportation shall be paid as follows:	
		a) 80% (Eighty percent) on issue of Certificate of Verification and Good Condition on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s);	
		b) 15% (Fifteen percent) on issue of Mechanical Completion Certificate by Owner against the CONTRACTOR's certified Running Account Bill(s).	
		c) 4% (Four percent) on Completion of Assistance in Commissioning of the Facility/Works against the CONTRACTOR's certified Running Account Bill(s);	



**CONDITIONS OF CONTRACT
(CoC)**
EXHIBIT-G TO CoC (PAYMENT SCHEDULE)



Rev 00 Page 5 of 9

Sr. No.	DESCRIPTION		
		and	
		d) 1% (One percent) on completion of all jobs against the CONTRACTOR's certified Final Bill.	
		Note: i. The lumpsum amount indicated as payable for inland transportation within India shall include the cost of all freight demurrage and penalties, clearing, forwarding, loading, unloading, packing and handling of shipments and all other overheads whatsoever involved in customs clearance and lifting Offshore goods from the port of entry within India upto delivery at the OWNER's warehouse at site and transportation, site handling, loading and unloading from godown to CONTRACTOR's fabrication yard or to job site and from CONTRACTOR's fabrication yard to job site, and collection, loading, transportation and unloading of surplus material to OWNER's warehouse/stockyard.	
		ii. While preparing the priced Bill of Materials the lumpsum payable for inland transportation within India shall be split up and priced item-wise as realistically as possible, and this split-up shall be reckoned for calculating pro-rata amounts payable to the CONTRACTOR in terms of the payment schedule specified above.	
1.2.3	CONSTRUCTION/ SITE WORK		
1.2.3.1	CIVIL WORKS		
		i)	10% (ten percent) on completion of piling works on pro-rata basis as per the approved Schedule of Activities against the CONTRACTOR's certified Running Account Bill(s).
		ii)	80% (eighty percent) on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s) on completion of individual item of work as per approved Schedule of Activities, provided that in case piling is not involved then payment percentage shall be 90% (Ninety percent) on pro-rata basis on completion of individual item(s) of Work as per Schedule of Activities
		iii)	5% (five percent) on issue of Mechanical Completion Certificate by Owner against the CONTRACTOR's certified Running Account Bill(s).
		iv)	4% (Four percent) on Completion of Assistance in Commissioning against the CONTRACTOR's certified Running Account Bill(s).
		v)	1% (One percent) on completion of all jobs against the CONTRACTOR's certified Final Bill.
1.2.3.2	STRUCTURAL WORK		
		i)	5% (five percent) on finalisation of quantity, plan and submission of fabrication drawings against the CONTRACTOR's certified Running Account Bill(s).



**CONDITIONS OF CONTRACT
(CoC)**
EXHIBIT-G TO CoC (PAYMENT SCHEDULE)



Rev **00** Page **6** of **9**

Sr. No.	DESCRIPTION	
	ii)	55% (fifty five percent) against supply & fabrication of materials on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
	iii)	30% (thirty percent) on erection, alignment, grouting and painting etc. on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
	iv)	5% (five percent) on issue of Mechanical Completion Certificate by Owner against the CONTRACTOR's certified Running Account Bill(s).
	v)	4% (Four percent) on Completion of Assistance in Commissioning against the CONTRACTOR's certified Running Account Bill(s).
	vii)	1% (One percent) on completion of all jobs against the CONTRACTOR's certified Final Bill.
1.2.3.3	<u>MECHANICAL WORK</u>	
	A.	PIPING
	i)	35% (thirty five percent) on completion of pre-fabrication, on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
	ii)	40% (forty percent) on completion of erection and welding, on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
	iii)	15% (fifteen percent) on completion of hydro-testing, on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s)
	iv)	5% (five percent) on issue of Mechanical Completion Certificate by Owner against the CONTRACTOR's certified Running Account Bill(s).
	v)	4% (Four percent) on Completion of Assistance in Commissioning against the CONTRACTOR's certified Running Account Bill(s).
	vi)	1% (One percent) on completion of all jobs against the CONTRACTOR's certified Final Bill.
	B	INSULATION
	i)	90% (ninety percent) on completion of insulation works, on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s)
	ii)	5% (five percent) on issue of Mechanical Completion Certificate by Owner against the CONTRACTOR's certified Running Account Bill(s).
	iii)	4% (Four percent) on Completion of Assistance in Commissioning against the CONTRACTOR's certified Running Account Bill(s).
	iv)	1% (One percent) on completion of all jobs against the CONTRACTOR's certified Final Bill.
	C	PAINTING
	i)	10% (ten percent) on pro-rata basis on surface preparation & primer application against the CONTRACTOR's certified Running Account Bill(s).



**CONDITIONS OF CONTRACT
(CoC)**
EXHIBIT-G TO CoC (PAYMENT SCHEDULE)



Rev 00 Page 7 of 9

Sr. No.	DESCRIPTION		
		ii)	80% (eighty percent) on pro-rata basis on Final Painting against the CONTRACTOR's certified Running Account Bill(s).
		iii)	5% (five percent) on issue of Mechanical Completion Certificate by Owner against the CONTRACTOR's certified Running Account Bill(s).
		iv)	4% (Four percent) on Completion of Assistance in Commissioning against the CONTRACTOR's certified Running Account Bill(s).
		v)	1% (One percent) on completion of all jobs against the CONTRACTOR's certified Final Bill.
	D	EQUIPMENT	
		i)	45% (forty five percent) on completion of erection, on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
		ii)	45% (forty five percent) on completion of alignment & grouting, on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
		iii)	5% (five percent) on issue of Mechanical Completion Certificate by Owner against the CONTRACTOR's certified Running Account Bill(s).
		iv)	4% (Four percent) on Completion of Assistance in Commissioning against the CONTRACTOR's certified Running Account Bill(s).
		v)	1% (One percent) on completion of all jobs against the CONTRACTOR's certified Final Bill.
1.2.3.4	ELECTRICAL & PLANT COMMUNICATION WORKS		
		i)	45% (forty five percent) on erection/installation etc. on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
		ii)	45% (forty five percent) on testing loops and system on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
		iii)	5% (five percent) on issue of Mechanical Completion Certificate by Owner against the CONTRACTOR's certified Running Account Bill(s).
		iv)	4% (Four percent) on Completion of Assistance in Commissioning against the CONTRACTOR's certified Running Account Bill(s).
		v)	1% (One percent) on completion of all jobs against the CONTRACTOR's certified Final Bill.
1.2.3.5	INSTRUMENTATION		
		i)	45% (forty five percent) on erection/installation etc. on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
		ii)	45% (forty five percent) on testing loops and system on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
		iii)	5% (five percent) on issue of Mechanical Completion Certificate by Owner against the CONTRACTOR's certified Running Account Bill(s).



**CONDITIONS OF CONTRACT
(CoC)**
EXHIBIT-G TO CoC (PAYMENT SCHEDULE)



Rev 00 Page 8 of 9

Sr. No.	DESCRIPTION	
	iv)	4% (Four percent) on Completion of Assistance in Commissioning against the CONTRACTOR's certified Running Account Bill(s).
	v)	1% (One percent) on completion of all jobs against the CONTRACTOR's certified Final Bill.
1.2.3.6	MECHANICAL COMPLETION	
	a)	100% (hundred percent) on Mechanical completion of the Facility.
1.2.3.7	TESTING AND COMMISSIONING ASSISTANCE	
	a)	100% (hundred percent) on Completion of the Commissioning Assistance of the Facility.
2	PAYMENT TERMS FOR ASSISTANCE SERVICES DURING OPERATION 100% against submission of bills and time sheets certified by the Engineer-in Charge on Monthly basis . All the bills, claims related to payment for these services shall be directly submitted to Engineer-In-charge designated after the commissioning of the Facility. Note: Assistance during Operation is an additional activity after PGTR of the said Facility and Payment for the same shall be dealt separately without mutually affecting the liabilities/Payment related to Execution of Contract such as Defect Liability Period/ PRS/ Payment Terms etc. as per requirement of CoC. Assistance during operation being an additional activity after PGTR of the Facility and the same shall not affect closure of the Contract of LSTK Work.	
3	PAYMENT TERMS FOR MISCELLANEOUS WORKS: 95% on completion of work as certified in progress bill. 05% on completion of all works in all respects and issuance of completion certificate.	
4	MANDATORY SPARES: In respect of each Mandatory Spares Work Item, an amount equal to:- (i) 85% of the Component Value of each of the goods supplied from outside India that are Components of such Work Item for which shipment of such goods has occurred during such Performance Month (provided, the Contractor furnishes to the Owner the relevant shipping documents evidencing the shipment of the goods and the value of the goods shipped); (ii) 15% of the Component Value of each of the goods supplied from outside India that are Components of such Work Item for which receipt of such goods at Work Site has occurred during such Performance Month (provided the Owner's Representative has inspected and accepted such goods and has agreed to the value of the goods so received and the goods receipt vouchers (as described in section E of Exhibit H) in respect of such goods have been duly prepared); and (iii) 100% of the Component Value of each of the goods supplied from inside India that are Components of such Work Item for which receipt of such goods at	



**CONDITIONS OF CONTRACT
(CoC)**



EXHIBIT-G TO CoC (PAYMENT SCHEDULE)

Rev 00 Page 9 of 9

Sr. No.	DESCRIPTION	
		Work Site has occurred during such Performance Month (provided the Owner's Representative has inspected and accepted such goods and has agreed to the value of the goods so received and the goods receipt vouchers (as described in section E of Exhibit H) in respect of such goods have been duly prepared).
5		MONTHLY CUSTOMS INVOICE: Wherever applicable, the Contractor shall invoice in the relevant Monthly Customs Invoice such Goods Customs Duties as are reimbursable to the Contractor under the provisions of Article 13 of this Contract and are duly paid by the Contractor in the Performance Month, subject to the conditions of Article 13 and in accordance with Article 14.
6		General Notes: In case Commissioning is delayed (due to factors not attributable to contractor) up to 6 (Six) months, after Mechanical completion and liquidation of all checklist points, the payment against the commissioning milestone shall be released on submission of additional Bank Guarantee of equivalent amount valid for 1 (One) year or such extended period as may be required.
7	i)	Payment of GST: The Contractor shall always comply with the requirements of applicable laws and provide necessary documents as prescribed under the Rules & Regulations, as applicable from time to time. In particular, if any tax credit, refund or other benefit is denied or delayed to Owner due to any non-compliance / delayed compliance by the Supplier under the Goods & Service Tax Act (such as failure to upload the details of the sale on the GST portal, failure to pay GST to the Government) or due to non-furnishing or furnishing of incorrect or incomplete documents by the Contractor, the Contractor shall be liable to reimburse Owner for all such losses and other consequences including, but not limited to the tax loss, interest and penalty.
	ii)	a) Rolling Bank Guarantee shall mean "a work advance bank guarantee where the coverage shifts or "rolls" over time, covering subsequent obligations as the previous ones are fulfilled". b) The Rolling Bank Guarantee shall be in addition to other Bank Guarantees such as Mobilisation Advance Bank Guarantee, Contract Performance Bank Guarantee or any other Bank Guarantees as required to be submitted by the contractor.



**CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)**



Rev	0	Page	1	of	35

EXHIBIT H

General Project Requirements and Procedures

PLL PDH PP PETROCHEMICAL PROJECT, DAHEJ



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	2	of	35

TABLE OF CONTENTS

Contents

GENERAL	3
SECTION A PROJECT MANAGEMENT	4
SECTION B.....	6
QUALITY MANAGEMENT, QUALITY ASSURANCE AND PROJECT QUALITY PLAN	6
SECTION C.....	7
SECTION D DRAWINGS AND DOCUMENTS	10
SECTION E PROCUREMENT	Error! Bookmark not defined.
SECTION F.....	21
HEALTH, SAFETY & ENVIRONMENT.....	21
SECTION G	22
CONSTRUCTION.....	22
SECTION H.....	24
PRECOMMISSIONING AND COMMISSIONING	24
SECTION I	25
PROGRESS MEASUREMENT	25
ANNEXURE H1	26
CONTENTS OF TYPICAL PROJECT QUALITY PLAN	28
ANNEXURE H2	30
ANNEXURE H3	33
ANNEXURE H4	34



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	3	of	35

GENERAL

- 1.0** This Exhibit contains the requirements and procedures for project management, quality assurance, project planning and scheduling and monitoring system, Drawing and Documents, procurement, health, safety & environment management, construction, pre-commissioning, commissioning assistance etc. of CCR Package and related documents referenced in Technical part of the tender should also to be considered. The Contractor shall incorporate the procedures detailed herein in its own job procedures.
- 2.0** The Contractor shall provide all services, work and functions required for design, engineering, procurement, fabrication, construction, testing, pre-commissioning, commissioning assistance etc. of CCR Package and all other Work necessary for the completion of the CCR Package in accordance with the design criteria, specifications, procedure, requirements and manner set forth in the Contract. In case of any Work for which the specification, procedure, requirement and manner or any other detail is not set out in the Contract, the Work shall be carried out in accordance with Good Industry Practice.



**CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)**



Rev	0	Page	4	of	35

**SECTION A
PROJECT MANAGEMENT**

A.1 The Contractor shall perform all services, work, functions required for the project management of the Work (Work Project Management) including but not limited to, the following:

- a) Total management of verifying the design criteria and updating (if required), drawings, specifications and other engineering requirements and information supplied by the Owner in the Technical Documents and developing any additional information as is required to complete the detailed design, engineering, procurement, construction, pre-commissioning, and assistance during commissioning of CCR Package as agreed with the Owner and the management and supervision of all Subcontractors and Suppliers and of all Work including ancillary or temporary services that are necessary for the expeditious completion of the Facility in accordance with the conditions of the Contract.
- b) Project co-ordination and carrying out management procedures for the Work, including without limitation, detailed design, engineering, procurement, project control, contracting, construction and commissioning assistance, to ensure Work is completed in accordance with the Contract Schedule and according to the specifications and requirements of this Contract.
- c) Submit for Owner's approval a project management team (Project Management Team) upon the execution of the Contract to arrange the implementation of the Work indicating job descriptions, for each key position on the Project Management Team.
- d) Submit for the Owner's approval procedure for interface/Tie-in management, list and Schedule of information exchange between different contractors including Other Contractor(s), etc.

A.2 The Contractor shall provide the following as Key Site Personnel in accordance with the terms of the Article 5.4 in addition to the Project Manager, Interface/Tie-in Manager and the Site Manager:

Engineering Manager, Chief Process Engineer, lead discipline heads (Civil, Mechanical, Electrical, Instruments), Planning & Project Control Manager, Procurement Manager, Quality Assurance Manager, Safety Manager, and Commissioning Manager.

A.3 Coordination and Communication Procedure

A.3.1 The Contractor shall have submitted for the Owner's review/ approval, within 02 weeks from the issuance of the LOA, a procedure for coordination and communication between the Contractor and the Owner to ensure a proper flow of information. Such a procedure shall define:

Project organization:

- Contractor organization chart with Owner interfaces
- Work locations

Communication:

- Abbreviations
- Owner and Contractor representatives
- Owner and Contractor addresses



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	5	of	35

- Correspondence between Owner and Contractor
- Correspondence with others
- Transmittal notes
- Means of transmission
- Document distribution chart identifying the nature of documents, originators, and addresses, number of copies required.
- Tracking, scheduling and management of documents methodology
- Information Exchange between the Contractor and the Other Contractors, if any.

A.3.2 Project Execution Plan

Contractor to plan and submit the Project Execution Plan within 30 days from the issuance of LOA, considering the limitation of availability of fabrication yard area, arrangement of fabrication yard in vicinity, transportation of ODC, availability of skilled manpower and heavy monsoon that are prevalent in that region. Based on the above following philosophy is to be adopted:

- Modular construction to the Maximum extent
- Maximize the pre-fabrication work at vendor works for off modules
- Maximize simultaneous / parallel working on multiple fronts
- Maximize work at ground to ensure good progress, quality, and safety



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	6	of	35

SECTION B
QUALITY MANAGEMENT, QUALITY ASSURANCE AND PROJECT QUALITY
PLAN

B.1 The Contractor shall submit to the Owner a proposal for a quality assurance program (Quality System) that shall satisfy the essential elements of latest ISO 9001, Quality Systems - Model for Quality Assurance in Design/Development, Production, Installation and Servicing - and latest ISO 9004, Quality Management and Quality System Elements - Guidelines. The Quality System shall provide for the planned and systematic control of all quality related activities and services to be performed during design, procurement, and construction and commissioning assistance. Implementation of the Quality System shall be in accordance with the Contractor's quality manual and Project specific quality plan, hereinafter the (Project Quality Plan). The Project Quality Plan shall detail in a matrix format how the Contractor's Quality System addresses the elements of ISO 9001 Section 4 with reference to responsible parties within the Organization for the implementation/control of each area, the applicable procedure used to control each area, regular reporting and verifying documents produced for each area.

B.2 Quality System requirements

The Contractor's Quality System implementation shall conform to the requirements of ISO 9000, (ISO 9001 and 9004) covering all management aspects and shall impose the same requirements on Subcontractors and Suppliers. The Quality System shall ensure the Work as a whole is included from Project initiation to commissioning. Review/approval by the Owner of quality surveillance procedures of the Contractor shall not however dilute the responsibility of the Contractor for maintaining quality.

B.3 Third Party Audit

Implementation of the Contractor's Quality System may be audited by an Owner appointed third party.

B.4 Project Quality Plan

Within forty-five (45) days after the Effective Date, the Contractor shall submit to the Owner, for its approval, the Project Quality Plan, as a documented description of the project management system demonstrating the means by which technical and administrative authorities are delegated throughout the Project. The Project Quality Plan shall also demonstrate the Contractor's commitment to quality. The Project Quality Plan shall be prepared on the guidelines enclosed at Annexure H1. The Project Quality Plan so submitted by the Contractor shall conform to the duties and the periods specified in the Contract.



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	7	of	35

SECTION C
PROJECT PLANNING, SCHEDULING AND MONITORING SYSTEM

C.1 The Contractor shall define a planning, scheduling and monitoring system and engage professionally qualified and experienced planning engineers/ personnel for carrying out this function for the duration of the Work. Contractor to provide Project Management Software on real time basis which shall be state of the art and incorporate the latest techniques and shall be capable to support and enforce proper control mechanism in the Project. The software shall have predictive capability and shall include pre-warning mechanisms to diagnose and forecast any problem in connection with the Work well in advance and provide preventive features or measures. To achieve this objective, the following schedules, documents, reports shall be prepared and submitted by the Contractor for the Owner's review / approval at various stages of the Project.

a) Overall Project Schedule (Level 1 Network)

The Contractor shall submit as a part of the Project Execution Plan referred at Article 12.2, a sufficiently detailed overall project schedule in the activity network form, clearly indicating the Milestones, inter-relationship/inter- dependencies between various activities together with a computer analysis of critical path and floats. The Contractor shall specify the activities on critical path which also gives an idea about how much time is needed to complete the activity, explaining the issue which shall affect the other activities. Primavera Project Planner (latest version) shall be used for preparing the schedule/ network and to be updated monthly and submit it along with Monthly Progress Report. The Contractor shall furnish breakdown structure for the project indicating quantum of Work for major activities during Kick off meeting or one (01) week after award of Contract, whichever is earlier along with overall project schedule (level-1).

The network will be reviewed and approved by the Owner and the Owner's comments, if any, shall be incorporated in the network issued for implementation within two (02) weeks from receipt of comments. The network thus finalized shall be annexed to the Contract Schedule at Exhibit C and the same shall not be revised without the prior permission from the Owner during the entire period of Contract. Owner shall approve the changes made during revision of the network. The Milestones shall form part of Contract Schedule (Exhibit C). The Contractor shall provide the native file of the Overall Project Scheduled in Primavera Project Planner (latest version) software along with the submission of requisite document.

b) Detailed Activity Networks (Level 2 Network)

The Contractor shall finalize detailed activity networks for physically identifiable units and utility systems, based on Contract Schedule within one (01) month immediately following the Effective Date.

The schedule should be submitted in Primavera Project Planner (latest version) and such networks would be computerized for further monitoring and reporting and would be updated monthly with a predetermined cut-off date.

c) Progress Measurement Methodology

The contractor shall submit the proposed Progress Measurement Methodology within one (01) month of effective award of contract clearly identifying the percentage weightages for each function as well as milestone/ discipline level.

d) Functional Schedules (Level 3 Network)

The Contractor shall prepare within forty-five (45) days immediately following the Effective Date resource based, detailed functional schedules (engineering, procurement, subcontracting



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	8	of	35

& delivery of bought out items along with scheduled progress curves for each function and overall) in line with the Contract Schedule/detailed activity networks for functional monitoring and control and Progress Measurement Methodology. The functional schedules for the each individual major unit/system should also be prepared so that each one of them can be monitored independently.

The quantum schedules summarized from above (e.g. cumulative number of drawings, material requisitions, purchase orders for each month) shall also be submitted.

e) **Supplier Scheduling and Monitoring**

The Contractor shall submit a unit/ system wise schedule for all manufacturing & delivery activities. These shall include all orders listed in the Ordering Schedule. The progress at function level shall be summarized considering weighted values of tagged items and bulk material to report overall manufacturing and delivery progress. The schedules shall have monthly / fortnightly reporting system for Supplier monitoring, for effective control.

The Contractor shall also submit along with Monthly Progress Report, status of drawings and documents for vendors on whom critical package orders have been placed.

f) **Construction Network**

The Contractor shall prepare and submit a detailed construction network with full consideration of logistics, construction studies and method in Primavera Project Planner (latest version) for the Owner's approval. The Contractor shall describe the resources required and special construction equipment/tools/tackles to be mobilized. The network shall be developed within two (2) months immediately following the Effective Date and shall be updated monthly with a cut-off date to be determined by the Owner.

Based on the network, the Contractor shall develop the commodity curve for key activities as per the requirement of the Owner. The schedule shall have interface with engineering, ordering and manufacturing & delivery activities. The Contractor shall also define construction quantity for each activity. The Contractor shall finalize discipline wise Construction "S" Curves and quantum schedule.

The Contractor shall develop the construction network, considering that there shall be other contractors working simultaneously on the Site. The construction network is intended to ensure that sufficient construction space and front is available to the Contractor and any Other Contractor(s) working at Site.

g) **Subcontracting plan and schedules**

The Contractor shall submit, at the time of kick off meeting, to the Owner for approval, an overall subcontracting plan for the Work bringing out the planned subcontracts along with the scope of work for each Subcontractor. The Contractor shall also submit to the Owner resource based construction schedule with progress curves for proper monitoring and control for each Subcontractor.

Apart from hardcopies, the Contractor shall also provide the soft copies of all original and updated schedule and network as per the requirement of the Owner.

h) **Job close out report to be prepared and submitted upon achievement of Completion of the project. Since it is likely that Head office activities will be completed prior to site activities, it is preferable to provide two (02) separate close out reports for Head office activities and site activities.**



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev 0 Page 9 of 35

C.2 Project Review Meetings

The Contractor shall present the program and status at various review meetings as per the Project Quality Plan. As a minimum, the following review meetings shall be held during the execution of the Project:

- a) Monthly progress review meeting at mutually convenient location
- b) Quarterly top management review meeting alternately at the Owner's office & the Contractor's office
- c) Weekly contract progress review meeting at the Site

C.3 Progress Reporting

The Contractor shall submit the progress reports as per Project Quality Plan for the Owner's information during currency of the Work. The content of a typical monthly report is defined in Annexure H2.

C3.1 The requirement of copies for submission of schedules & reports shall be as per the following table along with the electronic copy:

S. No.	Name of Document	Number of hard copies		
		Owner	PMC	
			HO	Site
1	Overall Project Schedule	4	1	2
2	Detailed Activity network	4	1	-
3	Functional Schedule	2	1	-
4	Construction Network	2	1	2
5	Monthly Progress Report	3	1	2
6	Weekly Progress Report	2	1	2
7	Daily Bulletin	1	-	2



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	10	of	35

SECTION D
DRAWINGS AND DOCUMENTS

D.1 Design/Engineering/Construction Stage

D.1.1 The Contractor shall prepare all Drawings and Documents (hereinafter DD), design specifications and any other information in DD form, required by the Owner and in accordance with job requirements, prior to construction issue.

D.1.2 The Contractor shall prepare and furnish editable files of all DD including as built documents, in line with document - " Procedure for Smart Integrated Engg. & Digital Handover for Drawing/ Document/ 3D Model – Doc. No. B862-000-69-41-SP-0001" attached along with tender.

D.1.3 All DD before submission to the Owner shall be vetted in detail as per the Project Quality Plan. DD received without vetting shall be considered as non-submission and shall be returned to the Contractor at the risk and cost of the Contractor for rectification. In case of any such return of DD, any delay thereto shall be to the account of the Contractor.

D.1.4 Within thirty (30) days immediately following the Effective Date and in coordination with the Owner, the Contractor shall have developed a matrix for submission of DD to the Owner. The detailed document list under different categories discipline-wise shall be submitted by the Contractor in PMC Document Review System for approval of the Owner inline with tender.

D.1.5 Proper sequence of submission of DD is essential for proper review of DD and timely completion of the Work and proper exchange of information (as required) with the Other Contractors and the same shall be adhered to by the Contractor. In case sequence is not maintained, the Owner may not review the DD submitted and responsibility of timely execution of the Work shall remain solely with the Contractor on this account.

D.1.6 The Contractor shall maintain up-to-date record of DD status and make regular issue of drawing/document index, both for the Contractor generated DD and Supplier/Subcontractors generated DD, indicating scheduled date of submission, actual submission date of various revisions and date of receipt of reviewed DD with review codes.

D.1.7 The Owner/ PMC shall review and advise the Contractor of any comments on the DD within fifteen (15) days after receipt of the DD by the Owner, requiring review/ approval of the Owner. The Contractor shall resubmit the DD within seven (7) days of receipt of the Owner's comments.

D.1.8 The DD submitted for the record/ information of the Owner shall be retained for information only and the Contractor can progress with Work based on such DD. However the Owner reserves the right to advise the Contractor of any Contract deviation that the Contractor may have taken, at any time during the pendency of the Contract and the Contractor is liable to respond to satisfy the Owner that the Work being done or done is in accordance with the Contract.

D.1.9 During the progress of Work, the Contractor shall submit to the Owner's Representative (as soon as reasonably practicable), such additional DD and information as the Owner's Representative may reasonably require.

D.1.10 Unless otherwise required, at least 3 (three) sets of direct reading reproducible, no lower in quality than auto positive of extra thin paper able to produce clean legible prints (the reproducible to be submitted in roll forms) and 3 (three) sets of prints of all approved plans,



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	11	of	35

approved DD, designs, specifications prepared by the Contractor, together with similar sets of the reproducible and prints of all revisions, amendments and modifications thereof, shall be lodged with the Owner's Representative/Owner for the record of the Owner. Such sets of plans, DD, designs, specifications shall be signed by the Contractor and the Contractor shall indicate thereon, the number and date of each revision / amendment and of the communication of the Owner's Representative/Owner for the approval thereof by which the approval was given.

D.1.11 The responsibility for ensuring that the Owner receives all relevant DD rests with the Contractor. Format for DD transmittal sheet for submission to the Owner shall be finalized during kick-off meeting.

D.1.12 Type of DD

a. Documents

The following documents shall be prepared by the Contractor, in addition to any other specified elsewhere in the Contract:

- Co-ordination procedure
- Project Quality Plan (PQP)
- Project Execution Plan (PEP)
- Work Plans and Schedules
- Manpower plans that support Work plans
- All calculations and updates of calculations necessary to finalise design
- Specifications and Data Sheets for services, equipment and bulk materials
- All drawings, supported by bills of materials necessary for construction
- Progress Reports and Final Reports as specified
- Contractor's Project Procedures for all services
- Interface/Tie-in document with other contractors
- Interface/ Tie-in document with Owner

b. Manuals

The Contractor shall prepare the following manuals:

- Quality Assurance Manuals
- Operation and Maintenance Manuals
- Safety Manual
- Manufacturer record book
- Spare parts manuals
- Mechanical catalogues

The Contractor shall review for conformance:

- Supplier operating and maintenance manuals
- Supplier shop inspection and quality control manual
- Subcontractors Quality Control Manual
- Contractor to also ensure the Punch List values of all the O&M Manuals.

D.2 As Built DD/Post Construction Stage

D2.1. As built drawings and documents shall be generated by the Contractor for the Owner within one (01) month after completion of activities on the respective items of Work. The Contractor shall furnish reproducible and electronic editable native version of files of all the drawings under their scope to the Owner certified as «As Built Drawings».



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	12	of	35

D2.2. The Contractor shall submit for the Owner's review and approval a draft of the Operation and Maintenance Manual at least one hundred and fifty (150) days prior to scheduled Mechanical Completion. The Owner shall return comments to the Contractor within sixty (60) days after receipt of draft. The final copies shall be furnished to the Owner at least thirty (30) days prior to scheduled Mechanical Completion. Specifications for Operating and Maintenance Manual are provided in Annexure H3 and H4 respectively.

D2.3. Prior to Provisional Acceptance, the Contractor shall furnish the Owner with the following:

One (1) complete set of reduced size (A3-297x420mm) reproducible copies of all drawings.

- a. As Built DD generated specifically for this job in electronic editable native version
- b. All Supplier drawings & documents in editable format.
- c. All operating & maintenance instructions in electronic media. The above shall be furnished in hard disc (capacity in terabytes).
- d. Complete sets of full size prints of the drawings and 4 sets of reduced size prints.
- e. Complete bound sets of manufacturer's specifications including design calculations.
- f. Complete sets in hard binders of the manufacturer's data book including certified prints and data for all items including test reports. Data Book shall be complete with index as tag numbers associated with manufacturer's data shown. Equipment data shall include as a minimum requirement the principal and description of operation, drawings and dimensions, spare parts lists and unpriced purchase orders and bill of materials.
- g. Three (3) bound copies each of the spare parts data book and the lubricants inventory schedule.
- h. Three (3) complete sets of field records shall be signed by the Contractor's representative and the Owner's Representatives at the Site.
- i. Original Authorisations and related drawings and documents received from the relevant Governmental Authority.
- j. Copies of correspondence exchanged with all relevant Governmental Authorities.



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	13	of	35

SECTION E
PROCUREMENT

- E.1.1 All **Equipment** and **Materials** to be supplied shall be manufactured in the manner set out in the Contract including the Technical Documents. Where the procedure of manufacture, specification or any other detail is not set out in the Contract, the Work shall be executed in a proper, workmanlike and careful manner, with properly equipped facilities and non-hazardous materials, and in accordance with Good Industry Practice.
- E.1.2 The Contractor shall be responsible for procurement, packing, transport, receiving, unloading and safekeeping of all **Equipment** and **Materials**, **the Contractor's** Equipment and other things required for the completion of the Work.
- E.1.3 All imported **Equipment** and **Materials** to be procured and supplied for incorporation in the Work under **Offshore Supply** shall be supplied on CFR basis.
- E.1.4 All **Equipment** and **Materials** to be procured and supplied by the Contractor from indigenous sources under **Onshore Supply** shall be on Free on Road/ Rail (FOR) Site basis and delivered at Site.
- E.1.5 All surplus material remaining after the completion of the Work supplied under the Offshore Supply shall be the property of Owner. It is the responsibility of the Contractor to transport these materials in good condition to Owner's warehouse or any other designated place by the Owner along with the description, unit rate, value, proper certificates, records and documents, of each such material. Surplus material at Site supplied under the Onshore Supply and Construction and Erection Work Items can be taken by the Contractor with the approval of Owner provided that Contractor bears any additional cost arising out of such transaction.
- E.1.6 Contractor shall provide the overall control and co-ordination procedure of all procurement activities, maintain all necessary records, issue all required reports, and take all necessary measures and required follow-up action for the successful completion of the procurement function.
- E.2.1 Contractor shall propose in detail the various records and reports to be maintained and issued which the Owner shall review, and all requirements of Owner shall be taken into consideration in the finalisation of such records and reports. All procurement status reports shall be issued as part of the progress reports.
- E.2.2 Contractor shall prepare and maintain a material control account («Material Control Account») indicating the quantitative detail and value of various Equipment and Materials received, issued and consumed including the balance quantities, if any, during the Work. Contractor shall submit, within 60 days of the Effective Date, for Owner's approval a proforma for the Material Control Account.
- E.3 Generally, Contractor shall perform all procurement activities as defined herein. Procurement activities shall include but not be limited to:
- Procurement Planning for all permanent plant equipment and materials.
 - Purchasing and supply of all permanent plant equipment and materials.
 - Subcontracts for field erection/construction work.
 - Expediting
 - Inspection and Testing
 - Traffic and Transportation Services
 - Spare Parts Procurement
 - Field Purchases
 - Materials Tracking and Control
 - Arrangement for the importation of imported (offshore) goods. Contractor shall perform all



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	14	of	35

services related to import facilities and for obtaining necessary licenses and documents as required.

E.4 Procurement and Contracting

- E.4.1 Contractor's project specific procurement procedures shall be submitted for the information of the Owner.
- E.4.2 At least five days prior to the kick-off meeting of the Contract, Contractor shall submit for Owner's approval the name of Suppliers for critical Equipment and Materials and Sub contractors for critical works and services alongwith such information as is necessary as per the provisions of the Contract.
- E.4.3 Contractor shall consider the Suppliers included in the Suppliers List set forth in Technical Section as prequalified for the listed job. However, the Contractor shall take the Owner's approval before engaging or appointing any Supplier if the value of goods to be supplied by Supplier is more than USD 100,000. In exceptional circumstances, the Owner may consider request from the Contractor for approval of additional Suppliers (other than those listed in Technical Section). The request for approval of proposed and additional Suppliers/Subcontractors shall be supported by pre-qualification information covering the following as appropriate:
- Requirements regarding local agent (if any).
 - Suppliers/Subcontractors credentials regarding ISO 9000 accreditation
 - Pre-qualification documentation providing information on Suppliers and Subcontractors capabilities (engineering, manufacturing, and after sales support, financial position and references).
 - Previous experience with Suppliers/Subcontractors (performance) in similar supplies, indicating type of supply, order value and date.

Where Owner approval is required for ordering of Equipment and Materials, enquiry documents with relevant attachments and recommended technically selected offer shall be submitted for review by Owner before placement of order by Contractor.

- E.4.4 Copy of each (unpriced) purchase order issued by Contractor and submitted to Owner shall contain complete technical documents/attachments as issued to Suppliers/ Sub Contractors. Contractor shall obtain Supplier and Sub-Contractor acceptance on all essential technical and schedule requirements and a copy of Supplier/Subcontractor acceptance shall be forwarded to Owner by Contractor. Any inaccuracy, omission or inconsistency observed and brought to the notice of the Contractor at any stage during the pendency of the Contract shall be appropriately rectified, remedied and corrected by the Contractor at no additional cost to the Owner.
- E4.6 The Contractor, in conjunction with each engineering discipline and Quality Control and Inspection, shall determine the class of source inspection for each item of materials requisitioned.
- E4.7 The Contractor shall recommend for Owner's approval source inspection class selection for each major equipment item, specify, plan, and carry out Supplier shop inspection and testing of equipment and materials ordered in accordance with the requirements of the approved class of inspection.
- E4.8 Procurement**
- Contractor shall carry out the following activities:
- Contractor shall assess the solvency, current workload and compatibility with Owner requirements of Suppliers before commitment.
 - Purchase goods as per approved specifications and in accordance with procurement plan and Contract Schedule.
 - No materials substitutions shall be made by Contractor without prior approval by the Owner.
 - Perform all post award administrative and procurement activities until purchase order



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	15	of	35

closeout.

E4.9 Subcontracting

Contractor shall execute all Subcontracting activities in accordance with the scope and requirements specified in the Contract including the Technical Documents for successful completion of Work, including but not limited to the following:

- a) Contractor shall not require the approval of Owner for selection of Sub contractors for work value below US \$ 100,000.—Contractor shall, however, comply with the requirements specified in Sections E.4.9b) to E.4.9f)
- b) Contractor shall assess the solvency, current workload and compatibility with Owner requirements of Sub contractors before commitment.
- c) The Sub contractor shall be approved based on meeting the requirements set forth in Proforma for sub-contractor Approval (Refer Exhibit-F)
- d) Issue status reports on subcontracting activities as per Owner-approved formats and frequency.
- e) Select the Sub contractors and contracting services as per approved construction philosophy, and specifications and in accordance with Contract Schedule requirements.
- f) Perform separate technical and commercial evaluations after a thorough review of the bids and prior to submitting a detailed technical recommendation to Owner for approval of award.

The Owner will approve the proposed subcontractors on the basis of relevant PTR's and eligibility criteria documents submitted by Contractor for taking approval of the proposed subcontractor. It is pertinent to note that Owner's prior approval is required for approving a subcontractor.

E 4.10 Expediting

E 4.10.1 Contractor shall perform the expediting of procurement of Equipment and Materials, supplier data, personnel and documentation from invitation to bid through delivery at Site.

E 4.10.2 Contractor shall similarly expedite all replacement equipment or materials and associated documents, which are the subject of guarantee or insurance claims.

Such expediting shall be performed as necessary for the duration of Contract.

E 4.11 Inspection and Testing

E 4.11.1 Contractor shall prepare an item wise and detailed «Inspection and Testing Plan» so as to ensure the conformity of Drawings and Documents, Equipment and Materials and construction and erection activities to various standards, specifications/drawings and technical requirements as per Technical Documents. «Inspection and Testing Plan» shall clearly indicate the organizational approach for inspection and testing of the various equipment/construction activities and also provide verifiable evidence of the Contractor having carried out all the activities in accordance with the Contract document and approved procedures as agreed pursuant thereto. Owner may participate in Inspection & Testing of activities and it shall be informed about the Inspection and Testing schedule atleast thirty (30) days before the Inspection and Testing.

E4.11.2 Contractor shall consider following alternatives for carrying out his inspection activities in respect of indigenous and imported equipment/materials.

- i) Through Contractor's own inspection division with approval from Owner/PMC
- ii) Through an approved third party inspection agency listed below.

Under the second alternative with inspection by third party inspection agency, the payments to



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	16	of	35

be made to the third party inspection agency shall be responsibility of the Contractor and deemed to have been included in the Contract Price. Further, the responsibility for inspection/testing as per specification approved documents and agreed Quality Assurance procedure and plans shall be that of the Contractor. Inspection activities of the third party inspection agency shall be coordinated by the Contractor. The approved third party inspection agencies are as follows :

- i) M/s TUV SUD South Asia Pvt. Ltd.
- ii) M/s TUV Rheinland (India) Pvt. Ltd.
- iii) M/s TUV India Pvt. Ltd. / TUV Nord Group (TUV)
- iv) M/s Apave Assessments India Pvt. Ltd. (AAIPL)
- v) M/s VCS Quality Services Pvt Ltd
- vi) M/s DNV
- vii) M/s IR Class Systems and Solutions Pvt Ltd
- viii) M/s Projects & Development India Ltd (PDIL)
- ix) M/s Tata Projects Ltd
- x) M/s Llyods Register (LRS)
- xi) M/s Bureau Veritas (BV)
- xii) M/s Société Générale de Surveillance (SGS)
- xiii) M/s Gulf Lloyds Industrial Services (GLI)
- xiv) M/s International Certification Services (ICS)
- xv) M/s Bureau Veritas (Ind.) Pvt. Ltd (BVIS)
- xvi) M/s Intertek India Pvt. Ltd.
- xvii) M/s Moody International (Moody)
- xviii) M/s RINA India Pvt. Ltd.
- xix) M/s Competent Inspectorate and Consultants LLP
- xx) M/s ABS Industrial Verification (India) Pvt. Ltd.
- xxi) M/s Certification Engineers International Ltd (CEIL)
- xxii) M/s SGS India Pvt. Ltd.

E 4.12 Packing, Forwarding And Shipment

a) Imported Supplies

The Contractor shall notify Owner of the date of each shipment of Equipment and materials imported from outside India from the port of embarkation as well as the expected date of arrival of such shipment at the designated port of arrival for enabling the Owner to assist the Contractor in customs clearance formalities at the port of disembarkation and arrange funds for the payment of Goods Custom Duty. It shall, however, be clearly understood that Owner's responsibility shall be limited only to providing assistance by way of recommendatory letters to concerned authorities, if any required. The Contractor shall give complete shipping information concerning the value of shipment and weight, size and content of each package including any other information Owner may require prior to arrival in India of each shipment of Equipment and Materials.

b) Indigenous Supplies

The Contractor shall notify Owner of the date of dispatch of Equipment and Materials from sources within India and expected date of arrival at the Site for the information of Owner. The Contractor shall also give all dispatch information concerning the weight, size and content of each packing including any other information that the Owner may require and ensure that all necessary documentation/information/compliances as mandated under Applicable Law including Goods and Services Tax Law (including provisions pertaining to e- invoicing and E-way bills, as may be relevant) have been provided for/are available with the goods being dispatched Owner may require.

The following documents shall be sent to the Owner within 3 (three (3) days from the date of



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	17	of	35

shipment.

