(vi) .Reporting adverse effects of product

System should be developed and in place to collect and review adverse effects reported or experienced by those handling the products. Causes for concern should be identified and actions should be taken.

(vii)Product quality certification:

Products should be properly classified, described, packaged, marked and labelled and should be in proper condition for transportation in accordance with the applicable regulations.

(viii)Environmental and Quality standards / systems:

Environmental and quality systems should be in place to assess hazards to employees, community and environment and to take corrective measures by defining compliance programs and commitment to these programs. The quality standards and system should be documented and updated.

4.17.3 Customer Service , Education & Awareness

The following system should be in place:

(a) Receiving and documenting customer complaint with regard to safety, health and environmental aspects of the products and services:
All customer complaint should be reviewed at appropriate level and action taken for manufacturing, distribution and inspection process to prevent its recurrence.

(b) Formal system for responding to the complaint to the satisfaction of the customer:
An effective recall system should be in place for products and services where defects could give rise to health, safety and environmental hazards.

Education should be imparted to the customer on the following:

1) Dissemination of product knowledge

2) Establishing effective method/channel/medium of communication

3) Safe use of product

4) Critical information to be furnished on the product / package

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5) Emergency action and first aid

6) Identification of target/vulnerable customers

7) Inspection of product/ packaging on receipt by the customer

8) Information on crisis communication/emergency cells

9) Do's and Donot's in understandable fashion

10) Creating customer interest

11) Formation of customer council

4.17.4Activities related with Product and Customer Safety

Product safety management should be a line responsibility and aligned with the business goals. Activities should include :

a) System for disposal of product found not meeting laid down standard/ specifications should be in place.

b) Training tools and communications including labels and material safety data sheets should be prepared ,kept up-to-date and distributed.

c) Applicable environmental guidelines and other standards should be in place

d) All product safety records should be maintained.

e) System should be in place to respond on 24hr basis to emergency requests and calls. Emergency Cell for handling emergency involving products and services at customer premises should function round the clock

f) Excellence in product and service safety should be rewarded.

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4.17.5 Investigation of Incidents during Product Handling, Transportation and at Customer Premises

1) Establish accident investigation policy & procedures

2) Establish team, level, task and authority for accident investigation.

3) Set up check list, guide lines for identifying the immediate and under lying causes

4) Control coordination with others involved police, fire brigade, CCOE, insurance
5) Set up communication procedure and collect relevant information

6) Activate investigation as quickly as possible.

7) Support investigation/analysis by tests and checks of equipment and product.

8) Analyse all incidents for common causes- management system, installations, technical systems, materials , tools , procedures , tasks.

9) Implement preventive measures.

4.18 Road Transportation

Large volumes of petroleum products are transported through road in tank trucks. To ensure safety of product and human beings involve directly or indirectly, it is essential that such vehicles are designed as per standards and driven by competent personnel. To meet the objective, following aspects should be taken into considerations :

4.18.1 Vehicle

Design of the vehicle should be in accordance with Petroleum Rules, SMPV Rules 1989 and OISD standards.

Periodic Inspection of vehicles should cover the following :

1. Periodic statutory inspection in line with SMPV rules, petroleum rules should be carried out by competent person .

2. Inspection at the loading / unloading locations should be carried out and documented in line with the provisions of SMPV Rules, Petroleum Rules and OISD standard.

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3. System should be in place to correct the deviations observed during inspection of vehicles through the contractors with corrective actions for non- implementation.

The relevant provisions of Central Motor Vehicles Rules should be adhered to.

4.18.2Creating a Road Safety Culture

Following actions would help creating road safety culture :

(a) Motivation to improve road safety performance

(b) Assigning responsibility and accountability to improve road safety performance

(c) Participation and involvement at all levels i.e. transporter, crew, organisation.

(d) Prioritising road safety

4.18.3 Transport Safety System

Following aspects should be considered :

a) Develop activities in line with company HSE policies and strategies

b) Organisation with defined responsibilities.

c) Implementation of standard / specifications / practices, monitoring and corrective action

d) Raise awareness and standards

e) Accident analysis and corrective measures

f) Improving awareness of drivers to the risks of driving and how to reduce them.

g) Focussed training to the crews in line with CMV Rules 1989 and OISD standards

h) Inspection/audit, corrective action

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4.18.4 Transport Safety Activities

This should cover the following :

I. Establish transportation safety standards, procedures and controls

II. Ensure compliance to standards/specifications for vehicle, accessories, fittings and spare parts

III. Prepare and implement procedure and schemes for inspection of vehicles and fittings

IV. Establish driver/helper competence requirements and responsibilities

V. Assess/review training needs of drivers based on performance and provide necessary training

VI. Develop performance indicators for the vehicle, drivers, contractors

VII. Establishment of road safety committees for identification and mitigation of risk in road transportation.

VIII. Select, assess, qualify, contract and periodically re-evaluate contractors

IX. Monitor contractor performance

X. Co-ordinate with contractors to improve safety performance.

XI. Discontinue use of poor performers

XII. Continuously survey the market to identify new contractors who can provide services with required quality and HSE standards.

XIII. Create movement schedules , monitor journey times and routes

XIV. Constitute road safety committees with company employees , contractors and crews.

XV. Set target and measure road safety performance for employee, crew and contractors.

XVI. Thorough investigation of all accidents and follow-up measures.

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XVII. Inspection/audit of transport operations and follow up on action items.

XVIII. Feed back from contractors on matters affecting their safety performance.

XIX. Prepare and ensure that relevant TREM cards are provided to transporters.

4.18.5 Defensive Driving

By exercising the defensive driving skills, the drivers maintain a safety zone around the vehicle. The defensive driving skill is intended to make allowance for the followings-

a) Handling characteristics of the vehicle

b) A lack of skill and knowledge or unpredictable actions on the part of other drivers

c) Vulnerability and unpredictable behaviour of pedestrians and cyclists

d) Unpredictable behaviour of animals

e) Hazardous climate conditions

The skill and art of defensive driving should be inculcated with the drivers by management through -

(i) Improving awareness

(ii) Sharpening the skill of observation, perceptions and anticipation

(iii) Providing time for the driver to correctly assess and respond to a developing situation.

(iv) Educating on Hazardous road features, e.g. curves, hills, narrow roads, bridges, absence of signs, or signals and obstructions.

(v) System of assessment of driver training program in line with OISD-STD- 154 should be in place.

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4.18.6 Safe Driving Assurance

(I) Competence profile of drivers transporting hazardous products should be as follows :

(a) Defensive driving skills should be identified

(b) Knowledge and understanding of road safety legislation /rules / regulations.

(c) Emergency response including fire fighting.

(d) General vehicle operations and mechanics of the vehicle.

(e) Vehicle inspection

(f) First aid

(g) Product safety knowledge

(II) Management should ensure the following :

a) Legal requirements

b) Emergency response and crisis management

c) The main causes of road accidents

d) Product knowledge

e) Evaluation of contractor's performance

f) Safety inspections of vehicles and drivers

g) Accident investigation techniques and analysis

h) Scheduling ,routing ,and journey management

(III)Assessment of driving skill should include :

(a) Use of controls - Accelerator, clutch, brakes, gears, steering, mirrors

(b) Reversing - Control, accuracy, observations

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(c) Road procedure - Move off/stop, signalling, positioning and cornering, use of speed, lane discipline, overtaking.

(d) Reaction to - Signs, hazards, traffic lights

(e) Judgement - Distance, length/width

(f) General - maintenance of progress, temperament, observation, vehicle sympathy, concentration, attitude.

(g) Attitude - tendency to over speed,overtaking, positive/negative

(h) Documentation/records- Available, up to date, authentic

4.18.7 Performance Measurement

Following indicators should be pursued for performance measurement :

a) Number of potential incidents reported

b) Setting targets for transport safety activities and its realisation

c) Implementation of audit recommendations

d) Reported near misses

e) Follow up of non-conformances found in inspections related to vehicle / fittings during loading, unloading operations, non- standard items / maintenance

f) Cases of speed violations/over taking resulting into accidents

4.18.8 Emergency Rescue Operations

This should cover the following :

(a) Each loading/unloading location should develop emergency rescue plan in line with the OISD standard.

(b) Such plan should broadly include limits of individual plants, emergency response preparedness, communication linkages, emergency organisation structure for transportation, emergency action plan action to handle specific scenarios.

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(c) Mutually agreeable emergency action plan for road transportation should be drawn in consultation with the neighbouring oil industry and should be implemented.

(d) Mock drill on emergency handling in road transportation should be carried out once a year.

4.19 Trade Secrets

Trade secrets means any confidential formula, pattern, process, device, information or compilation of information that is used in the business and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it.

The information needed about a process or chemicals must be made available in such a way that both employee and contractor personnel will understand any hazard that may be present and what precautions are necessary to protect them from exposure to these hazards. Such information is required for compiling process safety information , developing PHAs, developing operating procedures, incident investigations, emergency planing and response etc. If required, confidentiality agreement may be made with the supplier.

Its objective is to prevent casual access to critical technical information about a process by limiting the access to certain proprietary data.

5.0 References

I. OISD-STD-105 "Work Permit System"
II. OISD-STD-107 "Format for Incident Reporting"
III. OISD-STD-114 "Hazardous Chemical Data"
IV. OISD-STD-154 "Safety Aspects in Functional Training"
V. OISD-GDN-145 "Guidelines on Internal Safety Audits"
VI. OISD-STD-155 "Personal Protective Equipment"
VII. OISD-GDN-166 "Guidelines on Occupational Health Monitoring"
VIII. OISD-GDN-178 "Guidelines on Management of Change"
IX. 29 CFR Part 1910 OSHA Rules, Process Safety Management of Highly Hazardous Chemicals
X. AIChE Guidelines on Technical Management of Chemical Process Safety, 1995

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सामग्री निर्गम एवं रिकोन्सिलिएशन के लिए शर्तें

CONDITIONS FOR ISSUE AND RECONCILIATION OF MATERIALS

Rev. No	Date	Purpose	Prepared by	Checked by	Standards Committee Convenor	Standards Bureau Chairman
					Approved by	
2	27.03 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

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Abbreviations:

MS	:	Mild Steel
OFC	:	Optical Fibre Cable
OTDR	:	Optical Time Domain Report
FIM	:	Free Issue Material

Construction Standards Committee

Convenor: Sh. A K Kundu, ED –I/C (Construction)

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Sh. Rajeev Jain, GM (SCM)
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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

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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.

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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

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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.

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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 -

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 Aluminum 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

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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.

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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.

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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

Rev. No	Date	Purpose	Prepared by	Checked by	Standards Committee Convenor	Standards Bureau Chairman
					Approved by	
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

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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

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Sh. Pankaj Kumar Rai, AGM (Construction)

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CONTENTS

1. QUALIFICATION & EXPERIENCE (POST QUALIFICATION) 4

2. PENALTY FOR NON-MOBILIZATION OF KEY CONSTRUCTION PERSONNEL.... 5

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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.			

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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.

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APPROVAL OF CONSTRUCTION SUB-CONTRACTOR

[ANNEXURE-A - IX TO SPECIAL CONDITIONS OF CONTRACT]

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)	:	
5.	ESTIMATED VALUE OF THE PROPOSED WORK TO BE SUB-CONTRACTED (INR):	:	
6.	QUALIFYING CRITERIA FOR FURTHER SUB-CONTRACTOR:	:	
i)	Similar Work experience : The value of successfully completed contracts/work order(s), executed by the Proposed sub-Contractor, during any of the last 10 (Ten) years should be considered as below: 1 (One) similar completed work costing not less than the amount equal to 50% of estimated value of proposed work to be sub- contracted, Or 2 (One) similar completed work(s) each costing not less than the amount equal to 40% of estimated value of proposed work to be sub-contracted, Or 3 (Three) similar completed work(s) each costing not less than the amount equal to 30% of estimated value of proposed work to be sub-contracted.	:	
ii)	Annual Turnover Average Annual Turnover shall not be less than 30% of annualized (*) estimated value (excluding GST) of work to be sub-contracted; as per the audited annual financial results during the immediate preceding three financial years.	:	
iii)	Networth shall be at positive as per the immediate preceding year's Audited financial results.	:	
	(*) 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 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 10 years.	:	
ii)	Average Annual Turnover during last 3 (three) years as per Audited Annual Financial Reports of proposed sub-Contractor	:	
iii)	Networth as per latest Audited Annual Financial Report of proposed sub-Contractor	:	
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
9	Based on above information, we M/s_____(Name of CONTRACTOR) propose M/s._____(Name of proposedsub-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, SUB-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)

ठेकेदारों से प्रलेखन अपेक्षाओं हेतु विनिर्देश

SPECIFICATION FOR DOCUMENTATION REQUIREMENTS FROM CONTRACTORS

Rev. No	Date	Purpose	Prepared by	Checked by	Standards Committee Convener	Standards Bureau Chairman
					Approved by	
2	12.06..20	General Revision	QMS Standards Committee	QMS Standards Committee	SKB	SKS
1	12.03.15	General Revision	QMS Standards Committee	QMS Standards Committee	MPJ	SC
0	04.06.09	Issued as Standard Specification	QMS Standards Committee	QMS Standards Committee	SCT	ND

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Abbreviations:

DCI	-	Document Control Index
FOA	-	Fax of Acceptance
IC	-	Inspection Certificate
IRN	-	Inspection Release Note
ITP	-	Inspection and Test Plan
LOA	-	Letter of Acceptance
QMS	-	Quality Management System
URL	-	Universal Resource Locator
V Portal	-	Vendor Portal

QMS Standards Committee

Convener: Mr. S.K. Badlani

Members:
Mr. Sanjay Mazumdar (Engg.)
Mr. R.K. Singh (SCM)
Mr. B. Biswas (SCM)
Mr. Ravindra Kumar (Const.)
Mr. Vinod Kumar (CQA)
Mr. Swapnil Vaishnav (Projects)

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CONTENTS

Clause Title Page No.