- Signed commercial invoice/delivery challan (three (3) originals + two (2) copies) and
- Packing list (three (3) originals + two (2) copies) Test Certificate (4) originals + two (2) copies)
- Railway receipt/Lorry receipt (three (3) originals + two (2) copies)
- Inspection certificate (four (4) originals + two (2) copies) (wherever applicable)

E 4.13 Shipping and other documents

The Contractor shall, in respect of all Equipment and Materials imported into India under the provisions of the Contract obtain and furnish to the Owner five (5) copies of the following documents prior to the arrival in India of each shipment:

- i) Signed Invoice(s)
 - ii) Clean Bill of Lading/Airway Bill
 - iii) Packing lists
 - iv) Certificate of Origin
 - v) Consular's Invoice, if necessary
 - vi) Export Licence/documents, if applicable
 - vii) Inspection Certificate
 - viii) Test Certificate
 - vii) Literature & manufacturer's catalogue, and
 - viii) Any other document(s) or literature required for custom clearance.
- b) The Bill of Lading/Airway Bill shall be drawn to show the Contractor as the shipper and the Owner as the consignee or otherwise as instructed by the Owner and shall clearly indicate the Contract number specified for this purpose by the Owner, the description of the items/materials giving the dimensions, quantities, weights, and all other details required for custom clearance of the consignment, and/or as may be specified by the Owner from time to time in connection therewith. The bill of Lading / Airway Bill shall show the gross freight amount and shall either indicate or be accompanied by the carrier's statement of charges and shall carry all other particulars necessary to bind the carrier. The Contractor shall, not less than 7 (seven) days before the contemplated date of shipment, inform the Owner's Representative of the contemplated date of relative shipment of the item(s) or material(s), the port of origin, the means of shipment (air or sea), the name, flag and owner of vessel if the shipment is by sea or the designation of aircraft if shipment is by air, the port of arrival in India and the contemplated date of arrival thereof in India.
- c) The Contractor shall also, within 48 (forty eight) hours of shipment, send confirmation of shipment by telex or cable or facsimile or email to the address of the Owner/Owner's Representative specified by Owner for this purpose.
- d) The invoice shall be drawn in the name of the Owner in terms of Contract Price Schedule (wherever the import is in the name of the Owner using Owner's IE code) and shall state the quantity and detailed description of each item supplied reflecting the value of each item/material and the basis of CFR delivery.
- e) The description of each item/materials indicated in the bill of entry and the bill of lading/airway bill shall conform to the description of the item/materials as given in the relative Import Licence(s)/Permit(s)/Project Import documentation (if opted for by the Owner).
- f) The invoice and bill of lading/airway bill shall also indicate on the face of it the number, date and validity of the import licence (if the import licence has been revalidated, number and date of re-validation)/Project Import documentation) against which the import is being made.
- g) Contractor shall arrange for shipping of imported goods through containerized shipments preferably in Indian flag vessels or through Conference Vessels.



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	18	of	35

- h) Shipping documents shall include "Clean on Board" Ocean Bill of Lading, made in favour of Petronet LNG Limited wherever relevant, and shall be sent by recognized international air courier so as to reach to Owner at least two weeks before the arrival of consignment at the port of entry, India.

E.4.14 Import Licence And Custom Formalities

Material and equipment falling within the scope of supply as Offshore Supply for permanent incorporation in the Work shall be imported in the name of the Owner or Contractor as consignee, as the case may be.. If so required for this purpose, import licence may be obtained in the name of the Owner or Contractor, as the case may be.. The Contractor shall prepare the required documents in the name of the Owner and the Owner shall extend necessary cooperation as may be reasonably required for this purpose.

E 4.15 Customs Clearance and Transportation

- a) The Contractor is required to organize a custom clearance and transportation (CC&T) system to ensure prompt clearance of imported equipments from customs and transportation of equipments/materials to Site from ports/ airports/Suppliers sites.
The Contractor shall carry out prior route survey and take appropriate authorities clearance as required for transportation of general cargo and over dimensioned consignments by road/rail where applicable.
- b) Contractor shall arrange for conducting insurance and other surveys with various agencies for all consignments landed in damaged/short supplied condition and corrective action for timely replacement of items.

E.4.16 Custom Duty payment

Contractor shall, before assessment of custom duty or at the time of assessment of custom duty as may be required by the Indian custom authorities/, provide such authorities, all required descriptive catalogues, literature, drawings, packagewise packing list, invoices and any other relevant documents pertaining to the Work under this Contract. Contractor shall obtain a certificate from the Owner to the effect that the supply in question are consigned to and meant for the Owner's purpose. Should the Contractor fail to provide the required descriptive catalogues/literature, drawings, package wise packing list, invoices and any other relevant documents as above and should custom duty be assessed and levied on that account, Owner shall not be responsible for any custom duty or fine or penalty resulting from such failure and, Contractor shall pay any custom duty without any liability on the part of the Owner.

In the event any such custom duty is charged by the concerned authorities on account of incorrect declarations of goods or otherwise including cost thereof, Owner, shall not be responsible for such charge, and shall be paid at the cost and expenses of the Contractor. The Owner shall not reimburse any amount paid by the Contractor as such custom duty, interest or penalty in respect of importation of goods, whether due to incorrect declarations, incomplete documentation or otherwise.

E.4.17 Transfer of Property

E.4.17.1 Where Equipment and Materials are to be imported in the name and IE code of the Owner

Where Equipment and Materials are to be imported in the name and IE code of the Owner, the property therein shall pass on to the Owner on high seas or outside India when complete and relevant shipping documents including bill of lading are transferred in favour of Owner.

The necessary documents pertaining to such imported goods shall thereafter be handed over by the Owner to the Contractor to enable the Contractor to do all Work in accordance with stipulations of the Contract. The Contractor shall assist the Owner's Representative in preparing necessary Goods Receipt Vouchers (GRV) for receipt of such imported goods at Site after customs clearance and thereafter issue the stores issue voucher to enable the Contractor for incorporation in the Work. Such handing over of the documents by the Owner to the Contractor



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	19	of	35

shall constitute a bailment of the goods by the Owner. The Contractor shall not use or otherwise part with the same except for purpose of the Work. On arrival of the shipments in the Indian port, the Contractor shall, on behalf of the Owner, be fully responsible for all port and custom clearance including stevedoring, demurrage charges/penalty handling, unloading, loading, storage and inland transportation, inspection, preparing insurance claims including arranging for insurance surveyor if necessary, and receipt of materials and equipment at storage yard(s)/Site(s) and all the associated activities

Notwithstanding the transfer of property of the imported materials and equipment by transfer of documents, the Contractor shall always remain responsible for any defect or deficiency therein or for any loss or for any loss or damage thereto and for the cost of storage and handling for the same until such time goods are incorporated in the Work and Provisional Acceptance has occurred under the terms of the Contract.

E.4.17.2 In other cases

In case of all goods that are supplied by the Contractor from within India as part of the obligation to supply Equipment and Materials under this Contract, property/title shall pass to the Owner when the same are delivered at Site. The Owner's Representative, with assistance from Contractor, shall prepare necessary Goods Receipt Vouchers (GRV) for receipt & delivery of the goods by the Owner at Site and thereafter issue the Stores Issue Voucher to enable the Contractor for incorporation in the Work. Once the said goods are handed over to the Contractor, it shall hold the same for and on behalf of the Owner and not deal with it in any manner except holding it for execution and carrying out all Work. Further, during such time, the Contractor shall hold the materials as a bailee of the Owner.

E.4.17.3 The Contractor shall always remain responsible for any loss or damage to the goods thus procured and supplied before these are incorporated in the Work and at all times prior to Provisional Acceptance. The Contractor shall apart from its delivery obligations, immediately arrange to replace/repair the lost or damaged goods and supplies entirely at its own cost and irrespective of whether any claim for insurance in respect of such loss or damage, is made by it or not.

E.4.18 Spare parts Co-ordination

Contractor shall provide all services in accordance with agreed procedures for handling of spares

E.4.19 Construction Spares

- a) Contractor shall at his own cost, purchase, procure and deliver to the Site such spare parts and special tools as part of the Work under the Contract, as are necessary to maintain any part of Work constructed up to the Provisional Acceptance. Contractor shall at his own cost and expense, transport, install, store and maintain such spare parts on Site.
- b) During the Defect Liability Period until the issue of Final Acceptance Certificate, Contractor shall, wherever and whenever necessary, procure, purchase, transport, deliver, at his own cost and expense, all materials and equipment necessary for repairing and replacing any defective materials and equipment for which Contractor shall be liable under the Contract. However, during such period, Contractor may withdraw any necessary spare parts and special tools from Owner stocks, provided under the terms below, if such items are available, but Contractor shall promptly, at no cost to Owner replenish Owner's stocks.

E.4.20 Field Purchasing

Contractor shall provide all services for field purchasing that shall include, but not be limited to, the following:



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	20	of	35

- Preparation of field materials requisitions and their processing in an approved manner through to issue of local purchase orders/amendments, as required.
- Follow-up, review and resolving of all purchase order queries, their amendments, acknowledgements, acceptance, etc.
- Render regular progress reports on these activities.
- Maintenance of records and files for proper close-out field purchasing activities.
- Initiating, corresponding and follow-up through to settlement all Supplier back-charges claims.
- Closing out of all local purchase orders files.

E.4.21 Planning of Materials Handling and Control

Contractor shall implement agreed system and procedures for the receipt, control, storage, issue of equipment and materials and spare parts in the field, keeping in view that there shall be other contractors working simultaneously in the Site.

E.4.22 Materials Management

Contractor shall furnish automated materials management systems for Owner's information.



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	21	of	35

SECTION F

HEALTH, SAFETY & ENVIRONMENT

- F.1** Contractor is required to submit the health safety and environment plan (HSE Plan) for the CCR Package for the Owner's review/approval within a period of thirty (30) days after the Effective Date.
- F.2** Safety report generation for different situations as per accepted Good Industry Practice and required by the Owner are to be adhered to.
- F.3** As a part of HSE Plan, the Contractor will be required to demonstrate that :
- i. The management systems and the installation are adequate to ensure that the design and the operation of the installation and the equipment are safe;
 - ii. The potential hazards of the installation and the risks to personnel and environment have been identified and appropriate controls provided;
 - iii. Adequate provision is made for ensuring, in the event of a major emergency affecting the installation, the safe evacuation and rescue of personnel; the Contractor shall note that there shall be other contractors working simultaneously at the Site;
 - iv. The statutory requirements relating to safety and pollution control measures are complied with;
 - v. Adequate measures for prevention of offshore pollution and prevention of waste discharge in sea are in place;
 - vi. Adequate measures for communication are established for communicating between the different Other Contractors during the normal working & emergency situations; and
 - vii. Adequate separation of the Contractor's work area is established to stop unauthorized entry and safety of other contractor's personnel.
- F.4** The Contractor shall follow the HSE Plan as approved by the Owner.
- F.5** The Contractor shall also comply with all provisions of safety laws applicable to the Work, the Site (including temporary facilities whether on or off the Site) and adjacent areas. The Contractor shall ensure that its employees and employees of Subcontractors are made aware of the HSE Plan and applicable safety laws and that compliance therewith is a condition of their continued employment.
- F.6** The job procedure and HIRAC (Hazard Identification, Risk Analysis, and Control) shall be prepared for construction activities.



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	22	of	35

SECTION G

CONSTRUCTION

G.1 Contractor shall undertake the construction of Facility including all temporary works like arrangements for construction power, water, temporary roads and approaches, drains, Site offices, storage facilities, canteen, first aid, field communication system, labour shelters, the management and supervision of Subcontractors, including Supplier's representatives, procurement of local services and all work of ancillary or temporary service that is necessary for the expedient completion of the Storage Tanks in accordance with all conditions of the Contract.

G.2 Field Services

G.2.1 The Contractor shall provide qualified labour, tools, construction equipment, facilities, indirect materials, direct materials, consumables, supervision, management, technical and professional services and each and every other item necessary for the completion of all activities and Work necessary to perform the Scope of Work provided under Technical Section to achieve issuance of the Final Acceptance Certificate.

The Contractor shall prepare and submit to the Owner comprehensive project specific field construction plan, based on that submitted with his tender for this Contract, for addressing all the field related services. The construction plan to acknowledge that there may be Other Contractors working simultaneously in the same plot. The Owner shall arrange for integration of construction plan submitted by the Contractor with the construction plan submitted by Other Contractor(s). The Contractor shall follow the integrated construction plan.

The Contractor shall carefully review the Work to be completed and shall provide all items for the completion of the Work including for any and all periods of overtime work and for providing a second shift, selectively or generally as the schedule may require from time to time in order to meet the agreed Contract Schedule.

G.2.2 Field Engineering and Design Service

G.2.2.1 The Contractor shall perform field engineering and design services for the completion of the construction of the installations and the scope of the activities including but not limited to:

- Monitor the detailed execution of the installations to ensure the adequacy of the completed Work in compliance with the specifications and quality requirements
- Monitor the level of information issued to the field for accuracy against the specifications in Technical Documents.
- Develop additional drawings and details as necessary to supplement approved for construction drawings (AFC) to facilitate ease of fabrication and construction.
- Provide competent field engineering to develop rigging studies for the installation of heavy equipment and equipment with restricted access
- Develop detailed designs for the new facilities both temporary and permanent that are required during construction, commissioning and start-up of the installations
- Review, comment and approve Subcontractors' drawings, documentation and calculations
- Field check information as indicated on drawings and make required field changes
- Prepare As-Built details, based on actual field installation on all relevant drawings & documents such as layout, P&IDs, GAD's etc.
- Initiate engineering queries during construction and commissioning related to problems requiring Head Office involvement or decisions as and when required.



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	23	of	35

- Assist scheduling & planning.
- Assist craft and area supervisors in the overall manpower and materials co-ordination

G.3 Construction Planning Services

G.3.1. The Contractor shall perform all construction planning activities to ensure proper definition of an optimum overall construction plan, procedures and effective performance of the Scope of Work.

G.3.2. The Contractor's construction scope shall include, in general, but not be limited to the following:

- Provision of qualified personnel for construction planning
- Preparation of field organization chart for the construction supervision services together with job description for each supervisory post
- Submission of names and CVs of candidates for each field post for the Owner's review.
- Planning all field temporary facilities required for the construction phase of the Work.
- Preparation for approval by the Owner, of a detailed construction plan covering the overall construction strategy for the Work, definition of individual construction packages and the proposed co-ordination of their activities and interfaces with the Contractor.
- Preparation of format and procedure for progress reports for field, for the Owner's approval
- Preparation of field co-ordination procedure ensuring that the Owner is kept informed and current on all significant construction developments

The detailed construction plan as above shall be submitted within sixty (60) days of the Effective Date.

G.4 Constructability Program

The Contractor shall prepare a constructability program for use on the Facility.

G.5 Preliminary Rigging Studies

The Contractor shall perform rigging studies, if required.



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	24	of	35

SECTION H

PRECOMMISSIONING AND COMMISSIONING

H.1. Commencing six (6) months prior to scheduled Mechanical Completion, the Contractor shall prepare and submit to the Owner for its approval detailed procedures and schedules, in accordance with the Scope of Work, for Mechanical Completion, Pre-Commissioning and Commissioning assistance & Performance Tests and these shall be reviewed and approved by the Owner. The Contractor shall be responsible for preparing and supplying Pre-Commissioning, Commissioning and Performance Test documents and carrying out Performance Tests.

H.2. A broad outline of the procedures is given hereunder; The procedures shall specify but not be limited to:

Battery limit of tested facility

- Operating conditions during the test
- Details on guaranteed figures, measurement methods, operation and corrections formulae to be used during the various test runs.
- All apparatus and instruments necessary for measurement of guaranteed parameters either to be incorporated or temporarily used for the test run purposes only, shall be provided by the Contractor and considered as a part of the Work.

At the end of each test run, the Contractor shall issue and submit to approval of the Owner/Owner's representative a report analyzing the result of such test runs. In case of non-compliance of the performance with the guaranteed parameters, the Contractor shall bring out the reason of the non-compliance in order to take corrective action.

When, for reasons not attributable to the Contractor, the actual operating conditions, including the ambient conditions as temperature and pressure at Site, for the tests are different from those prescribed in the procedures, necessary correction factors for the parameters shall be arrived at by the Owner and the Contractor on the basis of Good Industry Practice.



**CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)**



Rev	0	Page	25	of	35

SECTION I

PROGRESS MEASUREMENT

I.1 Progress Measurement Methodology

The Contractor shall have submitted for approval of the Owner, prior to the execution of this Contract, a methodology for progress measurement of the Work and the overall basis of computation of physical progress with such details and formats (including the use of weighing methodologies to develop progress work curve schedule) within one (01) month of effective date of contract as specified by the Owner.

The progress basis for such progress schedule shall be physical realization of Work such as in terms of deliverables and construction quantity/volume accomplished (which will include the efforts put in by Suppliers /Subcontractors and all the other agencies that contribute towards the progress of Work and such other criteria as agreed to between the Contractor and the Owner.

I.2 For all components of the Work to be paid on the basis of progressive completion in the Payment Schedule at Exhibit G, the Contractor shall be paid on the basis of pro-rata progress achieved against the scheduled progress curve for respective component of the Work formulated on the basis of progress measurement methodology as per Section I.1 above in accordance with Exhibit G (Payment Schedule) and such formulae as agreed to between the Contractor and the Owner.

I.3 All measurements shall be in metric system. All the Work in progress will be jointly measured by the Owner's Representative and Contractor's representative. Such measurement will be either recorded/typed by the Contractor in the computerized form provided by the Contractor. The measurements shall be signed in token of acceptance by the authorized representative of the Contractor. For the purpose of taking joint measurements, the Contractor's representative shall be bound to be present whenever required by the Owner's Representative. If, however, the Contractor's representative absents for any reasons whatsoever, the measurements will be taken by the Owner's Representative, which will be deemed to be correct and binding on the Contractor.

I.4 Measurement of Work shall be taken only for the purpose of making progressive payments in accordance with Exhibit G (Payment Schedule). After completion of detailed engineering for various disciplines by the Contractor and approved by the Owner, the Contractor shall submit the Bill Of Quantities of various major items as involved in execution of Work where unit rates are not available in the Contract. A unit rate shall be derived for various items based on the Bill Of Quantities as mentioned above.

I.5 Measurement of weights will be in metric tons rounded to the nearest kilogram.

I.6 Linear measurement shall be rounded to the nearest centimeter.



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	26	of	35

ANNEXURE H1

Project Quality Plan

The preparation of a typical Project Quality Plan can be based on the following elements:

Management responsibilities

The Project Quality Plan should identify those key personnel of the Contractor responsible for:

- ensuring that the activities required by the quality system or Technical Documents are planned, implemented and controlled and their progress monitored;
- communicating requirements peculiar to the specific product, project or Contract to all affected departments, the Contractors, Suppliers and customers, and resolving problems that arise at the interfaces between such groups;
- reviewing the results of any audits conducted;
- addressing how concession requests relating to required quality system elements are to be dealt with;
- implementing corrective actions.

Contract review

The Project Quality Plan should indicate when, how and by whom the requirements specified for the Work are to be reviewed. The Project Quality Plan should also indicate how the results of this review are to be documented and how conflicting or ambiguous requirements are to be resolved.

Progress reporting and reviews

The Project Quality Plan should indicate the progress reporting and review requirements for the Work. The following progress reports should be furnished on a regular basis.

- Monthly
- Weekly
- Daily

The Work program and status should be presented at monthly and weekly review meetings. The work program and status should clearly highlight the status of interface points.

Design control

The Project Quality Plan should indicate when, how and by whom validation and verification of design output conformity to design inputs is to be carried out, controlled and documented. Where applicable, the Project Quality Plan should indicate the extent to which the Owner is to be involved in design activities, such as participation in design reviews and design verification tests. The Project Quality Plan should reference applicable codes, standards and specifications. Additionally the plan should clearly bring out the check point information required from Owner or Other Contractors, if applicable, along with the schedule for completing the design activities.

Document control

The Project Quality Plan should indicate:

- what documents are to be provided and controlled;
- how documents will be identified so that their relationship to the plan can be readily determined;
- how, and by whom, access to such documents can be obtained;
- how, and by whom, changes to documents are reviewed and approved.

Purchasing

The Project Quality Plan should indicate:

- important Equipment and Materials that are to be purchased from Suppliers;
- purchased, and the relevant quality assurance requirements that are to be applied;
- the methods to be used to select, appraise, evaluate and control Suppliers;
- requirements for, and reference to, Supplier quality plans, where appropriate;



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	27	of	35

- the methods to be used to satisfy requirements of Applicable Law which apply to purchased products.

Materials identification and traceability

The Project Quality Plan should define the scope and extent of traceability requirements, including how affected Equipment and Materials are to be identified. The Project Quality Plan should indicate:

- how contractual and regulatory authority traceability requirements are identified and incorporated into working documents;
- what records relating to such traceability requirements are to be generated and how they are to be controlled and distributed.

Handling, storage, packaging and delivery

The Project Quality Plan should indicate:

- how the requirements for handling, storage, packaging and delivery are to be specified and met;
- how Equipment and Materials will be delivered to the Site in a manner that will ensure that they will not be damaged;
- how Equipment and Materials will be stored at Site prior to installation.

Installation

Where equipment is to be installed, the Project Quality Plan should indicate how the requirements are to be specified and the Work subsequently tested.

Inspection and testing

The Project Quality Plan should indicate:

- how the Contractor will verify Supplier's product conformance to specified requirements;
- where each inspection and test point is located in the sequence;
- specific requirements for the identification of inspection and test status;
- what characteristics are to be inspected and tested at each joint, the procedures and acceptance criteria to be used, and any special tools, techniques or personnel qualifications required;
- where the customer has established points for its witness or verification of selected characteristics of a product;
- where inspections or tests are required to be witnessed or performed by Governmental Authorities;
- where, when and how the Supplier intends, or is required by the Owner or the Governmental Authorities, to use third parties to perform:
 - type tests;
 - witness testing (including on-Site acceptance);
 - product verification;
 - material, product or personnel certification.

Inspection, measuring and test equipment

The Project Quality Plan should indicate the control system to be used for inspection, measuring and test equipment specifically intended for use for the Work, including:

- identification of such equipment;
- required accuracy of the equipment;
- method of calibration;
- method of indicating and recording calibration status;
- what records of usage of such equipment are to be maintained so that the validity of
- previous results can be determined when such equipment is found to be out of calibration.

Interface/Tie-in Coordination Procedure

An Interface/Tie-in Coordination Procedure shall be developed by the Contractor and followed during the performance of Work to ensure smooth execution of the Project in harmony with the work being performed by Other Contractors.

Handover

The Project Quality Plan should indicate how the Contractor will ensure that the Facility operators are provided with information and back-up after handover such as:

- training in the use of new equipment;



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	28	of	35

- provision of Supplier documentation and manuals;
- documentation recording the technical and operational concepts underlying the plant design.

Non-conformance and variation

The Project Quality Plan should address how and under what circumstances the Contractor will request approval to vary from the specifications in the Technical Documents or to obtain a concession for an item which does not meet specified requirements. In doing so the Project Quality Plan should indicate:

- who would have the responsibility to request such concessions;
- how such a request would be made;
- what information is to be provided and in what form;
- who has been identified as having the responsibility and authority to accept or reject such concessions.

The Project Quality Plan should indicate how non-conforming Equipment and Materials are identified or segregated to prevent misuse until properly disposed of.

Training

The Project Quality Plan should address any specific training required by Contractor's or Owner's staff and personnel and how such training is to be satisfied and recorded.

This should include:

- training of new staff;
- training of existing staff in new or revised roles.

Quality audits

The Project Quality Plan should indicate the nature and extent of quality audits to be undertaken and how the results are to be used to correct, and prevent recurrence of deficiencies, which affect the Work or Contract. Such audits may include:

- internal audits by the Owner;
- external audits of the Work led by staff from other parts of the Owner's organization;
- Project team or functional QA group audits of Contractors or Suppliers;
- third party or Governmental Authority audits, including those carried out for certification purposes.

Quality records

The Project Quality Plan should indicate how key records specific to the Work or Contract are to be controlled, including:

- what records are to be kept, for how long, where and by whom;
- what the legal or regulatory authority requirements are and how they are to be satisfied;
- what form the records will take (such as paper, microfilm, tape, disc or other medium);
- how legibility, storage, retrievability, disposition and confidentiality requirements will be defined and satisfied;
- what methods will be used to ensure that records are available when required;
- what records are to be supplied to the Operations department, when and by what means.

CONTENTS OF TYPICAL PROJECT QUALITY PLAN

The contents of a typical Project Quality Plan can be

- 1 COVER/CONTROL SHEET**
Includes Revision Status, Distribution and Approvals
- 2 INTRODUCTION**
Scope of the Work.
Objectives of the Work (production, availability, HSE). Principal's QA Standards being used.
- 3 OVERVIEW OF QUALITY SYSTEM**
Key documents for the Work (governing and controlling), with a description of their role.



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	29	of	35

List of relevant Principal's and project procedures.

4 ORGANISATION AND RESPONSIBILITIES

Roles and responsibilities of Contractor's personnel and departments outside the project identified by Matrices which detail the relevant controls, QC resources and procedures.

5 INTEGRATION OF CONTRACTOR AND SUB-CONTRACTORS

Review to identify the criticality of the activities to be carried out. Pre-qualification of Sub-Contractors.

Requirement for Sub- Contractor's Quality Plans. Monitoring the implementation of the Quality Plans.

6 AUDIT AND REVIEW

Audit and Review Plan to be prepared, with timing derived from the project plan.

Responsibilities for reporting and follow-up.

Progress reporting and Review requirements

7 QUALITY IMPROVEMENT

Feedback of project experience to the rest of the company via:

- Project Debrief Reports
- Notice of specific problems with/modifications to Principal's specifications
- Experience of supplier performance to Materials organization.

APPENDICES

A Key Document Schedule

Including a description of the role of each.

B Planning and Reporting

Description of where achievement of QA activities (major approvals etc.) is tracked in the project planning system. Audit and Review Schedule. Progress reporting and Review requirements

C Quality Plan Matrices

D Contracts requiring Contract Quality Plans

E Suppliers requiring Supplier Quality Plans (or Inspection and Test Plans only)

F Training

Requirement is normally restricted during project life, but safety training and plant-specific training of future operators should be planned and recorded.

G Certification Plan

H Permits and Consents Plan



**CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)**



Rev	0	Page	30	of	35

ANNEXURE H2

CONTENTS OF MONTHLY PROGRESS REPORT

1. GENERAL

The Contractor shall issue a monthly progress report to the Owner within five(5) days after the cut off date, as agreed during Kick off meeting. The minimum requirement from the Owner with respect to the monthly progress reports are described as follows. The Contractor can propose convenient additions to these requirements. The detailed form and content shall be mutually agreed by the Owner and the Contractor.

Each monthly progress report will cover in separate and appropriate chapters the review of work status in term of:

- General project administration and coordination
- Engineering activities
- Procurement activities
- Construction activities
- Commissioning assistance activities
- Interface information and issues with Other Contractors
- Progress relating to items on critical path
- Estimation of date for Mechanical Completion
- Critical path activities

The report shall include in continuity, information on progress for the preceding month, with prospective information for the succeeding month, substantiated by relevant tables and curves attached to the report. The sample format of the report is attached in the tender.

2. CONTENT

2.1 ACTIVITIES REVIEW

Each monthly progress report shall include the following:

2.1.1 In terms of general project administration and coordination:

- highlights of significant accomplishments during the report period, expressed in relation to :
 - total Work to be done, cumulated situated expected
 - total Work done
- highlights of significant accomplishments and expected events anticipated to be completed during the succeeding month in relation to :
 - total Work to be done, cumulated situated expected
 - pending matters to be resolved
- the actual status of Change Orders during the report period, together with a cumulative situation
- the actual status of trend initiation notices and overall Work trend notices
- the actual status of the interface point.
- a brief overall comment by the Project Manager regarding the actual situation of the Work:
 - the main topics and pending matters to be urgently resolved in any field of activity,
 - an explanation of existing or anticipated deviations from the Contract Schedule, their consequences and corrective actions to be initiated shall be given with potential impact



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	31	of	35

on the performance of the Work,

- problems along with actions taken to solve them
- a recapitulative schedule of invoices already issued and anticipated to be issued and corresponding payment status.

2.1.2 In terms of engineering activities For every field of activity, e.g:

- basic engineering,
- civil, structural steel work,
- electrical,
- instrumentation, etc.

This section of the report will develop with sufficient details an accurate description of Work done, the corresponding progress, and, when necessary, will give complementary detailed information on those items mentioned by Project Manager under paragraph 2.1.1 above.

2.1.3 In terms of procurement activities

- call for bid status
- purchase order status
- delivery status of Equipment and Materials, ex-works/to Site
- expediting and inspection reports

2.1.4 In terms of scheduling activities

2.1.5 In terms of construction activities

2.1.5.1 Planning and progress

- Dates
- Provisional Acceptance date,
- Any revised Provisional Acceptance date,
- Site Manager's estimated Mechanical Completion and Provisional Acceptance date,
- Total percentage
- Original required percentage of Work complete,
- Present required percentage of Work complete,
- Actual percentage of Work complete,
- Period percentage
- Percentage of Work planned for report period,
- Actual percentage of Work achieved during report period,

2.1.5.2 Site Manager Report

2.1.5.3 Status of construction, per area and overall

2.1.5.4 Material status at Site

- tonnage received
- major items received during report period
- material not yet received or delayed
- reports on shortage and damages

2.1.5.5 Status of documents at Site, received and delayed

2.1.5.6 Subcontractors activities at Site

2.1.5.7 Staffing and manpower

2.1.5.8 Site trouble reports (STR)

2.1.5.9 Conclusions

Comparison of the Contractor's actual activities with the target Contract Schedules.



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	32	of	35

2.2 ATTACHMENTS AND SUPPORTING DOCUMENTS

2.2.1 Tables and curves of actual progress verses schedule progress for:

- overall Contractor services
- engineering services per activity and in total
- procurement services
- construction services up to mechanical completion
- other services: preparation of Commissioning, start-up, preparation of final documentation
- works at Site, per activity and in total

2.2.2 Requisitioning and purchase orders status, including Change Orders

2.2.3 Expediting, inspection and shipping status

2.2.4 Scheduling

- overall master bar chart,
- engineering schedule per activity,
- procurement schedule,
- schedule per activity and in total.

2.2.5 Latest issue of quarterly up-date of:

- drawing lists, contractor and vendors,
- specification lists,
- procedures lists.



**CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)**



Rev	0	Page	33	of	35

ANNEXURE H3

OPERATING MANUAL SPECIFICATION

The Operating Manual describes very precisely every work to be performed by the operation personnel, so as to ensure the normal working of the CCR Package: starting, normal and emergency stopping, keeping in standby mode, cool or warm, restarting. It includes the normal and exceptional set points of the control devices and HSE procedures for people and facilities.

The Operation Manual is composed of Operating Procedures and Operating Drawings.

The Operating Manual is written to support the continuous operation of the Unit/ System. It does not include or supersede the Pre-Commissioning / Commissioning Manual which the Contractor has to provide separately.

The full ownership of the Operating Manual, including any and all intellectual property rights therein, is transferred by the Contractor to the Owner. The Owner, or the operator selected by it, will use, amend with the plant modifications and enrich with its experience the Operating Manual.

Therefore, the Operating Manual should be provided under electronic editable native form, in a common word processor/drawing software format to be easily further updated by the operator of the Unit/ System, and the Contractor shall have no copyright over the Operating Manual.

1. Operating procedures

Each Operating Procedure is dedicated to each SYSTEM and its SUBSYSTEMS, and composed of two parts:

- A** Global description, including but not limited to:
- Design Philosophy
 - Design Basis
 - dimensions, capacity
 - working principle, normal/exceptional setpoints
 - maintenance arrangements
 - special HSE measures
 - possible extensions, provision for increase of capacity
- B** Sequence of action, when applicable, including but not limited to:
- start sequence
 - stop sequence
 - control run and regulation, with normal range and exceptional values for regulation loops set points,
 - standby / keeping cold
 - putting in safe state for maintenance
 - cooling down
 - ESD

2. Operation drawings

The operating drawings (A3 size) is to be used to prepare the lock out and isolation of portions of circuits, or machines, for a subsequent maintenance service purpose.

They should be very simple, roughly isometric and include pipelines, block valves, control valves, drain valves, vessels, drums, each equipment bearing its tag. For this purpose each and every valve needs to be tagged.



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	34	of	35

ANNEXURE H4

MAINTENANCE MANUAL SPECIFICATION

The Maintenance Manual shall be provided under electronic editable native form organized in a database with multi criteria research facility.

The Maintenance Manual shall include:

1.0 For process/utility functions:

An advocated maintenance policy for each process or utility function, taking into account the duty (based on operation of Facility at its full capacity), the number of installed/non installed spare machines, the servicing periodicity and duration, etc.

2.0 For all machines / equipment / system

- maintenance procedures: dismantling, reassembling, servicing, etc, with the list of parts to be changed and required tools for each maintenance act,
- maintenance criteria (wear threshold, servicing periodicity), tolerance and limit value, nature and periodicity of the checkings, measurements, recordings, analysis to be performed for monitoring the state and the wear of the machines / equipment / system,
- all drawings, manuals, documentation, spare parts lists, all documents provided by the Suppliers or created by the Contractor, all information deemed useful by the Contractor.

3.0 Repair Books

- for process/instrumentation: a Repair Book based on the Instrument Loop Diagrams, indicating cables and connectors references, measurement and diagnostic points,
- for power distribution: a Repair Book indicating the step by step procedures of default finding and isolating,

4.0 For Spare Parts

A Spare Parts Register listing all the spare parts made available by the Suppliers (whether they are provided or not to the Owner through the Mandatory Spare Parts) referenced in compatibility with recognized PC based softwares for:

- maintenance planning,
- spares supply and stock management,

whose Contractor shall provide a list along with the Maintenance Manual.

The Contractor shall indicate in the Spare Parts Register the parts he has used (reference and number) during construction, pre-commissioning and Commissioning, up to the Provisional Acceptance.

5.0 Other Registers

Registers listing all the Equipment and Materials which are subject to Authorisations prior to operation, such as pressure vessels, lifting devices, electric fittings, etc, as per Applicable Law of India indicating the date of renewal of the Authorizations

6.0 Structural, civil, static equipment

A list of inspection points and criteria for control of wear and corrosion for all the static equipment, including piping, metallic structures, etc. The inspection points should be reachable by the operators with minimum dismantling.



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-H TO CoC
(General Project Requirements and Procedures)



Rev	0	Page	35	of	35

ANNEXURE H5

DELETED



**CONDITIONS OF CONTRACT
(CoC)
EXHIBIT-I TO CoC (INSURANCE EXHIBIT)**



Rev	00	Page	1	of	8

**INSURANCE EXHIBIT
[EXHIBIT –I TO CONDITIONS OF CONTRACT]**



**CONDITIONS OF CONTRACT
(CoC)**
EXHIBIT-I TO CoC (INSURANCE EXHIBIT)



Rev	00	Page	2	of	8

1. CONTRACTORS LIABILITY INSURANCE

1.1 The Contractor shall purchase and maintain at its cost and expenses and in accordance with the terms set forth in sub paragraph 1.2 of this Exhibit-I during the duration of the Contract Schedule, till Final Acceptance, from an insurance company in India such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's performance of the Work or otherwise under the Contract, whether such claim may arise due to action or omission by the Contractor or a Subcontractor or by anyone directly or indirectly contracted or used by any of them, or by anyone for whose acts any of them may be liable:

- a) claims under workers or workmen's compensation, disability benefit and other similar employee benefit acts, which are applicable to the Work to be performed;
- b) claims for damages because of bodily injury, occupational sickness or disease, or death of employees of the Contractor or any Subcontractor;
- c) claims for damages insured by usual personal injury liability coverage, which are sustained by a person as a result of an offence directly or indirectly related to employment of such person by the Contractor;
- d) claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle and/or marine craft or vessel and/or aircraft as applicable, if used in the performance of the work; and
- e) Claims involving contractual liability insurance applicable to the Contractor's obligations under the Contract which are not insured under para 2.1 mentioned hereinafter;
- f) Any other mandatory/obligatory insurance which the Contractor may be required to effect and keep in force, in accordance with Applicable Laws of India and other countries as and where applicable. The Contractor shall defend, indemnify, and hold the Owner harmless for any liability or penalty which maybe imposed by any Governmental Authority by reason of any asserted violation by the Contractor or Subcontractor of any mandatory/obligatory insurance requirement, including but not limited to those listed in (a) to (e) above, and also from all claims, suits or proceedings that maybe brought against the Owner arising under, or growing out of or by reason of the Work provided for by this Contract, whether brought by employees of the Contractor or by third parties.
- g) The Contractor shall use all reasonable endeavors to ensure that its subcontractors (and their respective direct and indirect Subcontractors) maintain insurance similar to the insurance required of Contractor under para 1.1 with limits of liability and levels of deductibles acceptable to Contractor.
- h) All policies of insurance required to be maintained by Contractor shall:
 - (i) provide a severability of interests or cross liability clause,
 - (ii) name the Owner and the Lender as additional insureds for their respective interests;
 - (iii) provide that the interests of the Owner and the insureds shall not be invalidated by any action or inaction of the Contractor and shall insure Owner notwithstanding the breach of any warranties by the Contractor, the breach of any policy condition by the Contractor or misrepresentation by the Contractor



**CONDITIONS OF CONTRACT
(CoC)**
EXHIBIT-I TO CoC (INSURANCE EXHIBIT)



Rev	00	Page	3	of	8

- i) All policies of insurance referred to in para 1.1 shall be endorsed to specify that they are primary to and not excess to or on a contributing basis with any insurance or self-insurance maintained by the Owner and the Contractor (and their respective Affiliates) or any Subcontractors in respect of losses arising out of or in connection with the Work. A confirmation to the effect from the Insurer of the Contractor would be required.
- 1.2 The insurance required under paragraph 1.1 should be written for not less than the limits of liability specified and/or required by Indian Law. Coverage, whether written on an occurrence or claims-made basis, shall be maintained without interruption from the date of commencement of the Work until the date of final payment and termination of any coverage required to be maintained after final payment.
- 1.3 Certificates of insurance evidencing the above referred insurance, acceptable to the Owner, shall be filed with the Owner prior to thirty (30) Days of the commencement of physical execution of relevant part of the Work. The certificates and the insurance policies required under paragraph 1.1 of this Exhibit-I shall contain a provision that coverage afforded under the policies will not be cancelled or allowed to expire until at least sixty (60) Days prior written notice has been given to the Owner. If any of the foregoing insurance coverage are required to remain in force after Final Payment and are reasonably available, an additional certificate evidencing continuation of such coverage shall be submitted with the final invoice for payment under the Contract.
- 1.4 The Contractor, at its cost and expense, in the interest of the Work, shall maintain adequate insurance during the duration of the Work in respect of the Contractor's Equipment including Third party liability insurances as required by Law in respect of such equipment.
- 1.5 The Contractor shall at its cost and expense, purchase, secure and maintain such insurance as may be required or necessary in foreign country (under Applicable Law in connection with its performance of its obligations under the Contract).
- 1.6 The Contractor shall use all reasonable endeavors to ensure that its Sub contractors (and their respective direct and indirect sub-contractors) maintain insurance similar to the insurance required of Contractor in paragraph 1.1 with limits of liability and levels of deductibles acceptable to the Contractor and the Owner.

2. OWNER LIABILITY INSURANCE-

2.1 Third Party Liability

The Owner shall purchase and maintain an insurance (hereinafter referred to as "Owner Liability Insurance") during the duration of the Work, with an insurance company in India, in the joint names of the Owner, Lender(s), Contractor and Subcontractors, Owner Liability Insurance arising from their performance under the Contract. Such insurance shall be arranged for a limit of Rupees 25 Crore for any one occurrence with no deductibles for death/bodily injury and with standard deductibles for property loss/damage and such policy shall have an aggregate limit during the period of policy. Such cover shall include a cross liabilities clause to protect the liability of one insured party against another provided nothing contained in the said clause shall extend the

Engineers India Limited
Gurugram



**CONDITIONS OF CONTRACT
(CoC)**
EXHIBIT-I TO CoC (INSURANCE EXHIBIT)



Rev	00	Page	4	of	8

insurer's total liability for any one occurrence beyond the limit agreed to pursuant to this subparagraph.

3. OWNER PROPERTY INSURANCE

3.1 The Owner shall purchase and maintain an insurance (hereinafter referred to as "Owner Property Insurance") during the duration of the Work, with an insurance company in India, with coverage as follows:

- (a) Marine cargo insurance for all Plant and Equipment and materials to be installed as part of the Work, in transit from anywhere in the world to anywhere in the world, on a 'warehouse to warehouse' basis against loss or damage arising from customary all risks' perils (including war, strikes, riot and civil commotion) while in transits by conveyances and vessels and/or vessels and/or air and/or barge and/or road and/or rail and/or any other conveyance by land, sea or air and connections, including during loading, unloading and temporary storage, up to full replacement value of such equipment and Materials on a basis of valuation including costs, insurance, freight charges plus customs duties plus anticipated future escalation of 10% (i.e. CIF plus 10%).
- (b) Erection-All Risk Insurance for all works & temporary works at the Site up to the full replacement value including import duties plus anticipated future escalation of 10%.
- (c) The sum insured under the Owner Property Insurance shall cover and be based on the estimated Project Cost and the likely impact of inflation in the economy, at all times during the Contract Schedule. Such cover shall include physical loss or damage during the maintenance period (not exceeding 12/24 months as available) arising from operations carried out by the Contractor, Sub Contractors for the purpose of complying with their obligations under any maintenance conditions of the Contract during the Defects liability period agreed in the Contract.
- (d) Such insurance shall carry deductibles, an indication of which is given below:
 - (i) Fire and Explosion/ Testing & Commissioning/ Design Defect/ Act of God Perils/ Maintenance - 15% of Claim Amount Subject to Minimum INR 75,000,000 each and every loss.
 - (ii) All Other Perils including TPL: 5% of Claim Amount subject to Minimum INR 50,000,000 each and every loss.

In the event of a claim, the deductibles will be borne by the Contractor.

3.2 Marine Cargo insurance shall be based on the following indicative conditions:

- Institute Cargo Clauses (A) CL382 dated 1/1/09.



**CONDITIONS OF CONTRACT
(CoC)**
EXHIBIT-I TO CoC (INSURANCE EXHIBIT)



Rev	00	Page	5	of	8

- Institute War Clauses (Cargo) CL385 dated 1/1/09.
- Institute Strikes Clauses (Cargo) CL386 dated 1/1/09.
- Institute Cargo Clauses (AIR) CL387 dated 1/1/09 (excluding sending by post).
- Institute War Clauses (AIR CARGO) CL388 dated 1/1/09 (excluding sending by post).
- Institute Strike Clauses (AIR CARGO) CL389 dated 1/1/09.
- Institute Classification Clause CLS354 dated 1/1/01.
- Institute Radioactive Contamination, Chemical Biological, Bio-Chemical and Electromagnetic Weapons Exclusion Clause 10/11/03.
- Warranties & Exclusions
- Excluding Mechanical &/or Electrical Derangement unless caused by an insured peril.
- Excluding Rusting, Oxidization & Discoloration of unprotected &/or unpainted items &/or all on deck shipments unless caused by an ICC (C) Clause peril.
- Communicable Disease Exclusion
- Over Dimensional Cargo Survey Warranty
- Excluding shipments from Cuba, North Korea, Syria, Iran and Crimea absolutely.
- HRA Warranty & Specified Territory Exclusion (Russia, Ukraine, Belarus) & Excluding War, Strikes, Riots and Civil Commotion Risks for all transits to, from and within Ukraine, Ukraine territorial waters, Russian Black Sea territorial waters, Sea of Azov, Russian Black Sea ports, Sea of Azov ports and Russian territories within 200kms of the Ukrainian border in Marine.
- War, Strikes, Riots and Civil Commotion Risks for marine import subject to JCC Global Cargo Watch List.
- Sanction Limitation and Exclusion Clause
- Paramount War Clause
- No Cover for unexplained shortages
- Institute Cyber Attack Exclusion Clause
- Five Power War Clause
- War & SRCC exclusion for High-Risk Areas.
- General conditions to be agreed.
- Any other warranties & exclusions as applicable at the time of policy placement.
- The above coverages, warranties, exclusions shall be as per the latest available wordings at the time of placing the policy.