1.0 SCOPE 4

2.0 DEFINITIONS 4

3.0 REFERENCE DOCUMENTS 4

4.0 DOCUMENTATION AND DATA REQUIREMENTS 4

Attachments

Format for completeness of Final Documentation : Format No. 3-78-0004

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1.0 SCOPE

This specification establishes the Documentation Requirements from Contractors

All documents / data against the Tender / Contract shall be developed and submitted to EIL / Owner by the contractor for review / records, in line with this specification.

2.0 DEFINITIONS

2.1 Contractor

For the purpose of this specification, the word "CONTRACTOR" means the person(s), firm, company or organization who has entered into a contract with EIL / Owner for delivery of some products and services. The word is considered synonymous to bidder, supplier or vendor.

2.2 Owner

Owner means the owner of the project for which services / products are being purchased and includes their representatives, successors and assignees.

3.0 REFERENCE DOCUMENTS

6-78-0001	Specification for Quality Management System Requirements from Bidders

4.0 DOCUMENTATION AND DATA REQUIREMENTS

4.1 Order Acknowledgement and Assigning Project Manager

After placement of order, Contractor shall acknowledge order through V-Portal within 7 days of receipt of FOA / PO. Contractor shall assign a Project Manager for that order though online portal and provide requisite details. Project Manager details shall include e-mail address, mailing address, mobile / telephone nos., fax nos. and name of Project Manager. All the system generated emails pertaining to that order shall be sent to the assigned Project Manager.

4.2 Documents / Data to be submitted by the Contractor

4.2.1 The contractor shall submit the documents and data against the Tender / Contract as per the list specified in respective Tender / Contract.

4.2.2 Review of the contractor drawings / Documents by EIL would be only to review the compatibility with basic designs and concepts and in no way absolve the contractor of his responsibility / contractual obligation to comply with Tender / Contract requirements, applicable codes, specifications and statutory rules / regulations. Any error / deficiency noticed during any stage of manufacturing / execution / inspection / installation shall be promptly corrected by the contractor without any extra cost or time, whether or not comments on the same were received from EIL during the drawing review / inspection stage.

4.2.3 Unless otherwise specified, submission of documents for Review / Records shall commence as follows from the date of Fax of Intent / Letter of Intent/ Fax of Acceptance (FOA) / Letter of Acceptance (LOA):

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QMS	- 1 week
Document Control Index	- 2 weeks
Other Documents/Drawings	- As per approved Document Control Index

4.2.4 Documents as specified in Tender / Contract are minimum requirements. Contractor shall submit any other document / data required for completion of the job as per EIL / Owner instructions.

4.3 Style and Formatting

4.3.1 All Documents shall be in ENGLISH language and in M.K.S System of units.

4.3.2 Before submitting the drawings and documents, contractor shall ensure that the following information are properly entered in each drawing:

Tender Number
Name of Equipment / Package
Equipment / Package Tag No.
Name of Project
Owner
Main Contractor (if work is sub-contracted)
Drawing / Document Title
Drawing / Document No.
Drawing / Document Revision No. and Date

4.4 Review and Approval of Documents by Contractor

4.4.1 The Drawing / Documents shall be reviewed, checked, approved and duly signed / stamped by contractor before submission. Revision number shall be changed during submission of the revised contractor documents and all revisions shall be highlighted by clouds. Whenever the contractor require any sub- contractor drawings to be reviewed by EIL, the same shall be submitted by the contractor duly reviewed, approved and stamped by the contractor. Direct submission of sub- contractor's drawings without contractor's approval shall not be entertained.

4.5 Document Category

4.5.1 **Review Category**

Following review codes shall be used for review of contractor Drawings / Documents:

Review Code 1	-	No comments. Proceed with Manufacture / Fabrication / Construction as per the document.
Review Code 2	-	Proceed with Manufacture / Fabrication / Construction as per commented document. Revised document required.
Review Code 3	-	Document does not conform to basic requirements as marked. Resubmit for review.
R	-	Document is retained for Records. Proceed with Manufacturing / fabrication as per Tender/ Contract Requirement.
V	-	Void

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4.6 Methodology for Submission of Documents to EIL / Owner

4.6.1 Document Control Index (DCI)

Contractor shall create and submit Document Control Index (DCI) for review based on PO / PR / MR along with schedule date of submission of each drawing / document on EIL Vendor Portal. The DCI shall be specific with regard to drawing / document no. and the exact title. Proper sequencing of the drawings / documents should be ensured in schedule date of submission.

4.6.2 Submission of Drawings / Documents / Data

Drawings / documents, data and DCI shall be uploaded on the EIL Vendor Portal. The detail guidelines for uploading documents on EIL Vendor Portal are available on following URL

http://edocx.eil.co.in/vportal

4.6.3 Statutory Approvals

Wherever approval by any statutory body is required to be taken by Contractor, the Contractor shall submit copy of approval by the authority to EIL.

4.6.4 Schedule and Progress Reporting

Contractor shall submit monthly progress report (MPR) and updated procurement, engineering and manufacturing status (schedule vs. actual) and highlight constraints, if any, along with action plan for mitigation, to the EIL / Owner by 1st week of every month. One month Look-ahead schedule including the mobilization plan shall be submitted within 2 weeks from FOA / LOA. In case of exigencies, EIL / Owner can ask for report submission as required on weekly / fortnightly / adhoc basis depending upon supply status and contractor shall furnish such reports promptly without any price implication. Format for progress report shall be submitted by the contractor during kick off meeting or within one week of receiving FOA / LOA, whichever is earlier.

4.6.5 Quality Assurance Plan / Inspection and Test Plan

Inspection and test plans attached if any, to the tender are generic and indicative only. Immediately after receipt of the order, contractor shall submit within one week of receiving FOA / LOA, job specific ITPs based on the indicative ITPs. Further, contractor shall also submit Quality Assurance Plan for project activities in the scope of contract, starting from manufacturing to handing over / commissioning, these plans shall cover / identify the activities, relevant procedure, if any, code of conformance, resources for performance and checking / monitoring, approval requirements and authority, records to be generated and audit scope by EIL/Owner.

For EPCC / LSTK / Package contracts, the contractor shall prepare a list of items / equipment and their inspection categorization plans for all items included in the scope of supply immediately after receipt of order and obtain approval for the same from EIL. The items shall be categorized into different categories depending upon their criticality for the scope of inspection of TPIA and / or EIL.

4.6.6 Inspection Release Note (IRN)/ Inspection Certificate (IC)

Contractor shall ensure that all documents viz. documents reviewed, manufacture's test certificate etc., mentioned in Inspection Release Note (IRN), issued by EIL / third party against the materials supplied by contractor, are sent to EIL along with the IRN.

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IRN / IC shall be issued by EIL Inspector / third party inspection agency only after all the drawings/documents as per DCI are submitted and are accepted under review code-1 & code R. Material / Equipment dispatch from contractor's / sub vendor's works shall not commence till above condition is met.

Note 1: Non fulfilling above requirement shall result into appropriate penalty or with- holding of payment as per conditions of Tender / Contract.

Note 2: For items where IRN/IC is issued by TPIA, supplier to ensure that following as a minimum must be mentioned by TPIA in IRN/IC

a) Tender document number
b) List of drawings / documents with EIL approval code
c) Tests witnessed, documents reviewed
d) Compliance statement by TPIA that product meets the requirement as specified in EIL standard specifications, Inspection Test Plan / QAP and approved documents.

4.6.7 **Pre Commissioning & Commissioning Activities Management System (PCAMS)**

Pre Commissioning & Commissioning activities management system software shall be followed for Mechanical completion, check listing of loops, punch points, hydro test and issue of Formats during the Pre Commissioning and Commissioning activities and the same can be accessed on following URL

https://pcams.eil.co.in/

4.7 Final Documentation

4.7.1 As built Drawings

Minor Shop / Site changes made by contractor after approval of drawings under 'Code 1' by EIL and deviations granted through online system , if any, shall be marked in hard copies of drawings which shall then be stamped 'As-built' by the contractor. These 'As-built' drawings shall be reviewed and stamped by EIL Inspector / Site engineer / TPIA also, as the case may be. Format for completeness of final documents (Format No. 3-78-0004) is attached with this specification. Contractor shall prepare scanned images files of all marked – up 'As – built' drawings. Simultaneously contractor shall incorporate the shop / site changes in the native soft files of the drawings also.

4.7.2 As built Final Documents

As built final documents shall be submitted as listed in Tender / Contract

4.7.3 Packing / Presentation of Final Documents

Final Documents shall be legible photocopies in A4, A3 size only. Drawings will be inserted in plastic pockets (both sides transparent, sheet thickness minimum 0.1 mm) with an extra strip of 12 mm wide for punching so that drawings are well placed.

Final Documentation shall be bound in hard board plastic folder(s) of size 265 mm x 315 mm ($10^1/_2$ inch x $12^1/_2$ inch) and shall not be more that 75 mm thick. It may be of several volumes and each volume shall have a volume number, index of volumes and index of contents of that particular volume. Where numbers of volumes are more, 90mm thickness can be used. Each volume shall have top PVC sheet of minimum 0.15 mm thick duly fixed and pressed on folder cover and will have 2 lever clips. In case of imported items documents, 4 lever clip shall also be accepted. All four corners of folders shall be properly metal clamped. Indexing of contents with page numbering must be incorporated by contractor. Spiral / Spico bound documents shall not be acceptable. As mentioned above, books should be in hard board plastic folders with sheets punched and having 2/4 lever clips arrangement.

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Each volume shall contain on cover a title block indicating Tender No., name of project, name of customer, package equipment tag no. & name (if applicable). Each volume will have hard front cover and a reinforced spine to fit thickness of book. These spines will also have the title printed on them. Title shall include also volume number (say 11 of 15) etc.

4.7.4 Submission of Soft copies

Contractor shall submit to EIL, the scanned images files as well as the native files of drawings / documents, along with proper index.

In addition to hard copies, contractor shall submit soft copies of all the final drawings and documents in pen drive or any other specified medium with proper identification tag, all text documents prepared on computer, scanned images of all important documents (not available as soft files), all relevant catalogues, manuals available as soft files (editable copies of drawings / text documents, while for catalogues / manuals / proprietary information and data PDF files can be furnished).

All the above documents shall also be uploaded on the EIL Vendor Portal and if applicable on Client Server also.

4.7.5 Completeness of Final Documentation

Contractor shall get the completeness of final documentation verified by EIL / TPIA and attach the Format for Completeness of Final Documentation (Format No. 3-78-0004) duly signed by EIL or TPIA as applicable to the final document folder.

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COMPLETENESS OF FINAL DOCUMENTATION

Name of Supplier/Contractor	:	
Customer	:	
Project	:	
EIL's Job No.	:	
Purchase Order No./ Contract No.	:	
Purchase Requisition No./ Tender No.	:	Rev. No. :
Name of the Work/ Equipment	:	
Tag. No.	:	
Supplier's / Contractor's Works Order No.	:	

Certified that the Engineering Documents / Manufacturing & Test Certificates submitted by the supplier (as per Index sheet mentioned in Annexure-1) are complete in accordance with the Vendor Data Requirements of Purchase Requisition / Tender.

Signature	: …….	Signature	: …….
Date	: …….	Date	: …….
Name	: ……..	Name	: ……..
Designation	: ……	Designation	: ……
Department	: ……	Department	: ……
	Supplier / Contractor		EIL / TPIA

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Annexure-1

Final Documentation Index Sheet			
PR/PO/Tender No.		Rev. No.	
Serial No.	Document Title	Page/ Folder No.	No. of Pages

Signature	: …….	Signature	: …….
Date	: …….	Date	: …….
Name	: ……..	Name	: ……..
Designation	: ……	Designation	: ……
Department	: ……	Department	: ……

Supplier / Contractor

EIL / TPIA

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LIST OF CRITICAL TAGGED ITEMS

[ANNEXURE –A-XI TO SPECIAL CONDITIONS OF CONTRACT]

COOLING TOWER	1U68-CT-4371A/B/C
COOLING WATER RECIRCULATION PUMPS	1U68-PA-4301 A/B/C
PRESSURE SAND FILTER (VERTICAL DUAL MEDIA FILTER)	1U68-ZGN-4271 A/B
H2SO4 TANK SILICA GEL BREATHER	1U68-ZM-5771
H2SO4 DOSING DRUM SILICA GEL BREATHER	1U68-ZM-5772
H2SO4 UNLOADING/ TRANSFER PUMP	1U68-PA-8601 A/B
H2SO4 DOSING PUMP	1U68-PA-8602 A/B
H2SO4 DOSING DRUM	1U68-VV-8631
H2SO4 STORAGE TANK	1U68-TK-8632

[ANNEXURE –A-XII TO SPECIAL CONDITIONS OF CONTRACT]
(LOADING & GUARANTEES)

LOADING CRITERIA
FOR
COOLING TOWER PACKAGE

PROJECT	:	EPCM SERVICES FOR 360 KTPA PPU AT NRL
OWNER	:	M/s NUMALIGARH REFINERY LTD.
LOCATION	:	NUMALIGARH, ASSAM
EIL JOB No.	:	C050

Rev. No	Date	Purpose	Prepared by	Checked by	Approved by
A	03.11.2025	ISSUED FOR BIDS	SD	VMP	GYAS

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Page 644 of 5436 : C050-TENDER_DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

Page 645 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

1.0 SCOPE OF WORK

The scope of work of Cooling Tower Package tender shall cover design, detailed engineering, procurement, supply of all materials, equipment, installation, construction, fabrication, erection, manufacture, receipt, storage, conservation and preservation of all materials at site, handling at site, assembly, painting, testing, commissioning of the entire system within package battery limit including testing and trial runs for 30 days after commissioning, performance guarantee test run for 72 hours and removal of unserviceable material, and guaranteeing of Cooling Water system comprising of **Cooling Tower and associated facilities**, which includes cold water basin, channel & sump, Cooling Water pump house, re-circulating cooling water pumps, cooling water supply and return piping, chemical dosing system for Cooling Water treatment, all civil, mechanical, electrical and instrumentation works including training of Owner's operating staff for a period of 30 days during trial runs and commissioning, including operation & maintenance of chemical dosing system for a period of six months after commissioning, including supply of all chemicals, lubricants and consumables including first fill required for equipment & lubricants required during commissioning, trial runs for 30 days, performance guarantee test run and six months chemical & lubricant consumption of plant operation after commissioning, and fulfilment of performance guarantee of the Cooling Tower on Turnkey basis as per bid document.

1.1 LOADING ON ACCOUNT OF GAURANTEED POWER CONSUMPTION

1.1.1 The bidder shall furnish along with the offer the following:

- Guaranteed Power consumption for cooling tower fans (to be included in the schedule of the price only).

1.1.2 Loading of guaranteed Total Power Consumption in Kilo watt (KW) indicated by bidder shall be considered for evaluation for 10 years on the basis of 8000 working hours per year as per following formula.

Loading for Power cost for Cooling tower fans in Indian Rupees = (PE-PL) x C x 8000 x DF

Where,

PE	=	Guaranteed Total Power Consumption (for all working cooling tower fans) in KW furnished by Bidder (Bidder to note that the stand-by fans shall not be considered for guaranteed Power Consumption)
PL	=	Lowest Total Guaranteed Power consumption (for all working Cooling Tower fans) (amongst all the technically acceptable Bidders under evaluation) for Cooling Tower.
C	=	Cost of Power =INR 6.79 per KWH
DF	=	5.04 (Discounting factor to arrive at Net Present Value (NPV) based on number of operating years as defined under clause 1.1.3)

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1.1.3 Discounting factor (DF) is defined as under:

$$DF = \sum_{n=2}^{n=k+1} [1 / \{1+ (X/100)\}^n]$$

Where:

k = Number of operating years for which loading is to be done as specified i.e. 10 Years.

X = Percentage rate of interest i.e. 12% per year

[The above formula considers one year time for start-up of operation.]

1.1.4 No benefit shall be passed on to the CONTRACTOR in case the guaranteed power consumption demonstrated by him during the performance guarantee run is lesser than the quoted figure.

1.1.5 The maximum loading to be applied however shall not exceed 10% (ten percent) of the work order value.

1.2 PRICE REDUCTION ON ACCOUNT OF NOT MEETING GUARANTEED POWER CONSUMPTION FIGURES

1.2.1 In addition and without prejudice to any other reduction, discount or adjustment in price which the OWNER is entitled to, if the actual power consumption of the Cooling Tower Fans exceeds the guaranteed power figures furnished by the contractor in his bid, the Owner shall be entitled to an adjustment, in the lump sump price by way of discount as follows.

a) The power consumption shall be recorded jointly for a period of 72 Hours continuous run for Cooling Tower fans. After the completion of successful performance test, average consumption of power in kilowatt per hour shall be worked out. This shall be considered as actual consumption for computation of price adjustment.

b) Reduction in price for excess power consumption upto 5% for a loading period of 10 years shall be as per the following formula:

PR = (PA-PE) x C x DF x 8000

Where

PR Price reduction on account of excess Power consumption for Cooling Tower Fans. (Only working cooling tower fans shall be considered for calculation of power consumption).

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Page 646 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

PA Actual power consumption in KW for Cooling Tower Fans. (Only working cooling tower fans shall be considered for calculation of power consumption)

PE Guaranteed Power Consumption as per Price Bid included in the contract document for Cooling Tower Fans. (Only working cooling tower fans shall be considered for calculation of power consumption)

C Cost of Power = INR 6.79 per KWH

DF Discounting factor = 5.04

c) Excess Power consumption more than 5% of the guaranteed value will require modification/rectification of the system mutually agreed to meet the shortfall of guaranteed parameter requirements at Bidder's own cost and through his own agency and if the plant is still not capable of performing within the acceptable limits, it will be Owner's decision with respect to rejection or penalties which shall be final and binding on the CONTRACTOR.

1.2.2 The total reduction in price on account of not meeting guaranteed power consumption as defined in the various clauses of this document shall be limited to a maximum of 10% (ten percent) of the work order value.

1.2.3 While computing price adjustment negative value, if any, shall be ignored and not taken into account.

For all the above guarantee(s), security deposit furnished by the contract shall be retained till the completion of the guarantee period stated above.

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Page 647 of 5436 : C050-TENDER_DOC-C050-1U68-81-45-PB-T-8010 : Rev.A

Policy to provide Purchase Preference linked with Local Content (PP-LC) under Make in India (PPP-MII) Order, 2017

1. Ministry of Petroleum & Natural Gas (MoPNG) vide letter No. **FP-20013/2/2017-FP-PNG-Part (4) (E-41432) dated 26.04.2022** issued directive that Public Procurement (Preference to Make in India) (PPP-MII) Order, 2017 issued by DPIIT and as amended from time to time, shall be applicable to all the Public Sector undertakings under MoPNG w.e.f. 01.04.2022.

The letter further directed that, as per Para 14 of the PPP-MII Order, the following modifications in the order shall be applicable on procuring entities under MoPNG:

a. Limit for exemption of small purchase under para 4 of the PPP-MII Order, 2017 shall be Rs. 1 crore.
b. Local value addition through services such as transportation, insurance, installation, commissioning, and training and after sales services support like AMC/ CMC etc. shall continue to be considered in local content calculations.
c. HP-HT operations in upstream oil and gas business activities shall be exempted from applicability of the order.

2. Accordingly, excepting the 03 modifications as directed above, the latest Order issued by the Department for Promotion of Industry and Internal Trade (DPIIT) i.e., Order No. **P-45021/2/2017-PP (BE-II)-Part(4)Vol.II dated 19.07.2024** shall be currently applicable for tenders under this procuring entity.

3. Further, Ministry of Finance, Department of Expenditure (DoE), vide OM No. **F 1/4/2021-PPD dated 18.05.2023** has issued guidelines on concurrent application of PPP-MSE Order 2012 and PPP-MII Order 2017. These guidelines shall be applicable for tenders under this procuring entity.

4. Further, MoPNG, vide letter No. **FP-20013/2/2017-FP-PNG-Part(1) (E-36682) dated 11.07.2023** has specified the Minimum Local Content (MLC) for getting purchase preference and Margin of Purchase Preference (PP) for high value oil & gas LSTK/EPC contracts/projects. These guidelines shall be applicable for tenders under this procuring entity.

The above referred Letters/Order/OM are enclosed with this NIT for reference [*Annexure-XVIII-E*].

Other Terms & Conditions:-

a) **Price Validity:** L1 Bidder's quoted prices against various items of enquiry shall remain valid even in case of splitting of quantities of the items as described above.

b) **Negotiation:** In case purchase preference is applicable, but negotiation is to be conducted with L1 bidder, negotiation shall be carried out. MSE and/or Class-I local supplier shall be offered to match the negotiated prices (even if, post negotiation, they are higher by more than 20% (for Class-I local supplier)/ 15% (for MSEs) as compared to L1 bidder provided they were within 20% (for Class-I local supplier)/ 15% (for MSEs) of L1 bidder as per original quoted prices) and left out quantity, if any, as per provisions of enquiry document shall be awarded to that bidder.

c) **Certification of Local Content:**

The onus of submission of appropriately certified documents lies with the bidder and the purchaser shall not have any liability to verify the contents and will not be responsible for the same.

- The bidder shall submit an undertaking from the authorised signatory of bidder having the Power of Attorney along with the bid stating the bidder meets the mandatory minimum LC requirement and such undertaking shall also become a part of the contract.

- In cases of procurement for a value in excess of Rs. 10 Crores, the Undertaking submitted by the bidder shall be supported by a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of other than companies) giving the percentage of local content.

- However, in case of foreign bidder, certificate from the statutory auditor or cost auditor of their own office or subsidiary in India giving the percentage of local content shall be acceptable. In case office or subsidiary in India does not exist or Indian office/ subsidiary do not have statutory auditor or cost auditor, certificate from practicing cost accountant or practicing chartered accountant giving the percentage of local content is also acceptable.

However, in case the procuring company has any reason to doubt the authenticity of the Local Content, it reserves the right to obtain the complete back up calculations before award of work failing which the bid shall be rejected.

(i) At bidding stage:

Bidder shall furnish the undertaking/ declaration in the enclosed **Format-2A** and break-up of local content calculation as per **Format – 2AA** in the un-priced part of the bid duly signed, sealed & stamped. [To be submitted for all tenders]

Additional format for providing the certification from the statutory auditor / cost auditor / practicing cost accountant / practicing chartered accountant, is enclosed as **Format-2B**. [**To be mandatorily submitted for contracts above Rs. 10 Crores**]

Also, format for Declaration of Minimum Local Content (Item wise, applicable for Multiple Item Splitable Tender) is enclosed as **Format-2C**. [To be submitted for all Multiple Item Splitable Tender]

(ii) After award of contract**:**

- The Local Content Certificate shall be submitted along with each invoice raised. However, the % of local content may vary with each invoice while maintaining the overall % of local content for the total work / purchase of the pro-rata local content requirement. In case, it is not satisfied cumulatively in the invoices raised up to that stage, the supplier shall indicate how the local content requirement would be met in the subsequent stages.

- At the time of execution of project, for all contracts above Rs. 10 Crores, the contractor/supplier shall be required to give local content certification duly certified by Cost/Chartered Accountant in practice. For cases where it is not possible to provide certification by Cost/Chartered Accountant along with running bills or milestone bills when the project is still under execution, the contractor/supplier shall be permitted to provide such certificate for local content certified by a practicing Cost/Chartered Accountant at the time of submission of final bill or within time limit acceptable to NRL/procuring entity.

- As regards cases where currency quoted by the bidder is other than Indian Rupee, exchange rate, as per RBI reference rate prevailing on the on the date of notice inviting tender (NIT) shall be considered for the calculation of Local Content.

- Procuring company shall also have the authority to audit as well as witness production processes to certify the achievement of the requisite local content.

d) **Failure of bidder in complying with the local content post award:**

During execution, it shall be the responsibility of the supplier/contractor to ensure fulfilment of the minimum local content specified in the bidding document.

In case the contractor/supplier does not meet the stipulated local content requirement and the category of the contractor/supplier changes from Class-I to Class-II/Non-local or form Class-II to Non-local, the following actions shall be taken by the procuring company:

a. Imposition of a pre-determined financial penalty @ 10% of total contract value.
b. Banning business with the supplier/contractor for a period of two year for breach of the code of integrity.