3.3 Erection All Risk insurance shall be on an all-risk of physical loss or damage policy form. Cover Note will be available prior to the commencement of physical execution of relevant part of the Work, but the policy form will be based on the following conditions or an alternative form to be advised:

Standard Erection All Risks Policy plus indicative endorsements:

- SRCC/RSMD Cover
- Extended Maintenance for 2 years from Mechanical Completion
- Overtime, Night Work and Express Freight



**CONDITIONS OF CONTRACT
(CoC)**
EXHIBIT-I TO CoC (INSURANCE EXHIBIT)



Rev	00	Page	6	of	8

- Airfreight
 - Structures in Earthquake Zones
 - Design Improvement Exclusion DE3 (1995) or LEG 2/96
 - Fire Fighting Facilities
 - Civil Engineering Works
 - Clearance of Debris
 - Surrounding Property
 - Architects & Consulting Engineers Fees
 - Including inland transit and offsite storage of indigenous supplies
 - Including offsite storage of foreign goods not otherwise insured under the Marine Cargo Policy
 - Wet Risk Exclusion
 - Pro-rata extension of policy period subject to Loss Ratio not exceeding 50%.
 - Multiple Insured's Clause.
 - Cut Through clauses acceptable to the Lenders. or any other variation as is achievable.
 - Standard Exclusions
 - Any other warranties & exclusions as applicable at the time of policy placement.
 - The above coverages, warranties, exclusions shall be as per the latest available wordings at the time of placing the policy
- 3.4 The coverage referred to above shall be set forth in full in the respective policy forms as and when taken as per availability in international/domestic markets and as is reasonable in view of the exposures involved at reasonable cost.
- 3.5 If any of the Owner's Property Insurance policies provides for minimum deductibles, loss or cost, to the extent of such deductibles, the liability shall be to the account of the Contractor. If deductibles are not identified in the insurance documents, the Owner shall notify the Contractors prior to the commencement of the Work of the required minimum deductibles and the Contractor shall pay costs not covered on account of such deductibles.
- 3.6 If the Contractor requests in writing that insurance for risks other than those described herein or for other special hazards be included in the property insurance policy, the Owner shall, if possible, include such insurance, and the cost thereof shall be charged to the Contractor by appropriate Change Order.
- 3.7 If during the Contract Schedule the Owner insures properties, real or personal or both, adjoining or adjacent to the Site by property insurance under policies separate from those insuring the Project, or if after Final Payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the Contract Schedule, the Owner shall waive all rights in accordance with the terms of Subparagraph 2.10 for damages/loss



**CONDITIONS OF CONTRACT
(CoC)**
EXHIBIT-I TO CoC (INSURANCE EXHIBIT)



Rev	00	Page	7	of	8

caused by perils under this policy. All separate policies shall provide this waiver of subrogation by endorsement or otherwise.

- 3.8 Each policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to this Project.
- 3.9 The contractors / sub-contractors will comply with all the terms and conditions of the insurance policy and for any breach of conditions which results in denial of insurance claim, the contractor will be responsible and hold the owners harmless for such breach of warranties / conditions.
- 3.10 Waivers of Subrogation. The Owner, the Lender(s) and Contractor and their respective insurers waive all rights against each other and any of their Subcontractors, agents and employees, each of the other, for damages caused by perils to the extent proceeds are recovered under the Owner's Property Insurance and Owner Liability Insurance obtained pursuant to this Paragraph 2, except such rights as they have to the proceeds of such insurance held by the Owner as fiduciary. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.
- 3.11 All matters pertaining to post purchase of the Owner Property Insurance and Owner Liability Insurance such as but not limited to filing claim intimations, arrangement of surveys, documentation, declarations and /or any other requirements as stipulated or as may arise or as required by the insurers shall be performed by the Contractor. All losses in excess of the amounts insured, or all losses or insurance claims not recoverable either totally or partially from insurance company(ies), or any deductible under the insurance policies; shall be to the account of the Contractor.
- 3.12 A loss insured under Owner Property Insurance and Owner Liability Insurance under Paragraphs 1 and 2, shall be adjusted by the Contractor as fiduciary and made payable to the Contractor as fiduciary for the insured, as their interests may appear, subject to requirements of any applicable Lender's clause and of Paragraph 3.13. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, the Contractor shall require Subcontractors to make payments to their Subcontractor and/or agents in similar manner.
- 3.13 Under no circumstances shall the Contractor sign the discharge voucher for the full and final settlement of any loss payable under the Owner Property Insurance and Owner Liability Insurance, over an amount of US Dollars 5,000 or equivalent Indian rupees without the written approval of the Owner. In case of issue of any discharge voucher without the written approval of Owner as above, the difference in amount, if any, between the amount claimed or the actual loss



**CONDITIONS OF CONTRACT
(CoC)
EXHIBIT-I TO CoC (INSURANCE EXHIBIT)**



Rev	00	Page	8	of	8

suffered under the insurance and amount of settlement by the insurers, shall be borne by the Contractor.

- 3.14 The Contractor as fiduciary shall have power to adjust and settle a loss, payable under the Owner Property Insurance and Owner Liability Insurance, with insurers unless one of the parties in interest shall object in writing within five (5) days after occurrence of loss to the Contractor's exercise of this power; if such objection be made arbitrators shall be chosen as provided in the arbitration agreement of the Contract. The Owner as fiduciary shall, in that case, make settlement with insurers in accordance with directions of such arbitrators. If distribution of insurance proceeds by arbitration is required, the arbitrators will direct such distribution.
- 3.15 Partial occupancy or use in accordance with agreed Contract conditions shall not commence until the insurance company or companies providing Owner Property Insurance and Owner Liability Insurance, have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Contractor shall take reasonable steps to obtain consent of the insurance company or companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.

 PETRONET LNG LIMITED	CONDITIONS OF CONTRACT (CoC) EXHIBIT-J TO CoC (DOCUMENTATION REQUIREMENT)	 Rev 0 Page 1 of 1

**DOCUMENTATION REQUIREMENT
[EXHIBIT-J TO CONDITIONS OF CONTRACT]**

**Refer Specification for Documentation Requirement
(Document Ref No. 6-78-0002 & 6-78-0003) included in Technical
part of Bidding Document**



**CONDITIONS OF CONTRACT
(CoC)**

EXHIBIT-K TO CoC (QUALITY MANAGEMENT SYSTEM)



Rev	00	Page	1	of	1

**QUALITY MANAGEMENT SYSTEM
REQUIREMENTS FOR CONTRACTOR
[EXHIBIT-K TO CONDITIONS OF CONTRACT]**

**Refer Specification for Quality Management System
requirements (Document Ref No. 6-78-0001) included in
technical part of Bidding Document**



**CONDITIONS OF CONTRACT
(CoC)
EXHIBIT-M TO CoC (FREE ISSUE MATERIALS)**



Rev	00	Page	1	of	2

FREE ISSUE MATERIALS

[EXHIBIT-M TO CONDITIONS OF CONTRACT]

 PETRONET LNG LIMITED	CONDITIONS OF CONTRACT (CoC) EXHIBIT-M TO CoC (FREE ISSUE MATERIALS)					
	Rev	00	Page	2	of	2

LIST OF FREE ISSUE MATERIAL:

1. Catalyst for Reactors
2. CCTVs
3. Gas Detectors



**CONDITIONS OF CONTRACT (CoC)
EXHIBIT-N TO CoC (CONDITIONS FOR ISSUE AND
RECONCILIATION OF MATERIALS)**



Rev	0	Page	1	of	1+9

**CONDITIONS FOR ISSUE AND RECONCILIATION OF
MATERIALS**

[EXHIBIT-N TO CONDITIONS OF CONTRACT]

सामग्री निर्गम एवं रिकोन्सिलिएशन के लिए शर्तें

CONDITIONS FOR ISSUE AND RECONCILIATION OF MATERIALS

3	30.04.2024	Revised & Updated	DK	AC	RKS	MN
2	12.03.2019	Revised & Updated	SKG	AP	AKK	RKT
1	24.01.2014	Reaffirmed & Issued as Standard	SM	DJ	RKD	SC
0	21.05.2008	Doc No. 6-10-0001 Rev 0 has been revised and issued as Standard	AS	GKI	SCB	VC
Rev. No	Date	Purpose	Prepared by	Checked by	Standards Committee Convenor	Standards Bureau Chairman
					Approved by	

Abbreviations:

MS	:	Mild Steel
OFC	:	Optical Fibre Cable
OTDR	:	Optical Time Domain Report
FIM	:	Free Issue Material

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CONTENTS

1.0	CONDITIONS FOR ISSUE OF MATERIALS	4
2.0	RETURN OF UNUSED MATERIAL/ SCRAP	4
3.0	CEMENT	5
4.0	REINFORCEMENT BARS /STRUCTURAL STEEL/PLATES	5
5.0	PIPING MATERIALS.....	6
6.0	EQUIPMENTS	7
7.0	CABLES	7
8.0	LINE PIPES	8
9.0	OPTICAL FIBRE CABLE	8
10.0	OFC JOINTING KITS	9
11.0	RECONCILLATION OF MATERIALS.....	9

1.0 CONDITIONS FOR ISSUE OF MATERIALS

Whenever any material is issued as FIM by EIL/Owner, following conditions for issue of material in addition to other conditions specified in the contract shall be applicable:

- 1.1 Necessary indents shall be raised by the Contractor as per procedure laid down by the Engineer-in-Charge from time to time, when the materials are required for incorporation in permanent works.
- 1.2 Materials shall be issued only for permanent works and not for temporary works, enabling works etc. unless specifically approved by the Engineer-in-Charge.
- 1.3 The Contractor shall bear all other cost including lifting, carting from issue points to work site/Contractor's store, custody and handling etc. and return of surplus/serviceable scrap materials to Owner's storage points to be designated by the Engineer-in-Charge. No separate payment for such expenditure shall be made.
- 1.4 No material shall be allowed to be taken outside the plant without a gate pass.
- 1.5 The Contractor shall be responsible for proper storage, preservation and watch & ward of the materials.

2.0 RETURN OF UNUSED MATERIAL/ SCRAP

- 2.1 All unused/scrap materials shall be the property of the Owner and shall be returned in good and acceptable condition category wise by the Contractor at his own cost to Owner's Store(s).
- 2.2 No credit shall be given to the Contractor for return of scrap. The Contractor should quote the rates accordingly. Contractor shall make his own arrangements for weighing the cut offs to be returned to Owner's stores.
- 2.3 In case the Contractor fails to return unused materials/ accountable scrap, then recovery for such quantity of materials, not returned by the Contractor shall be affected at following penal rates from the Contractor's bills or from any other dues of the Contractor to the Owner:

S. No.	Material		Penal Rates
1.	(a)	Penal rate for non return of accountable scrap	Issue Rate + 25% or Landed Rate + 25% (in case issue rate are not indicated in the contract)
	(b)	Penal rate for return of serviceable materials in excess of permitted % allowances	
	(c)	Penal rate for issuance of unplanned OFC jointing kits	
2.	(a)	Penal rates for non return of Unused material and or penal rate for generating scrap in excess of permitted % allowances	Twice the Issue Rates or Twice the Landed Rates (in case Issue Rates are not indicated in the Contract)
	(b)	Penal rate for using excess amount of materials like cement than permitted % allowances	

NOTE : 1) Landed Rate shall be arrived from the latest Purchase Order of respective material received at site by Owner/EIL.

- 2) In case more stringent penal rates have been indicated elsewhere in the Contract (based on Project requirement), the same shall supersede the above rates.

3.0 CEMENT

In all cases where cement is FIM and supplied by EIL/owner, following methodology shall be adopted for issue & reconciliation -

- 3.1 Cement as received from cement Manufacturer/Stockists shall be issued to the Contractor. The theoretical weight of cement in each bag for issue purpose shall be considered as 50 Kg or 20 bags per MT. However, cement bags weighing upto 4% less shall be accepted by the Contractors and charged for as full bag.
- 3.2 The Contractor is required to submit the design mix for different grades of concrete, keeping in view the requirements stipulated in IS:456 and IS 10262, specifically regarding durability, slump and water cement ratio and specific gravity of materials brought to site as analyzed in the laboratories. The design shall be based upon absolute volume method and theoretical consumption of cement shall be worked out on this basis. For other than concrete items, the coefficients for consumption of cement shall be adopted as per CPWD practice.
- 3.3 The permissible variation between Cement actually used on the job and theoretical consumption worked out on the basis stipulated in above para 3.2 and as determined by Engineer-in-Charge shall be 3% (Three percent only).

If the actual consumption is more than 103% of the theoretical consumption, then recovery at the penal rates for the quantity of cement beyond the limit of 103% of theoretical consumption shall be affected as per clause 2.3 above.

- 3.4 Unused quantity of cement shall be returned by the Contractor to the Owner's stores in good condition only.
- 3.5 The Contractor shall maintain a good store for storing cement issued to him. The flooring of the storage house, the clearances of cement bags from the side walls/ floor & stack height etc. shall be as instructed by the Engineer-in-Charge.
- 3.6 The contractor shall maintain a Cement Register in prescribed format and update the entries on daily basis.
- 3.7 The cement store shall be offered for inspection and verification by the Engineer-in-Charge or his authorized representative at any time when the Engineer-in-Charge feels the need to do so.
- 3.8 Empty cement bags shall be the property of the Contractor and shall have to be disposed off by him.

4.0 REINFORCEMENT STEEL BARS / STRUCTURAL STEEL / PLATES

In all cases where Reinforcement Steel Bars/ Structural Steel/ Plates is FIM and supplied by EIL/owner, following methodology shall be adopted for issue & reconciliation -

- 4.1 The scrap allowance for the reinforcement bars/structural steel including steel plate issued by the Owner, shall be total 3% (2.5% accountable and 0.5% unaccountable) of the actual consumption as incorporated in the works.
- 4.2 All serviceable reinforcement bars/structural steel/steel plates shall be issued in available length/shapes/sizes and no claims for extra payment on account of issue of non-standard

lengths/shapes/sizes and bending etc. shall be entertained. Reinforcement bars and structural steel shall be issued on weighment basis as per normal warehousing practice. In exceptional circumstances, the reinforcement bars/ structural steel, if issued on linear measurement, the IS coefficients for unit weight shall be considered. For the purpose of billing and accounting, only linear measurements shall be taken and weight shall be calculated as per IS coefficients in three decimals. The difference in unit weight as per IS and actual as issued, if any, shall be to Contractor's account and Contractor is deemed to have considered the same at the time of bidding.

- 4.3 Reinforcement bars/structural steel/steel plates shall be issued only for those items where Owner's supply has been specifically mentioned in Schedule of Rates/ Scope of Supply. The storage of these items shall be done in such a way so as to avoid rusting/ damage to any kind to the materials.

- 4.4 All reinforcement bars/structural steel (except M.S. Plates) in length of 2 meters and above shall be considered as serviceable materials provided the material is in good and acceptable condition. Reinforcement bars/structural steel section (except M.S. Plates) in lengths less than 2M shall be treated as scrap.

The contractor shall strive to avoid generation of cut pieces of length 2m and above, as far as practicable, by effectively planning & executing the construction works.

- 4.5 For the purpose of accounting of the plates, all plates measuring not less than 1 Sq.m in area and having any dimensions not less than 200mm when returned to Owner's store, shall be considered as serviceable material. All other pieces shall be treated as wastage/scrap. The Contractor shall prepare a plate cutting diagram in such a way that the minimum scrap is generated. Also the cut plates should be used at proper places to reduce the scrap.

- 4.6 The serviceable cut pieces as mentioned in 4.4 & 4.5 above shall be considered as unused material for reconciliation purpose.

- 4.7 Material appropriation shall be done and wherever applicable, the recovery at penal rates as per clause 2.3 above shall be affected from the contractor.

5.0 PIPING MATERIALS

In all cases where Piping Materials e.g. Pipes and Pipe fittings are FIM and supplied by EIL/owner, following methodology shall be adopted for issue & reconciliation -

- 5.1 All serviceable pipes shall be issued in available lengths/shapes and no claims for extra payments on account of issue of non-standard length & shape shall be entertained. Pipes shall be issued on linear measurement basis. All valves, flanges, fittings etc. shall be issued on number(s) basis. Contractor shall store the materials in such a way so as to avoid mixing of different types of material and shall maintain complete identification and traceability at all times.
- 5.2 The scrap allowance for pipes issued by the Owner shall be 3% (2.5% accountable + 0.5% unaccountable) of the actual consumption as incorporated in the works.
- 5.3 All pipes in length of 2 meters and above shall be considered as serviceable material provided the material is in good and acceptable condition and has clear identification and traceability (Manufacturer's name, heat number/batch number and test certificates). Pipes in lengths less than 2M shall be treated as scrap.

The contractor shall strive to avoid generation of cut pieces of length 2m and above, as far as practicable, by effectively planning & executing the construction works.

- 5.4 All unused/scrap pipes, valves, flanges, forged fittings like elbows, reducers tees shall be returned by the Contractor category wise duly cleaned, greased and spec. marked at his own cost to Owner's stores.
- 5.5 Material appropriation shall be done and wherever applicable, the recovery at penal rates as per clause 2.3 above shall be affected from the contractor.

6.0 EQUIPMENTS/ INSTRUMENTS

In all cases where Equipments/ Instruments are FIM and supplied by EIL/owner, following methodology shall be adopted for issue & reconciliation -

Various equipment/materials intended for the installation shall be received by Owner in unpacked, skid mounted, crated, packed or loose condition and shall be stored in the warehouses and open yards. In general, materials shall be issued to the Contractor in 'as received' condition. It shall be the Contractor's responsibility to draw, load and transport all materials from Owner's designated places of issue to the point of installation and return all packing materials like steel frames, wooden boxes/scrap etc. to Owner's stores.

All materials supplied by the Owner shall be duly protected by the Contractor at his own cost with appropriate preservative like primer, lacquer coating, grease etc. as required.

7.0 CABLES

In all cases where Cables are FIM and supplied by EIL/owner, following methodology shall be adopted for issue & appropriation /reconciliation -

~~Appropriation of cables shall be done as follows:~~

- 7.1 All the surplus and serviceable cables out of the cables quantity(ies) issued by the Owner to the Contractor shall be returned by the Contractor to the Owner's store in good condition and as directed by the Engineer-in-Charge.
- 7.2 The Contractor shall be allowed a cutting/wastage allowance (accountable scrap) of 1.5% for power cables and 3% for the control cables. This cutting/wastage allowance shall be computed on the length of cables actually laid, measured and accepted.
- 7.3 All cables being returned to store should carry Aluminium sheet tags indicating the size & type of cable. Cables of less than 15 meters length shall be termed as scrap. Cables of lengths 15M and above shall be termed as serviceable material & shall be returned size wise and category wise to the Owner's store in wooden drums. Cables of serviceable length being returned to stores in drum(s) shall be accepted only after Megger value continuity test and physical measurement is carried out by the Contractor to the satisfaction of Engineer-in-Charge. Empty cable drums and major packing material (as decided by Engineer-in-charge) shall be Owner's property and shall be returned to Owner's Store/designated place without any additional cost.
- The contractor shall strive to avoid generation of cut pieces of length 15m and above, as far as practicable, by effectively planning & executing the construction works.
- 7.4 While carrying out material appropriation with the Contractor, the above points shall be taken into account. All serviceable materials returned by the Contractor (size wise & category wise) shall be deducted from the quantity(ies) issued to the Contractor for the respective sizes. Scrap generated for power cable and control cable shall also be returned to Owner's store on

Lot basis. Wherever applicable, the recovery at penal rates as per clause 2.3 above shall be affected from the contractor.

8.0 LINE PIPES

In all cases where Line Pipes are FIM and supplied by EIL/owner, following methodology shall be adopted for issue & appropriation /reconciliation -

8.1 All bare/ coated line pipes as per Line Pipe specifications shall be issued on linear measurement basis. The serviceable line pipes shall be issued in available lengths and shapes and no claim for extra payment on account of issue of non-standard length and shape shall be entertained. Contractor shall store and maintain the line pipes in proper manner to avoid mixing of different classes of pipes. Contractor shall maintain complete identification and traceability at all times. All cut pieces when returned to Owner's storage points after beveling, shall be considered as serviceable material provided:

- a) Corrosion Protection Coating is intact.
- b) Pipe pieces have pipe specifications, manufacturer's logo/name and heat number duly authenticated with hard stamp of the authorized inspector as per approved procedure.

All cut pieces of pipes measuring less than 2 M shall be treated as wastage/scrap.

The contractor shall strive to avoid generation of cut pieces of length 2m and above, as far as practicable, by effectively planning & executing the construction works.

8.2 For the purpose of accounting of bare/ coated line pipes, following allowances shall be permitted:

- a) Unaccountable wastage

- upto 100 Km	0.1%
- 101 to 500 Km	0.07%
- beyond 500 Km	0.05%
- b) Scrap (All cut pieces of pipes measuring less than 2 Meter) 0.25%
- c) Serviceable materials (All cut pieces of pipe measuring 2 Meter and above) 0.5%

The percentage allowance shall be accounted on the basis of pipe book chainage for main pipeline.

8.3 Material appropriation shall be done and wherever applicable, the recovery at penal rates as per clause 2.3 above shall be affected from the contractor.

9.0 OPTICAL FIBRE CABLE

In all cases where OFC is FIM and supplied by EIL/owner, following methodology shall be adopted for issue & appropriation /reconciliation -

9.1 For the purpose of accounting of optical fibre cable, all cut pieces measuring in length of 40 m and above when returned to Owner's storage points shall be treated as serviceable materials. All cut pieces of cable measuring less than 40 M shall be treated as scrap.

For the purpose of accounting of OFC (Optical Fibre Cable) following allowances shall be permitted:

a)	Unaccountable wastage	0.5%
b)	Scrap (All cut pieces of cables measuring less than 40 M)	0.25%
c)	Serviceable material (measuring 40m to 750m)	0.25%

The percentage allowance shall be accounted on the basis of pipe book chainage for main pipeline.

Cables returned in original drum (measuring 750m and above) with Optical Time Domain Report (OTDR) shall be considered as unused material.

- 9.2 The contractor shall strive to avoid generation of cut pieces of length 40m and above, as far as practicable, by effectively planning & executing the construction works.
- 9.3 Material appropriation shall be done and wherever applicable, the recovery at penal rates as per clause 2.3 above shall be affected from the contractor.

10.0 OFC JOINTING KITS

The Contractor shall make a schedule for use of Cable jointing kits and get the same approved from Engineer-in-charge. The quantity mentioned in this schedule shall be termed as 'planned' usage quantity which shall be issued to the Contractor. However, any jointing based on site requirements as decided by Engineer-in-charge shall be included in planned quantity.

Any unplanned jointing required to be carried out by the Contractor due to reasons not attributable to Owner/EIL shall be issued from spare quantity, if available with Owner. Such unplanned OFC Jointing Kits shall be charged from the contractor at penal rates as per clause 2.3 above.

11.0 RECONCILIATION OF MATERIALS

While submission of RA Bills, Contractor shall submit material reconciliation report along with each RA bill.



**CONDITIONS OF CONTRACT
(CoC)**

EXHIBIT-O TO CoC (CALIBRATION REQUIREMENTS)



Rev	0	Page	1	of	1+5

**CALIBRATION REQUIREMENTS OF
MONITORING AND MEASURING
DEVICES AT CONSTRUCTION SITE
[EXHIBIT-O TO CONDITIONS OF CONTRACT]**

निर्माण स्थलों पर निगरानी और मापने के उपकरणों की आंशांकन आवश्यकताएँ

CALIBRATION REQUIREMENTS OF MONITORING AND MEASURING DEVICES AT CONSTRUCTION SITES

1	02.07.2020	Revised & Updated	DG	RK	AKK	SKS
0	28.04.2015	Doc. No. 9-1940-0030 Rev 0 has been issued as Standard	DJ	SNB	MD	SC
Rev. No	Date	Purpose	Prepared by	Checked by	Standards Committee Convenor	Standards Bureau Chairman
					Approved by	

Abbreviations:

BIS	:	Bureau of Indian Standard
NABL	:	National Accreditation Board for Testing and Calibration Laboratories
CEIL	:	Certification Engineers International Ltd.
LRS	:	Lloyd's Register Group Limited
BV	:	Bureau Veritas
ABS	:	ABS Consultancy
DNV	:	Det Norske Veritas
IRS	:	Indian Registrar for Shipping
PMI	:	Positive Material Identification

Construction Standards Committee

Convenor: Sh. A K Kundu, ED (Construction)

Members: Sh. Janak Kishore, ED (Projects)
Sh. Biswajit Mandal, Sr. GM (SCM)
Sh. Udayan Chakravarty, Sr. GM (Piping)
Sh. Ravindra Kumar, GM (Construction)
Sh. Debasish Ghosal, GM (Construction)
Sh. Pankaj Kumar Rai, AGM (Construction)

Requirement for control of monitoring and measuring devices.

Sl. No.	Description	Calibration requirements	Frequency	Remarks
A.	Civil-Survey			
A.1.	Theodolite	To check for permanent adjustments by traversing and observing the closing error. (Refer Note).	Once in a year or project duration whichever is earlier.	Record to be maintained
A.2.	Level Instruments (Auto Level / Dumpy Level)	To check by backsight / foresight readings, the temporary adjustments of level. (Refer Note).	Every use.	Record to be maintained
A.3.	Steel measurement tapes	---	---	a. "Freemans" make or BIS approved make shall be used. b. Mutilated, or broken tapes shall not be used. c. Marking on the tape shall be legible
A.4.	Cross staff	---	---	Same as 3b & 3c above.
A.5.	Distomat	Actual Physical Verification at Site.	Before using first time at site.	Records to be maintained.
A.6.	Total Station	To check for permanent adjustments by traversing and observing the closing error, etc. (Refer Note).	Once in a year or project duration whichever is earlier.	Record to be maintained
B.	Civil Laboratory			
B.1.	All balances - Mechanical	Check for zero error	Whenever used.	---
B.2.	Weigh Batcher / Batching Plant	Calibration of scales	Once in three Months.	Records to be maintained.
B.3.	Cube testing machine	Calibration certificate from manufacturers or from calibrating laboratories / agency. (Refer Note).	As per manufacturer specification or once a year whichever is earlier	Records to be maintained.
B.4.	Moisture Meter	Calibration of scales .	6 months.	Records to be maintained.
B.5.	Vicat Appratus	Calibration certificate from manufacturers or from calibrating laboratories / agency. (Refer Note).	As per manufacturer specification or once a year whichever is earlier.	Records to be maintained.

Sl. No.	Description	Calibration requirements	Frequency	Remarks
C.	Mechanical/ Electrical/Welding			
C.1	Pressure gauges	Calibration certificate from calibrating laboratories / agencies or calibrate by dead weight testers with standard weights or with master Gauge. (Refer Note)	Once in 6 months	Records to be maintained.
C.2	Dial gauges	Check for Zero error.	Whenever used	---
C.3	Dead weight tester	Calibration from manufacturer or calibrating laboratories / agency. Calibration certificate shall not be older than one month from the date of mobilization. (Refer Note).	As per manufacturer's recommendation or once in a six month whichever is earlier.	Records (Calibration certificate) to be maintained.
C.4	Vernier caliper / screw gauge	Check for Zero error.	Whenever used.	---
C.5	Holiday tester	Calibration from manufacturer or calibrating laboratories / agency or calibration by zeep meter. (Refer Note).	Once in 6 months.	Records to be maintained.
C.6	Elcometer	Check with standard test films supplied by the manufactures.	Before use .	Records to be maintained.
C.7	Universal Testing machine	Calibration Certificate from various third party inspection agency. Viz. CEIL, LRS, BV, ABS, DNV or IRS etc.	As per manufacturer's recommendation or once a year whichever is earlier.	Records to be maintained.
C.8	Charpy V-notch Impact testing machine.	Calibration Certificate from various third party inspection agency. Viz. CEIL, LRS, BV, ABS, DNV or IRS etc.	As per manufacturer's recommendation or once in a year whichever is earlier.	Records to be maintained.
C.9	Hardness Testing machine.	Check with the standard test block supplied with the machine as per manufacturer's Recommendation.	Before use.	Records to be maintained.
C.10	Chemical Analysis, ex : PMI etc.	Check with the standard samples.	Before use.	Records to be maintained.
C.11	Various Digital and Analog meters.	Calibration Certificate from calibrating laboratories / agencies or the Manufacturer (Refer Note).	Once in Six Months or as per manufacturer's recommendation whichever is earlier.	Records to be maintained.

Sl. No.	Description	Calibration requirements	Frequency	Remarks
C.12	HIPOT Kit, Multimeter / Clampmeter, Ohmicron Kit, CT Analyser, CRM Kit, BDV Kit, Tachometer etc.	Calibration Certificate from calibrating laboratories / agencies (Refer Note).	Once in Six months.	Records to be maintained.
C.13	Temperature / Pressure recorders	Calibration from manufacturer or any calibrating laboratories / agency (Refer Note).	Once in Six months.	Records to be maintained
C.14	Temperature gauges	Calibration Certificate from calibrating laboratories / agencies (Refer Note).	Once in Six months.	To be discarded in case of damage or malfunctioning.
C.15	Thermocouples	Manufacturer's Certificate or Chemical Check	---	---
C.16	Vibration probes	Calibration from calibrating laboratories / agencies (Refer Note).	Once in a year.	To be discarded in case of damage or Malfunctioning.
C.17	Decibel-Meter	Calibration from calibrating laboratories / agencies (Refer Note).	Once in a year.	To be discarded in case of damage or Malfunctioning.
C.18	Manual Torque Wrench / Electric Torque Machine	Calibration from manufacturer or any calibrating laboratories / agency (Refer Note).	As per manufacturer's recommendation or once in a year whichever is earlier.	Records to be maintained
C.19	Mother Oven	Calibration from manufacturer or any calibrating laboratories / agency (Refer Note).	As per manufacturer's recommendation or once in a year whichever is earlier.	Records to be maintained.

Note: If Error is found, it has to be sent to manufacturers or their agents (Calibrating laboratories / agency) or to any other lab / agency for recalibration / rectification and certification. The calibrating laboratory / agency shall be NABL accredited or any other lab accredited as per ISO/IEC:17025 by any of the National/International accreditation body for relevant testing.



**CONDITIONS OF CONTRACT (CoC)
EXHIBIT-P TO CoC (HSE MANAGEMENT AT CONSTRUCTION
SITE)**



Rev	0	Page	1	of	1

**SPECIFICATIONS ON HEALTH, SAFETY AND ENVIRONMENT
(HSE) MANAGEMENT AT CONSTRUCTION SITES**

[EXHIBIT-P TO CONDITIONS OF CONTRACT]

**Refer Specifications on Health, Safety And Environment (HSE)
Management At Construction Sites (Document Ref No. 6-82-0001)
included in technical part of Bidding Document**



**CONDITIONS OF CONTRACT
(CoC)
EXHIBIT-Q TO CoC (OISD GUIDLINES)**



Rev 0 Page 1 of 1+67+56

OISD GUIDLINES OISD-192 & OISD-207

[EXHIBIT-Q TO CONDITIONS OF CONTRACT]



OIL INDUSTRY SAFETY DIRECTORATE

निर्माण के दौरान सुरक्षा प्रथाएं
ओ आई एस डी-जी डी एन- 192

SAFETY PRACTICES DURING CONSTRUCTION

OISD-GDN-192

Inception	August 2000
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FOR RESTRICTED CIRCULATION ONLY

OIL INDUSTRY SAFETY DIRECTORATE

Government of India

Ministry of Petroleum & Natural Gas

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PREAMBLE

Indian petroleum industry is the energy lifeline of the nation and its continuous performance is essential for sovereignty and prosperity of the country. As the industry essentially deals with inherently inflammable substances throughout its value chain – upstream, midstream and downstream – Safety is of paramount importance to this industry as only safe performance at all times can ensure optimum ROI of these national assets and resources including sustainability.

While statutory organizations were in place all along to oversee safety aspects of Indian petroleum industry, Oil Industry Safety Directorate (OISD) was set up in 1986 by Ministry of Petroleum and Natural Gas, Government of India as a knowledge centre for formulation of constantly updated world-scale standards for design, layout and operation of various equipment, facility and activities involved in this industry. Moreover, OISD was also given responsibility of monitoring implementation status of these standards through safety audits.

In more than three decades of its existence, OISD has developed a rigorous, multi-layer, iterative and participative process of development of standards – starting with research by in-house experts and iterating through seeking & validating inputs from all stake-holders – operators, designers, national level knowledge authorities and public at large – with a feedback loop of constant updation based on ground level experience obtained through audits, incident analysis and environment scanning.

The participative process followed in standard formulation has resulted in excellent level of compliance by the industry culminating in a safer environment in the industry. OISD – except in the Upstream Petroleum Sector – is still a regulatory (and not a statutory) body but that has not affected implementation of the OISD standards. It also goes to prove the old adage that self-regulation is the best regulation. The quality and relevance of OISD standards had been further endorsed by their adoption in various statutory rules of the land.

Petroleum industry in India is significantly globalized at present in terms of technology content requiring its operation to keep pace with the relevant world scale standards & practices. This matches the OISD philosophy of continuous improvement keeping pace with the global developments in its target environment. To this end, OISD keeps track of changes through participation as member in large number of International and national level Knowledge Organizations – both in the field of standard development and implementation & monitoring in addition to updation of internal knowledge base through continuous research and application surveillance, thereby ensuring that this OISD Standard, along with all other extant ones, remains relevant, updated and effective on a real time basis in the applicable areas.

Together we strive to achieve NIL incidents in the entire Hydrocarbon Value Chain. This, besides other issues, calls for total engagement from all levels of the stake holder organizations, which we, at OISD, fervently look forward to.

Jai Hind!!!

Executive Director
Oil Industry Safety Directorate

FOREWORD

The Oil Industry in India is over 100 years old. As such, various practices have been in vogue because of collaboration/ association with different foreign companies and governments. Standardization in design philosophies, operating and maintenance practices remained a grey area. This coupled with feedback from some serious accidents that occurred in the past in India and abroad, emphasized the need for the industry to review the existing state-of-the-art in designing, operating and maintaining of Oil and Gas installations.

With this in view, the Ministry of Petroleum and Natural Gas in 1986 constituted a Safety Council assisted by the Oil Industry Safety Directorate (OISD) staffed from within the industry in formulating and implementing a series of self-regulatory measures aimed at removing obsolescence, standardizing and upgrading the existing standards to ensure safe operations. Accordingly, OISD constituted a number of functional committees of experts nominated from the industry to draw up standards and guidelines on various subjects.

The present guideline on "Safety Practices During Construction" has been prepared by the functional committee based on, existing standards, guidelines & recommended practices of OISD, the recommendations arising out of recent major accidents and their analysis, the accumulated knowledge and experience of industry members in India and updation of National and International codes and practices.

The figures and photographs used in the document, if any, are representative in nature.

We, at OISD, are confident that the provisions of this standard, when implemented in totality, would go a long way in ensuring safe operation of the target group of locations.

Needless to mention, this standard, as always would be reviewed based on field level experience, incident analysis and environment scanning. Suggestions from all stake holders may be forwarded to OISD.

NOTE

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Though every effort has been made to assure the accuracy and reliability of the data contained in these documents, OISD hereby expressly disclaims any liability or responsibility for loss or damage resulting from their use.

These documents are intended only to supplement and not to replace the prevailing statutory requirements of PESO, DGMS, Factory Inspectorate or any other Government body which must be followed as applicable.

Wherever Acts/ Rules/ Regulation and National/ International Standards are mentioned in the standard, the same relates to in-vogue version of such documents.

ENGINEERS INDIA LIMITED

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A K Arora	Addl. Director, OISD	Member

In addition to the above, several other experts from Industry contributed in the preparation, review and finalisation of this Guideline.

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SAFETY PRACTICES DURING CONSTRUCTION**

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CONTENTS

SECTION	Page No.
1.0 Introduction	1
2.0 Scope	1
3.0 Definitions	1
4.0 General Duties	2
4.1 General Duties Of Execution Agencies	2
4.2 General Duties Of Owners	4
5.0 Safety Practices At Work Places	4
5.1 General Provisions	4
5.2 Means Of Access And Egress	5
5.3 Housekeeping	5
5.4 Precautions against The Fall Of Materials and Persons and Collapse Of Structures	6
5.5 Prevention Of Unauthorised Entry	6
5.6 Fire Prevention And Fire Fighting	6
5.7 Lighting	7
5.8 Plant, Machinery, Equipment and Hand Tools	7
6.0 Construction Activities	9
6.1 Excavation	10
6.2 Scaffolding, Platforms & Ladders	12
6.3 Structural Work, Laying of Reinforcement & Concreting	22
6.4 Road Work	26
6.5 Cutting/Welding	27
6.6 Working in Confined Spaces	29
6.7 Proof / Pressure Testing	31
6.8 Working at Heights	31
6.9 Handling and Lifting Equipment	34

6.10	Vehicle Movement	39
6.11	Electrical	40
6.12	Offshore	43
6.13	Demolition	48
6.14	Radiography	49
6.15	Sand/Shot Blasting / Spray Painting	50
6.16	Work above Water	51
7.0	Additional Safety Precaution for Units with Hydrocarbons	52
8.0	Environment Protection	53
9.0	Occupational Health	55
10.0	Documentation	56
11.0	Safety Awareness & Training	56
12.0	References	57
	Annexure I	58

 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 1
	SAFETY PRACTICES DURING CONSTRUCTION	

SAFETY PRACTICES DURING CONSTRUCTION

1.0 INTRODUCTION

Safety in Construction Management deserves utmost attention especially in the hydrocarbon industry, such as Exploration, Refineries, Pipelines and Marketing installations, Gas Processing units etc. Construction is widely recognised as one of the accident prone activities. Most of the accidents are caused by inadequate planning, failure during the construction process and/or because of design deficiencies. Besides property loss, accidents also result in injuries and fatalities to the personnel, damage to environment which needs to be prevented.

The reasons for accidents during construction activities are related to unique nature of the industry, human behaviour, difficult work-site conditions, extended odd duty hours, lack of training & awareness and inadequate safety management. Unsafe working methods, lack of proper JSA (Job Safety Analysis) and use of improper / inadequate PPEs, equipment failure and improper housekeeping also tend to increase the accident rate in construction.

Ensuring good quality of materials, equipment and competent supervision along with compliance of standard engineering practices shall go a long way to in built safety into the system.

The objective of this document is to provide practical guidance on technical and educational framework for health, safety and environment in construction with a view to:

- prevent accidents and harmful effects on the health of workers arising from employment in construction;
- ensure appropriate safety during implementation of construction;
- provide safety practice guidelines for appropriate measures of planning, control and enforcement.
- protect environment.

2.0 SCOPE

This document specifies broad guidelines on HEALTH, SAFETY AND ENVIRONMENT practices to be adhered to during construction activities including green field projects in oil industry. However, before commencing any job, specific hazards and its effects should be assessed and necessary corrective/preventive actions should be taken by all concerned. The document is intended only to supplement and not to replace or supersede the prevailing statutory requirements, which shall also be followed as applicable. For Personal Protective Equipment, OISD-STD-155 (Part I&II) shall be referred to. The scope of this document does not include the design aspects and quality checks during construction.

3.0 DEFINITIONS

Definitions of various terminology are given below:

- **Adequate, appropriate or suitable** are used to describe qualitatively or quantitatively the means or method used to protect the men, machinery, material, property and environment.
- **By hand:** The work is done without the help of a mechanised tool.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 2
	SAFETY PRACTICES DURING CONSTRUCTION	

- **Competent Authority:** A statutory agency having the power to issue regulations, orders or other instructions having the force of law.
- **Competent person:** A person possessing adequate qualifications, such as suitable training and sufficient knowledge, experience and skill for the safe performance of the specific work. The competent authorities may define appropriate criteria for the designation of such persons and may determine the duties to be assigned to them.
- **Construction site:**
A worksite involving new construction, modification or maintenance of existing facility, shutdown related activity, demolition, housekeeping etc.
- **Environment:**
Environment includes water, air and land and the interrelationship which exists among and between water, air and land and human beings, other living creatures, plants, microorganisms and property.
- **Execution agency:**
Any entity / person, having contractual obligation with the owner and who employs one or more workers on a construction site.
- **Hazard:** A condition or a set of conditions which has potential of causing injury to person, damage to property or environment.
- **Health:** Soundness of body covering Physical, Emotional, Psychological and Intellectual conditions of a worker which assists the attainment of the objectives.
- **Means of access or egress:** Passageways, corridors, stairs, platforms, ladders and any other means for entering or leaving the workplace or for escaping in case of danger.
- **Owner:** Any entity / person for whom construction job is carried out.
It shall also include owner's designated representative/ consultant/ nominee/ agent, authorised from time to time to act for and on its behalf for supervising/ coordinating the activities of the execution agency.
- **Scaffold:** Any fixed, suspended or mobile temporary structure supporting workers and material or to gain access to any such structure and which is not a lifting appliance.
- **Safety :** Prevention & protection from exposure to Hazard.
- **Worker:** Any person engaged in construction activity.
- **Workplace:** Owner's designated premises where workers need to be present by virtue of their involvement in the construction activity.

4.0 GENERAL DUTIES

4.1 GENERAL DUTIES OF EXECUTION AGENCIES

4.1.1 Execution agency should:

- i) provide means and organisation to comply with the Health, safety and environment protection measures required at the workplace.