****

FORMAT– 2A

(DECLARATION TO BE SUBMITTED ALONG WITH UNPRICED BID)

Declaration/ Undertaking for availing purchase preference under PP-LC Policy

Sr. no.	Parameter	Declaration	Remarks
1	We confirm that our offer is in compliance to Policy to provide purchase preference (linked with local content) as per the provision of enquiry.	Yes / No *(Please √, as applicable)*	
2	Please clarify whether the bidder is a Class-I Local Supplier OR a Class-II Local Supplier or Non-Local Supplier.	Class-I : __ Class –II : __ Non-Local : __ *(Please √, as applicable)*	
3	Bidder confirms that the bidder meets the minimum Local content requirement as specified for Class-I or Class–II local supplier specified for claiming Purchase Preference under policy to purchase preference (linked with local content).	Yes/ No *(Please √, as applicable)*	
4	**Mention the percentage of local content in the bid. [** *Incase of Multiple Item Splitable Tender, bidder must indicate % of Min. LC item-wise as per format 2C enclosed with the tender.*]	_____% *(Please fill)*	Bidder to ensure that bidder's % local content mentioned in Sr. 4, is in accordance with status mentioned as Class-I Local Supplier OR as Class-II Local Supplier (as applicable) in sr. no. 2 above. Bidder to provide break-up of local content calculation as per **Format – 2AA** provided below.
5	We confirm that we have submitted the requisite documents, as per the PP-LC policy enclosed in the bidding document, to establish our status as Class-I or Class–II local supplier, as applicable.	Yes/ No *(Please √, as applicable)*	Failing to submit these documents will be liable for rejection/ non-consideration for purchase preference, as per the provisions defined in PP-LC policy enclosed in bidding document.
6.	In case order is placed on us, we hereby declare to submit Local Content Certificate along with each Invoice raised in line with the Min Local Content declared by us in our offer against the tender.	Yes/ No *(Please √, as applicable)*	
7	Whether bidder is an MSE bidder?	Yes/ No *(Please √, as applicable)*	If yes- Necessary documents to be attached along with unpriced part of the bid.

Signature of bidder's authorized signatory:_____(With Seal/ Stamp/Date)

Note: This undertaking shall be certified by the authorized signatory of the bidder having the Power of Attorney.

FORMAT– 2AA

Format for calculation of Local Content in Goods/Services/Works/EPC Contracts:

All figures should only be in terms of percentage (%) of total quoted price. Actual prices must not be mentioned here.

		Domestic	Imported			Total	Local content in %
Particulars			Imported Items (Including all custom duties)	Locally Sourced Imported Items from resellers or distributors (Inclusive of taxes)	License, royalties, technical expertise etc. sourced from outside India		
		A	B	B1	B2	C = A+B+B1+B2	D = (A ÷ C) x 100%
A	Cost component I. Material used / Direct Material cost (in % only)				x		
	II. Personnel, consultant, labour cost (in % only)						
	III. Other services, production, overhead cost (in % only)						
	IV. Total cost (I to III) (in % only)						
B	Taxes and Duties (in % only)	Excluding net domestic indirect taxes					
C	Total quoted price (in % only)					100%	

Exchange rate as per RBI reference rate prevailing on the on the date of notice inviting tender (NIT) shall be considered for the calculation of Local Content in INR.

Signature of bidder's authorized signatory:_____(With Seal/ Stamp/Date)

Note: This undertaking shall be certified by the authorized signatory of the bidder having the Power of Attorney.

FORMAT– 2B

[To be submitted for contracts above Rs. 10 Crores]

(DECLARATION – CERTIFIED, TO BE UPLOADED ALONG WITH UNPRICED BID)

Certification towards local content (as per the provision of pp-lc policy)

To,
M/s Numaligarh Refinery Limited

We, _____, the Statutory Auditor / Cost Auditor / Cost Accountant / Chartered Accountant (not being an employee / Director of the company) of M/s _____ (name of the bidder) having our registered office address _____ hereby certify the following:

a) We have reviewed the local content in the offer no. _____ dated _____ submitted by M/s _____ (name of the bidder) against the enquiry no. _____ as per the requirement defined in policy to purchase preference (linked with local content).

b) In the above offer, we certify the bidder's status and local content as under:
   - Class-I local Supplier: Offer has local content equal to or more than 50%, as defined in the policy.
     OR
   - Class-II local Supplier: Offer has local content more than 20% but less than 50%, as defined in the policy.

{Strike off whichever is not applicable out of two above)

Name of Statutory Auditor / Cost Auditor / Cost Accountant / Chartered Accountant:

[Signature of Authorized signatory] Name :

Designation Seal :

Membership no. : UDIN No:

Note:

1) This undertaking shall be certified by statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies).
2) The above format is indicative, the Statutory Auditor / Cost Auditor / Cost Accountant / Chartered Accountant can modify the format without changing the intent of certification.

FORMAT-2C

Declaration of Minimum Local Content (item wise)
(Applicable for Multiple Item Splitable Tender)

BOQ Sl. No.	**Item Short Text**	**Bidder's Declaration of Minimum Local Content (item-wise)** (To be filled from options provided in last column)	Available Options
10	Item 1		***Class-I Local Supplier (Min LC ≥ 50%)*** ***or*** ***Class-II Local Supplier (20%≤Min LC <50%)*** ***or*** ***Non-Local Supplier (Min LC<20%)*** ***or*** ***Item Not Quoted***
20	Item 2		
30	Item 3		
40	Item 4		
..	……		
..	……		

Signature of bidder's authorized signatory: **(With Seal/ Stamp)**

Date:

Note: This undertaking shall be certified by the authorized signatory of the bidder having the Power of Attorney.

File No: FP-20013/2/2017-FP-PNG-Part (4) (E-41432)
Government of India
Ministry of Petroleum and Natural Gas
(Flagship Programme Cell)
****

Shastri Bhawan, New Delhi
Dated 26th April, 2022

To,

1. Chairman, IOCL
2. C&MD, BPCL/ HPCL/ ONGC/ OIL/ GAIL/ EIL/ Balmer Lawrie
3. Managing Director, MRPL/NRL/CPCL// BCPL/ OVL
4. DG, DGH
5. DG, PPAC
6. Secretary, OIDB
7. ED, PCRA
8. ED, OISD
9. ED, CHT
10. Director, RGIPT
11. Secretary, PNGRB
12. CEO & MD, ISPRL

Sub: Public Procurement (Preference to Make in India) (PPP-MII) Order, 2017-reg.

Sir/Madam,

I am directed to refer to this Ministry's letter of even number dated 23.02.2022 regarding Policy to Provide Purchase Preference (linked with local content) (PP-LC) in all Public Sector Undertakings under the Ministry of Petroleum and Natural Gas (MoP&NG) and to say that Public Procurement (Preference to Make in India) Order, 2017 issued by DPIIT and as amended time to time shall be applicable to all the Public Sector Undertakings and their wholly owned subsidiaries under MoP&NG; Joint Ventures that have 51% or more equity by one or more Public Sector Undertakings under MoP&NG; attached and subordinate offices of MoPNG w.e.f. 01.04.2022.

2. Moreover, as per para 14 of the PPP-MII Order, the following modifications in the order shall be applicable on the procuring entities under this Ministry:

a. Limit for exemption of small purchase under para 4 of the PPP-MII Order, 2017 shall be Rs. 1 crore.

b. Local value addition through services such as transportation, insurance, installation, commissioning, training and after sales services support like AMC/ CMC etc. shall continue to be considered in local content calculation.

c. HP-HT operations in upstream oil and gas business activities shall be exempted from applicability of the Order.

3. This issues with the approval of Hon'ble Minister, Petroleum and Natural Gas.

Yours faithfully

26/04/2022

(Santanu Dhar)
Under Secretary to the Govt. of India
Tel.: 011-23388652

Copy to:

a. PS to Minister, PNG
b. PPS/ PS to Secretary/ AS&FA/ Sr. Economic Advisor, MoPNG
c. PPS/ PS to AS (E)/ JS(R)/ JS (M& GP)/ OSD (IC)/ JS (G)/ JS (IFD)/ DDG (ED), MoPNG
d. PPS/PS to Dir.(BR)/Dir.(E-II)/Dir.(E-I)/DS(GP)/DS(Mkt.)/DS(LPG)/DS(Admn.)/DS(RTI)/ DS (Gen) MoPNG

Copy for information to:

Secretary, DPIIT

No. P-45021/2/2017-PP (BE-II)-Part(4)Vol.II
Government of India
Ministry of Commerce and Industry
Department for Promotion of Industry and Internal Trade
(Public Procurement Section)

Vanijya Bhawan, New Delhi
Dated: 19 July,2024

To

All Central Ministries/Departments/CPSUs/All concerned

ORDER

Subject: Public Procurement (Preference to Make in India), Order 2017– Revision; regarding.

Department for Promotion of Industry and Internal Trade, in partial modification [Paras 2, 3, 5, 10 & 13] of Order No.P-45021/2/2017-B.E.-II dated 15.6.2017 as amended by Order No.P-45021/2/2017-B.E.-II dated 28.05.2018, Order No.P-45021/2/2017-B.E.-II dated 29.05.2019, Order No.P-45021/2/2017-B.E.-II dated 04.06.2020 and Order No.P-45021/2/2017-B.E.-II dated 16.09.2020 hereby issues the revised 'Public Procurement (Preference to Make in India), Order 2017" dated 19.07.2024 effective with immediate effect.

Whereas it is the policy of the Government of India to encourage 'Make in India' and promote manufacturing and production of goods and services in India with a view to enhancing income and employment, and

Whereas procurement by the Government is substantial in amount and can contribute towards this policy objective, and

Whereas local content can be increased through partnerships, cooperation with local companies, establishing production units in India or Joint Ventures (JV) with Indian suppliers, increasing the participation of local employees in services and training them,

Now therefore the following Order is issued:

1. This Order is issued pursuant to Rule 153 (iii) of the General Financial Rules 2017.
2. **Definitions**: For the purposes of this Order:
   'Local content' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

Explanatory notes for calculation of local content given above

a. Imported items sourced locally from resellers/distributors shall be excluded from calculation of local content.
b. The license fees/royalties paid/ technical charges paid out of India shall be excluded from local content calculation.

c. Procurement/Supply of repackaged/refurbished/rebranded imported products as understood commonly shall be treated as reselling of imported products and shall be excluded from calculation of local content. The definition of repackaged/refurbished/rebranded imported products is as follows;

'Refurbishing' means repair or reconditioning of an imported product does not amount to manufacture because no new goods come into existence.

'Repackaging' means repacking of imported goods from bulk pack to smaller packs would not ordinarily amount to manufacture of a new item.

'Rebranding' means relabeling or renaming or change in symbol or logo/makes or corporate image of a company/organization/ firm for an imported product would amount to rebranding.

d. To ensure that imported items sourced locally from resellers/distributors are excluded from calculation of local content, procuring entities to obtain from bidders, the cost of such locally-sourced imported items (Inclusive of taxes) along with break-up on license/royalties paid/technical expertise cost etc. sourced from outside India. For items sold by bidder as reseller, OEM certificate for country of origin to be submitted.

e. For contracts involving supply of multiple items, weighted average of all items to be taken while calculating the local content.

'*Class-I local supplier*' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-I local supplier' under this Order.

'*Class-II local supplier*' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-II local supplier' but less than that prescribed for 'Class-I local supplier' under this Order.

'*Non - Local supplier*' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than that prescribed for 'Class-II local supplier' under this Order.

'*L1*' means the lowest tender or lowest bid or the lowest quotation received in a tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation.

'*Margin of purchase preference*' means the maximum extent to which the price quoted by a "Class-I local supplier" may be above the L1 for the purpose of purchase preference.

'*Nodal Ministry*' means the Ministry or Department identified pursuant to this order in respect of a particular item of goods or services or works.

'*Procuring entity*' means a Ministry or department or attached or subordinate office of, or autonomous body controlled by, the Government of India and includes Government companies as defined in the Companies Act.

'Works' means all works as per Rule 130 of GFR- 2017, and will also include *'turnkey works'*.

2A. *Special treatment for items covered under PLI Scheme*

The manufacturers manufacturing an item under PLI scheme shall be treated as deemed Class II local supplier for that item unless they have minimum local content equal to or higher than that notified for Class-I local supplier for that item, provided the manufacturer has received incentive from the concerned PLI Ministry for the item. The above shall be applicable for the specific time period only, as notified by concerned PLI Ministry.

3. Eligibility of 'Class-I local supplier'/ 'Class-II local supplier'/ 'Non-local suppliers' for different types of procurement

(a) In procurement of all goods, services or works in respect of which the Nodal Ministry / Department has communicated that there is sufficient local capacity and local competition, only 'Class-I local supplier', as defined under the Order, shall be eligible to bid irrespective of purchase value.

(b) Only 'Class-I local supplier' and 'Class-II local supplier', as defined under the Order, shall be eligible to bid in procurement undertaken by procuring entities, except when Global tender enquiry has been issued. In global tender enquiries, 'Non-local suppliers' shall also be eligible to bid along with 'Class-I local suppliers' and 'Class-II local suppliers'. In procurement of all goods, services or works, not covered by sub-para 3(a) above, and with estimated value of purchases less than Rs. 200 Crore, in accordance with Rule 161(iv) of GFR, 2017, Global tender enquiry shall not be issued except with the approval of competent authority as designated by Department of Expenditure.

(c) For the purpose of this Order, works includes Engineering, Procurement and Construction (EPC) contracts and services include System Integrator (SI) contracts.

3.1 Mandatory sourcing of items, with sufficient local capacity and competition, from Class-I local suppliers in SI/EPC/Turnkey Contracts/Service Tenders

a. The items, notified as having sufficient local capacity and competition, shall mandatory be sourced from Class-I local suppliers in SI/EPC/Turnkey Contracts/ Services tenders. This provision will be applicable only for those items which have been notified by the Nodal Ministry as Class I i.e. having sufficient local capacity and competition, with specific HSN codes."

b. Notwithstanding above, if in any project, it is considered that it is not practically feasible to source such items from Class I local suppliers, it may take relaxation from such stipulation with the approval of Secretary of the administrative Ministry/ Department concerned or with the approval of the Competent Authority specified by the Administrative Ministry/Department, on case-specific basis.

3A. Purchase Preference

(a) Subject to the provisions of this Order and to any specific instructions issued by the Nodal Ministry or in pursuance of this Order, purchase preference shall be given to 'Class-I local supplier' in procurement undertaken by procuring entities in the manner specified here under.

(b) In the procurement of goods or works, which are covered by para 3(b)

above and which are divisible in nature, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract for full quantity will be awarded to L1.
ii. If L1 bid is not a 'Class-I local supplier', 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price for the remaining 50% quantity subject to the Class-I local supplier's quoted price falling within the margin of purchase preference, and contract for that quantity shall be awarded to such 'Class-I local supplier' subject to matching the L1 price. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price or accepts less than the offered quantity, the next higher 'Class-I local supplier' within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local suppliers, then such balance quantity may also be ordered on the L1 bidder.

(c) In the procurement of goods or works, which are covered by para 3(b) above and which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is Class -I local supplier', the contract will be awarded to L1.
ii. If L1 is not 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price.
iii. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the 'Class-I local supplier' within the margin of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder.

(d) "Class-II local supplier" will not get purchase preference in any procurement, undertaken by procuring entities.

3B. Applicability in tenders where contract is to be awarded to multiple bidders- In tenders where contract is awarded to multiple bidders subject to matching of L1 rates or otherwise, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

a. In case there is sufficient local capacity and competition for the item to be procured, as notified by the nodal Ministry, only Class I local suppliers shall be eligible to bid. As such, the multiple suppliers, who would be awarded the contract, should be all and only 'Class I Local suppliers'.
b. In other cases, 'Class II local suppliers' and 'Non local suppliers' may also participate in the bidding process along with 'Class I Local suppliers' as per provisions of this Order.
c. If 'Class I Local suppliers' qualify for award of contract for at least

50% of the tendered quantity in any tender, the contract may be awarded to all the qualified bidders as per award criteria stipulated in the bid documents. However, in case 'Class I Local suppliers' do not qualify for award of contract for at least 50% of the tendered quantity, purchase preference should be given to the 'Class I local supplier' over 'Class II local suppliers'/ 'Non local suppliers' provided that their quoted rate falls within 20% margin of purchase preference of the highest quoted bidder considered for award of contract so as to ensure that the 'Class I Local suppliers' taken in totality are considered for award of contract for at least 50% of the tendered quantity.

d. First purchase preference has to be given to the lowest quoting 'Class-I local supplier', whose quoted rates fall within 20% margin of purchase preference, subject to its meeting the prescribed criteria for award of contract as also the constraint of maximum quantity that can be sourced from any single supplier. If the lowest quoting 'Class-I local supplier', does not qualify for purchase preference because of aforesaid constraints or does not accept the offered quantity, an opportunity may be given to next higher 'Class-I local supplier', falling within 20% margin of purchase preference, and so on.

e. To avoid any ambiguity during bid evaluation process, the procuring entities may stipulate its own tender specific criteria for award of contract amongst different bidders including the procedure for purchase preference to 'Class-I local supplier' within the broad policy guidelines stipulated in sub- paras above.

4. **Exemption of small purchases**: Notwithstanding anything contained in paragraph 3, procurement where the estimated value to be procured is less than Rs. 5 lakhs shall be exempt from this Order. However, it shall be ensured by procuring entities that procurement is not split for the purpose of avoiding the provisions of this Order.

4A. Exemption in sourcing of spares and consumables of closed systems:

Procurement of spare parts, consumables for closed systems and Maintenance/ Service contracts with Original Equipment Manufacturer/Original Equipment Supplier/Original Part Manufacturer shall be exempted from this Order.

5. **Minimum local content**: The 'local content' requirement to categorize a supplier as 'Class-I local supplier' is minimum 50%. For 'Class-II local supplier', the 'local content' requirement is minimum 20%. Nodal Ministry/ Department may prescribe only a higher percentage of minimum local content requirement to categorize a supplier as 'Class-I local supplier'/ 'Class- II local supplier'. For the items, for which Nodal Ministry/ Department has not prescribed higher minimum local content notification under the Order, it shall be 50% and 20% for 'Class-I local supplier'/ 'Class-II local supplier' respectively.

6. **Margin of Purchase Preference**: The margin of purchase preference shall be 20%.

7. **Requirement for specification in advance**: The minimum local content, the margin of purchase preference and the procedure for preference to Make in India shall be specified in the notice inviting tenders or other form of procurement solicitation and shall not be varied during a particular procurement transaction.

8. **Government E-marketplace**: In respect of procurement through the Government E-marketplace (GeM) shall, as far as possible, specifically mark the items which meet the minimum local content while registering the item for

display, and shall, wherever feasible, make provision for automated comparison with purchase preference and without purchase preference and for obtaining consent of the local supplier in those cases where purchase preference is to be exercised.

9. **Verification of local content**:

a. The 'Class-I local supplier'/ 'Class-II local supplier' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local supplier'/ 'Class-II local supplier', as the case may be. They shall also give details of the location(s) at which the local value addition is made.

b. In cases of procurement for a value in excess of Rs. 10 crores, the 'Class-I local supplier'/ 'Class-II local supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

c. The bidder shall give self-certification for local content in the quoted item (goods/works/services) at the time of tendering. However, at the time of execution of the project, for all contracts above INR 10 Crore, the contractor/ supplier shall be required to give local content certification duly certified by cost/ chartered accountant in practice. For cases where it is not possible to provide certification by Cost/Chartered Accountant at the time of execution of project, the supplier shall be permitted to provide the certificate for local content from Cost/ Chartered Accountant after completion of the contract, within time limit acceptable to the procuring entity. In case the contractor/ supplier does not meet the stipulated local content requirement and the category of the supplier changes from Class-I to Class-II/ Non-local or from Class-II to Non-local, a penalty upto 10% of the contract value may be imposed. However, contract once awarded shall not be terminated on this account.

d. Decisions on complaints relating to implementation of this Order shall be taken by the competent authority which is empowered to look into procurement-related complaints relating to the procuring entity.

e. Nodal Ministries may constitute committees with internal and external experts for independent verification of self-declarations and auditor's/ accountant's certificates on random basis and in the case of complaints.

f. Nodal Ministries and procuring entities may prescribe fees for such complaints.

g. False declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

h. A supplier who has been debarred by any procuring entity for violation of this Order shall not be eligible for preference under this Order for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities, in the manner prescribed under paragraph 9

i below.

l. The Department of Expenditure shall issue suitable instructions for the effective and smooth operation of this process, so that:
   i. The fact and duration of debarment for violation of this Order by any procuring entity are promptly brought to the notice of the Member-Convenor of the Standing Committee and the Department of Expenditure through the concerned Ministry /Department or in some other manner;
   ii. On a periodical basis such cases are consolidated and a centralized list or decentralized lists of such suppliers with the period of debarment is maintained and displayed on website(s);
   iii. In respect of procuring entities other than the one which has carried out the debarment, the debarment takes effect prospectively from the date of uploading on the website(s) in the such a manner that ongoing procurement are not disrupted.

10. **Specifications in Tenders and other procurement solicitations**:
   a. Every procuring entity shall ensure that the eligibility conditions in respect of previous experience fixed in any tender or solicitation do not require proof of supply in other countries or proof of exports.
   b. Procuring entities shall endeavour to see that eligibility conditions, including on matters like turnover, production capability and financial strength do not result in unreasonable exclusion of 'Class-I local supplier'/ 'Class-II local supplier' who would otherwise be eligible, beyond what is essential for ensuring quality or creditworthiness of the supplier.
   c. Procuring entities shall, within 2 months of the issue of this Order review all existing eligibility norms and conditions with reference to sub-paragraphs 'a' and 'b' above.
   d. **Reciprocity Clause**
      i. When a Nodal Ministry/Department identifies that Indian suppliers of an item are not allowed to participate and/ or compete in procurement by any foreign government, due to restrictive tender conditions which have direct or indirect effect of barring Indian companies such as registration in the procuring country, execution of projects of specific value in the procuring country etc., it shall provide such details to all its procuring entities including CMDs/CEOs of PSEs/PSUs, State Governments and other procurement agencies under their administrative control and GeM for appropriate reciprocal action.
      ii. Entities of countries which have been identified by the nodal Ministry/Department as not allowing Indian companies to participate in their Government procurement for any item related to that nodal Ministry shall not be allowed to participate in Government procurement in India for all items related to that nodal Ministry/ Department, except for the list of items published by the Ministry/ Department permitting their participation.
      iii. The stipulation in (ii) above shall be part of all tenders invited by the Central Government procuring entities stated in (i) above. All purchases on GeM shall also necessarily have the above provisions for items identified by nodal Ministry/ Department.
      iv. State Governments should be encouraged to incorporate similar provisions in their respective tenders.
      v. The term 'entity' of a country shall have the same meaning as under the FDI Policy of DPIIT as amended from time to time.
   e. Specifying foreign certifications/ unreasonable technical specifications/

brands/ models in the bid document is restrictive and discriminatory practice against local suppliers. If foreign certification is required to be stipulated because of non-availability of Indian Standards and/or for any other reason, the same shall be done only after written approval of Secretary of the Department concerned or any other Authority having been designated such power by the Secretary of the Department concerned.

f. "All administrative Ministries/Departments *whose procurement exceeds Rs. 1000 Crore per annum* shall notify/update their procurement projections every year, including those of the PSEs/PSUs, for the next 5 years on their respective website."

10A. Action for non-compliance of the Provisions of the Order: In case restrictive or discriminatory conditions against domestic suppliers are included in bid documents, an inquiry shall be conducted by the Administrative Department undertaking the procurement (including procurement by any entity under its administrative control) to fix responsibility for the same. Thereafter, appropriate action, administrative or otherwise, shall be taken against erring officials of procurement entities under relevant provisions. Intimation on all such actions shall be sent to the Standing Committee.

11. **Assessment of supply base by Nodal Ministries:** The Nodal Ministry shall keep in view the domestic manufacturing / supply base and assess the available capacity and the extent of local competition while identifying items and prescribing the higher minimum local content or the manner of its calculation, with a view to avoiding cost increase from the operation of this Order.

12. **Increase in minimum local content**: The Nodal Ministry may annually review the local content requirements with a view to increasing them, subject to availability of sufficient local competition with adequate quality.

13. **Manufacture under license/ technology collaboration agreements with phased indigenization**: While notifying the minimum local content, Nodal Ministries may make special provisions for exempting suppliers from meeting the stipulated local content if the product is being manufactured in India under a license from a foreign manufacturer who holds intellectual property rights and where there is a technology collaboration agreement / transfer of technology agreement for indigenous manufacture of a product developed abroad with clear phasing of increase in local content.

13A. In procurement of all goods, services or works in respect of which there is substantial quantity of public procurement and for which the nodal ministry has not notified that there is sufficient local capacity and local competition, the concerned nodal ministry shall notify an upper threshold value of procurement beyond which foreign companies shall enter into a joint venture with an Indian company to participate in the tender. Procuring entities, while procuring such items beyond the notified threshold value, shall prescribe in their respective tenders that foreign companies may enter into a joint venture with an Indian company to participate in the tender. The procuring Ministries/Departments shall also make special provisions for exempting such joint ventures from meeting the stipulated minimum local content requirement, which shall be increased in a phased manner.

14. **Powers to grant exemption and to reduce minimum local content**: The administrative Department undertaking the procurement (including

procurement by any entity under its administrative control), with the approval of their Minister-in-charge, may by written order, for reasons to be recorded in writing,

a. reduce the minimum local content below the prescribed level; or
b. reduce the margin of purchase preference below 20%; or
c. exempt any particular item or supplying entities from the operation of this Order or any part of the Order.

The Administrative Department, while seeking exemption under this para, shall certify that such an item(s) has not been notified by Nodal Ministry/ Department concerned under para 3 (a) of the Order.

A copy of every such order shall be provided to the Standing Committee and concerned Nodal Ministry / Department. The Nodal Ministry / Department concerned will continue to have the power to vary its notification on Minimum Local Content.

15. **Directions to Government companies**: In respect of Government companies and other procuring entities not governed by the General Financial Rules, the administrative Ministry or Department shall issue policy directions requiring compliance with this Order.
16. **Standing Committee**: A standing committee is hereby constituted with the following membership:
Secretary, Department for Promotion of Industry and Internal Trade - Chairman
Secretary, Commerce—Member
Secretary, Ministry of Electronics and Information Technology—Member Joint Secretary (Public Procurement), Department of Expenditure—Member Joint Secretary (DPIIT)—Member-Convenor

The Secretary of the Department concerned with a particular item shall be a member in respect of issues relating to such item. The Chairman of the Committee may co-opt technical experts as relevant to any issue or class of issues under its consideration.