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	OISD – GDN – 192	Page No. 3
	SAFETY PRACTICES DURING CONSTRUCTION	

- ii) provide and maintain workplaces, plant, equipment, tools and machinery and organise construction work so that, there is no risk of accident or injury to health of workers. In particular, construction work should be planned, prepared and undertaken so that:
 - (a) dangers liable to arise at the workplace, are prevented;
 - (b) excessively or unnecessarily strenuous work positions and movements are avoided;
 - organisation of work takes into account the safety and health of workers and also environment protection;
 - materials and products used are suitable from Health safety and environment protection point of view;
 - (c) working methods are adopted to safeguard workers against the harmful effects of chemical, physical and biological agents.
- iii) establish committees with representatives of workers and management or make other arrangement for the participation of workers in ensuring safe working conditions.
- iv) arrange for periodic safety inspections by competent persons of all buildings, plant, equipment, tools, machinery, workplaces and review of systems of work, regulations, standards or codes of practice. The competent person should examine and ascertain the safety of construction machinery and equipment.
- v) provide such supervision to ensure that workers perform their work with due regard to safety and health of theirs as well as that of others.
- vi) employ only those workers who are qualified, trained and suited by their age, physique, state of health and skill.
- vii) satisfy themselves that all workers are informed and instructed in the hazards connected with their work and environment and trained in the precautions necessary to avoid accidents and injury to health.
- viii) ensure that buildings, plant, equipment, tools, machinery or workplaces in which a dangerous defect has been found should not be used until the defect has been rectified.
- ix) organise for and remain always prepared to take immediate steps to stop the operation and evacuate workers as appropriate, where there is an imminent danger to the safety of workers.
- x) establish a checking system by which it can be ascertained that all the members of a shift, including operators of mobile equipment, have returned to the camp or base at the close of work on dispersed sites and where small groups of workers operate in isolation.
 - provide appropriate first aid, training and welfare facilities to workers as per various statutes like the Factories Act 1948, Building & Construction Workers Regulation (BOCWR), etc. and, whenever collective measures are not feasible or are insufficient, provide and maintain personal protective equipment and clothing in line with the requirement as per OISD-STD-155 (Part I & II) on Personnel Protective

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 4
	SAFETY PRACTICES DURING CONSTRUCTION	

Equipment. They should also provide access to workers to occupational health services.

- educate workers about their right and the duty at any workplace to participate in ensuring safe working conditions to the extent of their control over the equipment and methods of work and to express views on working procedures adopted as may affect health, safety and environment.
- xi) ensure that except in an emergency, workers unless duly authorised, should not interfere with, remove, alter or displace any safety device or other appliance furnished for their protection or the protection of others, or interfere with any method or process adopted with a view to avoiding accidents and injury to health.
- xii) ensure that workers do not operate or interfere with plant and equipment that they have not been duly authorised to operate, maintain or use.
- xiii) ensure that workers do not sleep, rest or cook etc in dangerous places such as scaffolds, railway tracks, garages, confined spaces or in the vicinity of fires, dangerous or toxic substances, machines or vehicles and heavy equipment etc.
- xiv) obtain the necessary clearance/permits as required and specified by owner.
Arrangement for drinking water, toilet facilities, a creche and transport arrangement etc. to be provided as per statutory requirement.
- xv) deploy a safety officer at site as per the requirement of Factory Act 1948/ Building & Construction Workers Regulation (BOCWR)/ Criticality of the job.
- xvi) ensure that all employees/workmen undergo medical examination as required under the law or under the contract provision and keep a record of the same.
- xvii) obtain the police verification of the workers/ supervisors arranged by him and the same is to be submitted to the owner.
- xviii) not permit any employee/workmen/visitor to enter the work area under the influence of alcohol or any drugs.

4.2 GENERAL DUTIES OF OWNERS

4.2.1 Owners should:

- i) co-ordinate or nominate a competent person to co-ordinate all activities relating to HEALTH, SAFETY AND ENVIRONMENT on their construction projects;
- ii) inform all contractors on the work site / project of special risks to HEALTH, SAFETY AND ENVIRONMENT;
- iii) ensure that executing agency is aware of the owner's requirements and the executing agency's responsibilities with respect to HEALTH, SAFETY AND ENVIRONMENT practices before starting the job.

5.0 SAFETY PRACTICES AT WORK PLACES

5.1. GENERAL PROVISIONS

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 5
	SAFETY PRACTICES DURING CONSTRUCTION	

- 5.1.1 All openings and other areas likely to pose danger to workers should be clearly indicated and accident prevention measures taken as required. The working area should be clearly de-marketed to keep the workers in that area only.
- 5.1.2 Workers & Supervisors should use the safety helmet and other requisite Personal Protective Equipment according to job & site requirement as per OISD-STD-155 (Part I & II). They should be trained to use personal protective equipment including their limitations.
- 5.1.3 Never use-solvents, alkalis and other oils to clean the skin.
- 5.1.4 Lift the load with back straight and knees bent. The contractor shall ensure at his construction site, no worker lifts by hand or carries overhead or over his back or shoulders any material, article, tool or pipelines exceeding in weight as per The Factory Act 1948 / Rule 38 of Building & Construction Workers Regulation (BOCWR), unless aided by another worker or device.
- 5.1.5 Ensure the usage of correct and tested tools and tackles. Don't allow the make shift tools and tackles. Also the tools should be suitable for a particular job and rated accordingly.
- 5.1.6 No loose clothing should be allowed while at construction site.
- 5.1.7 Start work only after proper authorization viz Work permit etc.
- 5.1.8 Job safety analysis to be done for all critical works.
- 5.1.9 Hydra should not be used for transportation of hook loaded materials.
- 5.1.10 Rope ladders should not be used at construction sites.

5.2 MEANS OF ACCESS AND EGRESS

Adequate and safe means of access (atleast two, differently located) to and egress from all workplaces should be provided. Same should be displayed and maintained. Escape routes should be marked prominently in workers friendly language. The escape routes should not be blocked at any point of time and same to be made understand to the workers.

5.3 HOUSEKEEPING

- 5.3.1 General Housekeeping shall be carried out by the contractor and he will ensure;
 - i) proper storage of materials and equipment;
 - ii) removal of scrap, inflammable material, waste and debris at appropriate intervals including slippery materials. (construction sand on road, oil/ lubricants, resins, etc.).
 - iii) to provide containers for segregation of disposal of debris at required places and regular cleaning of the same.
- 5.3.2 Removal of loose materials, which are not required for use, to be ensured. Accumulation of these at the site can obstruct means of access to and egress from workplaces and passageways.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 6
	SAFETY PRACTICES DURING CONSTRUCTION	

5.3.3 Workplaces and passageways, that are slippery owing to oil, grease or other causes, should be cleaned up or strewn with sand, sawdust, ash etc.

5.3.4 All surplus earth and debris are removed/disposed off from the working areas to officially designated dumpsites. The debris like plastics, packing material, rubber items should not be allowed to burn. Trucks carrying sand, earth and any pulverized materials etc. in order to avoid dust or odour impact, shall be covered while moving.

5.4 PRECAUTIONS AGAINST THE FALL OF MATERIALS & PERSONS AND COLLAPSE OF STRUCTURES

5.4.1 Precautions should be taken such as the provision of fencing, look-out men or barriers to protect any person against injury by the fall of materials, or tools or equipment being raised or lowered.

5.4.2 Where necessary to prevent danger, guys, stays or supports should be used or other effective precautions should be taken to prevent the collapse of structures or parts of structures that are being erected, maintained, repaired, dismantled or demolished.

5.4.3 All openings through which workers are liable to fall should be kept effectively covered or fenced and displayed prominently.

5.4.4 SOP of crane operation should be adhered to. The crane jacks/legs should be parked on compacted surface to avoid tilting.

5.5 PREVENTION OF UNAUTHORISED ENTRY

5.5.1 Construction sites located in built-up areas and alongside vehicular and pedestrian traffic routes should be fenced to prevent the entry of unauthorised persons.

5.5.2 Visitors should not be allowed access to site(s) unless accompanied by or authorised by a competent person. All authorized visitors should report at the site office. Contractor shall provide visitor's helmet (helmet with visitor sticker) and other PPEs like Safety Shoe, reflective jacket, respiratory protection etc. as per requirement of the site. All the workers to have photo IDs including the staff of vehicles used in the job.

5.6 FIRE PREVENTION AND FIRE FIGHTING

5.6.1 All necessary measures should be taken by the executing agency and owner to:

- i) avoid the risk of fire;
- ii) control quickly and efficiently any outbreak of fire;
- iii) bring out a quick and safe evacuation of persons.
- iv) Inform unit/fire station control room, where construction work is carried out within existing operating area.
- v) DMP should be in place for the same.

5.6.2 Combustible materials such as packing materials, sawdust, greasy/oily waste and scrap wood or plastics should not be allowed to accumulate in workplaces but should be kept in closed metal containers in a safe place. To be disposed periodically away from site at designated place and assigned manner.

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	OISD – GDN – 192	Page No. 7
	SAFETY PRACTICES DURING CONSTRUCTION	

- 5.6.3 Places where workers are employed on works prone to danger of fire should be provided with:
- suitable and sufficient fire-extinguishing equipment, which should be easily visible and accessible;
 - an adequate water supply at sufficient pressure meeting the requirements of various OISD standards.
 - required PPEs.
- 5.6.4 To guard against danger at places having combustible material, workers should be trained in the action to be taken in the event of fire, including the use of means of escape.
- 5.6.5 At sites having combustible material, suitable visual sign boards should be provided to indicate clearly the direction of escape in case of fire.
- 5.6.6 Means of escape should be kept clear at all times. Escape routes should be frequently inspected and if possible marked in fluorescent colours particularly in high structures and where access is restricted.

5.7 LIGHTING

- 5.7.1 Where natural lighting is not adequate, working light fittings or portable hand-lamps should be provided at workplace on the construction site where a worker will do a job.
- 5.7.2 Emergency lighting should be provided for personnel safety during night time to facilitate standby lighting source, if normal system fails.
- 5.7.2 Artificial lighting should not produce glare or disturbing shadows.
- 5.7.3 Lamps should be protected by guards against accidental breakage.
- 5.7.4 The cables of portable electrical lighting equipment should be of adequate size & characteristics for the power requirements and of adequate mechanical strength to withstand severe conditions in construction operations.
- 5.7.5 For temporary lighting connection, mostly neutral and phases are connected and insulation tapes are provided. It is better to stagger the neutral and phase connection so that even if the tape gets removed from the joints, there will be no short circuit/ spark between neutral and phase due to staggering of neutral and phase.
- 5.7.6 All the temporary lighting/ machine connections are to be provided from a three core cable for better safety.

5.8 PLANT, MACHINERY, EQUIPMENT AND HAND TOOLS

5.8.1 General Provisions

- Plant, machinery and equipment including hand tools, both manual and power driven, should:
 - be of proper design and construction, taking into account health, Safety and ergonomic principles.
 - be maintained in good working order;
 - be used only for work for which they have been designed.
 - be operated only by workers who have been authorised and given appropriate training.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 8
	SAFETY PRACTICES DURING CONSTRUCTION	

- e) be provided with protective guards, shields or other devices as required.
- ii) Adequate instructions for safe use should be provided.
- iii) Standard operating procedures should be established and used for all plant, machinery and equipment.
- iv) Operators of plant, machinery and equipment should not be distracted while work is in progress.
- v) Plant, machinery and equipment should be switched off when not in use and isolated before any adjustment, clearing or maintenance is done.
- vi) Where trailing cables or hose pipes are used they should be kept as short as practicable and not allowed to create a hazard.
- vii) All moving parts of machinery and equipment should be enclosed or adequately guarded.
- viii) Every power-driven machine and equipment should be provided with adequate means, immediately accessible and readily identifiable to the operator, of stopping it quickly and preventing it from being started again inadvertently.
- ix) Operators of plant, machinery, equipment and tools should be provided with PPEs, including where necessary, suitable ear protection.

5.8.2 Hand tools

- i) Hand tools should be repaired by competent persons.
- ii) Heads of hammers and other shock tools should be dressed or ground to a suitable radius on the edge as soon as they begin to mushroom or crack.
- iii) When not in use and while being carried or transported, sharp tools should be kept in sheaths, shields, chests or other suitable containers.
- iv) Only insulated or non-conducting tools should be used on or near live electrical installations.
- v) Only non-sparking tools should be used near or in the presence of flammable or explosive dusts or vapours.

5.8.3 Pneumatic Tools

- i) Operating triggers on portable pneumatic tools should be:
 - a) so placed as to minimise the risk of accidental starting of the machine.
 - b) so arranged as to close the air inlet valve automatically when the pressure of the operator's hand is removed.
- ii) Hose and hose connections for compressed air supply to portable pneumatic tools should be:

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 9
	SAFETY PRACTICES DURING CONSTRUCTION	

- a) designed and tested for the pressure and service for which they are intended;
- b) fastened securely on the pipe outlet and equipped with the safety chain, as appropriate.
- iii) Pneumatic shock tools should be equipped with safety clips or retainers to prevent dies and tools from being accidentally expelled from the barrel.
- iv) Pneumatic tools should be disconnected from power and the pressure in hose lines released before any adjustment or repair is made.

5.8.4 Electrical Tools

- i) Low voltage portable electrical tools should generally be used.
- ii) All electrical tools should be earthed, unless they are "all insulated" or "double insulated" tools which do not require earthing.
- iii) All electrical tools should get inspected and maintained on a regular basis by a competent electrician and complete records kept.
- iv) No temporary connected appliance should be left connected in the socket. Its plug should be immediately removed after use.

5.8.5 Engines

- i) Engines should:
 - a) be installed so that they can be started safely and the maximum safe speed cannot be exceeded.
 - b) have controls for limiting speed.
 - c) have devices to stop them from a safe place in an emergency.
 - d) have their batteries top covered with insulating material.
 - e) have radiator fan covers in place.
- ii) IC engines should not be run in confined spaces unless adequate exhaust ventilation is provided or the exhaust should be installed outside the confined place at suitable height.
- iii) When IC engines are being fuelled:
 - a) the engine should be shut off.
 - b) care should be taken to avoid spilling fuel.
 - c) no person should smoke or have an naked light in the vicinity.
 - d) a fire extinguisher should be kept readily available.
- iv) Secondary fuel reservoir should be placed outside the engine room.

6.0 CONSTRUCTION ACTIVITIES

The various common activities in construction are as under:

- Excavation
- Scaffolding, Platforms & Ladders
- Structural Work, Laying of Reinforcement & Concreting
- Road Work (Laying of roads)
- Cutting /Welding
- Working in Confined Space

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 10
	SAFETY PRACTICES DURING CONSTRUCTION	

- Proof/Pressure Testing
- Working at Heights
- Handling & Lifting Equipment
- Vehicle Movement
- Electrical
- Offshore
- Demolition
- Radiography
- Shot blasting/ spray painting
- Work above water

Work permit system as per requirement of OISD-STD-105 shall be followed for various construction activities. As regards the activities at work places including grass root project sites if not covered under OISD-STD-105, owner shall develop a suitable methodology for execution of various construction activities under work permit system for safe execution of the works.

The safe practices to be followed during the implementation of above construction activities are given below:

6.1 EXCAVATION

6.1.1 All excavation work should be planned and the method of excavation and the type of support work required should be decided considering the following:

- i) the stability of the ground including the chances of seepage of water;
- ii) the excavation will not affect adjoining buildings, structures or roadways;
- iii) to prevent hazard, the Hydrocarbon lines, water, electrical and other above ground & underground public utilities should be shut off, re-routed or disconnected, if necessary; If such a presence is envisaged, clearance to be taken from respective competent authority/ person.
- iv) the position of culvert/bridges, temporary roads and spoil heaps should be determined;
- v) a signed rough sketch of the excavation site to be prepared and made the workers understand

6.1.2 Before digging begins on site, all excavation work should be planned and the method of excavation and the type of support work required should be decided based on good engineering practices and recorded.

6.1.3 All excavation work should be supervised by a competent person.

6.1.4 Sites of excavations should be thoroughly inspected:

- i) daily, prior to each shift and after interruption in work of more than one day;
- ii) after every blasting operation;
- iii) after an unexpected fall of ground;
- iv) after substantial damage to supports;
- v) after a heavy rain, frost or snow;
- vi) when boulder formations are encountered.
- vii) for cracks in the nearby buildings or area as the excavation progresses and the same to be reviewed.

 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 11
	SAFETY PRACTICES DURING CONSTRUCTION	

- 6.1.5 Safe angle of repose while excavating trenches exceeding 1.5m depth upto 3.0m should be maintained. Based on site conditions, provide proper slope, usually 45°, and suitable bench of 0.5m width at every 1.5m depth of excavation in all soils except hard rock or provide proper shoring and strutting to prevent cave-in or slides.
- 6.1.6 As far as possible, excavated earth should not be placed within one meter of the edge of the trench or depth of trench whichever is greater.
- 6.1.7 Don't allow vehicles to operate too close to excavated area. Maintain atleast 2m distance from edge of excavation or depth of trench whichever is greater. No load, plant or equipment should be placed or moved near the edge of any excavation where it is likely to cause its collapse and thereby endanger any person unless precautions such as the provision of shoring or piling are taken to prevent the sides from collapsing.
- 6.1.8 Adequately anchored stop blocks and barriers should be provided to prevent vehicles being driven into the excavation. Heavy vehicles should not be allowed near the excavation unless the support work has been specially designed to permit it.
- 6.1.9 If an excavation is likely to affect the stability of a structure on which persons are working, precautions should be taken to protect the structure from collapse.
- 6.1.10 Barricade at 1m height (with red & white band/self glowing caution board) should be provided for excavations beyond 1.0 m depth. Provide two entries/exits for such excavation through proper means. Lighting arrangements to be made to avoid any accidental fall in the excavated portion even when work is not in progress.
- 6.1.11 Necessary precautions should be taken for underground utility lines like cables, sewers etc. and necessary approvals/clearances from the concerned authorities shall be obtained before commencement of the excavation job.
- 6.1.12 Water shall be pumped/ bailed out, if any accumulates in the trench. Necessary precautions should be taken to prevent entry of surface water in trenches.
- 6.1.13 During / after rains, the soil becomes loose. Take additional precaution against collapse of side wall. During rains excavation should be avoided.
- 6.1.14 In hazardous areas, air should be tested to ascertain its quality. No one should be allowed entry till it is suitable for breathing.
- 6.1.15 In case of mechanised excavation, precaution shall be taken to not to allow anybody to come within one meter of extreme reach of the mechanical shovel. This area of reach of mechanical shovel should be marked / barricaded suitably. The mechanised excavator shall be operated by a well-trained experienced operator. When not in operation, the machine shall be kept on firm leveled ground with mechanical shovel resting on ground. Wheel or belt shall be suitably jammed to prevent any accidental movement of the machine. Suitable precautions as per manufacturer guidelines should be taken for dozers, graders and other heavy machines.
- 6.1.16 In case of blasting, follow strictly IS:4081-1986 & Indian Explosive Act and rules for storage, handling and carrying of explosive materials and execution of blasting operation.

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	OISD – GDN – 192	Page No. 12
	SAFETY PRACTICES DURING CONSTRUCTION	

6.2 SCAFFOLDING, PLATFORMS & LADDERS

System of tagging shall be followed to indicate status of 'Fit-for-Purpose' certification by a competent person for the scaffoldings. Green Tag shall indicate 'Fit-for-Purpose' whereas Red Tag shall indicate 'Unfit-for-purpose'. Accordingly only Red Tag shall be displayed during Erection & Dismantling.

All personnel engaged in erecting, using, dismantling scaffolds shall use full body safety harness with double lanyard with shock absorber connected with personal fall arrestor which should be secured to a properly designed anchor.

6.2.1 Scaffold related guidelines

General Requirements

Categories and Classification

Most scaffolds fall into one of the four primary categories:

- Tube and coupler scaffold
- System scaffolds e.g. Cup lock, Ring lock, H frame scaffold
- Suspension(or Suspended) scaffold
- Mobile scaffold
- Special scaffold

Scaffolds are classified according to their intended use as:

- Light duty
- Medium duty (General Purpose)
- Heavy duty

Type of Scaffolding	Load duty	Light		Medium	Heavy/Special		
		75	150	225	300	450	600
Tubular with clamps	Maximum Safe load in Kg/m ²	2.7	2.2	1.8	1.4	1.0	0.8
Cup / Ring lock	Max. bay length (distance between two verticals) in Meter	2.5	2.0	1.5	1.25	1.0	NA

Conditions where special scaffolding procedure is required:

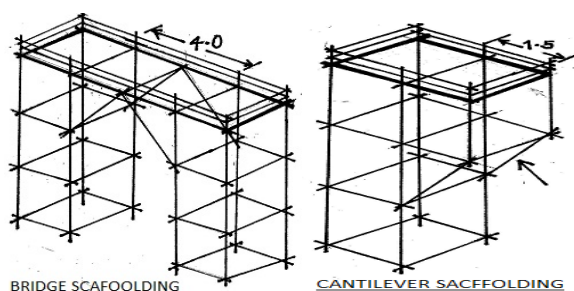
1. Height of the scaffolding is more than 30 meters.
2. Scaffolding is special in nature/ type: cantilever more than 1.5 meters, bridge more than 4 meters, scaffolding for machine/ equipment maintenance requiring frequent modifications, offshore scaffold, hanging scaffold; wooden scaffold (for specific use e.g. cooling tower), etc.

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OISD – GDN – 192
SAFETY PRACTICES DURING CONSTRUCTION

Page No. 13



For all such cases, but not limited to, in addition to checklist, a plant specific procedure cum checklist based on additional risk is to be prepared & validated by a competent person (example: procedure for erection/ dismantling shall be prepared and followed. If need felt, help from Engineering Cell/Third Party may be taken for checking proposed scaffold in respect of design and load carrying capacity etc.).

Specifications of Scaffolds

Applicable to all Scaffolds

1. All elevated structures/ working platform areas should be guarded on all sides.
2. Railings and toe boards should be provided on the platform.
3. Scaffolds shall be designed to support at least 4 times the anticipated weight of Men, material and wind force.
4. Make certain that all scaffolds are in plumb and level at all times.
5. Scaffolds shall be secured from tipping when the scaffold height exceeds four times its minimum base dimension.
6. Scaffolds must be constructed at least 3 planks wide unless location makes this physically impossible.
7. Landing platform should be provided at every 9 meter of height or less.
8. The members of scaffolds should extend at least 6" on either ends but not more than 12". They should be fastened on both ends and laid tight by clamps.
9. All scaffoldings having height to base ratio more than 4 shall be secured firmly with permanent structure in X and Y direction at least every 6 meters.
10. Scaffold which spread to 20 meter or more should have two accesses preferably opposite side.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 14
	SAFETY PRACTICES DURING CONSTRUCTION	

11. Plastic Checklist holder with red marked to be used as a “Not Fit-for-Purpose” warning signboard and Green colour combined checklist to be used as “Fit-for-Purpose” signboard.
12. Keep distance of at least 150mm between high temp Pipelines or equipment and scaffolding.
13. Safe distance from overhead electrical lines to be maintained as per Site electrical safety procedures.

Applicable to Tube-and-coupler scaffold

1. Tube and coupler scaffolds over 30 meter in height must be Designed by a competent professional engineer (who by extensive knowledge, training, and experience have successfully demonstrated his ability to carry out scaffold design and load calculations).
2. Maximum height of first horizontal member (Ledger) of scaffolds from the Ground shall be 2.2 meters. Lower lift can be considered for heavy loads depending upon the scaffold design. When scaffold is more than 6 meter height for carrying heavy load, kicker lift should be provided at a height of 150mm from ground.
3. The top rail shall be at height of 900-1200 mm and Mid rails must be installed approximately halfway between the top rail and the platform surface. Toe boards (150mm) should be securely attached to the working platform. Toe boards are generally applicable to working platform and not for landing platforms.
4. The bay length & width depends on the height and the load to be carried by the scaffold.
5. Bracings shall be fitted up to full height of scaffold.
6. Standards should be joined having overlap of min 600 mm using three equally spaced swivel clamps or end to end using sleeve/pin type coupler.
7. Ledgers should be joined having overlap of min 600 mm using three equally spaced swivel clamps or end to end using sleeve coupler.
8. Base plate 150 x 150 x 6mm shall be used to support all vertical pipes of Scaffolds.
9. Sole plate shall be used at all unpaved area to support base late.
10. Scaffolding platform Grating shall be tied with clamp at both ends, and scaffolding platform Grating shall not overhang more than 150 mm and shall be at least 150 mm away from hot surface.
11. Every scaffold shall be provided with certified ladder and extending its free end shall be above platform by 1000 mm/ four rungs.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 15
	SAFETY PRACTICES DURING CONSTRUCTION	

Applicable to Mobile scaffolds

1. Attach castors with plain stems to the panel or adjustment screw by pins or other suitable means.
2. Apply castor brakes/lock at all times when scaffolding is not being moved.
3. Do not ride rolling scaffoldings.
4. Remove all material and equipment from platform before moving scaffolding.
5. Do not try to move rolling scaffolding without sufficient help. Watch out for holes protrusions in the floor and for overhead obstructions.
6. Do not use brackets on rolling scaffoldings without first considering the overturning effect.

Design Criteria

- All types of scaffolds shall be strong enough of carrying and transmitting all types of loads to the ground. All scaffolds shall be adequately secured, stiffened, both longitudinally and transversely.
- Scaffolding determines as per the requirement and use of scaffold such as:
 - Purpose of scaffolding
 - Loading on scaffold platform
 - Required height
 - Sufficient work place
 - Surrounding environment

Storage and inspection of materials

- All scaffolding material shall be stored at designated location to protect them from adverse environment conditions such as corrosion, weather.
- Storage racks/ Locations/ areas shall be clearly identified.
- Storage facility of scaffold material shall be properly constructed for its stability and load bearing capability.
- Steel pipes and scaffolding platform Grating shall be stacked horizontally according to length. Fittings, Couplers shall be stored in separate bins.

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	OISD – GDN – 192	Page No. 16
	SAFETY PRACTICES DURING CONSTRUCTION	

- Defective material shall be removed from site.
- Scaffolding material such as tubular, planks, clamps etc. shall be inspected annually for contractor owned material by contractor. The visual inspection shall cover 100% scaffold materials.

Transportation and handling of scaffolding material

- Make sure that scaffold pipe shifting done in vehicle of appropriate length.
- Special safety care to be taken while shifting or lifting pipes manually.
- Rope and pulley should be used to lift pipe from height.

Safety requirements

A risk assessment to access scaffold hazards through inspection and work method statement for relevant work activities shall be made before erecting, dismantling, moving, or modifying scaffold. Examples of hazards to be considered include the following:

- Working at/from heights.
- The presence of nearby electrical lines or process equipment (e.g. hot line, vents, drains, etc.). Necessary safety distances shall be maintained as specified in site level electrical safety procedure.
- Possible emergency scenario, escape routes and responses.
- The condition and loading of working surfaces /platform /scaffold pipes and other components or loose material such as clamps/ bolts on the working platforms.
- The presence and activity of other people and equipment in the vicinity of the work.
- The weather (Heavy rain, high wind velocity-more than 20 knots, etc).
- Erection during dark hours.
- Scaffold collapse.
- Manual task (Manual Material Handling).
- Access and egress during normal and emergency condition.

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	OISD – GDN – 192	Page No. 17
	SAFETY PRACTICES DURING CONSTRUCTION	

- The effect of heavy equipment movement in close vicinity such as within 4 meters to be considered for direct hit and sagging of land in case of unpaved area.

This assessment is a part of the work permit process but should also be extended to the specific job planning of the crew performing the work. Appropriate actions shall be taken to mitigate the hazards identified during the assessment.

Fall protection when erecting, dismantling, and modifying scaffolds shall be under the direction of a competent person (Scaffold Supervisor). Scaffold erectors (Scaffolder) shall use personal fall-protection systems that provide continuous fall protection while erecting, dismantling or modifying scaffolds unless the determination is made by a competent person that fall protection is not feasible or it creates a greater hazard. Fall protection can be accomplished through the use of adequate anchorages that are independent of the scaffold or by using scaffold systems and components that are approved by the manufacturer as adequate anchorages. Employees/workmen shall use appropriate fall-arrest equipment.

The footing for supported scaffolds shall be sound, rigid, and capable of supporting the maximum intended load, including the weight of the scaffold.

Scaffold platform grating shall be fastened on both ends and laid tight by scaffold clamps/couplers.

Manufacturer's guidelines for proprietary scaffolds (e.g. Cup lock, ring lock, H frame, Insulating modular scaffolds) shall be followed unless a competent person approves the variance and provided the variance complies with applicable regulations and generally accepted scaffold engineering practices.

Proprietary/special scaffold manufacturer's guidelines for erection and inspection should be available with users, and with plant maintenance engineer for reference.

The following safe practices with respect to scaffolds shall be followed:

- There shall be firm foundation for all scaffoldings. All scaffolding shall be made of sound material. Scaffolding material shall be inspected and used, only if found in good condition. Avoid using equipment whose strength is not known.
- Provide adequate Base for scaffolding posts. Metal base plate is used under all upright or standard scaffoldings. Correct type of couplers shall be used for all connections. Use right angle couplers for joining vertical to horizontal members and swivel type couplers for joining bracing with ledgers. For joining vertical load bearing members (standards), "joint pin" type couplers can also be used. The couplers shall be of a structural

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	OISD – GDN – 192	Page No. 18
	SAFETY PRACTICES DURING CONSTRUCTION	

metal, such as drop-forged steel, malleable iron, or structural grade aluminum (use of gray cast iron is prohibited).

- Plumb and level scaffoldings as erection proceeds, so that braces will fit without forcing. Fasten all braces securely.
- Where scaffoldings are erected above walkways or work areas, the space between toe board and railing should be screened (e.g. Safety net, Metal sheets).
- Whenever work is being done over men who are working on scaffolding, overhead protection should be provided on the scaffolding.
- Restrain free-standing scaffolding towers from tipping by guying or other means.
- A safe and convenient means of access shall be provided to the platform level. Means of access may be a portable ladder, fixed ladder, ramp or runway or stairway. The ladder shall be so installed that there supporting member (pipe) is just below ladder rung. This is to avoid tripping hazard, especially while using the ladder.
- During erection, the ladder shall be installed as early as practicable, but not later than first two horizontal members (Ledgers). This is to facilitate Scaffolder while erecting the scaffold.
- During erection/ dismantling, scaffolder shall use 'T' steps to minimize risk of accidental fall/ slip.
- Ladder should be provided with tie rods/studs at top and bottom rungs and secured to scaffolding with ladder clamps, at least 2 locations for a ladder of length up to 4 m & at 3 locations for more than 4 m long ladder.
- The horizontal member/ ledger on which ladder is to be fixed, must be clamped to two subsequent standard using fixed clamps.
- Do not cantilever or extend putlogs / trusses as side brackets, without thoroughly considering the loads to be applied.
- Do not climb scaffold using cross braces.
- Do not use ladders or makeshift devices on top of scaffoldings to increase the height.
- Have at least 12" overlap and 6" extension beyond centerline of support or cleat at both ends to prevent sliding.
- Do not allow unsupported ends of planking to extend an unsafe distance beyond supports.
- Planks shall be non-greasy and free from defects.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 19
	SAFETY PRACTICES DURING CONSTRUCTION	

- Access to working platform shall be suitably protected against inadvertent fall by providing swing members/ swing gate or chains.
- When scaffolding is no longer required, request for dismantling of scaffold shall be sent to scaffolding supervisor through work permit.
- Scaffold shall be removed from top bracings. Ties, rackers etc. should not be removed from section lower than the one which is being dismantled.
- Do not throw or allow falling to ground any scaffold member, board or fittings.
- Dismantled scaffold material shall be neatly stacked, away from the site until whole of scaffold has been dismantled.

6.2.2 Metal as material of construction

- i) A scaffold should be provided and maintained or other equally safe and suitable provision should be made where work cannot safely be done on or from the ground or from part of a building or other permanent structure.
- ii) Scaffolds should be provided with safe means of access, such as stairs, ladders or ramps. Ladders should be secured against inadvertent movement.
- iii) Every scaffold should be constructed, erected, properly secured/ tied and maintained so as to prevent collapse or accidental displacement during erection, while in use, in idle state or dismantling.
- iv) Every scaffold and part thereof should be constructed :
 - (a) in such a way so as not to cause hazards for workers during erection and dismantling;
 - (b) in such a way so as guard rails and other protective devices, platforms, ladders, stairs or ramps can be easily put together;
 - (c) with sound material and of requisite size and strength for the purpose for which it is to be used and maintained in a proper condition.
- v) Boards and planks used for scaffolds should be protected against splitting.
- vi) Materials used in the construction of scaffolds should be stored under good conditions and apart from any material unsuitable for scaffolds.
- vii) Couplers should not cause deformation in tubes. Couplers should be made of drop forged steel or equivalent material.
- viii) Tubes should be free from cracks, splits and excessive corrosion and be straight to the eye, and tube ends cut cleanly square with the tube axis.
- ix) Scaffolds should be designed for their maximum load as per relevant codes.
- x) Scaffolds should be adequately braced.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 20
	SAFETY PRACTICES DURING CONSTRUCTION	

- xi) Scaffolds which are not designed to be independent should be rigidly connected to the building at designated vertical and horizontal places.
- xii) A scaffold should never extend above the highest anchorage to an extent which might endanger its stability and strength.
- xiii) Loose bricks, drainpipes, chimney-pots or other unsuitable material should not be used for the construction or support of any part of a scaffold.
- xiv) Scaffolds should be inspected and certified:
 - (a) before being taken into use;
 - (b) at periodic intervals thereafter as prescribed for different types of scaffolds;
 - (c) after any alteration, interruption in use, exposure to weather or seismic conditions or any other occurrence likely to have affected their strength or stability.
- xv) Inspection should more particularly ascertain that:
 - (a) the scaffold is of suitable type and adequate for the job;
 - (b) materials used in its construction are sound and of sufficient strength;
 - (c) it is of sound construction and stable;
 - (d) that the required safeguards are in position.
- xvi) A scaffold should not be erected, substantially altered or dismantled except by or under the supervision.
- xvii) If out-rigger scaffolding is to be used, it should be specifically designed and inspected before putting in use.

6.2.3 Lifting appliances on scaffolds (CHAIN PULLEY BLOCKS, PULLERS)

- i) When a lifting appliance is to be used on a scaffold:
 - (a) the parts of the scaffold should be carefully inspected to determine the additional strengthening and other safety measures required;
 - (b) any movement of the scaffold members should be prevented;
 - (c) if practicable, the uprights should be rigidly connected to a solid part of the building at the place where the lifting appliance is erected.

6.2.4 Prefabricated scaffolds

- i) In the case of prefabricated scaffold systems, the instructions provided by the manufacturers or suppliers should be strictly adhered to. Prefabricated scaffolds should have adequate arrangements for fixing bracing.
- ii) Frames of different types should not be intermingled in a single scaffold.
- iii) Scaffolding shall be erected on firm and level ground. In case of loose or uneven terrain, care should be taken to see that the scaffolding is on firm footing by leveling / compacting or other means.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 21
	SAFETY PRACTICES DURING CONSTRUCTION	

- iv) All members of metal scaffolding shall be checked periodically to screen out defective / rusted members. All joints should be properly lubricated for easy tightening.
- v) Entry to scaffolding should be restricted.
- vi) Erection, alteration and removal shall be done under supervision of experienced personnel.
- vii) Use of barrels, boxes, loose bricks etc., for supporting scaffolds shall not be permitted.
- viii) Each supporting member of platform shall be securely fastened and braced.
- ix) Where planks are butt-joined, two parallel putlogs shall be used, not more than 100mm apart, to give support to each plank.
- x) Platform plank shall not project beyond its end support to a distance exceeding 4 times the thickness of plank, unless it is effectively secured to prevent tipping. Cantilever planks should be avoided. If it is unavoidable overhang should be effectively secured to prevent tipping.
- xi) The platform edges shall be provided with 150mm high toe board to eliminate hazards of tools or other objects falling from platform.
- xii) Erect ladders in the “four up-one out position”
- xiii) Ladder shall be properly secured with the structure.
- xiv) Use non-slip devices, such as, rubber shoes or pointed steel ferules at the ladder foot, rubber wheels at ladder top, fixing wooden battens, cleats etc.
- xv) When ladder is used for climbing over a platform, the ladder must be of sufficient length, to extend at least one meter above the platform, when erected against the platform in “four up-one out position.”
- xvi) Portable ladders shall be used for heights not more than 4mt. Above 4mt flights, fixed ladders shall be provided with at least 600 mm landings at every 6mt or less.
- xvii) The width of ladder shall not be less than 300mm and rungs shall be spaced not more than 300mm.
- xviii) Every platform and means of access shall be kept free from obstruction.
- xix) If grease, mud, gravel, mortar etc., fall on platform or scaffolds, these shall be removed immediately to avoid slippage.
- xx) Workers shall not be allowed to work on scaffolds during storms or high wind. After heavy rain or storms, scaffolds shall be inspected before reuse.
- xxi) Don't overload the scaffolding. Remove excess material and scrap immediately.
- xxii) Dismantling of scaffolds shall be done in a pre-planned sequential manner.

6.2.5 Suspended scaffolds/ boatwain's chair

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 22
	SAFETY PRACTICES DURING CONSTRUCTION	

In addition to the requirements for scaffolds in general as regards soundness, stability and protection against the risk of falls, suspended scaffolds should meet the following specific requirements.

- (a) platforms should be designed and built with dimensions that are compatible with the stability of the structure as a whole, especially the length;
- (b) the number or anchorage should be compatible with the dimensions of the platform;
- (c) the safety of workers should be safeguarded by an extra rope having a point of attachment independent of the anchorage arrangements of the scaffold;
- (d) the anchorage and other elements of support of the scaffold should be designed and built in such a way as to ensure sufficient strength;
- (e) the ropes, winches, pulleys or pulley blocks should be designed, assembled, used and maintained according to the requirements established for lifting gear adapted to the lifting of persons according to national laws and regulations;
- (f) before use, the whole structure should be checked by a competent person.

6.2.6 Bamboo Scaffolding

- i) It should not be used in oil & gas installations and in the areas where hot work is to be done.
- ii) For construction and maintenance of low rise residential and office buildings, situated outside explosive licensed area, bamboo scaffold, if unavoidable, should conform to provisions given in IS-3696 (Part 1)-1987.

6.3 STRUCTURAL WORK, LAYING OF REINFORCEMENT & CONCRETING

6.3.1 General provisions

- i) The erection or dismantling of buildings, structures, civil engineering works, formwork, falsework and shoring should be carried out by trained workers only under the supervision of a competent person.
- ii) Precautions should be taken to guard against danger to workers arising from any temporary state of weakness or instability of a structure.
- iii) Formwork, falsework and shoring should be so designed, constructed and maintained that it will safely support all loads that may be imposed on it. Conformity with design during job execution shall be certified by the competent person and the relevant records shall be maintained.
- iv) Formwork should be so designed and erected that working platforms, means of access, bracing and means of handling and stabilising are easily fixed to the formwork structure.
- v) Proper methodology based on the design of the building / structure to be developed and approved by competent person before resorting to dismantling / modifications.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 23
	SAFETY PRACTICES DURING CONSTRUCTION	

- vi) All works / facilities should be certified for structural stabilities by a competent person and on statutory requirement completed before putting to use.

6.3.2 Erection and dismantling of steel and prefabricated structures

- i) The safety of workers employed on the erection and dismantling of steel and prefabricated structures should be ensured by appropriate means, such as provision and use of:
 - (a) ladders, gangways or fixed platforms;
 - (b) platforms, buckets, boatswain's chairs or other appropriate means suspended from lifting appliances;
 - (c) safety harnesses and lifelines supported on properly designed anchor, catch nets or catch platforms;
 - (d) Mechanical / Power-operated mobile working platforms;
 - (e) Proper Personal Protective Equipment.
- ii) Steel and prefabricated structures should be so designed and made that they can be safely transported and erected. Route survey to be carried out from works to construction site route considering the load bearing capacity of the bridges, height of the bridges en-route and maximum width and length permissible without causing any hazard to public, the route and the equipment.
- iii) In addition to the need for the stability of the part when erected, the design should explicitly take following into account:
 - (a) the conditions and methods of attachment in the operations of transport, storing and temporary support during erection or dismantling as applicable;
 - (b) Methods for the provision of safeguards such as railings and working platforms, and, when necessary, for mounting them easily on the structural steel or prefabricated parts.
- iv) The hooks and other devices built in or provided on the structural steel or prefabricated parts that are required for lifting and transporting them should be so shaped, dimensioned and positioned as:
 - (a) to withstand with a sufficient margin the stresses to which they are subjected;
 - (b) Not to set up stresses in the part that could cause failures, or stresses in the structure itself not provided for in the plans, and be designed to permit easy release from the lifting appliance. Lifting points for floor and staircase units should be located (recessed if necessary) so that they do not protrude above the surface;
 - (c) To avoid imbalance or distortion of the lifted load.
- v) Storeplaces should be so constructed that:
 - (a) there is no risk of structural steel or prefabricated parts falling or overturning;
 - (b) storage conditions generally ensure stability and avoid damage having regard to the method of storage and atmospheric conditions;
 - (c) racks are designed and secured on firm ground so that units cannot move accidentally.