17. **Functions of the Standing Committee:** The Standting Committee shall meet as often as necessary, but not less than once in six months. The Committee

a. shall oversee the implementation of this order and issues arising therefrom, and make recommendations to Nodal Ministries and procuring entities.
b. shall annually assess and periodically monitor compliance with this Order
c. shall identify Nodal Ministries and the allocation of items among them for issue of notifications on minimum local content
d. may require furnishing of details or returns regarding compliance with this Order and related matters
e. may, during the annual review or otherwise, assess issues, if any, where it is felt that the manner of implementation of the order results in any restrictive practices, cartelization or increase in public expenditure and suggest remedial measures
f. may examine cases covered by paragraph 13 above relating to manufacture under license/ technology transfer agreements with a view to satisfying itself that adequate mechanisms exist for enforcement of such agreements and for attaining the underlying objective of progressive indigenization

g. may consider any other issue relating to this Order which may arise.

18. **Removal of difficulties**: Ministries /Departments and the Boards of Directors of Government companies may issue such clarifications and instructions as may be necessary for the removal of any difficulties arising in the implementation of this Order.

19. **Ministries having existing policies**: Where any Ministry or Department has its own policy for preference to local content approved by the Cabinet after 1st January 2015, such policies will prevail over the provisions of this Order. All other existing orders on preference to local content shall be reviewed by the Nodal Ministries and revised as needed to conform to this Order, within two months of the issue of this Order.

20. **Transitional provision**: This Order shall not apply to any tender or procurement for which notice inviting tender or other form of procurement solicitation has been issued before the issue of this Order.

19/7/24

(Himani Pande)
Additional Secretary to the Government of India
Tel: 011-23038888
E-mail: ashp.dpiit@gov.in

No.F.1/4/2021-PPD
Government of India
Ministry of Finance
Department of Expenditure
Public Procurement Division
*****

264-C, North Block, New Delhi.
18.05.2023.

OFFICE MEMORANDUM

Subject: Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017.

The undersigned is directed to refer two Preferential Procurement Orders mandated for the Public Procurement in India, namely:

i. Public Procurement Policy for Micro and Small Enterprises (MSEs) Order dated 23.03.2012 (PPP-MSE Order) issued by Ministry of Micro, Small and Medium Enterprises (MoMSME) in exercise of the powers conferred in Section 11 of the MSME Development Act, 2006. (Last revised on 09.11.2018)

ii. Public Procurement (Preference to Make in India) Order, 2017 (PPP-MII order), under Rule 153(iii) of the General Financial Rules (GFRs) 2017, approved by the Cabinet. Implementation of this PPP-MII order is monitored by Department for Promotion of Industry and Internal Trade (DPIIT). (Last revised on 16.09.2020.)

2. It has been brought to the notice of this Department that concurrent application of these two orders are creating confusion to the procuring entities and different procuring entities interpret them differently. In order to bring predictability both to the procuring entities as well as bidders, following guidelines are being issued.

Guidelines

3. The Class-I local suppliers, under PPP-MII Order, participating in any government tender, may or may not be MSEs, as defined under the MSME Act. Similarly, MSEs participating in any government tender, may or may not be Class-I local suppliers. Suppliers may be categorised in following four broad categories for consideration or applicability of purchase preference:

Category	Terminology
Supplier is both MSE & Class-I local supplier.	"MSE Class-I local supplier".
Supplier is MSE but not Class-I local supplier.	"MSE but non-Class-I local supplier"
Supplier is not MSE but is Class-I local supplier.	"Non-MSE but Class-I local supplier"
Supplier is neither MSE nor Class-I local.	"Non-MSE non-Class-I local supplier"

Page 665 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

4. The applicability of PPP-MSE Order and PPP-MII Order in various scenarios, involving simultaneous purchase preference to MSEs and Class-I local suppliers under PPP-MSE Order and PPP-MII Order respectively, shall be as under:

a) *Items covered under Para 3(a) of PPP- MII Order, 2017 for which Nodal Ministry has notified sufficient local capacity and competition:* For these items, only Class-I local suppliers are eligible to bid irrespective of purchase value. Hence, Class-II local suppliers or Non-local suppliers, including MSEs which are Class-II local suppliers/ Non-local suppliers, are not eligible to bid. Possible scenarios can be as under:

(i) L-1 is "MSE Class-I local supplier" - 100% of the tendered quantity is to be awarded to L-1.

(ii) L-1 is "Non-MSE but Class-I local supplier" - Purchase preference is given to MSEs as per PPP-MSE Order. Balance quantity is to be awarded to the L-1 bidder.

b) *Items reserved exclusively for procurement from MSEs as per PPP-MSE Order:* These items are reserved exclusively for purchase from MSEs. Hence, non-MSEs are not eligible to bid for these items. Possible scenarios can be as under:

(i) L-1 is "MSE Class-I local supplier" - 100% of the tendered quantity is to be awarded to L-1.

(ii) L-1 is "MSE non-Class–I local supplier" - Purchase preference is to be given to Class-I local supplier as per PPP-MII Order. Balance quantity, is to be awarded to L-1 bidder.

c) *If items are neither notified for sufficient local capacity nor reserved for MSEs, then the process will be as follows:*

c (a) Items covered under Para 3A(b) of PPP-MII Order are divisible items and both MSEs as well as Class-I local suppliers are eligible for purchase preference. Possible scenarios can be as under:

(i) L-1 is "MSE Class-I local supplier" - 100% of the tendered quantity is to be awarded to L-1.

(ii) L-1 is "Non-MSE but Class-I local supplier" - Purchase preference is to be given to MSEs, if eligible, as per PPP-MSE Order. Balance quantity is to be awarded to L-1 bidder.

(iii) L-1 is "MSE but non-Class-I local supplier" - Purchase preference is to be given to Class-I local suppliers, if eligible, as per PPP-MII Order. Balance quantity is to be awarded to L-1 bidder.

(iv) L-1 is "Non-MSE non-Class-I local supplier" - Purchase preference is to be given to MSEs as per PPP-MSE Order. Thereafter, purchase preference is to be given to Class-I local suppliers for "50% of the tendered quantity minus quantity allotted to MSEs

above" as per PPP- MII Order. For the balance quantity, contract is to be awarded to L-1 bidder. *(Kindly refer to the illustrative example in the annexure).*

c (b) Items covered under Para 3A(c) of PPP-MII Order, 2017 are non-divisible items and both MSEs as well as Class-I local suppliers are eligible for purchase preference. Possible scenarios can be as under:

(i) L-1 is "MSE Class-I local supplier" - Contract is awarded to L-1.

(ii) L-1 is not "MSE Class-I local supplier" but the "MSE Class-I local supplier" falls within 15% margin of purchase preference - Purchase preference is to be given to lowest quoting "MSE Class-I local supplier". If lowest quoting "MSE Class-I local supplier" does not accept the L-1 rates, the next higher "MSE Class-I local supplier" falling within 15% margin of purchase preference is to be given purchase preference and so on.

(iii) If conditions mentioned in sub paras (i) and (ii) above are not met i.e. L-1 is neither "MSE Class-I local supplier" nor "MSE Class-I local supplier" is eligible to take benefit of purchase preference, the contract is to be awarded/ purchase preference to be given in different possible scenarios as under:

A. L1 is "MSE but non-Class-I local supplier" or "Non-MSE but Class-I local supplier" – Contract is be awarded to L1.

B. L1 is "Non-MSE non-Class-I local supplier" - First purchase preference to be given to MSE as per PPP-MSE Order. If MSE not eligible/ does not accept - purchase preference to be given to Class- I Local supplier as per PPP-MII Order. If Class-I Local supplier also not eligible/ does not accept – contract to be awarded to L-1.

d) *Items reserved for both MSEs and Class-I local suppliers*: These items are reserved exclusively for purchase from MSEs as well as Class-I local suppliers. Hence, only "MSE Class-I local supplier" are eligible to bid for these items. Non-MSEs/Class-II local suppliers/ Non-local suppliers cannot bid for these items. Hence the question of purchase preference does not arise.

e) Non-local suppliers, including MSEs falling in the category of Non-local suppliers, shall be eligible to bid only against Global Tender Enquiry.

18/5/2023

(Kanwalpreet)
Director
Tel.:-223093811; email: - kanwal.irss@gov.in

To

1. Secretaries of all Central Government Ministries/ Departments.
2. Secretary Department of Public Enterprises with a request for issuing suitable instructions to all Central Public Sector Enterprises in this regard.

Annexure

Example explaining applicability in scenario explained in para 4 c (a)(iv)

(Scenario: Divisible items, both MSEs as well as Class-I local suppliers eligible for purchase preference and L-1 is "Non-MSE non-Class-I local supplier")

Item – Desktop computer

Qty – 50 Nos.

Details of bids received

Sr. No.	Name of bidder	Rates quoted	Price Ranking	Status of bidder
1.	A	100	L1	"Non-MSE non- Class-I local supplier"
2.	B	110	L2	"Non-MSE but Class-I local supplier"
3.	C	112	L3	"MSE but non- Class-I local supplier"
4.	D	115	L4	"Non-MSE but Class-I local supplier"
5.	E	118	L5	"MSE but non- Class-I local supplier"
6.	F	120	L6	"MSE Class-I local supplier"

1. In this case, first purchase preference is to be given to MSEs as per PPP-MSE Order for 25% of tendered quantity of 50 Nos. i.e. 12.5 Nos. (rounded off to the next whole number say 13 Nos). Accordingly, invite L3 (bidder C), whose quoted rates falls within 15% margin of purchase preference to match L1 price i.e. Rs. 100/- for quantity of 13 Nos. Bidder "E" and "F", although MSEs, will not get purchase preference since their quoted rates don't fall within 15% margin of purchase preference. Bidder C will be considered for order of 13 Nos. on confirmation of reduction of price.

2. For 50% of balance quantity of 37 number (tendered quantity of 50 – 13 awarded to bidder C; assuming bidder C has confirmed to accept L1 rates), purchase preference will be given to lowest Class-I local supplier as per PPP-MII Order. Accordingly, bidder B will be invited to match L-1 price for 50% of 37 Nos i.e. 18.5 (say 19 Nos of computers). If bidder "B" does not accept the L1 price i.e. price of Rs. 100/- per unit, next higher Class-I local supplier falling within 20% margin of purchase preference, i.e. bidder "D", may be invited to match L-1 price for 19 Nos. of computers and so on.

3. For remaining quantity i.e. 18 Nos (50-13-19), the contract will be awarded to lowest quoting bidder i.e. Bidder "A", who is L-1 in the example.

***

File No.:FP-20013/2/2017-FP-PNG-Part(1) (E-36682)
Government of India
Ministry of Petroleum and Natural Gas
(Flagship Programme Cell)
****

Shastri Bhawan, New Delhi
Date 11th July, 2023

To,

1. Chairman, IOCL
2. CMD, ONGC/ OIL/ BPCL/GAIL/ HPCL/ EIL/ Balmer Lawrie
3. Managing Director, MRPL/ NRL/ CPCL/ BCPL/ OVL
4. DG, DGH
5. DG, PPAC
6. Secretary, OIDB
7. ED, OISD
8. ED, CHT
9. Director, RGIPT/ IIPE
10. Secretary, PNGRB
11. CEO & MD, ISPRL

Subject: Public Procurement (Preference to Make in India) Order, 2017: notifying revised Minimum Local Content (MLC) for getting purchase preference and Margin of Purchase Preference (PP) for high value oil and gas LSTK/ EPC contacts/projects- reg.

Reference: MoPNG letter no. FP-20013/2/2017-FP-PNG-Part (4) (E-41432) dated 26.04.2022.

Sir/ Madam,

I am directed to refer to this Ministry's above mentioned letter and to say that in order to increase competition and to incentivize progressive increase in Minimum Local Content in high value oil and gas LSTK/EPC contracts/projects, it has been decided under para 14 of the Public Procurement (Preference to Make in India) Order, 2017, to revise Minimum Local Content (MLC) for getting purchase preference and Margin of Purchase Preference (PP) for such contacts/projects on progressive basis with predictable trajectory.

2. The Minimum Local Content (MLC) for getting purchase preference and Margin of Purchase Preference (PP) for high value oil and gas LSTK/ EPC contracts/projects shall be as under:

Estimated cost		**2023-24**	**2024-26**	**2026 onwards**
Between USD 25 Million to USD 50 Millions	MLC	50%	50%	50%
	PP	10%		
Between USD 50 Millions to USD 100 Millions	MLC	30%	50%	50%
	PP	10%		

11/07/23

Estimated cost		2023-24	2024-26	2026 onwards
Between USD 100 Millions to USD 150 Millions	MLC	30%	35%	50%
	PP	10%		
More than USD 150 Millions	MLC	30%	30%	35%
	PP	10%		

3. This issues with the approval of Hon'ble Minister, P&NG.

Yours faithfully

(Kapil Kumar)
Under Secretary to the Govt. of India
Tel.:011-23383074

Copy to,

a. PS to Hon'ble Minister, P&NG
b. PS to Hon'ble MoS, P&NG
c. PPS/PS to Secretary, P&NG
d. PPS/PS to AS&FA/ AS, MoPNG
e. PPS/PS to JS(E&BR)/ JS (M&OR)/ JS (IC)/ JS (G)/ JS (IFD)/ DDG, MoPNG
f. Technical Director, NIC: with request to upload the letter on MoPNG website

Copy for information to,

Secretary, DPIIT

[ANNEXURE –A-XV TO SPECIAL CONDITIONS OF CONTRACT]
(Post Warranty Annual Maintenance Contract)

(PWAMC)

TERMS & CONDITIONS FOR POST WARRANTY ANNUAL MAINTENANCE CONTRACT COMMERCIAL TERMS & CONDITIONS

1. Bidder to quote for the Post Warranty Annual Maintenance Contract as per scope defined in tender document / Technical portion for a period of __ years. Please furnish the Lumpsum Price as per the Price Schedule.

2. The AMC Charges quoted in Price Schedule Format 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. but excluding GST which shall be payable extra at actual on Submission of Invoice as per GST rules. 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 the 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. Within 2 weeks of placement of Order for AMC, Seller shall submit CPBG for 5% of the Maximum annually AMC amount which shall be valid for the entire AMC period plus 2 months claim period.

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 MR/ Technical portion. The quoted lump sum rate shall include providing all manpower, machineries.

Prevailing rate of GST @.....%

DOMESTICALLY MANUFACTURED IRON & STEEL PRODUCTS (DMI&SP) POLICY
Gazette notification G.S.R. 904 (E) issued by Ministry of Steel (MoS) dated 17-12-2025 may be referred for compliance (Provided separately).

A) <u>For Tender for Procurement of Goods:</u>

(i) In case Bidder's Quoted Price (Item wise basis) is more than INR 5 lakhs, Bidder should comply with the Domestically Manufactured Iron & Steel Policy (DMI&SP) for the Iron & Steel products involved in execution of the contract. Bidder shall submit affidavit of such Iron & Steel products as per the Format enclosed as **Annexure-1** (Form-1-Self Certification).

Bidder shall submit a "Declaration of Non-Applicability of DMI&SP Policy" as per **Annexure-4** if Bidder's Quotes Price (Item wise basis) is lower than the threshold value of INR 5 Lakhs. In such case, after price bid opening, if Price of any quoted item is found more than INR 5 Lakhs, it shall be construed as the false/wrong declaration and Penal action shall be initiated against the Bidder as per provision specified below. If such a supplier/agency happens to be the lowest bidder during price evaluation, the bid shall be rejected, and the next lowest bidder shall be considered as L1.

For the purpose of this Policy, the threshold value INR 5 lakhs shall be considered on Item wise basis excluding freight and GST. In all cases where evaluation is on bottom line basis or on individual group, threshold value shall be considered on the basis of individual item of the MR/ group.

(ii) All bidders — including manufacturers, selling agents, authorized distributors, authorized dealers, and authorized supply houses — shall submit **Annexure-1** (Form-1-Self Certification) as part of their bid, irrespective of whether they are the manufacturer or otherwise.

(iii) Bidders who are selling agents/authorized distributors/authorized dealers/authorized supply houses of the domestic manufacturers of iron & steel products, covered by Appendix-A, are eligible to bid with **Annexure-1** (Form-1-Self Certification) on behalf of the domestic manufacturers under the policy, subject to the bidder furnishing an authorization certificate issued by the domestic manufacturer at the time of delivery. In such case, Bidder shall submit an Undertaking as per **Annexure-2**.

<u>Note</u>:

- If a bidder does not submit above affidavit and/or undertaking (as applicable) as per format, the bid of bidder shall be rejected.

- **Penal action in case of wrong declaration according to stage of tender:**
  a. **Pre-ordering:**
     (i) Rejection of bid and Forfeiture of EMD
     (ii) Issue Show Cause Notice (SCN) to the bidder as to why penal action should not be initiated.
     (iii) Banning of business dealings in line with the NRL extant policy if response to SCN is not satisfactory.

  b. **Post-ordering proposed remedial action**:
     I) Payment methodology:
     Holding of payment till proper documents are provided in adherence to the DMI &SP Policy as proposed below:
     (a) For Milestone-based payments like:
        (i) 90% against receipt and acceptance of items at site.
        (ii) 10% after completion of all supply and other documentation as per PO terms.
        (iii) Total hold for milestone-based payment as above : 10% of (i) + 100% of (ii) = 19% of total basic order value.

(b) For others where payment is released against 100% of receipt & acceptance of materials at site: Hold 20% of 100% total basic order value

Special Note:

- Hold amount shall be applicable only on the basic order value (excluding freight, TPI, GST and other taxes if applicable) irrespective of the payment terms.
- GR shall be posted subsequent to completion of all inspection formalities and material will be utilized while holding above mentioned amounts till DMISP documents are provided in full compliance.

II) In tandem, issue letter to vendor to submit necessary documents within 10 days, failing which Issue Show Cause Notice (SCN) to the bidder as to why penal action should not be initiated.

III) Banning of business dealings in line with the NRL extant policy if response to SCN is not satisfactory.

B) For Item Rate/ EPC/ Package Tenders :

i) In case of Item rate/ EPC/Package Tenders, bidder(s) to furnish affidavit as per Annexure-1 (Form-1-Self Certification) at the time of delivery. Bidder to submit an undertaking to this effect as per **Annexure-3** w.r.t. compliance of this DMI&SP Policy. Compliance towards certification of Annexure-1 (Form-1-Self Certification) shall be as stipulated at A (ii) and A (iii) above.

ii) For products covered under Appendix B of the DMI&SP Policy, the bidder shall furnish certification issued by the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) declaring that the capital goods to be used in iron & steel industry are domestically manufactured in terms of the domestic value addition prescribed.

Note:

- If a bidder does not submit above undertaking (as applicable) as per format, the offer of bidder shall be rejected.

- Penal action in case of wrong declaration and/ or does not meet the Domestic Value Addition (DVA):

I) Payment methodology:

Holding of payment till proper documents are provided in adherence to the DMI &SP Policy as proposed below:

(a) For Milestone-based payments like:
  (i) 90% against receipt and acceptance of items at site.
  (ii) 10% after completion of all supply and other documentation as per PO terms.
  (iii) Total hold for milestone-based payment as above : 10% of (i) + 100% of (ii) = 19% of total basic order value

(b) For others where payment is released against 100% of receipt & acceptance of materials at site: Hold 20% of 100% total basic order value.

Special Note:

- Hold amount shall be applicable only on the basic order value (excluding freight, TPI, GST and other taxes if applicable) irrespective of the payment terms.
- GR shall be posted subsequent to completion of all inspection formalities and material will be utilized while holding above mentioned amounts till DMISP documents are provided in full compliance.

II) In tandem, issue letter to vendor to submit necessary documents within 10 days, failing which Issue Show Cause Notice (SCN) to the bidder as to why penal action should not be initiated.

III) Banning of business dealings in line with the NRL extant policy if response to SCN is not satisfactory.

**********XXXXX**********

Annexure-1

Item/Work:

Bidding Document no:

Form-1

Affidavit of Self-Certification for Compliance with Melt & Pour Requirements (Appendix-A) and/or Domestic Value Addition Requirements (Appendix-A & Appendix-B*)
****For Appendix-B capital goods, this affidavit must accompany the statutory auditor's / cost auditor's / CA certificate, as mandated under the policy.***

I, _____, Resident of _____, being the authorised signatory of M/s_____, do hereby solemnly affirm and declare as under:

1) I have read and understood the Domestically Manufactured Iron & Steel Products (DMI&SP) Policy, 2025, issued vide Notification No. G.S.R. 904 (E) dated 17-12-2025. I agree to abide by all terms and conditions of the said policy and the tender in which this affidavit is submitted.

2) This affidavit pertains to the following iron & steel product(s)/capital good(s):

- Name of product(s) : _____
- HS Code(s) : _____
- Appendix classification : Appendix-A / Appendix-B (select as applicable)
- Procuring agency : _____

3) Melt & Pour - Applicable only for Appendix-A items with Melt & Pour condition:

I hereby declare that the above product(s) satisfy the Melt & Pour in India requirement as notified in Appendix-A. Specifically:

The steel was melted and poured in India.
The first solid shape (slab/billet/ingot/other) was produced at the following location(s) as specified below/as per Form-1A (strike through which is *"Not Applicable"):*

- Steelmaking facility : _____
- Location : _____
- Heat numbers : _____
- Batch details : _____

I undertake to produce mill test certificates, heat records, and any other documentary proof to substantiate this declaration whenever required by the procuring agency.

(If not applicable, write "Not Applicable")

Form-1

4) Domestic Value Addition - Applicable for Appendix-A DVA items and Appendix-B capital goods:

I hereby declare that the Domestic Value Addition (DVA) for the product(s) is:_____ % / as per Form-1A (Strike through which is "*Not Applicable*"). The DVA has been computed as per DPIIT guidelines and the formula specified in the DMI&SP Policy, 2025.

4A) For Appendix-B Capital Goods (Mandatory): A certificate issued by the statutory auditor / cost auditor / chartered accountant is enclosed herewith, confirming the DVA of the capital good package in accordance with the policy. *(If Appendix-A item only, strike this clause out.)*

5) I confirm that: All information furnished is true and correct. All input steel costs, imported content, and domestic content calculations have been verified. All manufacturing, purchase, and pricing records are available for examination.

If any information is found incorrect or misleading: The procuring agency may disqualify me / my firm from Government tenders as per the procuring agency norms. I agree to pay all assessment costs and penalties, including forfeiture of EMD, as per policy and tender conditions.

6) I undertake to maintain the relevant records, and make them available to any statutory authority.

7) **Declaration:** I do hereby declare that the statements made above are true to the best of my knowledge and belief. I understand that any misrepresentation shall attract penalties under the DMI&SP Policy, applicable laws, and tender conditions.

For and on behalf of M/s _____

(Authorised Signatory)

Place :

Date :

Note :

a) Bidder may submit information sought against clause no. 2, 3 & 4 in Forn-1A, if required. In that case, Form-1A shall also be part of Affidavit.

b) Bidder to refer "Condition" specified in Appendix-A / "Minimum Domestic Content of Capital Goods" requirement in Appendix-B (as applicable) while certification of the above Form-1.

FORM-1A

(Applicable for the Iron and Steel Products specified in Appendix-A only)

BIDDER:							
TENDER / RFQ NO:							
PROCURING AGENCY:							
APPENDIX CLASSIFICATION:	Appendix-A						
MR Item No	**Name of Product (s):**	**HS Code**	**Steelnaking Facility**	**Location**	**Heat Numbers**	**Batch details**	**Domestic Value Addition (DVA) for the product (s) in %**
Shall be referred from MR		These column shall be filled for items with required condition as 'Melt & Pour"					This Column is applicable for items "condition" with specific DVA

_____
(Authorised Signatory)
Place :
Date :

Note:

a) Bidder to refer "Condition" and "Domestic Value Addition" specified in Appendix-A while certification of the above Form-1 and Form-1A.

b) Form-1A shall form part of Affidavit (Form-1)

Annexure 2

(Undertaking - To be submitted in Bidder's Letter Head)
[For Bidders who are Selling Agents/Authorized Distributors/Authorized Dealers/ Authorized Supply Houses]

Item/Work:

Bidding Document no:

This has reference to "Policy for providing Preference to Domestically Manufactured Iron & Steel Products in Government Procurement" issued by Ministry of Steel, Govt. of India, vide their notification "The Gazette of India, Extraordinary Notification No. G.S.R. 904 (E) dated 17-12-2025 including its amendments thereafter (if any)".

We confirm:

- that we will comply the Policy for providing Preference to Domestically Manufactured Iron & Steel Products in Government Procurement" issued by Ministry of Steel, Govt. of India.

- that we will submit authorization certificate issued by the domestic manufacturer at the time of delivery of related iron and steel products required under the enquiry document.

_____

(Sign & Stamp of bidder)

Annexure-3

(Undertaking - To be submitted in Bidder's letter head)
[Item rate /EPC /Package Contracts]

Item / Works:

Bidding Document no:

This has reference to "Policy for providing Preference to Domestically Manufactured Iron & Steel Products in Government Procurement" issued by Ministry of Steel, Govt. of India, vide their notification "The Gazette of India, Extraordinary Notification No. G.S.R. 904 (E) dated 17-12-2025 including its amendments thereafter (if any)".

We confirm:

- that we will comply the Policy for providing Preference to Domestically Manufactured Iron & Steel Products in Government Procurement" issued by Ministry of Steel, Govt. of India.

- that we will submit Affidavit of Self Certification of Domestic value addition in Iron & Steel Products and submit to Owner/ NRL during delivery of related to iron and steel products required under the enquiry document.