	OISD – GDN – 192	Page No. 24
	SAFETY PRACTICES DURING CONSTRUCTION	

- vi) While they are being stored, transported, raised or set down, structural steel or prefabricated parts should not be subjected to stresses prejudicial to their stability.
- vii) Every lifting appliance should:
 - (a) be suitable for the operations and not be capable of accidental disconnection;
 - (b) be approved or tested as per statutory requirement.
- viii) Lifting hooks should have safety latch (self closing type).
- ix) Lifting hooks, Tongs, clamps and other appliances for lifting structural steel and prefabricated parts should:
 - (a) be of such shape and dimensions as to ensure a secure grip without damaging the part;
 - (b) be marked with the maximum permissible load in the most unfavourable lifting conditions.
 - (c) be periodically inspected and certified to ensure further usage as per requirement of factory act / Building & Construction Workers Regulation (BOCWR).
- x) Structural steel or prefabricated parts should be lifted only after rigging plan approved by competent person to prevent them from spinning, slipping or dropping accidentally.
- xi) When necessary to prevent danger, before they are raised from the ground, structural steel or prefabricated parts should be provided with safety devices such as railings and working platforms to prevent falls of persons.
- xii) While structural steel or prefabricated parts are being erected, the workers should be provided with appliances such as guiding ropes for guiding them as they are being lifted and set down, so as to avoid crushing of hands and to facilitate the operations. Use of such appliances should be ensured.
- xiii) A raised structural steel or prefabricated part should be so secured and wall units so propped that their stability cannot be affected, even by external factors such as wind and passing loads before its release from the lifting appliance.
- xiv) At work places, instruction should be given to the workers on the methods, arrangements and means required for the storage, transport, lifting and erection of structural steel or prefabricated parts, and, before erection starts, a meeting of all those responsible should be held to discuss and confirm the requirements for safe erection.
- xv) During transportation within the construction area, attachments such as slings and straps mounted on structural steel or prefabricated parts should be securely fastened to the parts. Vehicle loading should be such that the vehicle and the load remain stable at all positions during transportation and unloading.
- xvi) Structural steel or prefabricated parts should be so transported that the conditions do not affect the stability of the parts or the means of transport result in jolting, vibration or stresses due to blows, or loads of material or persons.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 25
	SAFETY PRACTICES DURING CONSTRUCTION	

- xvii) When the method of erection does not permit the provision of other means of protection against fall of persons, the workplaces should be protected by guardrails, and if appropriate by toe-boards.
- xviii) When adverse weather conditions such as snow, hailstorm, rain and wind or reduced visibility, etc. entail risks of accidents, the rigging work should be interrupted after taking necessary safety precautions.
- xix) If necessary, to prevent danger, structural steel parts should be equipped with attachments for suspended scaffolds, lifelines or safety harnesses and other means of protection.
- xx) The risks of falling, to which workers moving on high or sloping girders are exposed, should be limited by all means of adequate collective protection or, where this is impossible, by the use of a safety harness that is well secured to a properly designed support.
- xxi) Structural steel parts that are to be erected at a height should as far as practicable be assembled on the ground.
- xxii) When structural steel or prefabricated parts are being erected, a sufficiently extended area underneath the workplace should be barricaded or guarded
- xxiii) Steel trusses that are being erected should be adequately shored, braced or guyed until they are permanently secured in position.
- xxiv) Load-bearing structural member should not be dangerously weakened by cutting, holing or other means.
- xxv) Structural members should not be forced into place by the hoisting machine while any worker is in such a position that he could be injured by the operation.
- xxvi) Open-web steel joists that are hoisted singly should be directly placed in position and secured against dislodgment.
- xxvii) All structures should be designed for either permanent anchors or provision for erection of anchors as and when required to support life line during any Maintenance work etc. during life of the structure. The point of provision of anchor should be indicated through suitable signage for ease of use as and when required.

6.3.3 Reinforcement

- i) Ensure that workers use Personnel Protective equipment like safety helmet with chin straps, safety shoes, gloves, full body safety harness, safety goggles, etc.
- ii) Don't place the hand below the rods for checking clear distance. Use measuring devices.
- iii) Don't wear loose clothes while checking the rods.
- iv) Don't stand unnecessarily on cantilever rods.
- v) To carry out welding/cutting of rods, safety procedures/precautions as mentioned in Item No. 6.5 to be followed.
- vi) For supplying of rods at heights, proper staging and/or bundling to be provided.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 26
	SAFETY PRACTICES DURING CONSTRUCTION	

- vii) Ensure barricading and staging for supplying and fixing of rods at height.
- viii) For short distance carrying of materials on shoulders, suitable pads to be provided.
- ix) While transporting material by trucks/trailers, the rods shall not protrude in front of or by the sides of driver's cabin. In case such protrusion cannot be avoided behind the deck, then it should not extend 1/3rd of deck length or 1.5 Meters whichever is less and tied with red flags/lights.
- x) Reinforcement rods, cut pieces etc. should be properly stored at identified locations and the scrap should be disposed off promptly on regular basis.

6.3.4 Concreting

- i) Ensure stability of shuttering work before allowing concreting.
- ii) Barricade the concreting area while pouring at height/depths.
- iii) Keep vibrator hoses, pumping concrete accessories in healthy conditions and mechanically locked.
- iv) Pipelines in concrete pumping system shall not be attached to temporary structures such as scaffolds and formwork support as the forces and movements may affect their integrity.
- v) Check safety cages & guards around moving motors/parts etc. provided in concreting mixers.
- vi) Use Personal Protective Equipment like gloves, safety shoes, full body safety harness, safety goggles, etc. while dealing with concrete and wear respirators for dealing with cement.
- vii) Earthing of electrical mixers, vibrators, etc. should be done and verified.
- viii) Cleaning of rotating drums of concrete mixers shall be done from outside. Lockout devices shall be provided where workers need to enter the drum for cleaning / inspection.
- ix) Where concrete mixers are driven by internal combustion engine, exhaust points shall be located away from the worker's workstation so as to eliminate their exposure to obnoxious fumes.
- x) Don't allow unauthorised person to stand under the concreting area.
- xi) Ensure adequate lighting arrangements for carrying out concrete work during night.
- xii) Don't allow the same workers to pour concrete round the clock. Insist on shift pattern.
- xiii) During pouring, shuttering and its supports should be continuously watched for defects.
- xiv) Never look into the drum mounted on truck (such as in case of Ready Mix Concrete).

6.4 ROAD WORK

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	OISD – GDN – 192	Page No. 27
	SAFETY PRACTICES DURING CONSTRUCTION	

- 6.4.1 Site shall be barricaded and provided with warning signs, including night warning lamps at appropriate locations for traffic diversion. This should be done sufficiently advance as a warning to the approaching drivers for the impending danger ahead.
- 6.4.2 Filled and empty bitumen drums shall be stacked separately at designated places.
- 6.4.3 Mixing aggregate with bitumen shall preferably be done with the help of bitumen batch mixing plant, unless operationally non-feasible.
- 6.4.4 Road rollers, Bitumen sprayers, Pavement finishers shall be driven by experienced drivers with valid driving license.
- 6.4.5 Workers handling hot bitumen sprayers or spreading bitumen aggregate mix or mixing bitumen with aggregate shall be provided with PVC hand gloves and rubber shoes with legging up to knee joints.
- 6.4.6 At the end of day's work, surplus hot bitumen in tar boiler shall be properly covered by a metal sheet, to prevent anything falling in it,
- 6.4.7 If bitumen accidentally falls on ground, it shall be immediately covered by sprinkling sand, to prevent anybody stepping on it. Then it shall be removed with the help of spade.
- 6.4.8 For cement concrete roads, besides site barricading and installation of warning signs for traffic diversion, safe practices mentioned in the chapter on "Concreting", shall also be applicable.
- 6.4.9 Any excavation for road work should be done only after surveying underground utilities and after taking suitable precautions. The underground utilities to be rerouted as required after approval of competent person / authority.
- 6.4.10 All the raw material for road construction/ maintenance to be stored on designated place which should be away from the running road. The running road should not be used for storing the sand, hot bitumen, etc..
- 6.4.11 Precaution should be taken that no construction material/ slab/ pre-fabricated object can come on the running road accidentally or due to slipping. In such case, an erection plan should be designed and got approved from the competent authority.

6.5 CUTTING / WELDING

- 6.5.1 Common hazards involved in welding/cutting are sparks, molten metal, flying particles, harmful light rays, electric shocks, depletion in O₂ concentration due to generation of toxic gases, etc. Following precautions should be taken: -
 - i) A dry chemical powder (DCP) type fire extinguisher shall be made available in the work area.
 - ii) Adequate ventilation shall be ensured by opening manholes and fixing a shield or forced circulation of air etc, while doing a job in confined space.
 - iii) Ensure that only approved and well-maintained apparatus, such as torches, manifolds, regulators or pressure reducing valves, and acetylene generators, be used. Also their regular calibration where ever necessary.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 28
	SAFETY PRACTICES DURING CONSTRUCTION	

- iv) All panels and covers shall be kept in place, when operating an electric Arc welding machine. 30mA rating ELCB shall be ensured in the power receptacle of the welding machine.
- v) The work piece should be connected directly to Power supply, and not indirectly through pipelines/ structures/ equipment etc.
- vi) The welding receptacles shall be rated for 63 A suitable for 415V, 3-Phase system with a scraping earth. Receptacles shall have necessary mechanical interlocks and earthing facilities.
- vii) All cables, including welding and ground cables shall be checked for any worn out or cracked insulation before starting the job and such cables shall not be used. Ground cable should be separate without any loose joints.
- viii) Cable coiling shall be maintained at minimum level, if not avoidable. Criss-crossing of welding/electrical power supply cables & gas cutting hoses shall be avoided. Care to be taken against damage of gas cutting hoses.
- ix) An energised electrode shall not be left unattended.
- x) The power source shall be turned off at the end of job.
- xi) All gas cylinders shall be properly secured in upright position.
- xii) Acetylene cylinder shall be turned and kept in such a way that the valve outlet points away from oxygen cylinder.
- xiii) Acetylene cylinder key for opening valve shall be kept on valve stem, while cylinder is in use, so that the acetylene cylinder could be quickly turned off in case of emergency. Use flash back arrestors to prevent back-fire in acetylene/oxygen cylinder.
- xiv) When not in use, valves of all cylinders shall be kept closed.
- xv) All types of cylinders, whether full or empty, shall be stored at cool, dry place under shed.
- xvi) Forced opening of any cylinder valve should not be attempted.
- xvii) Lighted gas torch shall never be left unattended.
- xviii) Store acetylene and oxygen cylinders separately.
- xix) Store full and empty cylinders separately.
- xx) Avoid cylinders coming into contact with heat.
- xxi) Cylinders that are heavy or difficult to carry by hand may be rolled on their bottom edge but never dragged.
- xxii) If cylinders have to be moved, be sure that the cylinder valves are shut off.
- xxiii) Before changing torches, shut off the gas at the pressure reducing regulators and not by crimping the hose.
- xxiv) Do not use matches to light torches, use a friction lighter. Gas torch should be ignited with the lighter only. It should not be ignited by touching other hot surfaces.
- xxv) Move out any leaking cylinder immediately and cap it. No hot work should be permitted in the vicinity of such leaked cylinders.
- xxvi) Use trolleys for oxygen & acetylene cylinder and chain them.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 29
	SAFETY PRACTICES DURING CONSTRUCTION	

- xxvii) Always use Red hose for acetylene and other fuel gases and Black for oxygen, and ensure that both are in equal length.
- xxviii) Ensure that hoses are free from burns, cuts and cracks and properly clamped.
- xxix) Avoid dragging hoses over sharp edges and objects
- xxx) Do not wrap hoses around cylinders when in use or stored.
- xxxi) Protect hoses from flying sparks, hot slag, and other hot objects. Protect cylinders by covering welding blanket while hot work in the vicinity.
- xxxii) Lubricants shall not be used on Ox-fuel gas equipment.
- xxxiii) During cutting/welding, use required PPEs like hand gloves, full body clothing of fire retardant / suitable material, safety shoes, full body safety harness, mask, goggles / face shields, welding screen of required DIN glass as per approved Weld Preparation Scheme.
- xxxiv) Hot work permit to be taken if working in hazardous area.

6.6 WORKING IN CONFINED SPACES

6.6.1 Following safety practices for working in confined space like towers, columns, tanks and other vessels should be followed in addition to the safety guidelines for specific jobs like scaffolding, cutting/welding etc.

- i) Shut down, positively isolate, depressurise and purge the vessel as per laid down procedures.
- ii) Entry inside the vessel to carry out any job shall be done after issuance of valid permit only in line with the requirement of OISD-STD-105.
- iii) Ensure proper and accessible means of exit before entry inside a confined space.
- iv) The number of persons allowed inside the vessel should be limited to avoid overcrowding. Record of entering person shall be maintained with in and out time.
- v) When the work is going on in the confined space, there should always be two men standby at the nearby manway / manhole equipped with communication arrangement to contact seniors and to evacuate the worker inside confined space in case of emergency.
- vi) Before entering inside the vessels underground or located at lower elevation, probability of dense vapours accumulating nearby should also be considered in addition to inside the vessel and corrective action should be ensured.
- vii) Ensure requisite O₂ level before entry in the confined space and monitor level periodically or other wise use required respiratory devices.
- viii) Check for no Hydrocarbon or toxic substances before entry and monitor level periodically or use requisite Personal Protective Equipment.
- ix) Ensure adequate ventilation or use respiratory devices.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 30
	SAFETY PRACTICES DURING CONSTRUCTION	

- x) Depending upon need, necessary respirator system, gas masks and suit shall be worn by everyone entering confined space. In case of sewer, OWS or in the confined area where there is a possibility of toxic or inert gas, required respiratory device, shall be used by everyone while entering.
- xi) Barricade the confined spaces during hoisting, radiography, blasting, pressure testing etc.
- xii) Use 24V flameproof lamp fittings only for illumination.
- xiii) Use tools with air motors or electric tools with maximum voltage of 24V.
- xiv) House keeping shall be well maintained.
- xv) Required PPEs like Safety helmet, safety shoes and full body harness shall be worn by everyone entering the confined space.
- xvi) Don't wear loose clothing while working in a confined space.
- xvii) In case of the vessels which are likely to contain pyrophoric substances (like Iron Sulphide), special care need to be taken before opening the vessel. Attempt should be made to remove the pyrophoric substances. Otherwise, these should be always kept wet by suitable means.
- xviii) The cutting torches should also be kept outside the vessel immediately after the cutting.
- xix) The gas cylinders used for cutting/welding shall be kept outside. Care to be taken for the integrity of gas hoses and welding cables while work is in progress.
- xx) All cables, hoses, welding equipment etc., shall be removed from confined space at end of each work day, even if the work is to be resumed in the same space the next day.
- xxi) To the extent possible sludge shall be cleared and removed from outside before entering.
- xxii) No naked light or flame or hot work such as welding, cutting and soldering should be permitted inside a confined space or area unless it has been made completely free of the flammable atmosphere, tested and found safe by a competent person. Only non-sparking tools and flameproof hand lamps protected with guard and safety torches should be used inside such confined space or area for initial inspection, cleaning or other work required to be done for making the area safe.
- xxiii) Communication should be always maintained between the worker and the attendant.
- xxiv) Inside the confined space spray painting should be avoided. If absolutely essential it should be done after ensuring adequate precautions including exhaust of paint vapours and continuous monitoring of concentration of oxygen and toxic gases.
- xxv) Before issuing the vessel entry permit, it should be ensured that all the incoming and outgoing lines to and from the vessel are positively isolated. Where this is not applicable like dampers in HRSG system, Sufficient time is to be allowed to observe the leakage of hot gases from the dampers/ passing valves before taking any decision on vessel entry permit.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 31
	SAFETY PRACTICES DURING CONSTRUCTION	

6.7 PROOF/PRESSURE TESTING

- 6.7.1 Review test procedure before allowing testing with water or air or any other fluid. Testing should be done only after proper Job Safety Analysis (JSA) and its approval.
- 6.7.2 Provide relief valves of adequate size while testing with air or other gases.
- 6.7.3 Ensure compliance of necessary precautions, step wise loading, tightening of fasteners, grouting etc. before and during testing.
- 6.7.4 Inform all concerned in advance of the testing.
- 6.7.5 Keep the vents open before opening any valve for filling/draining of liquid used for hydrotesting. The filling/draining should not exceed the designed rate for pressure testing.
- 6.7.6 Provide separate gauges of suitable range for pressurising pump and the equipment to be tested.
- 6.7.7 Provide gauges at designated locations for monitoring of pressures.
- 6.7.8 Check the calibration of all pressurising equipment and accessories and maintain records.
- 6.7.9 Take readings at pre-defined intervals.
- 6.7.10 Arrangement to be made to ensure that the pressurizing system i.e. motor-pump set is out of circuit so that the system under hydro testing is not re-pressurized by the contractor due to pressure drop before a pre-defined time.

6.8 WORKING AT HEIGHTS

6.8.1 General Provision

- i) While working at a height of more than 2.2 meters, ISI approved full body harness shall be used.
- ii) While working at a height of more than 2.2 meters, permit should be issued by competent person before commencement of the job.
- iii) Worker should be well trained on usage of full body harness including its proper usage at the time of ascending/descending.
- iv) All tools should be carried in tool bag/belt to avoid their falling.
- v) If the job is on fragile/sloping roof, roof walk ladders shall be used.
- vi) Provide lifeline properly designed, secured and anchored, wherever required. Mock Drill of use of lifeline at regular intervals to be carried out.
- vii) Additional safety measures like providing Fall Arrestor type full body harness, safety net should be provided depending upon site conditions, job requirements.
- viii) Keep working area neat and clean. Remove scrap material immediately.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 32
	SAFETY PRACTICES DURING CONSTRUCTION	

- ix) Don't throw or drop material/equipment from height.
- x) Avoid jumping from one member to another. Use proper passageway.
- xi) Keep both hands free while climbing. Don't try to bypass the steps of the ladder. Same to be followed while climbing down. Further on climbing down, front of the body to be towards the ladder.
- xii) Try to maintain calm at height. Avoid over exertion.
- xiii) Avoid movements on any structural member without fall protection.
- xiv) Elevated workplaces including roofs should be provided with safe means of access and egress such as stairs, ramps or ladders.
- xv) Fall protection hierarchy to be followed as below:
 - (a) Elimination: Explore possibility whether job can be done avoiding work at height.
 - (b) Prevention: Prevent fall of a worker by providing appropriate fall prevention system.
 - (c) Fall arrest system: Arrest the fall using suitable fall arrest system. Ensure to have a strong suitably designed anchor point.
 - (d) Warning Lines: Use a warning line using a rope or wire barrier around roof to warn workers that they are getting close to the roof edge.
 - (e) Safety Monitoring: Use a safety monitor to warn the workers.
 - (f) Administration: Prepare a written administrative procedure to ensure workers are doing the best that they can.

6.8.2 Roof Work

- i) All roof-work operations should be pre-planned and properly supervised.
- ii) Roof work should only be undertaken by workers who are physically and psychologically fit and have the necessary knowledge and experience for such work.
- iii) Work on roofs shouldn't be carried on in weather conditions that threaten the safety of workers.
- iv) Crawling boards, walkways and roof ladders should be securely fastened to a firm structure.
- v) Roofing brackets should fit the slope of the roof and be securely supported.
- vi) Where it is necessary for a person to kneel or crouch near the edge of the roof, necessary precautions should be taken.
- vii) On a large roof where work have to be carried out at or near the edge, a simple barrier consisting of crossed scaffold tubes supporting a tubing guardrail may be provided.
- viii) All covers for openings in roofs should be of substantial construction and be secured in position.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 33
	SAFETY PRACTICES DURING CONSTRUCTION	

- ix) Roofs with a pitch of more than 10 should be treated as sloping.
- x) When work is being carried out on sloping roofs, sufficient and suitable crawling boards or roof ladders should be provided and firmly secured in position.
- xi) During extensive work on the roof, strong barriers or guardrails and toe-boards should be provided to stop a person from falling off the roof.
- xii) Where workers are required to work on or near roofs or other places covered with fragile material, through which they are liable to fall, they should be provided with suitable roof ladders or crawling boards strong enough and when spanning across the supports for the roof covering to support those workers.
- xiii) A minimum of two boards should be provided so that it is not necessary for a person to stand on a fragile roof to move a board or a ladder, or for any other reason.

6.8.3 Work on tall chimneys

- i) For the erection and repair of tall chimneys, scaffolding should be provided. A safety net should be maintained at a suitable distance below the scaffold.
- ii) The scaffold floor should always be at least 65 cm below the top of the chimney.
- iii) Under the working floor of the scaffolding the next lower floor should be left in position as a catch platform.
- iv) The distance between the inside edge of the scaffold and the wall of the chimney should not exceed 20 cm at any point.
- v) Catch platforms should be erected over:
 - (a) the entrance to the chimney;
 - (b) Passageways and working places where workers could be endangered by falling objects.
- vi) For climbing tall chimneys, access should be provided by:
 - (a) stairs or ladders;
 - (b) a column of iron rungs securely embedded in the chimney wall;
 - (c) Other appropriate means.
- vii) When workers use the outside rungs to climb the chimney, a securely fastened steel core rope looped at the free end and hanging down at least 3 m should be provided at the top to help the workers to climb on to the chimney.
- viii) While work is being done on independent chimneys the area surrounding the chimney should be enclosed by fencing at a safe distance.
- ix) Workers employed on the construction, alteration, maintenance or repair of tall chimneys should not:
 - a) work on the outside without a safety harness attached by a lifeline to a rung, ring or other secure anchorage;
 - b) put tools between the safety harness and the body or in pockets not intended for the purpose;

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 34
	SAFETY PRACTICES DURING CONSTRUCTION	

- c) haul heavy materials or equipment up and down by hand to or from the workplace on the chimney;
 - d) fasten pulleys or scaffolding to reinforcing rings without first verifying their stability;
 - e) work alone;
 - f) climb a chimney that is not provided with securely anchored ladders or rungs;
 - g) Work on chimneys in use unless the necessary precautions to avoid danger from smoke and gases have been taken. Ensure that the outside surface temperature of the chimney is at
 - h) room temperature before taking up any job after shut down of the (system) chimney.
- x) Work on independent chimneys should not be carried on in high winds, icy conditions, fog or during electrical storms.

6.9 HANDLING AND LIFTING EQUIPMENT:

6.9.1 General Provisions

Following are the general guidelines to be followed with regard to all types of handling and lifting equipment in addition to the guidelines for specific type of equipments dealt later on.

- i) There should be a well-planned safety programme to ensure that all the lifting appliances and lifting gear are selected, installed, examined, tested, maintained, operated and dismantled with a view to preventing the occurrence of any accident;
- ii) All lifting appliances shall be examined by competent persons at frequencies as specified in "The Factories act".
- iii) Check thoroughly quality, size and condition of all lifting tools like chain pulley blocks, slings, U-clamps, D-shackles etc. before putting them in use.
- iv) Safe lifting capacity of all lifting & handling equipment, tools and shackles should be got verified and certificates obtained from competent authorities before its use. The safe working load shall be marked on them.
- v) Check periodically the oil, brakes, gears, horns and tyre pressure, lighting fixtures of all moving equipments like cranes, forklifts, trailers, etc. as per manufacturer's recommendations.
- vi) Check the weights to be lifted and accordingly decide about the crane capacity, boom length and angle of erection.
- vii) Allow lifting slings as short as possible and check packing at the friction points.
- viii) While lifting/placing of the load, no unauthorised person shall remain within the radius of the boom and underneath the load.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 35
	SAFETY PRACTICES DURING CONSTRUCTION	

- ix) While loading, unloading and stacking of pipes, proper wedges shall be placed to prevent rolling down of the pipes.
- x) Control longer jobs being lifted up from both ends.
- xi) Only trained operators and riggers should carry out the job. While the crane is moving or lifting the load, the trained rigger should be there for keeping a vigil against hitting any other object.
- xii) During high wind conditions and nights, lifting of heavy equipments should be avoided. If unavoidable to do erection in night, operator and rigger should be fully trained for night signaling. Also proper illumination should be there.
- xiii) Allow crane to move on hard, firm and leveled ground. Ensure that all the crane pedestals/ hydraulic jacks taking weight of the crane and load are on a firm compacted surface.
- xiv) When crane is in idle condition for long periods or unattended, crane boom should either be lowered or locked as per manufacturer's guidelines.
- xv) Hook and load being lifted shall remain in full visibility of crane operators, while lifting, to the extent possible.
- xvi) Don't allow booms or other parts of crane to come within 3 meters reach of overhead electrical cables.
- xvii) No structural alterations or repairs should be made to any part of a lifting appliance, which may affect the safety of the appliance without the permission and supervision of the competent person.

6.9.2 Hoists

- i) Hoist shafts should be enclosed with rigid panels or other adequate fencing at:
 - (a) ground level on all sides;
 - (b) all other levels at all points at which access is provided;
 - (c) all points at which persons are liable to be struck by any moving part.
- ii) The enclosure of hoist shafts, except at approaches should extend where practicable at least 2 meters above the floor, platform or other place to which access is provided except where a lesser height is sufficient to prevent any person falling down the hoistway and there is no risk of any person coming into contact with any moving part of the hoist, but in no case should the enclosure be less than 1 meter in height.
- iii) The guides of hoist platforms should offer sufficient resistance to bending and, in the case of jamming by a safety catch, to buckling.
- iv) Where necessary to prevent danger, adequate covering should be provided above the top of hoist shafts to prevent material falling down them.
- v) Outdoor hoist towers should be erected on firm foundations, and securely braced, guyed and anchored.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 36
	SAFETY PRACTICES DURING CONSTRUCTION	

- vi) A ladderway should extend from the bottom to the top of outdoor hoist towers, if no other ladderway exists within easy reach.
- vii) Hoisting engines should be of ample capacity to control the heaviest load that they will have to move.
- viii) Hoists should be provided with devices that stop the hoisting engine as soon as the platform reaches its highest stopping place.
- ix) Winches should be so constructed that the brake is applied when the control handle is not held in the operating position.
- x) It should not be possible to set in motion from the platform a hoist, which is not designed for the conveyance of persons.
- xi) Winches should not be fitted with pawl and ratchet gears on which the pawl must be disengaged before the platform is lowered.
- xii) Hoist platforms should be capable of supporting the maximum load that they will have to carry with a safety factor.
- xiii) Hoist platforms should be equipped with safety gear that will hold the platform with the maximum load if the hoisting rope breaks.
- xiv) If workers have to enter the cage or go on the platform at landings there should be a locking arrangement preventing the cage or platform from moving while any worker is in or on it.
- xv) On sides not used for loading and unloading, hoist platforms should be provided with toe-boards and enclosures of wire mesh or other suitable material to prevent the fall of parts of loads.
- xvi) Where necessary to prevent danger from falling objects, hoist platforms should be provided with adequate covering.
- xvii) Counterweights consisting of an assemblage of several parts should be made of specially constructed parts rigidly connected together.
- xviii) Counterweights should run in guides.
- xix) Platforms should be provided at all landings used by workers.
- xx) Following notices should be posted up conspicuously and in very legible characters:
 - (a) on all hoists:
 - on the platform: the carrying capacity in kilograms or other appropriate standard unit of weight;
 - on the hoisting engine: the lifting capacity in kilograms or other appropriate standard unit of weight;
 - (b) on hoists authorised or certified for the conveyance of persons:
 - on the platform or cage: the maximum number of persons to be carried at one time;
 - (c) on hoists for goods only:
 - on every approach to the hoist and on the platform: prohibition of use by persons.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 37
	SAFETY PRACTICES DURING CONSTRUCTION	

- xxi) Hoists intended for the carriage of persons should be provided with a cage so constructed as to prevent any person from falling out or being trapped between the cage and any fixed part of the structure when the cage gate is shut, or from being struck by the counterbalance weight or by articles or materials tailing down the hoistway.
- xxii) On each side in which access is provided, the cage should have a gate fitted with devices which ensure that the gate cannot be opened except when the cage is at a landing and that the gate must be closed before the cage can move away from the landing.
- xxiii) Every gate in the enclosure of the hoist shaft which gives access from a landing place to the cage should be fitted with devices to ensure that the gate cannot be opened except when the cage is at that landing place, and that the cage cannot be moved away from that landing place until the gate is closed.

6.9.3 Derricks

Stiff-leg derricks

- i) Derricks should be erected on a firm base capable of taking the combined weight of the crane structure and maximum rated load.
- ii) Devices should be used to prevent masts from lifting out of their seating.
- iii) Electrically operated derricks should be effectively earthed from the sole plate or framework.
- iv) Counterweights should be so arranged that they do not subject the backstays, sleepers or pivots to excessive strain.
- v) When derricks are mounted on wheels:
 - a) a rigid member should be used to maintain the correct distance between the wheels;
 - b) they should be equipped with struts to prevent them from dropping if a wheel breaks or the derrick is derailed.
- vi) The length of a derrick jib should not be altered without consulting the manufacturer.
- vii) The jib of a scotch derrick crane should not be erected within the backstays of the crane.

Guy derricks

- i) The restraint of the guy ropes should be ensured by fitting stirrups or anchor plates in concrete foundations.
- ii) The mast of guy derricks should be supported by six top guys spaced approximately equally.
- iii) The spread of the guys of a guy derrick crane from the mast should not be more than 45° from the horizontal.
- iv) Guy ropes of derricks should be equipped with a stretching screw or turnbuckle or other device to regulate the tension.

 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 38
	SAFETY PRACTICES DURING CONSTRUCTION	

- v) Gudgeon pins, sheave pins and fool bearings should be lubricated frequently.
- vi) When a derrick is not in use, the boom should be anchored to prevent it from swinging.

6.9.4 Gin poles

- i) Gin poles should:
 - (a) be straight;
 - (b) consist of steel or other suitable metal;
 - (c) be adequately guyed and anchored;
 - (d) be vertical or raked slightly towards the load;
 - (e) be of adequate strength for the loads that they will be required to lift/move.
- ii) Gin poles should not be spliced and if a gin pole is composed of different elements, they should be assembled in conformity with their intrinsic material strength.
- iii) Gin poles should be fastened at their feet to prevent displacement in operation.
- iv) Gin poles, which are moved from place to place and re-erected, should not be taken into use again before the pole, lifting ropes, guys, blocks and other parts have been inspected, and the whole appliance has been tested under load.
- v) When platforms or skips are hoisted by gin poles, precautions should be taken to prevent them from spinning and to provide for proper landing.

6.9.5 Tower cranes

- i) Where tower cranes have cabs at high level, persons, capable and trained to work at heights, should only be employed as crane operators.
- ii) The characteristics of the various machines available should be considered against the operating requirements and the surroundings in which the crane will operate before a particular type of crane is selected.
- iii) Care should be taken in the assessment of wind loads both during operations and out of service. Account should also be taken of the effects of high structures on wind forces in the vicinity of the crane.
- iv) The ground on which the tower crane stands should have the requisite bearing capacity. Account should be taken of seasonal variations in ground conditions.
- v) Bases for tower cranes and tracks for rail-mounted tower cranes should be firm and level. Tower cranes should only operate on gradients within limits specified by the manufacturer. Tower cranes should only be erected at a safe distance from excavations and ditches.
- vi) Tower cranes should be sited where there is clear space available for erection, operation and dismantling. As far as possible, cranes should be sited so that loads do not have to be handled over

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 39
	SAFETY PRACTICES DURING CONSTRUCTION	

occupied premises, over public thoroughfares, other construction works and railways or near power cables.

- vii) Where two or more tower cranes are sited in positions where their jibs could touch any part of the other crane, there should be direct means of communication between them and a distinct warning system operated from the cab so that one driver may alert the other of impending danger.
- viii) The manufacturers' instructions on the methods and sequence of erection and dismantling should be followed. The crane should be tested before being taken into use.
- ix) The climbing operation of climbing tower cranes should be carried out in accordance with manufacturers' instructions. The free-standing height of the tower crane should not extend beyond what is safe and permissible in the manufacturers' instructions.
- x) When the tower crane is left unattended, loads should be removed from the hook, the hook raised, the power switched off and the boom brought to the horizontal. For longer periods or at times when adverse weather conditions are expected, out of service procedures should be followed. The main jib should be slewed to the side of the tower away from the wind, put into free slew and the crane immobilised.
- xi) A windspeed measuring device should be provided at an elevated position on the tower crane with the indicator fitted in the drivers' cab.
- xii) Devices should be provided to prevent loads being moved to a point where the corresponding safe working load of the crane would be exceeded. Name boards or other items liable to catch the wind should not be mounted on a tower crane other than in accordance with the manufacturers' instructions.
- xiii) Tower cranes should not be used for magnet, or demolition ball service, piling operations or other duties, which could impose excessive loading on the crane structure.

6.9.6 Lifting ropes

- i) Only ropes with a known safe working capacity should be used as lifting ropes.
- ii) Lifting ropes should be installed, maintained and inspected in accordance with manufacturers' instructions.
- iii) Repaired steel ropes should not be used on hoists.
- iv) Where multiple independent ropes are used, for the purpose of stability, to lift a work platform, each rope should be capable of carrying the load independently.

6.10 VEHICLE MOVEMENT

- 6.10.1 Park vehicles only at designated places. Don't block roads to create hindrance for other vehicles.
- 6.10.2 Don't overload the vehicle.
- 6.10.3 Obey speed limits and traffic rules.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 40
	SAFETY PRACTICES DURING CONSTRUCTION	

- 6.10.4 Always expect the unexpected and be a defensive driver.
- 6.10.5 Drive carefully during adverse weather and road conditions.
- 6.10.6 Read the road ahead and ride to the left.
- 6.10.7 Be extra cautious at nights. Keep wind screens clean and lights in working condition.
- 6.10.8 All vehicles used for carrying workers and construction materials must undergo predictive/preventive maintenance and daily checks
- 6.10.9 Driver with proper valid driving license shall only be allowed to drive the vehicle
- 6.10.10 Routes shall be leveled marked and planned in such a way so as to avoid potential hazards such as overhead power lines and sloping ground etc.
- 6.10.11 While reversing the vehicles, help of another worker should be ensured at all times
- 6.10.12 An unattended vehicle should have the engine switched off
- 6.10.13 Wherever possible one-way system shall be followed
- 6.10.14 Barriers/fixed stops should be provided for excavation/openings to prevent fall of vehicle
- 6.10.15 Load should be properly secured
- 6.10.16 The body of the tipper lorry should always be lowered before driving the vehicle off.
- 6.10.17 Signs/signals/caution boards etc. should be provided on routes.
- 6.10.18 All vehicles in a running process plants to use spark arrester on the exhaust.
- 6.10.19 No material should be protruding outside the vehicle for the safety of the public. If necessary, same to be marked as per RTO regulations.
- 6.10.20 Proper caution tag should be available on the vehicle for hazardous material like oil, LPG, explosives, nuclear material, toxic fluids etc and the vehicle staff should be well informed about the potential danger of the material being transported by them.
- 6.10.21 An earth chain for the discharge of static electricity generated during transportation of specific material with the vehicle to be provided.
- 6.10.22 Drunken driving should be prohibited.

6.11 ELECTRICAL

6.11.1 General Provisions

- i) Only persons having valid licenses shall be allowed to work on electrical facilities as per prevailing IE Act and rules thereunder including CEA rules/regulations.
- ii) No person should be allowed to work on live circuit. The same, if unavoidable, special care and written authorisation need to be taken.
- iii) Treat all circuits as "LIVE" unless ensured otherwise.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 41
	SAFETY PRACTICES DURING CONSTRUCTION	

- iv) Electrical " Lock Out - Tag Out (LOTO)" procedure "MUST" be followed for work on electrical system.
- v) Display voltage ratings prominently with "Danger" signs in local language also.
- vi) Put caution/notice signs before starting the repair works.
- vii) All electrical equipment operating above 250V shall have two separate and distinct connections to earth grid.
- viii) Proper grounding to be ensured for all switch boards and equipment including Portable ones prior to taking into service.
- ix) Make sure that electrical switch boards, portable tools, equipment (like grinding machine etc.) don't get wet during their usage. If it happens, stop the main supply, make the tools dry, check for specified insulation value and then only use them. Check proper earthing.

All temporary switch boards/ KIOSKS put up at work site should be suitably protected from rain and the level of same should be high enough to avoid contact with water due to water logging.
- x) Don't work wet on electrical system.
- xi) Don't overload the electrical system.
- xii) Use only proper rated HRC fuses / ELCB / MCB.
- xiii) Only ISI marked or equivalent industrial type extension boards and Plug sockets are to be used.
- xiv) ELCB for all temporary connections must be provided using 3 pin plug.
- xv) All power supply cables should be laid properly and neatly so that they don't cause hindrance to persons working and no physical damage also takes place to the cables during various construction activities.
- xvi) All Power cables to be properly terminated using glands and lugs of proper size, type and crimped.
- xvii) Use electrical fittings in Hazard zones as per area classification under OISD-STD-113.
- xviii) Ensure pipe sleeve / conduit to protect underground cables at crossings.
- xix) Don't lay unarmored cable directly on ground, wall, roof or trees. All temporary cables should be laid at least 750 mm below ground and cable markers should be provided. Proper sleeves should be provided at road crossings. In case temporary cables are to be laid on wooden poles/steel poles, the minimum cable heights should be 4.5 M.
- xx) Maintain safe overhead distance of HT transmission lines as per latest CEA Safety Regulation.
- xxi) Don't use pipelines/structures for earthing.
- xxii) Don't make any unsafe temporary connections, e.g. naked joints etc.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 42
	SAFETY PRACTICES DURING CONSTRUCTION	

- xxiii) Ensure that temporary cables are free from cuts, damaged insulation, kinks or improper insulated joints.
- xxiv) Check at periodic intervals that pins of sockets and joints are not loose.
- xxv) Protect electrical wires/equipment from water and naked flames.
- xxvi) Illuminate level in all the work areas should be in line with OISD-RP-149.
- xxvii) All switchboards should be of MS structure only and incoming/outgoing feeders should be marked.
- xxviii) Hand lamps/ Torch should not be of more than 24V rating, and 'E' type should be in line with hazardous area classification.
- xxix) Fire extinguishers (DCP/CO₂/Sand buckets) should be kept near temporary switch boards being used for construction purposes. Don't use water for fighting electrical fires.
- xxx) ISI marked Insulating mats shall be provided in the front and back end of switch boards.
- xxxi) All parts of electrical installations should be so constructed, installed and maintained as to prevent danger of electric shock, fire and explosion.

Periodic checking of electrical safety appliances such as gloves, insulating mats, hoods etc. to be done/witnessed in line with OISD-STD-137, and records to be maintained duly endorsed by the concerned.
- xxxii) A notice displaying following, should be kept exhibited at suitable places in local language also:
 - a) prohibiting unauthorized persons from entering electrical equipment rooms or from handling or interfering with electrical apparatus;
 - b) containing directions as to procedures in case of fire, rescue of persons in contact with live conductors and the restoration of persons suffering from electric shock;
 - c) specifying the person to be notified in case of electrical accident or dangerous occurrence, and indicating how to communicate with him.
- xxxiii) No other cables/pipes to be laid in trench used for electrical cables.
- xxxiv) Utmost care should be taken while excavating Earth from cable trench to avoid damage or any accident.
- xxxv) Sub-station floor cut-outs meant for switch board installations to be covered wherever installation is incomplete.
- xxxvi) Flameproofness integrity of all flameproof equipment / fittings/fixtures to be ensured at all times.

NOTE: A Residual Current Operated Circuit Breaker (RCCB) or Earth Leakage Circuit Breaker (ELCB), when installed, protects a human being to the widest extent. RCCB or ELCB should be provided as per latest CEA Safety Regulation.

	OISD – GDN – 192	Page No. 43
	SAFETY PRACTICES DURING CONSTRUCTION	

6.11.2 Inspection and maintenance

- i) All electrical equipment should be inspected before taking into use to ensure suitability for its proposed use.
- ii) At the beginning of every shift, the person using the electrical equipment should make a careful external examination of the equipment and conductors, especially the flexible cables.
- iii) Apart from some exceptional cases subject to work permits, work on or near live parts of electrical equipment should be forbidden.

Before starting any work on conductors and/or equipment, it is to be ensured that: power supply should be isolated by an authorized person following the concept of LOTO;
- iv) After work has been done on conductors and/or equipment, the power supply should only be switched on again after work permit is returned back, lock/tag on isolated feeder are removed and the workplace is reported safe.
- v) Electricians should be provided with approved and tested tools and personal protective equipment such as rubber gloves, arc flash suit etc.
- vi) All conductors and equipment should be considered to be live unless there is a proof of the contrary.
- vii) When work has to be done in dangerous proximity to live parts the power supply should be cut off. If for operational reasons this is not possible, the live parts should be fenced off or enclosed by qualified staff from the sub-station concerned.

6.11.3. Testing

- i) Electrical installations should be inspected and tested as per approved plan and the results recorded.
- ii) Periodic testing for proper functioning of the earth leakage protective devices should be carried out.
- iii) Particular attention should be paid to the earthing of apparatus, the continuity of protective conductors, polarity and insulation resistance, protection against mechanical damage and condition of connections at points of entry.

6.12 OFFSHORE

6.12.1 General

The isolated nature of offshore installations are hazardous. They call for greater need for health safety and survival at offshore. Safety at offshore is safety of installations and safety of personnel. Safety problems and accidents at offshore have high risks due to limited space, helicopter operation, sea transport etc. Following are the general health and safety guidelines to be followed in

 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 44
	SAFETY PRACTICES DURING CONSTRUCTION	

addition to the safety guidelines stipulated for specific jobs dealt later on:

- i) Workers should be well trained to do their job independently with high degree of self-control and self-discipline.
- ii) On arrival at offshore, everyone should be briefed about the safety rules to be followed at offshore, evacuation system etc. All personnel should wear overall (dangri), helmet and shoes for personnel protection.
- iii) In case of emergency, workers should follow instruction of Field Production Superintendent (F.P.S.). In certain cases instructions may be given to abandon the offshore installation and evacuate the persons to safe location.
- iv) To overcome above problems, offshore personnel must receive training for using life saving appliances and other personal survival techniques.
- v) Any person working at offshore should have one person as standby for any eventuality.
- vi) Periodical health check-up of all personal on platforms shall be ensured and remedial measures shall be taken as per statutory and other requirements.

6.12.2 Drilling Rigs

- i) Location of jack up rigs should not be less than 5 Kms from shipping route. Orientation of the rig, wind direction, etc. are required for safe landing of helicopter. Information w.r.t. sea currents, wind speed, Hi- Low tide, etc. are required for mooring of supply vessels.
- ii) Sea bed condition at every location should be ensured for safety of rig.
- iii) Radio and other communication facilities should be such to maintain contact with base all times.
- iv) During toeing of rig, the rig deck should be clear of load, toeing lines should be in good condition and tensions in various toeing lines should be constantly monitored.
- v) Few steps during toeing are:
 - a) crane booms should be secured to their vesta,
 - b) all hatches and water tight doors should be closed,
 - c) number of personnel on board should be restricted,
 - d) evacuate in case of emergency and operation should be completed preferably in day light.

6.12.3 Drilling

- i) In view of CO₂ and H₂S gas cut from well, effective ventilation should be provided where drilling is in progress.
- ii) Safety alarm shall be checked in advance in view of failure of ventilation system.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 45
	SAFETY PRACTICES DURING CONSTRUCTION	

- iii) Suitable sensors for H₂S and Methane should be function tested time to time and suitable colour code should be given.
- iv) Working areas of the crane should be illuminated during night to avoid accident.
- v) Clear space should be available for despatch and receipt of load and, in particular, basket transfer of passengers. Persons engaged in loading/unloading of materials should be protected from falling into the sea.
- vi) Signal light should be fitted at the top of the jib.
- vii) Crane hook should be fitted with safety latches.
- viii) Experienced person should be engaged in operation of specific equipment like winches, cranes etc.
- ix) At least three cable turns shall always be there on the winch drum.
- x) Adequate communication like walkie talkie, round robin phone should be available between the crane operator, supervisor and helper.
- xi) Crane operation should be completely stopped during helicopter landing/ taking off.
- xii) Except for helicopter landing deck, all decks, platforms, bridges, ladders should have rigid and fixed guard rails atleast one meter high and should have one intermediate rail midway between the handrail and 100 mm toe board.
- xiii) Wooden ladders shall not be used at offshore.
- xiv) Flow sensor in the flow line should be ensured for safe working and to avoid blow out.
- xv) Hydrogen sulphide gas In offshore is of great risk and at 10 ppm (0.001%) concentration in air, a person should not be exposed for more than 8 hours, If concentration is more, then breathing apparatus should be used. Corrosion of equipment is also caused by H₂S.
- xvi) Portable H₂S gas detector should be continuously used.

6.12.4 Production Platforms

- i) In case hydrocarbon Is released due to overpressure, leak, overflow, gas blow etc., shut down process to stop flow of hydrocarbon. Prevent ignition of released hydrocarbon and in case of fire shut in the process complex and follow emergency contingency plan.
- ii) Sub surface safety valve (SSSV) below the well head should be actuated during uncontrolled well -flow and they should be regularly checked.
- iii) Surface safety valve or SDV should be checked for no gas leakage from bleed port / flange etc., in the well head area. It should not be in "mechanical override" or bypassed from panel.

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	OISD – GDN – 192	Page No. 46
	SAFETY PRACTICES DURING CONSTRUCTION	

- iv) High pressure gas lift lines - blowdown system should be O.K.
 - * Auto actuation of SDVs in the inlet of pressure vessels should be O.K. and in "normal position" from shutdown panels. A record of status of switches normal/bypassed in auto-con* panels (PSH, PSL, LSL, ILSL) should be maintained.
 - * Shut Down Panels
- v) Welders rectifier set and electrical connections to it should be checked and approved by electrical-in-charge for proper electrical safety.
- vi) "SCADA" telemetry system if available should be operational for remote opening and closing of wells at unmanned platforms (through RPMC).
- vii) Local ESD/FSD (near the work site) should be provided for jobs of very critical nature, so that the persons working can access it immediately in emergency for safety. Safety officer should judge the requirement & inform FPS for the same.
- viii) Railings and Gratings etc. in and around work area should be O.K. and inspected to avoid slippage of man into sea.
- ix) Emergency Shut Down (ESD) system is initiated when an abnormal condition is detected. ESD should be checked once in six months.
- x) Platform should be manned round the clock.
- xi) Welding and cutting work should be regulated by hot work permit.
- xii) All detectors should be calibrated as per recommendation of the manufacturer.
- xiii) No system should be by-passed which affects the system of platform.
- xiv) In H₂S field platforms, due care shall be taken as per recommendations.
- xv) Follow the instructions of F.P.S. during stay at platform

6.12.5 Fire Prevention And Control

- i) Provision be made for safe handling and storage of dirty rags, trash, and waste oil. Flammable liquids and chemicals applied on platform should be immediately cleaned.
- ii) Paint containers and hydrocarbon samples, gas cylinders for welding and cutting should be stored properly. Cylinders should be transported in hand-cart.
- iii) Smoking should be restricted and no smoking area should be identified.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 47
	SAFETY PRACTICES DURING CONSTRUCTION	

- iv) Special attention should be given to crude oil pump seals; diesel and gas engines which are potential source of ignition in the event of failure.
- v) Fire and smoke detectors i.e. ultraviolet heat, thermal and smoke detector should be function tested once in three months.
- vi) Fire is controlled in offshore by water spraying, Halon, CO₂ flooding, DCP and sprinkler system.
- vii) Foaming agent is applied for controlling fire in liquid hydrocarbon. The system is not effective in gas fire.
- viii) Light weight breathing system should be used.
- ix) The fire control plan at offshore should reveal control station, fire alarms and fire detectors, deluge valves and sprinkler, fire extinguishing appliances, fireman outfit and ventilation system.
- x) Fire fighting equipment should be maintained in ready to use condition.

6.12.6 Life Saving Appliances

- i) Life boats with a speed of 6 knots and carrying capacity upto 50 persons are used in offshore.
- ii) No. of life boats on one installation should have a capacity to accommodate twice the number of persons onboard installation.
- iii) Launching appliances and life boat equipment should be checked every week.
- iv) Boat landing areas should be adequately illuminated.
- v) Life raft has no power and they rely on drift.
- vi) Life jacket lifts the wearer after entering water.
- vii) Life buoys are used to rescue persons if any person accidentally falls in the sea.
- viii) All life saving appliances should be inspected by the MMD surveyor /sr. officials once a year.
- ix) Every life boat shall be inspected once a week.
- x) Every life boat and life raft should be serviced once a year by a competent authority.

6.12.7 Safety Precautions during Helicopter Transportation

- i) Passenger briefing regarding safety rules while travelling in helicopter should be carried out before boarding the helicopter.
- ii) Emergency procedure should be briefed to all the passengers in case helicopter is to ditch into the sea.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 48
	SAFETY PRACTICES DURING CONSTRUCTION	

- iii) Heli-pad should have a non-skid surface. Nylon rope net should be stretched on the deck.
- iv) Proper drainage should be available on helideck.
- v) There should be no obstruction on the helideck itself and within 3 meters of its perimeter. Closest super structure above the helideck should have red obstruction light.
- vi) While landing on helicopter, fire crew of two persons should be standby adjacent to helideck.
- vii) Heli-deck should be properly illuminated for night landing.
- viii) During switching off helicopter, persons should not be allowed to go out/ towards helicopter

6.13 DEMOLITION

6.13.1. General provisions

- i) When the demolition of any building or structure might present danger to workers or to the public:
 - (a) necessary precautions, methods and procedures should be adopted, including those for the disposal of waste or residues;
 - (b) the work should be planned and undertaken only under the supervision of a competent person.
- ii) Before demolition operations begin:
 - (a) structural details and builders' drawings should be obtained wherever possible;
 - (b) details of the previous use should be obtained to identify any possible contamination and hazards from chemicals, flammables, etc.;
 - (c) an initial survey should be carried out to identify any structural problems and risks associated with flammable substances and substances hazardous to health. The survey should note the type of ground on which the structure is erected, the condition of the roof trusses, the type of framing used in framed structures and the load-bearing walls;
 - (d) a method of demolition should be formulated after the survey and recorded in a method statement having taken all the various considerations into account and identifying the problems and their solutions;
- iii) All electric, gas, water and steam service lines should be shut off and, as necessary, capped or otherwise controlled at or outside the construction site before work commences.
- iv) If it is necessary to maintain any electric power, water or other services during demolition operations, they should be adequately protected against damage.
- v) As far as practicable, the danger zone round the building should be adequately fenced off and sign posted. To protect the public a fence 2m high should be erected enclosing the demolition operations and the access gates should be secured outside working hours.

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	OISD – GDN – 192	Page No. 49
	SAFETY PRACTICES DURING CONSTRUCTION	

- vi) The fabric of buildings contaminated with substances hazardous to health should be decontaminated. Protective clothing and respiratory devices should be provided and worn.
- vii) Where plant has contained flammable materials, special precautions should be taken to avoid fire and explosion.
- viii) The plant to be demolished should be isolated from all other plant that may contain flammable materials. Any residual flammable material in the plant should be rendered safe by cleaning, purging or the application of an inert atmosphere as appropriate.
- ix) Care should be taken not to demolish any parts, which would destroy the stability of other parts.
- x) Demolition activities should not be continued under adverse climatic conditions such as high winds, which could cause the collapse of already weakened structures.
- xi) To prevent hazards parts of structures should be adequately shored, braced or otherwise supported.
- xii) Structures should not be left in a condition in which they could be brought down by wind pressure or vibration.
- xiii) Where a deliberate controlled collapse technique is to be used, expert engineering advice should be obtained, and:
 - (a) it should only be used where the whole structure is to come down because it relies on the removal of key structural members to effect a total collapse;
 - (b) it should only be used on sites that are fairly level and where there is enough surrounding space for all operatives and equipment to be withdrawn to a safe distance.
- xiv) When equipment such as power shovels and bulldozers are used for demolition, due consideration should be given to the nature of the building or structure, its dimensions, as well as to the power of the equipment being used.
- xv) If a swinging weight is used for demolition, a safety zone having a width of at least one-and-a-half times the height of the building or structure should be maintained around the points of impact.

6.13.2. Demolition of structural steelwork

- i) All precautions should be taken to prevent danger from any sudden twist, spring or collapse of steelwork, ironwork or reinforced concrete when it is cut or released.
- ii) Steel construction should be demolished tier by tier.
- iii) Structural steel parts should be lowered and not dropped from a height.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 50
	SAFETY PRACTICES DURING CONSTRUCTION	

6.14 RADIOGRAPHY

- 6.14.1 All radiography jobs shall be carried out as per BARC Safety Regulations
- 6.14.2 During field radiography, nearby area around the radiation source should be cordoned off.
- 6.14.3 If the field radiography is to be done at the same location repeatedly, it is advisable to provide either a wire fencing around or a temporary brick enclosure.
- 6.14.4 Special permission/permit should be taken for radiography from area-in-charge.
- 6.14.5 As far as possible, field radiography should be done only during night time when there is little or no occupancy there.
- 6.14.6 Radiation warning signals should be pasted all along the cordoned off area.
- 6.14.7 Entry into the restricted area by unauthorised persons should be strictly prohibited during exposure.
- 6.14.8 The radiation level alongwith the cordon should be monitored by a suitable and well-calibrated radiation survey meter.
- 6.14.9 All personnel working with radiography sources should wear appropriate protective equipment and film badges issued by BARC.
- 6.14.10 Protection facilities such as manipulator rod, remote handling tongs, lead pots, radiation hazard placards and means of cordon off shall be available at each site.
- 6.14.11 The radiography source shall never be touched or handled directly with hands.
- 6.14.12 The package containing radiography cameras and sources should never be carried by public transport like bus, train etc.
- 6.14.13 Radiography sources and cameras, when not in use, should be stored inside a source pit with lock and key arrangement as approved by BARC. The storage room should preferably be located in an isolated area of minimum occupancy and radiation level outside the storage room should not exceed 0.25 mR/hr as per BARC Regulations.
- 6.14.14 In case of an accident (due to loss or of damage to radiography source), action should be taken in line with BARC Safety Rules/Guidelines.
- 6.14.15 Technologically advance methods should be preferred for reduced radiation effect wherever safety so warrants.

6.15 GRIT SHOT/ SLAG BLASTING/ SPRAY PAINTING

- 6.15.1 Blasting for surface preparation should be used only after approval from competent person.
- 6.15.2 Air Compressor used for grit/shot/slag blasting/painting should have guard and positioned away from the work place.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 51
	SAFETY PRACTICES DURING CONSTRUCTION	

- 6.15.3 Exhaust of the prime mover, if IC engine is used, should be fitted with PESO approved spark arrester (in case of work in hazardous area) and directed away from the work place.
- 6.15.4 In case of motor driven compressor, the body of the motor as well as the compressor to be properly earthed.
- 6.15.5 The hoses used for compressed air should be of proper quality, and health of the same to be ensured through regular check/ test.
- 6.15.6 The operator of grit/shot/slag blasting/painting should wear suitable PPE's including mask and the area should be cordoned off.
- 6.15.7 Adequate measures to be taken to suppress dust/spray particle.
- 6.15.8 When these activities are done in confined places, adequate measure to be taken including monitoring Oxygen level and ensuring proper ventilation.
- 6.15.9 Proper fire fighting arrangements are to be made where spray painting is in progress.
- 6.15.10 Some paints and their supplements are toxic also and emit offensive smell. PPE to workers should be suitable to address this issue.
- 6.15.11 "No Smoking Zone" boards should be displayed prominently in paints shop/ spray paint area.

6.16 WORK ABOVE WATER

6.16.1 General Provisions

- i) Where work is done over or in close proximity to water & where possibility of drowning exists, provision should be made for:
 - a) preventing workers from falling into water;
 - b) the rescue of workers in danger of drowning;
 - c) safe and sufficient transport.
 - d) deputation of lifeguards/divers.
 - e) preventing of persons suffering from hydrophobia on deputation to work above water.
- ii) Provisions for the safe performance of work over or in close proximity to water should include, where appropriate, the provision and use of suitable and adequate:
 - a) fencing, safety nets and safety harnesses;
 - b) lifebuoys, life jackets and manned boats;
 - c) protection against such hazards as reptiles bushes/ polluted water and other animals.
 - d) deputation of lifeguards/divers.
- iii) Gangways, pontoons, bridges, footbridges and other walkways or work places over water should:
 - a) possess adequate strength and stability;
 - b) be sufficiently wide to allow safe movement of workers;
 - c) have level surfaces free from tripping hazards;
 - d) be adequately lit when natural light is insufficient;

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 52
	SAFETY PRACTICES DURING CONSTRUCTION	

- e) where practicable and necessary, to prevent danger, be provided with toe-boards, guard rails, hand ropes etc.
- f) be secured to prevent dislodgment by rising water or high winds;
- g) if necessary, be equipped with ladders which should be sound, of sufficient strength and length and be securely lashed to prevent slipping.
- iv) All deck openings including those for buckets should be fenced.
- v) All the employees (owner, contractor and contractor workers) working above and under the water should comply with the requirements of Standards of Training, Certification and Watchkeeping 95 (STCW 95).

6.16.2 Rescue & Emergency procedures

- i) Persons who work over water should be provided with some form of buoyancy aid. Life jackets should be provided for sufficient freedom of movement, have sufficient buoyancy to bring persons to the surface and keep them afloat face upwards, be easily secured to the body, be readily visible by way of self luminous paint/strip.
- ii) Nobody should work alone on or above water.
- iii) Each worker should be trained in the procedure to be followed in the event of an emergency.
- iv) Necessary rescue arrangements like divers, rescue boats etc to be in place.
- v) Persons to be trained for CPR/ Artificial resuscitation as an first aid to the rescued person.
- vi) Also for off shore operations. Speed of water current and water temperature to be considered.

7.0 ADDITIONAL SAFETY PRECAUTION FOR UNITS WITH HYDROCARBONS

In addition to general safety precautions as outlined above for the activities in Clause 6.0, following additional safety precautions need to be taken for the sites within the operating area or nearby, where presence of Hydrocarbons cannot be ruled out.

- i) No job shall be carried out without a valid permit. Permit should be in line with OISD-STD-105 "Work Permit System".
- ii) Smoking should be prohibited in all places containing readily combustible or flammable materials and "No Smoking" notices be prominently displayed.
- iii) In confined spaces and other places where flammable gases, vapours or dusts can cause danger, following measures should be taken:
 - (a) only approved type electrical installations and equipment, including portable lamps, should be used;
 - (b) there should be no naked flames or source of ignition;
 - (c) oily rags, waste and clothes or other substances liable to spontaneous ignition should be removed without delay to a safe place;

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 53
	SAFETY PRACTICES DURING CONSTRUCTION	

- (d) Air operated ventilation system should be provided.
- iv) Regular inspections should be made of places where there are fire risks. These include the vicinity of heating appliances, electrical installations and conductors, stores of flammable and combustible materials, welding and cutting operations.
 - v) Welding, flame/gas cutting and other hot work should only be done after issuance of work permit in line with the requirement of OISD-STD-105 after appropriate precautions, as required, are taken to reduce the risk of fire. For carrying out other jobs also, OISD-STD-105 should be followed strictly.
 - vi) Fire-extinguishing equipment should be well maintained and inspected at suitable intervals by a competent person. Access to fire-extinguishing equipment such as hydrants, portable extinguishers and connections for hoses should be kept clear at all times.
 - vii) All supervisors and workers should be trained in the use of fire-extinguishing equipment, so that adequate trained personnel are readily available during all working periods.
 - viii) Audio means to give warning in case of fire should be provided where this is necessary to prevent danger. Such warning should be clearly audible in all parts of the site where persons are liable to work. There should be an effective evacuation plan so that all persons are evacuated.
 - ix) Notices should be posted at conspicuous places indicating:
 - (a) the nearest fire alarm;
 - (b) the telephone number and address of the nearest emergency services.
 - x) The work site shall be cleared of all combustible materials, as Sparks and molten metal coming from the welding job can easily ignite combustible materials near or below the welding site. If the combustible materials cannot be removed from the area, the same shall be properly shielded.
 - xi) A dry chemical type fire extinguisher (DCP) shall be made available in the work area. Also fire protection facilities like running hoses etc. as per permit should be complied with.
 - xii) Wherever required, welding screens shall be put up to protect other equipment in adjoining areas against flying sparks. Material used should be metal/ fire proof blanket/water curtain.
 - xiii) Welding or cutting of vessels/ equipments used in Hydrocarbon/ hazardous flammable chemicals shall be done after ensuring hydrocarbon free area and verifying the same with the suitable hydrocarbon detector.
 - xiv) The confined space/equipment shall be made gas free (hydrocarbon and toxic) and cleaned and shall be ensured, with the help of suitable gas detectors.
 - xv) Used and hot electrode stubs shall be discarded in a metal bucket.
 - xvi) Use PESO approved and certified spark arrestors for vehicles, wherever applicable.
 - xvii) Relevant work permit (hot work, cold work, vessel entry etc. as the case maybe) to be obtained, if construction work is carried out within existing operating area.
 - xviii) Precaution against pyrophoric material shall be ensured.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 54
	SAFETY PRACTICES DURING CONSTRUCTION	

8.0 Environment Protection

8.1 Waste

The contractor is required to develop, institute and maintain a Waste Management Programme (WMP) during the construction of the project for his works and obtain approval of the owner. WMP may include: -

- i) Identification of disposal sites.
- ii) Identification of waste/surplus quantities to be disposed off.
- iii) Identification of amounts intended to be stored temporarily on site location of such storage.
- iv) Use of proper PPEs.
- v) Identification of intended transport means and route.
- vi) Obtaining permission, where required, for disposal.

Such a mechanism is intended to ensure that the designation of areas for the segregation and temporary storage of reusable and recyclable materials are incorporate into the WMP. The WMP should be prepared and submitted to the Engineer for approval.

The Contractor shall handle waste in a manner that ensures they are held securely without loss or leakage thus minimizing potential for pollution and fire. The Contractor shall maintain and clean waste storage areas regularly.

The Contractor shall make arrangement to stack the metal scrap at designated location and maintain the site free from obstruction. The scrap to be disposed as per owner instruction at regular interval.

8.2 Hazardous Waste Management

If encountered or generated as a result of Contractor's activity, then waste classified as hazardous under the "Hazardous Wastes (Management & Handling) Rules, 1989, and amendments thereunder time to time" shall be disposed off in a manner in compliance with the procedure given in the rules under the aforesaid act.

Chemicals classified as hazardous chemicals under "Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 of Environment (Protection) Act, 1986 (latest) shall be disposed off in a manner in compliance with the procedure given in the rules under the aforesaid act.

8.3 Air Quality

The Contractor shall take all necessary precautions to minimise fugitive dust emissions from operations involving excavation, grading, and clearing of land and disposal of waste. He shall not allow emissions of fugitive dust from any transport, handling, construction or storage activity to remain visible in atmosphere beyond the property line of emission source for any prolonged period of time without notification to the Employer.

 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 55
	SAFETY PRACTICES DURING CONSTRUCTION	

The Contractor shall use construction equipment designed and equipped to minimise or control air pollution. He shall maintain evidence of such design and equipment and make these available for inspection by Employer.

If after commencement of construction activity, Employer believes that the contractor's equipment or methods of working are causing unacceptable air pollution impacts then these shall be inspected and remedial proposals shall be drawn up by the Contractor, submitted for review to the Employer and implemented.

The Contractor shall maintain the MSDS of the chemicals used / stacked at site and same shall be handled as per the standard prescribed procedure. The quantity shall be stored strictly as per the norms and emergency handling procedure shall be known and displayed prominently.

8.4 Noise

The Contractor shall consider noise as an environmental constraint in his design, planning and execution of the Works and provide demonstrable evidence of the same. The Contractor shall, take all appropriate measures to ensure that work carried out by the Contractor, whether on or off the Site, will not cause any unnecessary or excessive noise.

8.5 Occupational Noise

- i) Protection against the effects of occupational noise exposure should be provided when the sound levels exceed the threshold values as prescribed.
- ii) When employees are subjected to expose the sound levels beyond the prescribed limit, feasible administrative or engineering controls should be ensured.
- iii) If such controls fail to reduce sound levels within the levels, personal protective equipment shall be provided and used to reduce sound levels within the prescribed limit.

9.0 OCCUPATIONAL HEALTH

9.1 Medical Examination

The contractor shall arrange a medical examination of all his employees before employing, after illness or injury, if it appears that the illness or injury might have affected his fitness and, thereafter, at periodicity stipulated under Factories Act / Building & Construction Workers Regulation (BOCWR).

The Contractor shall maintain the confidential records of medical examination by the physician authorized by the Employer.

9.2 Occupational Health Centre

The contractor shall ensure at a construction site an occupational health centre, mobile or static is provided and maintained in good order. Services

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 56
	SAFETY PRACTICES DURING CONSTRUCTION	

and facilities as per the scale lay down under Factories Act / Building & Construction Workers Regulation (BOCWR). A construction medical officer appointed in an occupational health centre possess the qualification as laid down under Factories Act / Building & Construction Workers Regulation (BOCWR).

9.3 First Aid

First aid facilities should be provided in line with various statutory regulations like The Factory Act etc. However following care should be taken:

- i) First aid, including the provision of trained personnel should be ensured at work sites. Arrangement should be made for ensuring the medical attention of the injured workers.
- ii) Suitable rescue equipment, like stretchers should be kept readily available at the construction site.
- iii) First-aid kits or boxes, as appropriate and as per statutory requirements, should be provided at workplaces and be protected against contamination by dust, moisture etc.
- iv) First-aid kit or boxes should not contain anything besides material for first aid in emergencies.
- v) First-aid kits and boxes should contain simple and clear instructions to be followed, be kept under the charge of a responsible person qualified to render the first aid and be regularly inspected and replenished.
- vi) Where the work involves risk of drowning, asphyxiation or electric shock, first-aid personnel should be proficient in the use of resuscitation and other life saving techniques as specified in rescue procedures.
- vii) Emergency telephone numbers of nearby Hospitals, Police, Fire Station and Administration should be prominently displayed.

10.0 DOCUMENTATION

The intention of keeping documentation of all types of accident(s) is to prevent recurrence of similar accident(s). All accidents should be reported as per OISD Guidelines and The Factories Act, 1948/ BOCWR.

All accidents (major, minor or near miss) should be investigated, analysed and recommendations should be documented along with implementation status.

All related data should be well-documented and further analysis highlighting the major cause(s) of accidents be done. This will help in identifying thrust areas and training needs for prevention of accidents.

11.0 SAFETY AWARENESS & TRAINING

Safety awareness to all section of personnel ranging from site-in-charge to workmen helps not only preventing the risk but also build up the confidence. Time and expenditures also get saved as a result.

Safety awareness basically seeks to persuade/inform people on safety besides supplementing skill also. Awareness programme may include followings:

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 192	Page No. 57
	SAFETY PRACTICES DURING CONSTRUCTION	

- i) **Poster:** Posters with safety slogan in humorous, gruesome demonstrating manner may be used to discourage bad habits attributable to accidents by appealing to the workers' pride, self-love, affection curiosity or human aspects. These should be displayed in prominent location(s).
- ii) **Safety Sign Boards:** Different type of message of cautioning, attention, notice etc. should be displayed at the appropriate places for learning/awareness of the workmen while working at site.
- iii) **Films & Slides:** Film(s) narrating the accident case study including the causes and possible remedial ways of preventing the recurrence of a similar accident should be displayed at regular intervals. Slides consisting main points of the film show may also be shown to workers.
- iv) **Talks, lectures & conferences:** The success of these events would depend much on audience's understandings of the speaker (s). The speakers are to be knowledgeable and good presenter. Speakers should know to hold the attention and to influence the audiences.
- v) **Competitions:** Organise competition(s) between the different deptts/categories of workers. The sense of reward/recognition also will improve safety awareness and result in enhancing safety levels.
- vi) **Exhibitions:** Exhibitions also make the workers acquainted with hazards and means of preventive measures.
- vii) **Safety Publication:** Safety publications including pocket books dealing with ways of investigation and prevention in the field of safety and so on, may be distributed to workers to promote the safety awareness.
- viii) **Safety Drives:** From time to time, an intensive safety drive by organising a safety day or a safety week etc. should be launched.
- ix) **Training:** Training for covering the hazards for different trade should be imparted. Training should also include the specific hazards related to a job in addition to the general safety training as has been dealt in various chapters and should include all workers. Reference may be drawn from OISD-STD-154.

12.0 REFERENCES

- i) *Factory Act, 1948*
- ii) *Indian Electricity Rules*
- iii) *Safety & Health in Construction by ILO*
- iv) *The Building & Other Construction Workers (Regulation, Employment and Conditions of Service) Act 1996 and Central Rules 1998*
- v) *CSB guidelines*
- vi) *IS 1161: 2006 or latest edition - Steel tubes for structural purposes — specification*
- vii) *IS 2750: 1964 or latest edition - Specification for steel scaffolding.*
- viii) *IS : 3696 (Part 1) – 1987 (Scaffolds) Safety code of scaffolds and ladders*
- ix) *IS : 3696 (Part 2) – 1987 (Ladders) Safety code of scaffolds and ladders*
- x) *IS 4014 Part I: 2006 or latest edition - Code of practice for steel tubular scaffolding - definitions and materials.*
- xi) *IS 4014 Part II: 2005 or latest edition - Code of practice for Steel tubular scaffolding - Safety regulations for scaffolding.*

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	OISD – GDN – 192	Page No. 58
	SAFETY PRACTICES DURING CONSTRUCTION	

- xii) *Building & Other Construction Workers(Regulation on employment & conditions of service) central rules, 1998 (Provision related to Scaffold).*
- xiii) *OHSA Standard on Scaffold (CFR 1926.452)*

ANNEXURE I**LIST OF SAFETY CODES FOR CIVIL WORKS PUBLISHED BY BUREAU OF INDIAN STANDARDS**

Sr.no	Code No.	Title
01.	IS : 818	Code of Practice for Safety and Health Requirements in Electric and Gas Welding and Cutting Operations – First Revision.
02.	IS : 875	Code of practice for Structural safety of buildings: Masonry walls
03.	IS : 933	Specification for Portable Chemical Fire Extinguisher, Foam Type – Second Revision.
04.	IS : 1179	Specification for Equipment for Eye and Face Protection during Welding – First Revision.
05.	IS : 1904	Code of practice for Structural safety of buildings: Shallow foundations
06.	IS : 1905	Code of practice for Structural safety of buildings: Masonry walls
07.	IS : 2171	Specification for Portable Fire Extinguishers, Dry Powder Type – Second Revision.
08.	IS : 2361	Specification for Building Grips – First Revision.
09.	IS : 2750	Specification for Steel Scaffoldings.
10.	IS : 2925	Specification for Industrial Safety Helmets – First Revision.
11.	IS : 3016	Code of Practice for Fires Precautions in Welding and Cutting Operations – First Revision.
12.	IS : 3521	Industrial safety belts and harnesses
13.	IS : 3696 – Part I	Safety Code for Scaffolds and Ladders : Part I – Scaffolds.
14.	IS : 3696 – Part II	Safety Code for Scaffolds and Ladders : Part II – Ladders.
15.	IS : 3764	Safety Code for Excavation Work.
16.	IS : 4014 -Part I & II	Code of practice for Steel tubular scaffolding
17.	IS : 4081	Safety Code for Blasting and Related Drilling Operations.
18.	IS : 4082	Recommendations on staking and storage of construction materials at site
19.	IS : 4130	Safety Code for Demolition of Buildings – First Revision.
20.	IS : 4138	Safety Code Working in Compressed Air-First Revision
21.	IS : 4756	Safety code for Tunneling works
22.	IS : 4912	Safety requirements for Floor and Wall Openings, Railings and toe Boards –First Revision.
23.	IS : 5121	Safety Code for Piling and other Deep Foundations.
24.	IS : 5916	Safety Code for Construction involving use of Hot Bituminous Materials.
25.	IS : 5983	Specification for Eye Protectors – First Revision.

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	OISD – GDN – 192	Page No. 59
	SAFETY PRACTICES DURING CONSTRUCTION	

26. IS : 6922	Structures subject to underground blasts, criteria for safety and design of
27. IS : 7155	Code of recommended practices for conveyor safety
28. IS : 7205	Safety Code for Erection on Structural Steel Works.

Sr.no	Code No.	Title
29. IS : 7069		Safety Code for Handling and Storage of Building Materials.
30. IS : 7293		Safety Code for Working with Construction Machinery.
31. IS : 7323		Guidelines for operation of Reservoirs
32. IS : 7969		Safety code for handling and storage of building material
33. IS : 8758		Recommendation for Fire Precautionary Measures in construction of Temporary Structures and Pandals.
34. IS : 8989		Safety Code for Erection of Concrete Framed Structures.
35. IS : 9706		Code of Practices for construction of Arial ropeways for transportation of material
36. IS : 9759		Guidelines for de-watering during construction
37. IS : 9944		Recommendations on safe working load for natural and man-made fibre rope slings
38. IS : 10291		Safety code for dress divers in civil engineering works
39. IS :10386 – Part I		Safety Code for Construction, Operation and Maintenance for River Valley Projects.
40. IS :10386 – Part II		Safety Code for Construction, Operation and Maintenance of River Valley Projects.
41. IS : 11057		Code of practice for Industrial safety nets
42. IS : 13415		Code of Practice on safety for Protective barriers in and around building
43. IS : 13416		Recommendations for preventive measures against hazards at working places

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OIL INDUSTRY SAFETY DIRECTORATE

**कॉन्ट्रैक्टर सेफ्टी
ओ आई एस डी –जी डी एन-207**

CONTRACTOR SAFETY

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PREAMBLE

Indian petroleum industry is the energy lifeline of the nation and its continuous performance is essential for sovereignty and prosperity of the country. As the industry essentially deals with inherently inflammable substances throughout its value chain – upstream, midstream and downstream – Safety is of paramount importance to this industry as only safe performance at all times can ensure optimum ROI of these national assets and resources including sustainability.

While statutory organizations were in place all along to oversee safety aspects of Indian petroleum industry, Oil Industry Safety Directorate (OISD) was set up in 1986 by Ministry of Petroleum and Natural Gas, Government of India as a knowledge centre for formulation of constantly updated world-scale standards for design, layout and operation of various equipment, facility and activities involved in this industry. Moreover, OISD was also given responsibility of monitoring implementation status of these standards through safety audits.

In more than three decades of its existence, OISD has developed a rigorous, multi-layer, iterative and participative process of development of standards – starting with research by in-house experts and iterating through seeking & validating inputs from all stake-holders – operators, designers, national level knowledge authorities and public at large – with a feedback loop of constant updation based on ground level experience obtained through audits, incident analysis and environment scanning.

The participative process followed in standard formulation has resulted in excellent level of compliance by the industry culminating in a safer environment in the industry. OISD – except in the Upstream Petroleum Sector – is still a regulatory (and not a statutory) body but that has not affected implementation of the OISD standards. It also goes to prove the old adage that self-regulation is the best regulation. The quality and relevance of OISD standards had been further endorsed by their adoption in various statutory rules of the land.

Petroleum industry in India is significantly globalized at present in terms of technology content requiring its operation to keep pace with the relevant world scale standards & practices. This matches the OISD philosophy of continuous improvement keeping pace with the global developments in its target environment. To this end, OISD keeps track of changes through participation as member in large number of International and national level Knowledge Organizations – both in the field of standard development and implementation & monitoring in addition to updation of internal knowledge base through continuous research and application surveillance, thereby ensuring that this OISD Standard, along with all other extant ones, remains relevant, updated and effective on a real time basis in the applicable areas.

Together we strive to achieve NIL incidents in the entire Hydrocarbon Value Chain. This, besides other issues, calls for total engagement from all levels of the stake holder organizations, which we, at OISD, fervently look forward to.

Jai Hind!!!

Executive Director
Oil Industry Safety Directorate

FOREWORD

The Oil Industry in India is over 100 years old. As such, various practices have been in vogue because of collaboration/ association with different foreign companies and governments. Standardization in design philosophies, operating and maintenance practices remained a grey area. This coupled with feedback from some serious accidents that occurred in the past in India and abroad, emphasized the need for the industry to review the existing state-of-the-art in designing, operating and maintaining of Oil and Gas installations.

With this in view, the Ministry of Petroleum and Natural Gas in 1986 constituted a Safety Council assisted by the Oil Industry Safety Directorate (OISD) staffed from within the industry in formulating and implementing a series of self-regulatory measures aimed at removing obsolescence, standardizing and upgrading the existing standards to ensure safe operations. Accordingly, OISD constituted a number of functional committees of experts nominated from the industry to draw up standards and guidelines on various subjects.

The present guideline on “Contractor Safety” has been prepared by the functional committee based on, existing standards, guidelines & recommended practices of OISD, the recommendations arising out of recent major accidents and their analysis, the accumulated knowledge and experience of industry members in India and updation of National and International codes and practices.

The figures and photographs used in the document, if any, are representative in nature.

We, at OISD, are confident that the provisions of this standard, when implemented in totality, would go a long way in ensuring safe operation of the target group of locations.

Needless to mention, this standard, as always would be reviewed based on field level experience, incident analysis and environment scanning. Suggestions from all stake holders may be forwarded to OISD.

NOTE

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These documents are intended only to supplement and not to replace the prevailing statutory requirements of PESO, DGMS, Factory Inspectorate or any other Government body which must be followed as applicable.

Wherever Acts/ Rules/ Regulation and National/ International Standards are mentioned in the standard, the same relates to in-vogue version of such documents.

ENGINEERS INDIA LIMITED

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In addition to the above, several other experts from Industry contributed in the preparation, review and finalisation of this Guideline.

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In addition to the above, several other experts from Industry contributed in the preparation, review and finalisation of this Guideline.

CONTRACTOR SAFETY**CONTENTS**

SECTION	DESCRIPTION	PAGE NO.
1.0	INTRODUCTION	1
2.0	SCOPE	1
3.0	DEFINITIONS	1
4.0	DUTIES / RESPONSIBILITIES	2
4.1	Owner	2
4.2	Contractor	5
4.3	Consultant	8
4.4	Designer	9
5.0	SAFETY MANAGEMENT	9
5.1	Job Safety Analysis (JSA)	9
5.2	Criteria of a Selection of a Contractor	9
5.3	Site Planning and Layout	10
5.4	Gate Entry Procedure	11
5.5	Training	13
5.6	Inspection / Audit	17
5.7	Penalties for non-compliance	17
5.8	Incident Reporting and Investigation System	20
5.9	Safety Committee Meetings	20
5.10	Safety Equipment / Personnel Protective Equipment	23
6.0	REFERENCES	24
	ANNEXURE I List of BIS codes / Statutory Regulations	25
	ANNEXURE II Checklist for Safety Inspection / Audit	28

 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207		Page No. 1
	CONTRACTOR SAFETY		

CONTRACTOR SAFETY

1.0 INTRODUCTION

Oil and Gas operations like Drilling, Production, Refining, Storage, Transportation and Distribution, etc. are inherently hazardous. A large number of contractor workforce is deployed to carry out construction, maintenance and other jobs. The analysis of the incidents in the Petroleum Sector indicates that a large number of incidents involved contractor workforce and have resulted in either casualty or injury besides leading to property damage and operational interruptions and environmental degradation.

In order to improve the safety levels of hydrocarbon installations, the contractor safety is of utmost importance and there is a need to institute a good contractor safety system.

2.0 SCOPE

This document covers broadly the guidelines on the HSE management system for enhancing the safety levels of the contractor workforce deployed in construction, maintenance and operation activities in the hydrocarbon industry.

The safety precautions to be taken while carrying out different activities during construction / maintenance have separately been covered in OISD-GDN-192 on "Safety Practices during Construction".

3.0 DEFINITIONS

Work station / Work site

A place / unit where the job is carried out by contractor/executing agency in specified manner with safety, during construction phase or in operation phase.

Owner

Any physical or legal person/entity for whom prescribed job is carried out.

It shall also include owner's designated representative / consultant /nominee / agent, authorised from time to time to act for and on its behalf, for supervising / co-ordinating the activities of the contractor/execution agency.

Contractor / Executing Agency

A physical or legal person/entity having contractual obligation with the owner, and who deploys one or more worker on the site.

Contractor Worker

It covers all workmen who are either self-employed or employed through contractor, the casual workers and includes contractor's supervisor, working at a location / site employed directly by Owner or through their contractor.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207	Page No. 2
	CONTRACTOR SAFETY	

Incident

An incident is an unplanned, uncontrolled, unintended or unforeseen event, caused by unsafe acts and / or unsafe conditions, resulting in or having the potential to result in personal injury and/or property damage.

Consultant

Consultant is a physical or legal person/entity engaged by owner to provide the consultancy services to owner for management of the contract on their behalf or as specified.

Designer

Designer is a physical or legal person / entity engaged by owner to provide design services of a work site.

Owner's Representative / Engineer In Charge

The Owner's representative/Engineer-in-charge is the one, who has been designated by the owner to manage the contract.

Owner's Safety Officer

A properly trained person designated by owner who ensures safety at work site.

4.0 DUTIES/RESPONSIBILITIES

4.1 OWNER

4.1.1 Owner's Management

The commitment to safety has to be emphasized by the owner by practice by its own management and employees at all levels. The duties and responsibilities of owner should include:

- i) To institute a mechanism for identification and compliance of all applicable statutory rules & regulations (Refer Annexure I for a list of few important Bureau of Indian Standards & statutory regulations).
- ii) To provide specific information to contractors and make workers aware on the hazards associated with job assigned.
- iii) To provide information about Risk Mitigation measures available at the place of work.
- iv) To provide the contractor with information on Owners Safety Plan & Regulations, Emergency Management Plan, lockout / tag out procedure, confined space entry, work permit system, excavation / trench permit system etc.

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	OISD – GDN – 207 CONTRACTOR SAFETY	Page No. 3

- v) To specify rules (e.g. for security including access arrangements) and safety rules such as fire protection, first aid arrangements, Work Permit systems etc.
- vi) To provide comprehensive list of statutory regulations / standards and specification, to be complied with during execution of contract, in the tender document itself.
- vii) To ensure training of the contractor workforce, medical examination, and proper usage of safety equipment.
- viii) To specify the requirements of Health, Safety and Environment (HSE) (commensurate with the nature of job) in Pre- Qualification criteria.
- ix) To designate Engineer-in-charge and safety officer.
- x) To arrange for a multi-disciplinary safety audit team to conduct surprise / regular safety audits and monitor the implementation of the recommendations.
- xi) To introduce suitable schemes for motivation of the contractor worker to adhere to safety guidelines.
- xii) To review safety practices & their implementation through periodic surprise visit of the work sites and monthly review meeting.
- xiii) To develop the HSE plans and incorporate the same in the tender document.
- xiv) To liaise with external agencies like press, public etc and with law enforcement, regulatory, statutory agencies etc.
- xv) To report to statutory agencies on safety compliance and accidents, if any.

4.1.2 Owner's Representative/Engineer-in-charge

The duties & responsibilities of engineer-in-charge should include:

- i) To ensure that all Contract requirements including Health, Safety, Environment & Security are complied with.
- ii) To ensure that contractor workforce deployed is adequately qualified, trained and in state of health to commensurate with the requirements of the job.
- iii) To ensure that the Tools / Tackles and Machinery being used are properly tested and are in sound working conditions and necessary resources proposed for providing safe place of work and necessary PPE are being used.
- iv) To take the required necessary corrective action immediately upon noticing or receipt of a report on noncompliance or any such condition which poses a threat to health, safety or environment. If during the course of execution of the contract, any situation of non-compliance with the contractor's safety and health plan are noticed / reported, the same will be taken up with the contractor for correction. In the event of repeated non compliance, suitable action to be initiated as per the contract.

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	OISD – GDN – 207	Page No. 4
	CONTRACTOR SAFETY	

- v) To ensure that the incidents are reported to all concerned within stipulated time frame.
- vi) To ensure submission of a plan for safe working (Method Statement) from contractor and approval of the same by competent person / department.
- vii) To ensure that Work Permit System in line with OISD-STD-105 is adhered to.
- viii) To ensure availability of all the documentation needed for the execution of contract.
- ix) To ensure that the quality controls have been maintained during fabrication/erection and all jobs required for safe commissioning have been carried out.
- x) To ensure safe dismantling of all temporary facilities/connections put up by the contractor, after completion of work.
- xi) To compile a report on the safety performance (at the conclusion of each contract or periodically such as annually for renewable and long-term contracts), which is to be considered in future when selecting contractors.
- xii) To ensure that the Consultant, contractor and sub-contractor employ / designate qualified & trained Safety Engineer / Officer commensurate with requirement of the job.
- xiii) To comply with all applicable safety and health standards, rules, regulations and orders issued by competent authority pertaining to the assigned activities.

4.1.3 Owner's Safety Officer

The duties & responsibilities of the Owner's Safety Officer should include:

- i) To assess the hazards associated with jobs in consultation with all concerned and establish safe working procedure including identification of the escape routes.
- ii) To establish a written record of factors which can cause injuries and illnesses and maintain statistical information for use in analysing all types of incidents and events involving contract personnel.
- iii) To undertake routine/surprise inspections of all work sites and identify unsafe conditions & practices, if any. Check for compliance of the safety practices being followed with approved HSE Plan.
- iv) To investigate promptly the incidents (including near-miss) in order to advise corrective and/or preventive action and assist management for its compliance.
- v) To ensure periodic internal audits, review meetings, monitor and analyse HSE performance, nonconformities and suggest its corrective & preventive action.
- vi) To encourage contractor and contract workers for reporting requirements for occupational injuries and illnesses.

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	OISD – GDN – 207	Page No. 5
	CONTRACTOR SAFETY	

- vii) To advise whether the proposed working arrangements are safe and satisfactory, particularly at the interface between the contractor's planned work and owner's existing facilities.
- viii) To communicate to the Contractor the imposed restrictions which may affect the work/personnel such as the temporary closure of a corridor or electrical isolation of equipment.
- ix) To review and monitor the contractor's adherence to approved HSE plan and compliance thereof.
- x) To design and conduct either independently or in collaboration with the training department, suitable HSE training programme for the prevention of personal injuries to Consultant, Contractor's Managers, Supervisors and workmen at all levels
- xi) To identify areas of operations where specialized training is required to deal with potential dangers.
- xii) To document and to bring to the attention of the Owner's Supervisor and Contractor any non-compliance/violation of the safety norms against approved safety and health plan or safety and health requirements and also raise these issues in the Safety Committee Meetings.
- xiii) To take part in Tool Box Meetings at random and to ensure maintenance of records.
 - I. Establish, implement, maintain and review HSE objectives and programs including responsibility, authority, means & time frame at all relevant functions and levels.
 - II. Apprise the management about HSE status & help formulate appropriate policies for continual improvement.
 - III. Standardize PPE & Safety Devices, identify and develop approved vendors wherever required.

To organise campaigns, competitions, contests and other activities in association with the concerned departments, which will develop and maintain the interest of the contractor and contractor workers in establishing and maintaining safe conditions of work and procedures;

4.2 CONTRACTOR

4.2.1 Contractor's Management

Duties & responsibilities of the contractor should include the following:

- i) To implement safe methods and practices, deploy appropriate machinery, tools & tackles, experienced supervisory personnel and skilled work force etc. required for execution.

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	OISD – GDN – 207 CONTRACTOR SAFETY	Page No. 6

- ii) To prepare a comprehensive and documented plan for implementation, monitoring and reporting of Health, Safety and Environment (HSE) and implement the same after its approval.
- iii) To nominate qualified & trained Safety Engineers / Officers reporting to the Site in charge, for supervision, co-ordination and, liaison for the implementation of the safety plan.

Similar HSE Plan should be implemented at the sub- contractor's or supplier's site /office. However the compliance with the HSE Plan is to be the sole responsibility of the Contractor.

- iv) To arrange facilities at suitable location in liaison with the owner for drinking water, toilets, lighting, canteen, lunch shelter, crèche etc. as applicable as per Laws/ Legislation at site and also arrange for workmen compensation insurance, third party liability insurance, registration under ESI / PF act etc as applicable.
- v) To arrange for fire protection equipment as per the advice of owner.
- vi) To ensure that its employees have completed appropriate health and safety training as required by the statute / regulation and also as per requirements of the Owner / Consultant. The documentation of such training imparted to all its employees should be maintained and produced for verification as required.
- vii) To comply with all the security arrangements of owner.
- viii) To ensure that the plant and equipment used on-site by contractor / employees is correctly registered, controlled and maintained in sound working condition.
- ix) To ensure availability of First Aid boxes and First Aid trained attendant and other facilities as per requirement of factory Act / Building & Construction Workers Regulation (BOCWR).
- x) To ensure that all incidents including near misses are reported immediately. Investigated with corrective and preventive action and learning are shared with all workers and all concerned at the earliest.
- xi) To have HSE policy
- xii) Maintain HSE performance data on yearly basis and submit to owner for evaluation

In construction projects where sub-contractors are engaged, the contractor should set out the responsibilities, duties and safety measures that are expected of the sub-contractor's workforce. These measures should include the provision and use of specific safety equipment, methods of carrying out specific tasks on safety and the inspection and appropriate use of tools.

The responsibilities indicated separately under contractor's Supervisor, Safety Officer and contract worker are contractually that of the Contractor and legally binding on the

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	OISD – GDN – 207	Page No. 7
	CONTRACTOR SAFETY	

Contractor only. However the specific detailing as above has been given separately for guidance and operational convenience.

The selection of sub contractors, if employed, should be approved by the owner. Sub-contractor should comply fully with all safety rules and conditions applicable to the main contractor.

4.2.2 Contractor's Supervisor / Safety Officer

Duties & responsibilities of the Contractor's supervisor/Safety Officer should include the following:

- i) To ensure strict compliance with work permit system by carrying out work only with appropriate work permits and after ensuring that all safety precautions / conditions in the permit are complied with and closing the same after job completion.
- ii) To ensure that required guards and standard personal protective equipment are provided, used, and properly maintained including contingency requirement.
- iii) To ensure inspection, tested, certification and maintenance of all tools and ensure removal of defective tools.
- iv) To plan the workload and assign workers to jobs in commensuration with their qualification, experience and state of health.
- v) To ensure that all the preventive measures for identified hazards (e.g. Job Safety Analysis, Job Hazard Analysis, HIRA, etc.) are in place and communicated to workers
- vi) To take immediate corrective action against the violation of safety rules observed or reported.
- vii) To ensure that the workers likely to be exposed to hazardous chemicals/materials have access to appropriate Material Safety Data Sheets (MSDS), and provide necessary mitigation measures.
- viii) To ensure that appropriate warning signboards or tags are displayed.
- ix) To ensure that all workers have proper training for their job assignments, including use of appropriate PPE, first aid and fire fighting equipment.
- x) To ensure that only medically fit person shall be engaged in work and also ensure that sick / or injured workers during course of work should receive timely and appropriate first aid and/or medical attention.
- xiii) To report each incident and/or injury in accordance with established procedures and assist in investigation.
 - I. Maintain Daily HSE observation log book at site
 - II. Conduct Tool Box talks along with Site Engineers/ supervisors.

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	OISD – GDN – 207	Page No. 8
	CONTRACTOR SAFETY	

Maintain the published HSE literature, HSE regulations, codes and other communications. Advise management of compliance and conditions requiring attention.

A fulltime / dedicated Safety Officer should be assigned, where more than 100 workers are employed at site. For smaller jobs, the supervisor should assume the role of the safety officer also.

4.2.3 Contract workers

The duties & responsibilities of the contractor worker should include the following:

- i) To perform work safely as per the job requirement and instructions.
- ii) To inform all concerned regarding unsafe conditions / and unsafe acts.
- iii) To wear PPE as stipulated and necessary for the job.
- iv) To inform promptly to their supervisor regarding all work related incidents resulting in personal injury, illness and/or property damage.
- v) To take all necessary and appropriate safety precautions to protect themselves, other personnel and the environment.

4.3 CONSULTANT

The activities and responsibilities covered under the scope of the Owner may be delegated to the consultant in those cases as applicable, based on the respective contract conditions. The primary responsibility of Consultant is to ensure compliance with agreed HSE plan for the contract by the Contractor. However those responsibilities conferred on Owner as Principal employer cannot be delegated to consultant.

Where the consultant's scope involves Engineering and Design, those factors under Designer (Para 4.4) should also be applicable.

In all cases, the Consultant's scope should include submission of latest HSE plans for work under his and Contractor's purview and implementing the same till job completion. It should conform to owner's overall HSE plan. This should include Guidelines and Implementation and Reporting Methodology to be followed with required report formats.

Adequate number of Safety Officers shall be provided by the Consultant with necessary skills required for the work to be performed.

The Consultant shall review the documents submitted by the contractor and advise owner on acceptance as well as advise suitability and number of Contractor's safety officers / supervisors.

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	OISD – GDN – 207	Page No. 9
	CONTRACTOR SAFETY	

4.4 DESIGNER

The Process Designer should identify all hazards and risks likely to be encountered during fabrication, erection including dismantling, Pre-commissioning, commissioning and Performance run to meet the Guarantees and advise the risk mitigation measures.

All the hazards and safety measures to be adopted while handling Dangerous chemicals and Catalysts should be detailed by the Process Licensor and the same should be again included in the scope of the suppliers. Specific write ups/MSDS should be obtained from Patented single source suppliers also.

Designs should recognize, include and apply safe practice during preparation, construction and subsequent operational use and maintenance after completion of the Project.

All documents including drawings and calculations are to be originated, checked and approved in accordance with latest international codes, standards, specifications and design basis philosophy.

Use of low risk materials, non hazardous substances, use of low noise and dust-suppressed equipment etc. should be encouraged.

5.0 SAFETY MANAGEMENT

5.1 JOB SAFETY ANALYSIS (JSA)

Job safety analysis (JSA) provides a mechanism by which the contractor / owner, safety officer(s) and job supervisor(s) take a detailed look at how an individual task is performed , and its inherent hazards and preventive measures. This procedure helps in integrating accepted safety and health principles and practices into a particular operation. In a JSA, each step of the job is examined to identify potential hazards and to determine the safest way to do the job.

A job safety analysis includes five steps as below:

- Select a job
- Break the job down into a sequence of steps
- Identify the hazards against each of these steps (based on knowledge of accident, causes of injuries and personal experience) and determine the preventive measures to overcome these hazards
- Apply the controls to the hazards
- Evaluate the controls measures and revisit JSA if necessary

5.2 CRITERIA OF SELECTION OF A CONTRACTOR & SAFETY PERFORMANCE REVIEW

“Contractor Safety” can be ensured to a large extent if competent agency for execution of assignment or job, based on HSE system agreed upon by owner, is selected. It is necessary to assess his capabilities and competencies to perform work safely.

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	OISD – GDN – 207	Page No. 10
	CONTRACTOR SAFETY	

A databank should be developed for all the contractors for their past performance on HSE aspects. An attempt should also be made to get similar data from other similar industries.

The data required will depend upon complexity involved in the job and type / size of resources required. Format needs to be suitably developed depending upon size, nature of the job & hazard associated therein. The format designed should also take care of the skill required to carry out the job.

Performance review is essential for all type of contractors. It helps in recording actual performance/experience with contractors while the contract is in progress. It is essential that resources agreed as per the contract are reviewed at mobilization stage for ensuring compliance from the day one and thorough effective supervision / monitoring system are at place.

This activity also helps in taking timely action in case of unsatisfactory performance to correct the situation and ensure safe work during execution period and deciding about suitability of the contractor for future jobs.

The periodicity of such performance review will depend upon size/type/complexity of contract. However, the performance should be reviewed periodically from mobilisation stage till the demobilization stage. Appropriate corrective action should be ensured.

5.3 SITE PLANNING AND LAYOUT

Before starting the construction/maintenance job at existing workplace in operation or green field locations, following should be ensured: -

- i) Details regarding location of workshop/ fabrication yard, site office, stores, laboratory, electrical installations, placement of construction machinery, medical and welfare facilities, lighting underground and above ground piping route, cable route etc. should be decided prior to commencement of the work in consultation with owner / Consultants and implementation should be ensured. Layout should be displayed at strategic locations.
- ii) The resources required to meet any emergency situations like fire fighting, first aid etc. should be planned and mobilized as per the job requirement.
- iii) The sequence or order in which work to be done and any hazardous operations or processes should be identified.
- iv) Free access to site shall be provided with clear roads, passage, gangways, staircases etc. Access to construction site should be leveled, open and free from any obstructions like construction material or scrap/waste, exposure to hazards such as falling materials, material handling equipment and vehicles. Any pit or ditch shall be covered or barricaded.
- v) Arrangements should be made to maintain good housekeeping at site. Scrap and debris generated out of construction work should be removed/disposed off at a regular interval as directed. Emergency exit should be provided in case of blockade of primary exit.

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	OISD – GDN – 207	Page No. 11
	CONTRACTOR SAFETY	

- vi) Suitable warning notices and also the routes to and from welfare facilities should be displayed prominently.
- vii) Pedestrian pathways and routes for vehicular traffic (light/heavy vehicles including material handling equipment) should be earmarked.
- viii) Artificial lighting to be provided at places where work continues or workers pass by after sunset or in case natural light is insufficient like confined spaces.
- ix) Keep all equipment /machines under cover to prevent them from dust, rain/flood water, heat etc. and follow storage instructions as applicable for each of them.

5.4 GATE ENTRY PROCEDURE

Gate entry at any site / workplace / unit is to be restricted to ensure entry of only authorised persons / vehicles.

5.4.1 Entry procedure for all contractor workers should be as follows:

A. Issuance of Pass

- i) The passes are to be issued after the owner's representative/engineer-in-charge forwards the application of the contractor providing complete details of the workers being engaged. The contractor should be asked to submit Character & Antecedents (C&A) verification of individual worker from concerned authorities.
- ii) The actual deployment of the workers at the construction site should be done after imparting the necessary safety induction training.
- iii) With regard to issuance of passes for all vehicles including material handling equipment, owner's representative / engineer-in-charge should forward the application only after ensuring that all documents pertaining to the fitness of the vehicle/equipment and valid driving license of the driver, PUC of the vehicle, insurance of vehicle, etc. are available.
- iv) The passes should be serially numbered with address, contractor name, identification mark, signature of the worker etc.
- v) Special colour code for passes should be used for persons entering different areas like Administrative Block, Unit area, Project Area (wherever applicable).
- vi) Contractor workers engaged on routine basis for long periods should be provided with monthly photo pass.
- vii) Special permit is required separately for working beyond normal working hours and holidays.

B. Gate Entry

- i) Entry of the contractor's employees should be permitted with valid gate passes only.

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	OISD – GDN – 207	Page No. 12
	CONTRACTOR SAFETY	

- ii) Entry of contractor's workers should be allowed in presence of authorized representative of contractor.
- iii) Records of persons at the time of entry/exit should be maintained.
- iv) At the entry gate of the location, a physical checking for non-carrying of lighter, matchboxes, explosives etc. should be carried out.
- v) Gate passes/Identity Cards should be displayed on persons at all the times.
- vi) For Mega-projects at existing / operating installations, it is preferable to have a separate gate for entry of contractor workers and also the project areas should be segregated fencing from operational area by fencing / other physical means.
- vii) No vehicle should be allowed to enter in an operational area without proper flame arrestor.
- viii) Awareness on Safety through training / posters etc. highlighting Do's and Don'ts should be spread within entire contractor workforce. Video/Audio tapes on Safety Topics should be played preferably.
- ix) For occasionally engaged workers such as for material handling etc., spot photograph should preferably take with two copies (one for preparing the pass and other for attachment with gate register). Specific advice and recommendation of User Department should be given due cognizance. Relevant details are to be written. The pass should be collected back at the gate after day's work.

5.4.2 Tank Truck Loading (TTL) Operation :

At the loading / unloading location, a large no. of Tank Trucks of petroleum products enter the installation. Crew members are generally not regular entrants. The procedure should be as follows:

- i) The gate pass should be issued to the individual crew members on written request of the transporter mentioning TT registration nos., License and certificate of training as per MV rule 9.
- ii) Character & Antecedent (C & A) verification of the TTL crew through local police is to be done preferably and record maintained.
- iii) For loading/unloading purpose, register entry at security gate is made before allowing entry into the premises with recording of names of crew members, time of entry, pass Sr. No., TT no. etc.
- iv) For loading/unloading, crew is allowed entry along with TT only, after checking of TT from explosive/security point of view.
- v) Out time, invoice no., Destination etc., are recorded while TTs go out of the security gate.

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	OISD – GDN – 207	Page No. 13
	CONTRACTOR SAFETY	

5.5 TRAINING

Training is to educate contractor workforce on various hazards associated with the job/workplace and on the respective preventive / mitigation measures to avoid untoward incidents.

- i) Workers should be adequately and suitably:
 - (a) informed of potential safety and health hazards to which they may be exposed to at their workplace;
 - (b) instructed and trained in the measures available for the prevention, control and protection against those hazards.
- ii) No person should be employed in any work at a workplace unless that person has received the necessary information, instruction and training so as to be able to do the work competently and safely. The competent authority should, in collaboration with employers, promote training programs to enable all the workers to read and understand the information / instructions related to safety and health matters.
- iii) The information, instruction and training should be given in a language understood by the worker and written, Oral, visual and participative approaches should be used to ensure that the worker has assimilated the information.
- iv) Every worker should receive instruction and training regarding the general safety and health measures common to the workplace. This should include:
 - (a) general rights and duties of workers at the workplace;
 - (b) means of access and egress both during normal working and in an emergency;
 - (c) measures for good housekeeping;
 - (d) location and proper use of welfare amenities and first aid facilities provided;
 - (e) proper use and care of the items of personnel protective equipment and protective clothing provided to the worker;
 - (f) general measures for personal hygiene and health protection;
 - (g) fire precautions to be taken;
 - (h) action to be taken in case of an emergency;
 - (i) requirements of relevant safety and health rules and regulations.
 - (j) training on hazards and mitigation measures for specific area where worker is assigned to work shall be given as part of entry procedure

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	OISD – GDN – 207	Page No. 14
	CONTRACTOR SAFETY	

- (k) Job specific training / refresher course shall also be given at regular intervals.
- (l) It is also expected that behaviour based safety culture shall be encouraged and all the workers will be involved.

Copies of the relevant safety and health rules, regulations and procedures should be available to workers upon the commencement of and upon any change of employment.

5.5.1 Training Techniques

a) Lectures

This technique should be applied when it is required to transfer information in local language to a large contractor workforce with controlled content and time.

b) Case Study

This is an effective technique based on the presentation of case of real events by Trainer to highlight probable causes like Human Error, ignorance about the job etc.

c) Videos

Videos, an effective technique of communication, should be used to display the right techniques of performing a task in a safe manner and hazards associated with a job.

d) Demonstration at site

Right way to do a job should invariably be demonstrated to workers at the site itself. The right way is also a safe way. Hazards due to wrong procedures, short cuts and their adverse effects etc. should also be highlighted.

5.5.2 Training/Awareness Module and Frequency

A. General Safety Training to all categories of contractor employees should be imparted before induction and annually thereafter. No person should be allowed to enter the installation without undergoing this training. This training program should cover:

- i) Mandatory uses of PPE like Cotton clothes, Helmet, Safety Shoes, Full Body Safety harness, dust masks, safety goggles, etc.
- ii) Probable Hazards related to industry
- iii) Job specific hazards
- iv) Important Telephone No / Escape route
- v) First Aid
- vi) Use of Fire extinguisher

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	OISD – GDN – 207 CONTRACTOR SAFETY	Page No. 15

- vii) Location of assembly points
- viii) Procedure of calling fire crew in case of any emergency
- ix) Wind direction

The contractor workers, if engaged in operation of the plants/facilities, should be trained in line with Clause No. 4.6 of OISD-GDN-206 on “Safety Management System”. For other categories of contractor workers, training modules for different category employees are as follows:

B. Contractor Supervisor

Contractor Supervisor should be trained in accordance with the provision of clause no. 5.1.1.2, 5.2.7, 5.3.10, 5.6.12 and 5.7.8 of OISD-STD-154 on 'Safety Aspects in Functional Training'

C. Contractor Worker

Yearly training programme should be carried out for contractor worker and the records should be maintained. The training programme should cover at least the following:

- i) Worker responsibility for safety of himself and work area.
- ii) Associated hazards with the job and job area including electrical shock hazards.
- iii) Importance of First Aid fire fighting equipment, their use & operations
- iv) Communication system at the installation
- v) Fire / Accident Reporting procedure
- vi) General Safety rules
- vii) Safety Measures during execution of job such as:
 - Welding / Cutting / Grinding
 - Working at height
 - Confined space entry
 - X ray / radiation
 - Erection / Dismantling of scaffolding
 - Tank construction and repairs
 - Handling of chemicals etc.
 - Hydrojetting
 - Leak testing of pipelines and equipment (hydro and pneumatic testing)
 - Grit / other methods of blasting for surface preparation blasting etc.
 - Chemical cleaning & pickling
 - Catalyst loading & storage
 - ELCB

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	OISD – GDN – 207	Page No. 16
	CONTRACTOR SAFETY	

viii) Importance & use of PPE

ix) Emergency Routes

x) Assembly Points

xi) Job Specific Training

D. Consultant / Contractor

Awareness program should be carried out for demarketed Consultant / Contractor at the time of induction. This program should cover at least the following:

i) Responsibility of contractor for safety of their personnel and work area

ii) Hazardous property of Petroleum products and chemical used

iii) Communication system

iv) Fire / Accident Reporting procedure

v) Medical facility available

vi) Statutory requirements

vii) Importance of First Aid equipment and required at the site

viii) Work Permit system

ix) Direct/ Indirect losses due to accident

x) Safety Measures while executing the jobs such as:

- Welding / Cutting / Grinding
- Working at height
- Confined space entry
- X ray / radiation
- Erection / Dismantling of scaffolding
- Tank construction and repairs
- Handling of chemicals etc.
- electrical jobs
- Hydrojetting
- Leak testing of pipelines and equipment (hydro and pneumatic testing)
- Grit / other methods of blasting for surface preparation blasting etc.
- Chemical cleaning & pickling
- Catalyst loading & storage
- ELCB

xi) Safety training needs of their supervisors and workers

xii) Importance & Use of PPE at the site

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	OISD – GDN – 207	Page No. 17
	CONTRACTOR SAFETY	

xiii) General Safety rules at the installation –

General points:

Workers should not be allowed to take meals or take rest inside the construction / plant area.

E Security Personnel

Training program should be carried out for Security personnel at the time of induction and annually thereafter and the records should be maintained. The training program should cover at least the following:

- i) Layout of Plant and Facilities
- ii) Vulnerable locations
- iii) Safety regulations (Statutory and in company)
- iv) Fire Protection Facilities and Locations
- v) Role in case of Fire / Disaster
- vi) Emergency Procedure and Drills
- vii) Industrial First Aid
- viii) Use of Personnel Protective Equipment
- ix) Disaster Management Plan

5.6 INSPECTION / AUDIT

Inspection / Audit is a tool to evaluate compliance of all safety requirements. Most of the information could be gathered through site inspection using ready-made check lists to ensure that contractors / agencies abide by the safety rules and norms while working at operating / construction sites.

A checklist, while carrying out different type of jobs, should be developed based on hazards associated with the job being performed and requirements as per OISD-GDN-192 on "Safety Practices during Construction". Typical format is enclosed at Annexure II, which should be modified to suit the requirement of the site / job to be done.

Before starting the work and at regular intervals thereafter, Contractor's Supervisor/safety Officer and Owner's representative / Engineer-in charge/safety Officer should inspect as per the checklist so prepared to ensure that contractor has prepared to start the work with all safety precaution required for safe execution of job.

5.7 FINANCIAL DETERRENTS FOR NON-COMPLIANCE OF SAFETY RULES/ PROCEDURES

Financial or other type of penalties like seizure of gate passes, stoppage of work for a limited period etc. should be levied on the contractors or their workers for non-compliance of safety rules. A provision of suitable accident severity based penalty clause for contractor should be incorporated to ensure adherence of systems and procedures.

The financial deterrent clauses shall be included in the general terms and conditions of the contract. The violators of the clauses shall be suitably punished. Following list shall be taken as a guide while preparing the financial deterrent clauses but need not be limited to these conditions only.

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	OISD – GDN – 207 CONTRACTOR SAFETY	Page No. 18

A few of the usual non-compliance are as follows:

- I. Working without valid work permit/ Violation of any of the conditions specified in the permit.
- II. Throwing up/down any material from height or not making proper provision to bring down material safely from height
- III. Non standard/unsafe platform/ladder, Non standard/unsafe Scaffolding
- IV. Non-usage of PPEs like Safety helmet / Safety shoes / Safety goggles / Welding Shield / Respiratory protection etc. by the contractor personnel
- V. Non use of ELCB , using poor joints of cable, using naked wire without top plug into the socket, laying wire/cables on the roads without sleeve.
- VI. Carrying out electrical jobs by un-authorised person
- VII. Non deployment of the licensed electricians for electrical job.
- VIII. Unsatisfactory fencing / barricading of excavated areas, Not providing proper shoring /strutting /proper slope and Not keeping the excavated earth at least one meter away from excavated area
- IX. Over speeding of vehicles, rash driving, wrong side parking & parking in front of any fire-fighting equipment.
- X. Riding on material handling vehicles or trolleys or hydra.
- XI. Non-deployment of safety supervisor / supervisor responsible for safety at work site
- XII. Failure to maintain safety register and record by Contractor Safety Supervisor or Supervisor responsible for safety.
- XIII. Acting in contravention to any of the provision mentioned in Factories Act 1948 and/or the rules framed there under including all amendments thereto.
- XIV. Failure to furnish a first information report (FIR) as per prescribed Pro-Forma within 4 hours of the incident.
- XV. Keep and maintain proper records of all incidents occurred at work site.
- XVI. Working beyond statutory limits by contractor's workers.
- XVII. Deployment of child or adolescent labour.
- XVIII. Use of untested and uncertified pressure vessel. Use of untested and uncertified lifting tools/tackle.
- XIX. Unsafe handling of compressed gas cylinders No trolley or jubilee clips or double gauge regulator or flash back arrestor on both gas lines & both ends or improper storage / handling or cylinders without caps when not in

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	OISD – GDN – 207	Page No. 19
	CONTRACTOR SAFETY	

use/damaged hoses). Keeping compressed gas cylinders in horizontal position.

- XX. Transporting metallic items below overhead lines, without isolation.
- XXI. Damage to fire equipment like hydrant & monitors, fire extinguishers including non return of fire equipment
- XXII. Horseplay at work site.
- XXIII. Non-provision of basic safety requirement such as 24 V lamp for working in confined space, uncertified / non standard lifting tools, earth leakage protection & earthing connections for electrical appliances as per Indian Electricity Rules, emergency isolation switches etc.
- XXIV. Keeping gas cylinders inside the confined spaces.
- XXV. Non-usage of the full body safety harness and fall back arrester with life line properly anchored by the workers while working at height
- XXVI. Violation of Safety Permit conditions like Firefighting equipment.
- XXVII. Non-barricading of area while rigging, digging etc.
- XXVIII. Working without valid work permit.
- XXIX. Un-authorized road closure/blockage.
- XXX. Not clearing the work site on regular basis.
- XXXI. Leaving contractor owned leftover material at site at the time of demobilization.

5.7.1 REWARDS AND RECOGNITIONS

The contract employees should be suitably rewarded as per a scheme, with monetary benefits/ prizes for timely reporting of the Near miss incidents/ Unsafe conditions/ Unsafe Acts based on the accident potential if it could have occurred.

The compliance to safety procedures by the contractors shall be evaluated annually as per the scheme based on different leading and lagging indicators and shall be awarded during the safety week celebrations.

The best safety conscious worker as recommended by the safety officers of different contractors during short term jobs such as the turnaround maintenance activities shall be suitably rewarded for motivating the workers to comply with safety requirements.

The best safety officer/supervisors of the contractor shall be recognized and shall be suitably rewarded during the safety week celebrations.

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207		Page No. 20
	CONTRACTOR SAFETY		

5.8 INCIDENT REPORTING AND INVESTIGATION SYSTEM

All the incidents including near-miss should be reported immediately by contractor's Supervisor to Contractor and owner's Supervisor / Engineer-in-charge, who should inform to Owner's Safety Officer and owner's Management. Owner's Safety Department will be required for onward reporting as per OISD, Statutory requirements.

All accidents regardless of the extent of injury or damage should be investigated in order to find probable causes, lessons learnt thereof and remedial measures required to prevent its recurrence.

The incident investigation should be done as per provision of clause no. 4.12 of OISD-GDN-206 on 'Safety Management System'.

All the recommendations of investigation / Enquiry Report need to be monitored closely for its implementation. A proper record should be maintained to ensure implementation of all the recommendations and same should be reviewed from time to time.

5.9 SAFETY COMMITTEE MEETINGS

Following three type of safety committee meetings should be held aiming at raising the level of safety consciousness at the site:

5.9.1 Toolbox meeting

To maintain awareness, update training and convey important safety and health information, contractor supervisors should conduct tool box meetings at least weekly and also prior to start of any work. All the contractor workers should attend this meeting. The owner's supervisor/Engineer-in-charge and safety officers should also attend these meetings on random basis. Tool box meeting should be conducted more frequently depending upon circumstances. Record of the same can be maintained in the following typical format.

TOOL BOX MEETING FORM

A Toolbox Talk is a safety meeting allowing open environment for discussion with the work force. It focuses on safety topics related to the specific job, such as workplace hazards and safe work practices. It is aimed to refresh workers' knowledge, cover last minute safety checks, to raise workers' awareness of specific problems on site. Toolbox Talks are also intended to facilitate health and safety discussions on the job site and promote safety culture. It also helps to remind workers that health and safety are an important part of the working day.

Toolbox talk should be short in duration and conducted at the job site prior to the commencement of a new job or work shift. Toolbox Talks can be used for post-accident communications / accident case study, re-enforcement of safe work practice and pre-task planning etc.

Contractor supervisors should conduct tool box meetings at least weekly and also prior to start of any work. All the contractor workers should attend this meeting. The owner's supervisor/Engineer-in-charge and safety officers should also attend these meetings on

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	OISD – GDN – 207 CONTRACTOR SAFETY	Page No. 21

random basis. Tool box meeting should be conducted more frequently depending upon circumstances.

A toolbox talk should cover following topics;

- Review of the hazards related to job being done. What safety equipment and PPEs should be used? What procedures should be followed?
- Review and analyse recent safety violations— What was the violation? What hazard did it create? What injury could have occurred?
- Review and analyse recent injuries— What happened? Why did it happen? What should have been done?
- Ergonomics and behaviour related tips.
- Importance of PPEs and proper tool for specific jobs.
- Housekeeping

Records of such talks should be maintained. Following information should be included when completing a Toolbox Talk Form:

- Names and signatures of all persons present,
- Topics discussed,

Any job specific training or instructions that have been given in the meeting and who raised the issue or added to the discussion, to show that there has been active consultation with all persons attending the meeting and that all parties have had a chance to raise issues.

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	OISD – GDN – 207	Page No. 22
	CONTRACTOR SAFETY	

TOOL BOX TALK RECORD

DATE _____ TIME: _____ LOCATION: _____
 DELIVERED BY: _____ WITNESSED BY: _____
 JOB DISCRIPTION: _____
 NAME OF THE CONTRACTOR: _____

Toolbox Talk – Topics / Issues discussed
Other points or issues raised by attendees

NAME	SIGNATURE	NAME	SIGNATURE

5.9.2 Site Safety Committee Meeting

Primary purpose of this safety committee is to enable owner, contractor and workers to work together to monitor the site safety and health plan so as to prevent accidents and improve working condition on site. Its size and membership will depend on the size and nature of job.

The safety committee should include representatives of owner, consultant, contractor identified as safety officer / supervisor. It should be headed by Engineer-in-charge.

The safety committee should have regular and frequent meetings, atleast fortnightly, to discuss the safety and health program on site and to make suggestions for improvement. The meetings should be documented with a time bound action plan. The functions carried out by safety committee should include:

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207	Page No. 23
	CONTRACTOR SAFETY	

- i) Review compliance of pending items of last Safety meetings. All critical items should be identified and their compliance ensured.
- ii) Consideration of the reports of safety personnel.
- iii) Discussion of accident/near-miss and illness reports in order to make appropriate recommendation for prevention.
- iv) Examination/evaluation of suggestions made by workers.
- v) Dissemination of acquired knowledge through training programs and information sharing sessions.
- vi) Discussion & review of Fire Prevention & Disaster Management Plan.
- vii) To send recommendation to Apex Body for consideration / approvals.

5.9.3 Safety Review Meeting by Location Head

This meeting should be headed by the Location head and attended by Owner's Supervisor / Engineer-in-charge, owner's safety Officer and all concerned department heads. Prime purpose of this review is to ensure that all the recommendations of various committees are being complied with and to take decisions on critical points raised. This meeting should take place at least once in every quarter. All the investigation reports / audit findings with status of implementation of recommendations should be discussed.

5.10 SAFETY EQUIPMENT / PERSONNEL PROTECTIVE EQUIPMENT

The type of safety equipment to be used is decided based on the job requirement. Selection should be made based on OISD-GDN-192, OISD-STD-155 (Part I & II) and the job requirement. Safety equipment / Personnel Protective Equipment (PPE) shall be of approved make. Contractor shall provide necessary training to each employee regarding proper usage and upkeep of PPE including its limitation.

A register showing stock and issue of PPE should be maintained by the contractor at site and must be available for inspection. 10 to 20 % of PPE in excess of actual requirement to meet contingency requirement should be maintained at site.

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	OISD – GDN – 207	Page No. 24
	CONTRACTOR SAFETY	

REFERENCES

- 1) OISD-GDN-206 on “Safety Management System”
- 2) OISD-GDN-192 on “Safety During Construction”
- 3) OISD-STD-155 Part (I & II) on “Personnel Protective Equipment”
- 4) Building & Other Construction workers (Regulation of Employment & Condition of Service) Act 1996 & Rules thereof

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	OISD – GDN – 207	Page No. 25
	CONTRACTOR SAFETY	

ANNEXURE I

**LIST OF SAFETY CODES FOR CIVIL WORKS PUBLISHED BY BUREAU OF
INDIAN STANDARDS**

Sl.no.	Code No.	Title
1	IS: 818	Code of Practice for Safety and Health Requirements in Electric and Gas Welding and Cutting Operations – First Revision.
2	IS: 875	Code of practice for Structural safety of buildings: Masonry walls
3	IS: 933	Specification for Portable Chemical Fire Extinguisher, Foam Type – Second Revision.
4	IS: 1179	Specification for Equipment for Eye and Face Protection during Welding – First Revision
5	IS: 1904	Code of practice for Structural safety of buildings: Shallow foundations
6	IS: 1905	Code of practice for Structural safety of buildings: Masonry walls
7	IS: 1989 – Part II	Leather Safety Boots and shoes for heavy metal industry
8	IS: 2171	Specification for Portable Fire Extinguishers, Dry Powder Type – Second Revision
9	IS: 2361	Specification of Building Grips – First Revision
10	IS: 2750	Specification for Steel Scaffoldings
11	IS: 2925	Specification for Industrial Safety Helmets – First Revision
12	IS: 3016	Code of Practice for Fires Precautions in Welding and Cutting Operations – First Revision
13	IS: 3521	Industrial Safety Belts and harnesses
14	IS: 3696 – Part I	Safety Code for Scaffolds and Ladders: Part I – Scaffolds
15	IS: 3696 – Part II	Safety Code for Scaffolds and Ladders: Part II – Ladders
16	IS: 3764	Safety Code for Excavation Work
17	IS: 4014 – Part I & II	Code of Practice for Steel Tubular Scaffolding
18	IS: 4081	Safety Code for Blasting and Related Drilling Operations
19	IS: 4082	Recommendations on stacking and storage of construction materials at site

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	OISD – GDN – 207	Page No. 26
	CONTRACTOR SAFETY	

20	IS: 4130	Safety Code for Demolition of Buildings – First Revision
21	IS: 4138	Safety Code for working in compressed air – First Revision
22	IS: 4756	Safety Code for Tunneling works
23	IS: 4912	Safety requirements for Floor and Wall openings, Railings and toe boards – First Revision
24	IS: 5216 – Part I & II	Recommendations on safety procedures and practices in electrical work
25	IS: 5121	Safety code for piling and other deep foundations
26	IS: 5916	Safety Code for Construction involving use of Hot Bituminous materials
27	IS: 6994 – Part I	Specifications for safety gloves: Part I – Leather and Cotton gloves
28	IS: 5983	Specification for Eye Protectors – First Revision
29	IS: 6922	Criteria for safety and design of structures subject to underground blasts
30	IS: 7155	Code of recommended practices for conveyor safety
31	IS: 7205	Safety Code for Erection on Structural Steel Works
32	IS: 7069	Safety Code for Handling and Storage of Building Materials
33	IS: 7293	Safety Code for Working with Construction Machinery
34	IS: 7323	Guidelines for operation of Reservoirs
35	IS: 7969	Safety Code for handling and storage of building materials
36	IS: 8758	Recommendation for Fire Precautionary Measures in construction of Temporary Structures and Pandals
37	IS: 8989	Safety Code for Erection of Concrete Framed Structures
38	IS: 9706	Code of Practices for construction of Aerial ropeways for transportation of material
39	IS: 9759	Guidelines for de-watering during construction
40	IS: 9944	Recommendations on safe working load for natural and manmade fibre rope slings
41	IS: 10667	Guide for selection of industrial safety equipment for protection foot and leg

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	OISD – GDN – 207	Page No. 27
	CONTRACTOR SAFETY	

42	IS: 10291	Safety Code for dress divers in civil engineering works
43	IS: 10386 – Part I	Safety Code for Construction, Operation and Maintenance for River Valley Projects
44	IS: 10386 – Part II	Safety Code for Construction, Operation and Maintenance for River Valley Projects
45	IS: 11057	Code of Practice for Industrial Safety Nets
46	IS: 13415	Code of Practice on safety for Protective barriers in and around building
47	IS: 13416	Recommendations for preventive measures against hazards at working places

Statutory Regulations

Latest Statutory Acts and Rules, as given below, should be referred:-

1. The Petroleum Acts 1934 and Petroleum Rules 2002
2. The Factory Act, 1948 (As amended by Factory Amendment Act 1987) and concerned Factory Rules
3. The Water (Prevention and Control of Pollution) Act 1974 & Rules 1975
4. The Environment (Protection) Act 1986 and rules thereunder
5. The Manufacturing, Storage and Import of Hazardous Rules 1989
6. The Hazardous Wastes Management (Management & Handling) Rules 1989
7. The Indian Electricity Act 1901 and Rules 1956
8. The Indian Explosive Acts, 1884 & The Indian Explosive Rules 1983
9. The Gas Cylinder Rules 1981 and the static & Mobile Pressure Vessels (Unfired) Rules 1981
10. The Indian Boiler Act 1923 and Regulations 1950
11. The Public Liability Act 1991 as amended in 1992
12. The Motor Vehicle act 1988 and Central Motor Vehicle rules 1989
13. Building & Other Construction workers (Regulation of Employment & Condition of Service) Act 1996

In addition to above, various other statutory acts like EPF, ESIS, Minimum wage act and other local statutory requirements shall also be complied with.

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	OISD – GDN – 207	Page No. 28
	CONTRACTOR SAFETY	

ANNEXURE II**CHECK LIST FOR SAFETY INSPECTION / AUDIT**

Job _____ Location _____ Date of Audit _____ Frequency _____

Inspected by _____ Contractor (s) _____

Sl.no.	ITEM	YES	NO	NA	REMARKS / ACTION
1.0	PERSONNEL PROTECTIVE EQUIPMENT (PPE): Are following PPEs being used as per the job requirements?				
A.	Minimum mandatory PPEs				
A1	Safety Helmets (with chin strap)				
A2	Safety Shoes				
A3	Safety Goggles				
A4	Safety hand gloves				
B.	Job specific PPEs				
	Whether need of specialised safety PPE identified and documented?				
B1	Full body safety harness with double lanyard				
B2	Fall arrester				
B3	Ear Plug / Ear Muff				
B4	Gum Boots				
B5	Face shield				
B6	Shot/Grit/Slag blasting hood				
B7	Breathing Apparatus				
B8	Gas Filter Mask / Dust Mask				
B9	Hand Gloves (Chemical/ Welding/ Electrical/ anti-vibration/ High temperature/ cold burn etc.)				
B10	Boiler Suit / Fire-retardant suit / Electrical flash fire retardant suit /High pressure water cleaning (Hydrojetting-Turtle) suit /				

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207	Page No. 29
	CONTRACTOR SAFETY	

	Chemical suit / Low temperature suit etc.				
B11	Others				
C.	Whether workers are trained / briefed to use the PPEs?				
D.	Whether system of checking the quality / quantity of PPEs provided by contractor exists and in practice?				
E.	Whether as per contract the contractor is obliged to arrange the required PPEs to its workmen and the same is being complied with ?				
2.0	HOUSE KEEPING				
2.1	Whether Standards of housekeeping are defined in contract and housekeeping is being maintained accordingly?				
2.2	Whether areas are identified and marked for stacking of material like scrap, pipes, plates, cement, sand, loose excavated material etc.?				
2.3	Whether surplus excavated material, debris and scrap material is being removed and disposed on regular basis as per contract?				
2.4	Whether path ways, roads, stairs etc. in the vicinity of work place are maintained free from obstructions?				
2.5	Whether appropriate actions are taken to avoid the slippery area due to water logging / oil spillage?				
2.6	Whether system for collecting and disposal of small size scraps like welding buds, small size metal pieces, insulation material in place.				
2.7	Whether area is maintained free from vegetation, garbage etc. and the work place is kept clean and free of any hazard?				
2.8	Others				
3.0	EXCAVATION				
3.1	Whether detailed plan of excavation including soil stability is made and approved by competent authority?				
3.2	Whether excavation hot work permit is taken?				

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207		Page No. 30
	CONTRACTOR SAFETY		

3.3	Whether the workplace is thoroughly inspected before issuance of work permit, as stipulated in OISD-STD-105?				
3.4	Whether special conditions mentioned in the permit are clearly explained to the supervisor and in turn to the contractor workers and documented?				
3.5	Whether proper shoring for the excavation is provided to prevent cave-in for side of slope more than the safe angle of repose (generally around 45 degrees) of the soil being excavated?				
3.6	Whether proper precautions have been taken if the excavation is adjoining to heavy structure like building, street and roadways?				
3.7	While excavating whether proper slope usually 45° & suitable benches of 0.5 m width at each 1.5 m depth are provided?				
3.8	Whether barricading of 1m height with glowing caution board is provided for excavation beyond 1.5m depth?				
3.9	Whether excavating earth is placed beyond 1m or depth of the excavation whichever is more, from the edge of the trench?				
3.10	Whether heavy vehicle movement is restricted to come too close (minimum 2 M from the edge of excavation) to the excavating area?				
3.11	Whether adequately anchored stop blocks and barriers are provided to prevent vehicles being driven into the excavation? Heavy vehicles should not be allowed near the excavation unless the support work has been specially designed to permit it.				
3.12	Whether necessary precaution is taken for underground pipes, sewers, cables by contractors?				
3.13	Whether extra precaution is taken for bailing out water properly while excavating?				
3.14	During rains whether the excavation is				

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207		Page No. 31
	CONTRACTOR SAFETY		

	done with extra precaution to prevent caving in?				
3.15	Whether two separate entry/ exit points with necessary ladders / steps, as per requirement, have been provided?				
3.16	Whether required no. of persons are available (as per OISD-STD-105) at all the time to communicate any hazards noticed with workers working in deep trenches or excavation?				
3.17	Whether necessary precautions like regular gas testing are being taken in areas having hydrocarbons and toxic gases so that no gas accumulation takes place in the trenches.				
3.18	Whether IS: 4081-1986 & Indian Explosive act & rules for storage, handling & carrying of explosive material and execution of blasting operation is followed?				
3.19	Whether in case of mechanised excavation, caution board is provided for do's and don'ts like 'Nobody to enter' within one meter of the extreme reach?				
3.20	Whether the following observations are being documented during excavation work and corrective actions taken :- a) Boulder formation encountered b) Collapsing / development of cracks of sides c) Marked damage to support d) Unexpected fall of ground e) Inspection of site after each blast. f) Water logging g) Unexpected utility/cabling				
3.21	Others				
4.0	PERMITS				
4.1	Whether valid work permit is issued in compliance to OISD-STD-105 to start any work?				
4.2	Whether before issuing the permit, JSA carried out and mitigation measures made				

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207		Page No. 32
	CONTRACTOR SAFETY		

	part of work permit?			
4.3	Whether personnel working at site were given tool box talk about the hazards and emergency procedure with important do's and don'ts and record maintained?			
4.4	Whether all conditions of the permit are fulfilled before starting the job?			
4.5	As noted in the permit, whether compliance of all the recommendations are ensured during entire duration of the job?			
4.6	Whether permits are available at work site all the times?			
4.7	Whether hot work permit registered in fire station / designated safety officer?			
4.8	Whether permits are being closed after the completion of job?			
4.9	Others			
5.0	SAFETY IN CUTTING / WELDING/GRINDING			
5.1	Whether LPG / Oxygen / Acetylene/ Gas cylinders are kept outside only while working in confined space?			
5.2	Are Acetylene/ O ₂ / LPG cylinders kept in upright position with required valve cap and secured at designated places under shed – wet fire retardant clothes ~~gunny~~ bags wrapped around it if the same is under sun at designated place?			
5.3	Check cylinder and cylinder valves for approved quality & any kind of damage?			
5.4	Whether protective valve s-caps are kept on cylinders while not in use?			
5.5	Whether proper means and method for transportation of cylinders to avoid dropping and rolling are being adopted / followed?			
5.6	Whether gas cylinders, regulators are			

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207 CONTRACTOR SAFETY	Page No. 33

	kept away from combustible materials and free from oil and grease?				
5.7	Whether all hoses are of approved quality and found to be free of any damage or crack?				
5.8	Whether oxygen and acetylene cylinders are stored separately at a distance of at least 5 feet from each other and kept under shade as per Gas Cylinder rules 2002?				
5.9	Whether gas cylinders are kept at safe location particularly in case job is being done at different elevations while in use?				
5.10	Whether color coding is being used for easy identification of different type of cylinders and hoses?				
5.11	Whether cylinder keys are available near the cylinder?				
5.12	Whether gas torches with flash back arrestors of approved make are only being used?				
5.13	Whether pressure gauges are in working condition and checked from time to time?				
5.14	Whether welding shields are used while welding?				
5.15	Whether proper earthing for welding machines are provided?				
5.16	Whether power is taken from approved sources (welding receptacles)?				
5.17	Whether welding receptacles are properly grounded?				
5.18	Whether welding cables are maintained in good condition and without any joints/cuts?				
5.19	Whether to avoid short circuit, welding machines are protected against rain?				
5.20	Whether earth connectors are securely connected to the job and not to the				

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	OISD – GDN – 207 CONTRACTOR SAFETY	Page No. 34

	adjoining pipeline or structure?				
5.21	Whether flame arrestor of DG set is of approved make and quality?				
5.22	Whether 30mA rating ELCB is provided on power supply.				
5.23	Whether separate power supply arrangement is provided for portable oven?				
5.24	Others				
6.0	ABRASIVE (SHOT/GRIT/SLAG) BLASTING				
6.1	Whether abrasive blasting is used only after getting approval from competent authority / work permit?				
6.2	Whether air compressor used for abrasive blasting are positioned away from work place?				
6.3	Whether exhaust of the prime mover is directed away from the work place?				
6.4	Whether in case of motor driven compressor, the body of the motor as well as the compressor is properly earthed?				
6.5	Whether line operator of abrasive blasting wear suitable PPEs including mask?				
6.6	Whether adequate measures are adopted to confine dust / flying particles?				
6.7	Whether adequate measures are taken for proper ventilation while the work is done in confined space?				
6.8	Whether the Air receiver vessel of the compressor is pressure tested.				
6.9	Others				
7.0	SAFETY WHILE WORKING AT HEIGHTS / SCAFFOLDING / LADDERS				
7.1	Whether work permit is obtained to take up work at height above 2.2 meters?				
7.2	Whether steel pipes scaffoldings are used in unit/off site areas?				

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207 CONTRACTOR SAFETY	Page No. 35

7.3	Whether provision for suitable platform with all scaffoldings are made? Whether its construction is as per specification with toe board and railing?				
7.4	Whether the area below working at height is cordoned?				
7.5	Whether ISI approved quality and good condition full body safety harness with shock absorber are used while working at heights?				
7.6	Whether life line of full body safety harness with shock absorber is anchored to an independent secured support capable of withstanding load of a falling person?				
7.7	Whether the area around the scaffold is cordoned off to prohibit the entry of unauthorized person?				
7.8	Whether lifeline ropes used are of good condition and adequate strength free of defects?				
7.9	Whether ladder is placed at secured and leveled surface?				
7.10	Whether it is extended 1.0 Meters above the landing point?				
7.11	Whether ladder used are of adequate length and tying short ladder is avoided?				
7.12	Whether metallic ladders are placed away from electrical system?				
7.13	Whether tools or materials are removed after completion of the day's job at heights?				
7.14	Whether a valid permit is obtained before taking up work on asbestos or fragile roof?				
7.15	Whether sufficient precaution like roof ladders, nets, lifeline, full body harness, etc. is taken while working on fragile roof?				

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207	Page No. 36
	CONTRACTOR SAFETY	

7.16	Whether provision is made to arrange duck ladder, crawling board for working at fragile roof?				
7.17	Whether scaffolding has been erected on rigid / firm / leveled surfaces only?				
7.18	Whether scaffold has been inspected by competent person & tagged accordingly prior to being put in use?				
7.19	Whether the scaffolding has been designed for the load to be borne?				
7.20	Whether the erection and dismantling of the scaffolding is being done only by trained persons and under competent supervision?				
7.21	Whether safety net with proper working arrangement and life line has been provided?				
7.22	Others				
8.0	SAFETY IN CONFINED SPACE				
8.1	Whether positive isolation is done as per approved blind list and crossed checked by competent person?				
8.2	Whether a permit is obtained to enter a confined space?				
8.3	Whether gas test for hydrocarbon, toxic gas, oxygen level is checked for acceptable limits before entering any confined space and recorded? If levels are beyond permissible limit, whether required PPE like BA, Gas Mask are used.				
8.4	Whether adequate oxygen level is ensured in confined space before entering? If not, whether all precaution like using of Breathing Apparatus set is ensured?				
8.5	In case of chance of ingress of hydrocarbon gases / toxic gases, whether Personnel Monitoring System (PMS) is used ?				

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207		Page No. 37
	CONTRACTOR SAFETY		

8.6	Whether only in presence of a supervisor, worker enters in confined space?				
8.7	Whether provision of sufficient means of entry and exit is available?				
8.8	Whether provision of ventilation to remove welding fumes, dust, exhaust gases are made?				
8.9	Whether provision of 24V (Hand lamps with cage as per OISD-STD-155) light for working inside space is made?				
8.10	Is it strictly ensured that stand-by trained persons (2 nos.) are standing outside before a person enters a confined space and communication is being maintained all the time with workers working inside?				
8.11	Whether life belt with one end under control of stand-by person outside is kept while working in confined space?				
8.12	Whether Personnel protective Equipment as specified in the permit are in good condition?				
8.13	Whether boxing up is done only as per the approved procedures and under the supervision of competent persons?				
8.14	Whether all the safety precautions listed in OISD-GDN-192 are taken while working in sewers, OWS etc.?				
8.15	Whether proper house keeping is being maintained inside the confined space?				
8.16	Whether training has been provided to workers working in the confined space and the workers only of sound health are being asked to work in the confined space?				
8.17	Others				
9.0	SAFETY IN MATERIAL HANDLING				
9.1	Whether all lifting tools, tackles, machines, chains, ropes etc. are of sound construction, made of sound material and				

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207	Page No. 38
	CONTRACTOR SAFETY	

	maintained in good condition?				
9.2	Whether lifting tools & tackles are tested as per norms and safe working load, date of testing visibly marked/painted on the equipment?				
9.3	Whether lifting tools, tackles are of adequate strength for the load to be handled?				
9.4	Whether all parts including the working gears fixed or movable of every lifting machine, chain, rope, tackles specify the following condition: a) Thoroughly examined by competent person at least once a year or such interval as required by statutory authority. b) Document of such examination are maintained and produced to owner supervisor before use of particular equipment?				
9.5	Whether chain blocks and cables are inspected before each use to assure their sound condition?				
9.6	Whether hoist and lift, if used are: a) Properly maintained and thoroughly examined by competent authority at least once in every year. b) A register to be maintained to record particulars of such examination in prescribed forms and shall be produced to the owner supervisor before use.				
9.7	Whether area below the movement of boom of crane is cleared to avoid injury from falling objects?				
9.8	In crane handling area whether it is ensured that crew of truck, leave the truck before starting loading / unloading?				
9.9	Whether transporting material from one place to another is done by suitable				

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207		Page No. 39
	CONTRACTOR SAFETY		

	means?				
9.10	Whether carrier with sufficient capacity without projecting parts is used for transporting materials?				
9.11	Whether riggers engaged are well trained and conversant with signaling procedures including night signaling if required?				
9.12	Whether permission of authorized person is obtained before working on or near an overhead crane?				
9.13	Whether trained riggers are available all the time along with crane?				
9.14	Whether barricading has been done to ensure no unauthorised person enters in the working area of the crane?				
9.15	Whether lifting (rigging) plan has been prepared and approved before start of the work?				
9.16	Whether route of crane movement has been planned before the crane moves out of the garage?				
9.17	Whether it has been ensured that no electrical cable comes within 3 meters or safe distance from the boom of the crane?				
9.18	Whether boom is being kept in the horizontal position or locked while idling?				
9.19	Whether material is being stacked / destacked in trucks with the help of wedges to ensure no slippage while loading / unloading takes place?				
9.20	Whether the forklift / crane is being operated only by trained / authorized person?				
9.21	Others				
10.0	ELECTRICAL SAFETY				
10.1	Has the Electrical Line Clearance				

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207		Page No. 40
	CONTRACTOR SAFETY		

	procedure been followed involving electrical and other concerned Dept. and filling of formats?				
	Whether the “LOTO” system is defined properly and all personnel are aware with the procedure?				
	Whether “LOTO” system is being used in all electrical isolation jobs, by all departments?				
10.2	Have Danger Signs with Voltage rating/ Men at work signboards been displayed at both Sub Station as well as the work site?				
10.3	Has the contractor worker understood the electrical circuit on which he is going to work with probable electrical hazards and mitigation measures to be adopted?				
10.4	Whether contractor has engaged electrician (s) having valid electrical license in line with provisions in Indian Electricity Rules?				
10.5	Have all checks prior to switching operation been carried out and authorisation of owner/ user section obtained subsequently?				
10.6	Have all earthing links on electrical conductors removed before charging the line/ apparatus?				
10.7	Are PPE as prescribed under Indian Electricity Rules available, kept healthy and being used?				
10.8	Are earthing and bonding arrangement of non-current carrying metallic parts in line with provisions of Indian Electricity Rules – 1956 amended time to time as IS: 3043?				
10.9	Have electrical part of OISD-GDN-192 and Clause No. 9.0 for Temporary installations in OISD-STD-173 been understood and followed wherever applicable?				
10.10	Are flexible wires having voltage of 240 volts above earth potential taken through				

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207	Page No. 41
	CONTRACTOR SAFETY	

	PVC conduits?				
10.11	Whether portable hand lamps with a voltage rating of not more than 24 volts used with flameproof enclosures in confined spaces within columns, vessels etc?				
10.12	Have the Switches, MCBs, fuses etc. been inspected for proper ratings?				
10.13	Has Earth Leakage Circuit Breaker (ELCB) been used on the incoming side to protect against leakage of current? Is the device tested every time the work is started?				
10.14	Whether all portable appliances are provided with insulated Three pin plugs and socket arrangement?				
10.15	Whether industrial type extension boards and plug sockets are used?				
10.16	Has the electrical equipment brought to site by contractor been inspected by owner's supervisor/ safety officer for damage/cuts/abrasion etc? Is record of Insulation Resistance, wherever required being kept?				
10.17	Have standard practices for termination of conductors/ cables been followed (e.g. use of proper lugs, crimping tool, cable glands etc)? Is cable armour in continuity from feeding point to load?				
10.18	Are the Contractor supervisor and workmen well acquainted with first aid for electrical shock?				
10.19	Are the wires/ cables identifiable along their route towards the load by using colour coding and/or markers?				
10.20	Others				
11.0	ROAD WORK				
11.1	Whether site is barricaded and provided with warning signs including night warning lamps/ self glowing markers at appropriate location for diversion of traffic?				

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	OISD – GDN – 207 CONTRACTOR SAFETY	Page No. 42

11.2	Whether mixing aggregates with bitumen is done with the help of batch mixing plants? If no, whether adequate precautions have been taken?				
11.3	Whether road rollers, bitumen sprayers, pavement finishers are driven by experienced drivers with valid driving licenses?				
11.4	Whether the worker handling hot bitumen sprayers or spreading bitumen aggregate mix or mixing bitumen with aggregate are provided with PVC hood, hand gloves rubber shoes (gum boot) with pegging upto knee joints?				
11.5	Others				
12.0	FORM WORK, REINFORCEMENT				
12.1	Whether form work, shuttering, shoring etc. are adequately designed and provided to erect the structure and to support the expected load?				
12.2	Whether staging (support) for shuttering is designed for loads like worker movement, impact load and other incidental loads during construction?				
12.3	Whether workers use PPEs at work site like safety shoes, gloves, helmet with chin strap, goggles and dust masks etc.?				
12.4	Whether all safety procedures are adopted while cutting rod?				
12.5	Whether proper staging and bundling is provided for supplying rods at height?				
12.6	Whether sufficient cross bracings are provided for high staging works as per design requirement?				
12.7	Others				
13.0	CONCRETING				
13.1	Whether the concreting area is barricaded?				

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207	Page No. 43
	CONTRACTOR SAFETY	

13.2	Whether vibrator hoses, pumping concrete accessories are in healthy condition and mechanically strong?				
13.3	Whether it is ensured that no pipe line in concrete pumping system is attached to any temporary strut such as scaffolds etc.?				
13.4	Whether it is checked that safety guards around moving parts are provided in concrete mixer/ machines?				
13.5	Whether earthing of electrical mixers, vibrator etc. are provided?				
13.6	Whether entry of unauthorised person in the concreting area is restricted?				
13.7	Whether adequate lighting arrangement is made in the concreting area if working during night?				
13.8	Whether PPEs like gum boots, gloves, helmet with chin strap, goggles and dust masks etc. are being used?				
13.9	For overhead or underground work, whether form work and shuttering have been checked with respect to design?				
13.10	Whether boom placers are properly secured?				
13.11	Others				
14.0	DEMOLISHING (DEMOLISHING BY BLAST NOT CONSIDERED)				
14.1	Whether an initial survey carried out to identify any structural problems and risks associated with flammable substances and substances hazardous to health?				
14.2	Whether sequence of demolition is formulated and approved by competent person after the survey and recorded in a method statement having taken all the various considerations into account and identifying the problems and their solutions?				
14.3	Are non-sparking tools being used, if required?				

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	OISD – GDN – 207 CONTRACTOR SAFETY	Page No. 44

14.4	Is intermittent clearing operation being done to keep the area reasonably tidy and clean?				
14.5	Whether effective barricading has been provided?				
14.6	Whether Electrical and other facilities like water, oil, gas pipelines, etc. have been isolated / protected?				
14.7	Whether required PPEs like helmet with chin strap, goggles, ear plug/muff, hand gloves, safety shoes, dust mask, etc. used?				
14.8	Others				
15.0	RADIOGRAPHY				
15.1	Are safety precautions for handling of source as per guidelines of BARC being followed?				
15.2	Is the potency of the source being used within acceptable limits as per the BARC regulations?				
15.3	Is the area being cordoned with proper signs during radiography as per guidelines of BARC?				
15.4	Does proper place exist as per BARC regulations for storage of source / Personnel safety equipment?				
15.5	Does the radiographer have valid certificate of radiography from competent authority (BARC)?				
15.6	Is radiographer using Exposure Meter / Dosi Meter?				
15.7	Whether minimum occupancy of the premises / workplace is being ensured while radiography is in progress?				
15.8	Is permit system being followed?				
15.9	Whether Radiation Safety Officer is				

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	OISD – GDN – 207 CONTRACTOR SAFETY	Page No. 45

	available at site?				
15.10	Others				
16.0	ADDITIONAL SAFETY PRECAUTION FOR UNITS WITH HYDROCARBONS				
16.1	Are jobs being carried out with a valid work permit only as per OISD-STD-105 "Work Permit System".				
16.2	Is smoking prohibited in all places containing combustible or flammable materials and "No Smoking" notices prominently displayed?				
16.3	Are only approved type electrical installations and equipment, including portable lamps, being used?				
16.4	Are oily rags, waste, wooden materials and clothes or other substances liable to spontaneous ignition being removed?				
16.5	Are the combustible materials properly shielded in case same cannot be removed from the area?				
16.6	Has welding screens (like metal/ fire retardant cloth/ water curtain) been put up to protect other equipment / facilities/ OWS cement ceiling/ drains in adjoining areas against flying sparks, as may be required?				
16.7	Is Gas-testing being done with the means of a calibrated Gas detection Meter prior to start of Hot work and being done subsequently at regular intervals as per the requirement and recorded?				
16.8	Are regular inspections being done of places where there are fire risks like in the vicinity of heating appliances, electrical installations and conductors, stores of flammable and combustible materials, welding and cutting operations?				
16.9	Are fire-extinguishing equipment being placed at strategic locations and are kept well maintained and inspected at suitable intervals by a competent person?				

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207 CONTRACTOR SAFETY	Page No. 46

16.10	Are accesses to fire - extinguishing equipment such as hydrants, portable extinguishers and connections for hoses kept clear at all times?				
16.11	Are all supervisors and a sufficient number of workers trained in the use of fire-extinguishing equipment?				
16.12	Are audio means, to give warning in case of fire provided, audible in all parts of the site where persons are liable to work?				
16.13	Is there an effective evacuation plan in place so that all persons are evacuated speedily without panic?				
16.14	Others				
17.0	EMERGENCY PROCEDURES				
17.1	Is signaling / siren system effective?				
17.2	Is arrangement for rescuing affected person adequate?				
17.3	Are signs showing emergency exit route installed?				
17.4	Is emergency exit route clear of obstacles?				
17.5	Is communication system adequate?				
17.6	Whether emergency vehicle with driver has been provided to meet any emergency situation?				
17.7	Does any tie-up with hospitals or local doctors exist?				
17.8	Has the assembly point for workers in case of emergency been identified and earmarked?				
17.9	Has training been provided to a few workers for First Aid?				
17.10	Emergency procedure and telephone numbers are known to all and same are prominently displayed at site? (Sample				

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207		Page No. 47
	CONTRACTOR SAFETY		

	compliance check)				
17.11	Whether emergency mock drills are being regularly done?				
17.12	Others				
18.0	WELFARE FACILITIES				
18.1	Are hygienic conditions prevailing at labour camps?				
18.2	Are First Aid facilities available?				
18.3	Does proper sanitation exist at site office and labour camps?				
18.4	Does any arrangement of medical facilities like tie ups with nearby hospital exist?				
18.5	Is proper drinking water facility available for workmen & staff?				
18.6	Are crèches provided for children (if applicable)?				
18.7	Is any proper place/canteen/restroom provided for eating food and taking rest?				
18.8	Is any place earmarked for storing / keeping clothing?				
18.9	Is adequate washing facility available?				
18.10	Does proper ventilation at working place exist?				
18.11	Others				
19.0	GENERAL				
19.1	Are illumination levels at workplace and passages adequate?				
19.2	Is communication system adequate?				
19.3	Are display and caution boards provided at strategic locations?				
19.4	Are road barriers being used for blocking any roads/passage?				

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 तेल उद्योग सुरक्षा निदेशालय Oil Industry Safety Directorate	OISD – GDN – 207		Page No. 48
	CONTRACTOR SAFETY		

19.5	Has the structure been adequately secured against storm/high winds during construction/ erection?				
19.6	Are the equipment properly earthed?				
19.7	Are vehicles being checked like brakes, oil, lights etc. on regular basis?				
19.8	Is compressed air being used only for its intended purpose and not for any other purpose?				
19.9	Are only proper clothes and not loose clothes being used while working around machinery?				
19.10	Are nails or other sharp objects being removed or bent?				
19.11	Are machine guards over moving parts of machinery such as coupling, pulley, wheel etc. installed?				
19.12	Whether after maintenance of machinery the guards are securely fitted before putting into operation?				
19.13	Are working platforms / gangways provided with hand rails & toe guards?				
19.14	Are swing platforms provided with chains & secured adequately when not in use?				
19.15	Are the approaches to work sites being maintained & kept clear of obstacles?				
19.16	Whether engines of equipment entering into the operating area have exhaust and muffler system with approved spark arrestor?				
19.17	Whether vehicles/engine driven equipment, electrical equipment and tools used are certified?				
19.18	Whether contractors inform his workers about hazards and safe procedures?				

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	OISD – GDN – 207	Page No. 49
	CONTRACTOR SAFETY	

19.19	Whether sufficient care is taken so that spark do not go outside working enclosure & falls below?				
19.20	Whether contractor's qualified / trained supervisor is present?				
19.21	Whether all exhausts of engines are provided with approved type of flame arrestors and exhaust is not facing toward the place where the workers are working?				
19.22	Others				

Signature of the Auditor

"OISD hereby expressly disclaims any liability or responsibility for loss or damage resulting from the use of OISD Standards/Guidelines."



**CONDITIONS OF CONTRACT (CoC)
EXHIBIT-R TO CoC (PROCUREMENT OF TMT BARS, CEMENT
AND STRUCTURAL STEEL BY SUB-CONTRACTOR)**



Rev	00	Page	1	of	2

**PROCUREMENT OF TMT BARS, CEMENT AND
STRUCTURAL STEEL BY SUB-CONTRACTOR**

[EXHIBIT-R TO CONDITIONS OF CONTRACT]



CONDITIONS OF CONTRACT (CoC)
EXHIBIT-R TO CoC (PROCUREMENT OF TMT BARS, CEMENT
AND STRUCTURAL STEEL BY SUB-CONTRACTOR)



Rev 00 Page 2 of 2

PROCUREMENT OF CEMENT AND STEEL BY SUB-CONTRACTOR

1.0 Contract Clause for acceptance of Structural Steel & TMT Bars

1.1 Steel manufactures having valid BIS certificate and listed in the BIS website as on date of procurement of steel shall be allowed for supply of steel (Structural steel and TMT bars) and contractor shall procure from them with prior intimation to Engineer-in-charge.

1.2 Tests after receipt of structural steel at site:

In addition to availability of valid BIS license and MTC, testing at site shall be conducted by the contractor as per following requirement:

- For each category / size of structural steel procured, one sample from every 50 MT or part thereof shall be drawn and tested in approved laboratory.
- The charges for such testing shall be borne by the contractor.

1.3 Tests after receipt of TMT bars at site:

In addition to availability of valid BIS license and MTC, testing at site in approved laboratory shall be conducted by the contractor as per the following requirement:

- Under 10 mm bars one sample (diameter wise) for each 25 MT (or part thereof) for consignment below 100 MT and one sample (diameter wise) each 40 MT for consignment above 100 MT shall be tested.
- For 10 mm to 16 mm bars, one sample (diameter wise) for each 35 MT (or part thereof) for consignment below 100 MT and one sample (diameter wise) for each 45 MT (or part thereof) for consignment above 100MT shall be tested.
- Over 16 mm bars one sample (diameter wise) for each 45 MT (or part thereof) for consignment below 100 MT and one sample (diameter wise) for each 50 MT (or part thereof) for consignment above 100 MT shall be tested.
- The charges for such testing shall be borne by the contractor.

2.0 Contract Clause for acceptance of Cement manufacturer

2.1 Cement manufacturers having valid BIS certificate and listed in the BIS website as on the date of procurement of cement shall be allowed for supply of cement and contractor shall procure cement from them with prior intimation to Engineer-in-charge.

2.2 Tests after receipt of cement at site: Each batch of cement (week wise as mentioned on cement bags) supplied by the contractor after delivery at site shall be subject to the tests and analysis required by the relevant Indian Standard codes. The contractor shall carry out and bear the cost of all tests and analysis to ensure quality of cement before using in actual works.

	CONDITIONS OF CONTRACT (CoC) EXHIBIT-S TO CoC (WORK DURING MONSOON)						
		Rev	00	Page	1	of	3

WORK DURING MONSOON

[EXHIBIT - S TO CONDITIONS OF CONTRACT]

 PETRONET LNG LIMITED	CONDITIONS OF CONTRACT (CoC) EXHIBIT-S TO CoC (WORK DURING MONSOON)					
	Rev	00	Page	2	of	3

1. Contractor must take due cognizance of the presence of rainy season / days in his scheduled completion period and accordingly, shall take all necessary actions to protect, reorganize and progress the work, uninterruptedly during the monsoon period.
2. Contractor to collect all meteorological data from the local authority and collect necessary information about the intensity, frequency and period of rainy season.
3. In case of Cyclone warning at Dahej site is issued by MET department/ Local Administration, Contractor must also take cognizance of any cyclone/cyclone related impact and take adequate and appropriate measures to protect the work and property.
4. No extension of time due to interruption /suspension of work, water logging, reduced /slowing down of progress, non-availability of manpower etc., whatsoever may be the reason, shall be tenable on account of monsoon and further no claim for stand-by of manpower and equipment, other resources etc. shall be paid for.
5. The successful bidder shall be required to submit within 15 days of Letter of Acceptance of offer / award of work, to the PMC/OWNER his contingency plan for work during monsoon, clearly stating their methodology / strategy to progress uninterruptedly during monsoon mentioning the deployment of resources viz, numbers, capacity, category of equipment and manpower on a weekly basis for approval. The contingency plan shall include all provisions for constructing and maintaining temporary infrastructure like approach road, temporary drains in and around work area, dewatering whether natural or forced to keep the work area free from water logging so as to maintain the same always in a state worthy of vehicular, human and equipment movement. The work area shall be so isolated as to restrict run-off from the adjacent areas in the work area / site.
6. Contractor shall put up temporary sheds for fabrication of formwork and reinforcement. For fabrication of steelwork / piping proper rainproof shed with concretized floor of adequate area shall be made.
7. Additionally, localized (structure wise) monsoon protection shall be provided in order to facilitate work.
8. The contractor must indicate the structures / areas that he would like to progress (as per the project schedule and priority) particularly during the monsoon clearly indicating the sub-phases of construction like foundation / sub structure, superstructure etc.
9. Contractor shall procure and stock sufficient quantities of materials (if required, outside the plant premises, the land for which is to be arranged by the contractor at his cost and expenses) viz. coarse and fine aggregates, bricks etc. adequate for the planned volume of the work during the monsoon, well in advance of the onset of same so that progress of work is not affected on this account. PMC/OWNER shall be free to inspect such storing arrangement (particularly at places outside of the plant areas), at any appropriate time as deemed fit by them.
10. All electrical installations, equipment shall be placed on plinths above ground under proper rain shed to avoid any inundation, short circuit and hazards of electrocution.



**CONDITIONS OF CONTRACT
(CoC)**

EXHIBIT-S TO CoC (WORK DURING MONSOON)



Rev	00	Page	3	of	3

11. Contractor shall organize his work particularly for the underground activities in foundation, excavation in a way that instead of opening up fronts everywhere and in scattered locations (provided there is no priority concern) only those many structures and /or areas should be worked where concerted and continuous effort and resources could be engaged to bring the work up to the desired level expeditiously to minimize any rework resulting from water accumulation / rain.
12. To maintain the standard welding quality and progress, localized welding booth in sufficient numbers as per instruction of PMC shall be installed for protection against wind and rain.
13. Contractor's item rates shall be including all costs and expenses including supply of materials required for the above provisions and no separate payment shall be made on this account.



**CONDITIONS OF CONTRACT
(CoC)
EXHIBIT-U TO CoC (FORM OF CONTRACT)**



Rev	00	Page	1	of	4

**FORM OF CONTRACT
REQUIREMENTS FOR CONTRACTOR
[EXHIBIT-U TO CONDITIONS OF CONTRACT]**

 PETRONET LNG LIMITED	CONDITIONS OF CONTRACT (CoC) EXHIBIT-U TO CoC (FORM OF CONTRACT)	 <table><tr><td>Rev</td><td>00</td><td>Page</td><td>2</td><td>of</td><td>4</td></tr></table>	Rev	00	Page	2	of	4
Rev	00	Page	2	of	4			

This CONTRACT FOR ENGINEERING, PROCUREMENT, CONSTRUCTION AND COMMISSIONING is made on this [●] day of [●], by and among:

- (1) Petronet LNG Limited, a company duly incorporated and existing under the (Indian) Companies Act, 1956, with its registered office at 4th Floor, Tower I, World Trade Centre, Nauroji Nagar, New Delhi-110029, India (hereinafter referred to as the “Owner”, which expression shall, unless repugnant to or inconsistent with the context, mean and include any successors or permitted assigns) of the FIRST PART; and
- (2) [[●]], a company duly incorporated and existing under the laws of [●], with its registered office at [●], (hereinafter referred to as the “Contractor”, which expression shall, unless repugnant to or inconsistent with the context, mean and include any successors or permitted assigns) of the SECOND PART;]

In this Contract (as defined hereinafter), [the party of the SECOND, above referred to as the “Contractor”] the Owner and the Contractor are individually referred to as a “Party” and collectively to as the “Parties”.

WHEREAS

- A. The Owner presently owns and operates a liquefied natural gas (“LNG”) receiving, storage and regasification terminal (which includes a port and associated marine facilities) which has a capacity to handle seventeen point five (17.5) MMTPA of LNG, at Dahej in the State of Gujarat, India. (the “**Existing Facilities**”);

	CONDITIONS OF CONTRACT (CoC) EXHIBIT-U TO CoC (FORM OF CONTRACT)						
		Rev	00	Page	3	of	4

- B. The Owner is setting up Petrochemical (PDH-PP) plant integrated with Ethane and Propane import facility at Dahej in the proposed **“Petronet Petrochemical Complex”** (PPC);
- C. In connection with the above, the Owner wishes to engage contractor for Residual Process design and engineering, detailed design and engineering based on BDEP (including HAZOP study, SIL, etc.), Site Survey, HSE, Procurement, Project controls including Planning, scheduling and monitoring, 3D modelling, procurement of bought-out items & supply of CCR Regeneration Section along with Reactors, Lifts, Piperack, all associated equipment, all tagged items, all non-tagged items / instruments / electrical components/ piping components (including interconnection & transfer piping/ all spares etc.), fabrication of equipment, piping, super-structure, all civil works , construction of sub-structures inclusive of underground works such as piping, drains, foundation etc, pre-commissioning, start-up & commissioning assistance to Owner, testing for performance guarantee in the presence of Licensor and Owner’s Representative etc., training to owner’s personnel including supply of required first fill of lubricant, chemical, consumables, special tools and tackles, mandatory spares and commissioning spares and handing over the complete CCR Package to Owner and other facilities described in more detail in the Technical Documents and the other terms and conditions of this Contract (the **“Facility”** or **“CCR PACKAGE”**).
- D. For the above purpose, the Owner conducted an international competitive bidding process;
- E. Pursuant to the conclusion of the international competitive bidding process for the _____ (title of Contract), the Owner has issued a letter of acceptance dated [●], (the “Letter of Acceptance”), to the Contractor for the Facility, pursuant to which the Contractor and the Owner are required to enter into this Contract;
- F. The Contractor has provided assurances to the Owner during the global international competitive bidding process that the Contractor has the requisite capacity and skills for the Project Management, Residual Process Design and Engineering, Procurement, Fabrication, Inspection/Testing, Transportation of all equipment/ materials to the work site, storage, assembly, erection, construction/construction supervision, pre-commissioning, commissioning assistance and handing over the Facility, as well as for such other tasks required and necessary to ensure the correct functioning and performance of the completed Facility as required under this Contract;
- G. The Owner will engage in future Other Contractor(s) for setting up other associated facilities for the Petronet Petrochemical Complex or Existing Facilities under separate contract(s); and

	CONDITIONS OF CONTRACT (CoC) EXHIBIT-U TO CoC (FORM OF CONTRACT)					
	Rev	00	Page	4	of	4

H. Pursuant to the Letter of Acceptance, the Owner and the Contractor intend to set forth and record the agreed terms and conditions governing their intended rights and obligations and other matters incidental to the Contractor's obligation to design, engineer, procure, fabricate, construct, inspect, test, pre-commission, commissioning assistance and test of the Facility, as well as for such other tasks required as part of the Facility, as described above and as more fully described in and subject to the terms and conditions contained in this Contract.

NOW, THEREFORE, in consideration of the foregoing and the respective covenants and agreements set forth in this Contract and other considerations, the receipt, sufficiency and adequacy of which is hereby acknowledged by both parties, and intending to be legally bound hereby, the Parties hereby agrees to follow the Contract Documents in totality.

IN WITNESS WHEREOF the parties hereto have duly executed this Contract in duplicate, the place, day and year first above written.



**CONDITIONS OF CONTRACT
(CoC)**



**EXHIBIT-V TO CoC (GUIDELINES FOR TRANSPORTATION OF ODC
CONSIGNMENTS FROM FABRICATION YARD / SHOP TO SITE)**

Rev	00	Page	1	of	3

**GUIDELINES FOR TRANSPORTATION OF ODC
CONSIGNMENTS FROM FABRICATION YARD / SHOP TO SITE**

[EXHIBIT-V TO CONDITIONS OF CONTRACT]

	CONDITIONS OF CONTRACT (CoC) EXHIBIT-V TO CoC (GUIDELINES FOR TRANSPORTATION OF ODC CONSIGNMENTS FROM FABRICATION YARD / SHOP TO SITE)	 Rev00Page2 of 3

1. An Equipment / Package / Section having Length more than 25 Meter and / or Width more than 5.5 Meter and /or Height more than 5.5 Meter and / or Weight more than 100 MT shall be considered as 'Super ODC'. For such ODC's, movement by Multi Mode i.e. by Waterways upto closest possible to the Site and thereafter by roadways to be studied & preferred.
2. An Equipment / Package / Section having Length more than 20 Meter and / or Width more than 4.0 Meter and /or Height more than 4.0 Meter and / or Weight more than 32 MT shall be considered as '**Critical ODC**'.
3. Such Equipment / Package / Section shall strictly be transported on Hydraulic Axles in compliance to all statutory norms of the authorities concerned.
4. Contractor shall provide transportation drawings for the equipment with saddle arrangements/ equipment orientation.
5. Necessary GPS Tracking System shall be installed on the Prime Mover(s) of the vehicle(s) and operational password for the GPS Tracking System shall be provided to EIL.
6. An Equipment / Package / Section having Length upto 20 Meter, Width upto 4.0 Meter, Height upto 4.0 Meter and Weight upto 32 MT can be transported on Mechanical Trailers. However, additional support is to be given for the length to avoid overhanging.
7. The Contractor shall conduct a detailed route survey from their works to Project Site and obtain in advance, all necessary permissions and sanctions for the movement of the equipment / Packages from PWD, NHAI, MoRTH. RTOs, Local Municipal Corporations, Railways, State Electricity Boards and all other statutory authorities after making such deposits as necessary and called for. The Contractor shall bear all taxes, levies, penalties, charges imposed by all statutory (Central / State / self-governing) authorities enroute.
8. In case of multi-modal movement, Contractor shall carry out feasibility of suitable Jetty, handling / shifting from ship to Barge / RORO at Port / Jetty including all permissions from Port Trust for safe entry and exit of the ODC.
9. The Contractor shall observe and adhere to the safety and other regulations in accordance with the statutory requirements of Central and State Laws and any other requirements of local bodies like Municipalities etc. as in force.
10. The Contractor shall ensure proper lashing, packing and safety of the equipment being transported by him and take such other action as may be necessary to generally safeguard the interests of EIL / Owner.
11. It shall be the responsibility of the Contractor to make arrangements for strengthening of roads, bridges, building bye-pass roads, obtaining shut down of Railway traction, obtaining permission from the concerned State Electricity Boards for shut down of overhead electric lines, dismantling and restoration on en-route hindrances and any other requirement which may be there for the smooth movement of the equipment's to project site. These jobs shall be done without any additional costs to EIL / Owner.
12. For the equipment / package / Section having Gross Vehicle Weight (GVW) > 100 MT, Contractor shall specifically submit methodology to EIL/ Owner for reference and records.

 PETRONET LNG LIMITED	CONDITIONS OF CONTRACT (CoC) EXHIBIT-V TO CoC (GUIDELINES FOR TRANSPORTATION OF ODC CONSIGNMENTS FROM FABRICATION YARD / SHOP TO SITE)	 Rev00Page3 of 3

13. It is the sole responsibility of Contractor to adhere to the rules of all statutory authorities enforced time to time in the Transportation sector during movement at their risk & cost.
14. Daily status reporting of movement shall be provided by Contractor to EIL / Owner by E mail detailing the previous day activities.
15. Contractor to consider Modular size based on ODC Survey conducted and suitably design and engineer modules accordingly, as applicable.

	CONDITIONS OF CONTRACT (CoC) EXHIBIT-X TO CoC (T&C FOR PWAMC)						
		Rev	00	Page	1	of	2

**TERMS & CONDITIONS FOR POST WARRANTY
ANNUAL MAINTENANCE CONTRACT**

[EXHIBIT - X TO CONDITIONS OF CONTRACT]

TERMS & CONDITIONS FOR POST WARRANTY ANNUAL MAINTENANCE CONTRACT

1. Please quote for the Post Warranty Annual Maintenance Contract as per scope defined in Technical Section of Bidding document for a period as defined in Technical Section of Bidding document. Please furnish the year-wise Lumpsum Price as per the Schedule of Price (SOP).
2. The AMC Charges quoted in Contract Price Schedule shall be inclusive of all the charges for Transportation, Lodging, Boarding, all insurances including third party insurance, all Taxes & Duties and all other incidental charges etc. including GST. Owner will not have any liability, whatsoever, over and above the quoted prices.
3. The payment terms for the AMC shall be on quarterly basis after completion of each quarter against submission of Bills duly certified by the Engineer-in-charge.
4. The order for AMC will be placed before the expiry of contractual Warranty Period. The price of AMC services will remain firm & fixed for the complete execution of AMC contract. In case there is delay in start of AMC from the date of expiry of warranty period, the charges shall be paid on prorata basis for the duration curtailed from original specified AMC period.
5. Seller shall submit CPBG for AMC as per Special Conditions of Contract.
6. Periodic and Preventive maintenance: Vendor shall depute their engineers to installation site as & when required for regular checkups, as part of periodic maintenance. Vendor shall also depute their service engineers periodically for preventive maintenance, major repairs / replacement and reporting. Price shall also include emergency visits as necessary.
7. Scope of AMC shall be as per Technical Section of Bidding document. The quoted lump sum rate shall include providing all manpower, machineries and materials required to carry out the work as per scope of work of AMC defined in the Technical Section of Bidding document.

Description :	
AMC after completion of warranty period	Quoted in SOP



**CONDITIONS OF CONTRACT (CoC)
EXHIBIT-Z TO CoC (GENERAL REQUIREMENT FOR
RADIOGRAPHY & OTHER NDT)**



Rev	00	Page	1	of	2

**GENERAL REQUIREMENT FOR RADIOGRAPHY & OTHER
NDT**

[EXHIBIT-Z TO CONDITIONS OF CONTRACT]



**CONDITIONS OF CONTRACT (CoC)
EXHIBIT-Z TO CoC (GENERAL REQUIREMENT FOR
RADIOGRAPHY & OTHER NDT)**



Rev 00 Page 2 of 2

**GENERAL REQUIREMENTS FOR RADIOGRAPHY & NDT FOR EPCC / UTILITY
PACKAGE CONTRACTS**

1. CONTRACTOR shall appoint radiography/NDT agency(ies) only after acceptance of such agency(ies) by OWNER/EIL. However, acceptance of radiography/ NDT agency by OWNER/EIL shall not absolve the CONTRACTOR of his responsibility to execute radiography work as per requirements of the Contract.
2. CONTRACTOR shall mobilize Radiography/ NDT agency at site along with adequate number of radiography resources/ NDT equipments & appliances, commensurate with the welding activity and quantum of Radiography/NDT work load to avoid delays in Radiography/ NDT and consequent generation of back log. In the event of generation of back log leading to Delay/ Holdup of subsequent activities OWNER/EIL has right to engage additional agency for carrying out the radiography at the risk and cost of CONTRACTOR including 100% overhead charge.
3. Radiography Check Shots
 - a) To verify that radiographs are being taken on the prescribed / selected welds / spots only, 5% of already radiographed spots shall be selected by the Engineer -in-Charge or his designated person for check shots. The check shots shall be taken up before any further radiography work.
 - b) Radiography of all the check shots shall be taken by the CONTRACTOR at no extra cost to EIL/ OWNER. If mismatch / variation is found in any of the check shot as per para 3 (a), CONTRACTOR shall have to take re-radiography of the entire lot represented by mismatched check shot (a days production or more as decided by Engineer In-Charge) at his own cost.
 - c) In the event of any non-matching / variation is observed in re-radiography of the entire lot as per para 3(b) above with reference to the earlier radiographs taken, the radiography agency shall be forthright debarred from site. CONTRACTOR shall then carryout re-radiography up to maximum of 100% of all the prescribed / selected welds/ spots radiographed by the debarred radiography agency (as per direction of the Engineer In-Charge) at his own cost by engaging a separate Radiography agency acceptable to OWNER/EIL. The process for verification of radiographs through check shots shall be continued as per clause 3(a) above from the lots selected by the Engineer In- Charge till 2 (two) consecutive lots are found with matching check shot radiographs to the satisfaction of EIL/ OWNER.

Signature Not Verified

Digitally signed by RAHUL KUMAR DWIVEDI
Date: 2026.04.11 15:12:03 IST
Location: eProcure-EPROC

Engineers India Limited
New Delhi