_____

(Sign & Stamp of bidder)

Annexure-4

Declaration/Undertaking of Non-Applicability of DMI&SP Policy
(To be submitted in Bidder's Letter Head)

Item / Works:

Bidding Document no:

This has reference to "Policy for providing Preference to Domestically Manufactured Iron & Steel Products DMI&SP) in Government Procurement" issued by Ministry of Steel, Govt. of India, vide their notification "The Gazette of India, Extraordinary Notification No. G.S.R. 904 (E) dated 17-12-2025 including its amendments thereafter (if any)".

We confirm that, we have understood the scope and terms & conditions of above mentioned DMI&SP Policy and also confirm that, based on the Prices quoted by us for each individual item, DMI&SP Policy is not applicable for the following items –

Where evaluation is on Item wise basis	
S. No	MR Item No
1	
2	
3	

Where evaluation is on Group wise basis		
S. No	Group	Item no of the respective group
1		
2		
3		

Further, in case at any stage before or after award, if it is observed by the NRL/OWNER the value of the above items is more than INR 5 Lakhs (Excluding GST and Freight) it shall be construed as the false/wrong declaration and procuring entity is entitled to take penal action as per provision of Bidding Document/DMI&SP Policy.

_____

(Sign & Stamp of bidder)

रजिस्ट्री सं. डी.एल.- 33004/99 REGD. No. D. L.-33004/99

भारत का राजपत्र
The Gazette of India

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असाधारण
EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (i)
PART II—Section 3—Sub-section (i)

प्राधिकार से प्रकाशित
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इस्पात मंत्रालय

अधिसूचना

नई दिल्ली, 17 दिसम्बर, 2025

सा.का.नि. 904(अ).—घरेलू स्तर पर विनिर्मित पूर्ववर्ती लौह एवं इस्पात उत्पाद नीति के अधिक्रमण में, सरकारी अधिप्राप्ति में घरेलू स्तर पर विनिर्मित लौह एवं इस्पात उत्पादों को वरीयता प्रदान करने के लिए संशोधित घरेलू स्तर पर विनिर्मित लौह एवं इस्पात उत्पाद नीति-2025 को आम सूचना के लिए एतदद्वारा प्रकाशित किया जाता है।

सरकारी अधिप्राप्ति में घरेलू स्तर पर विनिर्मित लौह एवं इस्पात उत्पादों को वरीयता देने के लिए नीति - संशोधित, 2025

1. पृष्ठभूमि

1.1 यह नीति सरकारी अधिप्राप्ति में घरेलू स्तर पर विनिर्मित लौह एवं इस्पात उत्पादों (डीएमआईएंडएसपी) को वरीयता देती है।

Page 682 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

1.2 यह नीति परिशिष्ट क में अधिसूचित लौह एवं इस्पात उत्पादों की खरीद, परिशिष्ट ख में सूचीबद्ध पूंजीगत वस्तुओं की खरीद और परिशिष्ट ग में स्वदेशी प्रौद्योगिकी आपूर्तिकर्ताओं से प्रौद्योगिकी पर लागू होती है।

2. परिभाषाएं

2.1 **बोलीदाता** लौह एवं इस्पात का कोई घरेलू/विदेशी विनिर्माता अथवा उनके बिक्री एजेंट/अधिकृत वितरक/अधिकृत डीलर/अधिकृत आपूर्ति गृह अथवा सरकारी एजेंसियों द्वारा वित्त पोषित परियोजनाओं में बोली लगाने में कार्यरत कोई अन्य कंपनी हो सकती है।

2.2 **घरेलू स्तर पर विनिर्मित लौह एवं इस्पात उत्पाद** वे लौह एवं इस्पात उत्पाद हैं जिनका विनिर्माण उन प्रतिष्ठानों द्वारा किया जाता है जो भारत में पंजीकृत और स्थापित हैं, जिसमें विशेष आर्थिक क्षेत्र (एसईजेड) शामिल हैं।

2.3 **घरेलू विनिर्माता** केंद्रीय माल और सेवा कर अधिनियम, 2017 की धारा 2(72) के अनुरूप एक विनिर्माता है।

2.4 **घरेलू मूल्य संवर्धन** का अर्थ है भारत में जोड़े गए मूल्य की राशि जो अधिप्राप्त की जाने वाली वस्तु के कुल मूल्य (शुद्ध घरेलू अप्रत्यक्ष करों को छोड़कर) में से अधिप्राप्त की जाने वाली वस्तु के कुल मूल्य के अनुपात के रूप में वस्तु में आयातित सामग्री के मूल्य (सभी सीमा शुल्कों सहित) को घटाकर प्रतिशत में प्राप्त होगी। 'घरेलू मूल्य संवर्धन' की परिभाषा डीपीआईआईटी दिशा-निर्देशों के अनुरूप होगी और भविष्य में डीपीआईआईटी द्वारा किसी भी बदलाव के मामले में इसे उपयुक्त रूप से संशोधित किया जाएगा। इस नीति दस्तावेज के उद्देश्य के लिए, घरेलू मूल्य संवर्धन और स्थानीय सामग्री का परस्पर उपयोग किया गया है।

% घरेलू मूल्य संवर्धन =

{अधिप्राप्त की जाने वाली वस्तु का कुल मूल्य (शुद्ध घरेलू अप्रत्यक्ष करों को छोड़कर) - वस्तु में आयातित सामग्री का मूल्य (सभी सीमा शुल्कों सहित)}

---------- X 100%

{अधिप्राप्त की जाने वाली वस्तु का कुल मूल्य}

2.5 **तैयार इस्पात** (फिनिश्ड स्टील) का तात्पर्य सपाट और लंबे उत्पादों से होगा, जिन्हें बाद में प्रसाधित कर विनिर्मित वस्तु बनाया जा सकता है।

2.6 इस नीति के प्रयोजन से **सरकार** का तात्पर्य भारत सरकार से है।

2.7 **सरकारी एजेंसियों** में सरकार के सार्वजनिक क्षेत्र के उपक्रम, भारत सरकार द्वारा स्थापित सोसायटी, ट्रस्ट और सांविधिक निकाय शामिल हैं।

2.8 **स्वदेशी प्रौद्योगिकी:** किसी प्रौद्योगिकी को स्वदेशी प्रौद्योगिकी माना जाएगा यदि, इकाई की कम से कम 51% इक्विटी भारतीय निवासियों के पास हो और आईपीआर का स्वामित्व या सह-स्वामित्व किसी भारतीय इकाई के पास हो या विशेष रूप से उन्हें लाइसेंस प्राप्त हो तथा मुख्य इंजीनियरिंग अनुसंधान एवं विकास और परियोजना निष्पादन क्षमताएं भारत में हों।

2.9 **एल1** का तात्पर्य निविदा अथवा अन्य अधिप्राप्ति अनुरोध के अनुसार मूल्यांकन प्रक्रिया में यथाघोषित निविदा, बोली लगाने संबंधी प्रक्रिया अथवा अन्य अधिप्राप्ति अनुरोधों में प्राप्त न्यूनतम निविदा अथवा न्यूनतम बोली अथवा न्यूनतम भाव से होगा।

2.10 **एमओएस** का आशय इस्पात मंत्रालय, भारत सरकार से है।

2.11 **खरीद वरीयता के मार्जिन** का तात्पर्य उस अधिकतम सीमा से है जिस सीमा तक किसी घरेलू आपूर्तिकर्ता द्वारा लगाई गई कीमत खरीद वरीयता के प्रयोजन से एल1 से अधिक हो। डीएमआईएंडएसपी नीति के मामले में, खरीद वरीयता का मार्जिन परिशिष्ट ख में शामिल मदों के लिए 20% होगा।

2.12 **मेल्ट एंड पोर** को एक ऐसे इस्पात के रूप में परिभाषित किया गया है जिसे इस्पात बनाने वाले फर्नेस में उत्पादित किया जाता है और इसे अपने पहले ठोस आकार में डाला जाता है। जिस स्थान पर यह प्रक्रिया होती है उसे मेल्ट एंड पोर (सीओएम) का उद्गम स्थल कहा जाता है। सीओएम वह मूल स्थान है जहाँ क्रूड इस्पात को पहली बार तरल अवस्था में उत्पादित किया जाता है और इसे अपने पहले ठोस आकार में डाला जाता है। मेल्ट एंड पोर (सीओएम) का देश भारत होना चाहिए। पहला ठोस आकार एक अर्ध-तैयार उत्पाद जैसे स्लैब, बिलेट, पिंड या एक तैयार इस्पात मिल उत्पाद हो सकता है।

2.13 **निवल बिक्री मूल्य** इन्वॉइस मूल्य होगा जिसमें निवल घरेलू कर और शुल्क शामिल नहीं होंगे।

2.14 **अर्ध-तैयार इस्पात** (सेमी-फिनिश्ड स्टील) का तात्पर्य इनगोट्स, बिलेट्स, ब्लूम्स और स्लेब्स से है, जिसे बाद में प्रसाधित कर तैयार इस्पात बनाया जा सकता है।

3. अपवर्जन

3.1 इस्पात मंत्रालय द्वारा इस प्रकार की सभी सरकारी अधिप्राप्ति के लिये निम्नलिखित शर्तों के अध्यधीन छूट प्रदान की जा सकती है।

3.1.1 जहां विशिष्ट ग्रेडों के इस्पात का विनिर्माण देश में नहीं किया जाता हो, अथवा

3.1.2 जहां परियोजना की मांग के अनुसार इन मात्राओं को घरेलू स्रोतों के माध्यम से पूरा नहीं किया जा सकता हो।

3.2 छूट संबंधी अनुरोध लौह एवं इस्पात उत्पादों की घरेलू स्तर पर अनुपलब्धता के पर्याप्त प्रमाण के साथ स्थायी समिति के समक्ष प्रस्तुत किए जाएंगे।

4. स्थायी समिति

4.1 सचिव (इस्पात) की अध्यक्षता में एक स्थायी समिति नीति के कार्यान्वयन को देखेगी।

4.2. इस समिति में उद्योग/उद्योग संघ/सरकारी संस्था अथवा निकाय/इस्पात मंत्रालय (एमओएस) से लिए गए विशेषज्ञ शामिल होंगे। इस्पात मंत्रालय में उक्त समिति के पास निम्नलिखित के लिए अधिदेश होगा:

4.2.1 नीति के कार्यान्वयन की निगरानी करना।

4.2.2 परिशिष्ट क, परिशिष्ट ख और परिशिष्ट ग में उल्लिखित लौह एवं इस्पात उत्पादों की सूची, घरेलू सामग्री आवश्यकता मानदंड और नीति निर्देशों की समीक्षा करना और उन्हें अधिसूचित करना।

4.2.3 पैरा 3 के अनुसार प्रापण एजेंसियों को अपवर्जन की स्वीकृति देने सहित इस नीति के कार्यान्वयन के लिए आवश्यक स्पष्टीकरण जारी करना।

4.2.4 इस नीति के कार्यान्वयन से संबंधित शिकायतों की प्रारंभिक जांच के लिए एक शिकायत निवारण समिति का गठन करना।

4.2.5 अधिप्राप्ति एजेंसी द्वारा इस नीति का अनुपालन न किए जाने की स्थिति में संबंधित मंत्रालयों/विभागों को उचित कार्रवाई के लिए निर्देश जारी करना और सलाह देना।

4.3 जहां भी प्रापण इकाई इस निष्कर्ष पर पहुंचती है कि उपलब्ध बोलीदाता/विनिर्माता द्वारा अनुचित रूप से उच्च मूल्य निर्धारित किया गया है, तो मामले को स्थायी समिति को भेजा जा सकता है। ऐसे मामलों में, प्रापण इकाई को अपने मामले को पूर्ण और विस्तृत दस्तावेज़ों के साथ प्रमाणित करना होगा।

4.4 बोली दस्तावेज़ में विदेशी प्रमाणन/अनुचित तकनीकी विनिर्देश निर्दिष्ट करना स्थानीय आपूर्तिकर्ताओं के विरुद्ध प्रतिबंधात्मक और भेदभावपूर्ण व्यवहार है। यदि भारतीय मानकों की अनुपलब्धता और/या किसी अन्य कारण से विदेशी प्रमाणन निर्धारित करना आवश्यक है, तो ऐसा समिति की लिखित स्वीकृति के बाद ही किया जाएगा।

5. प्रयोज्यता

5.1 यह नीति सरकार के प्रत्येक मंत्रालय अथवा विभाग और उनके प्रशासनिक नियंत्रणाधीन सभी एजेंसियों/इकाइयों तथा सरकारी परियोजनाओं के लिए लौह एवं इस्पात उत्पादों की खरीद हेतु इन एजेंसियों द्वारा वित्त पोषित परियोजनाओं पर लागू है। केन्द्रीय क्षेत्र की सभी योजनाएं (सीएस)/ केन्द्रीय प्रायोजित योजनाएं (सीएसएस) जिनके लिए राज्यों और स्थानीय निकायों द्वारा अधिप्राप्ति की जाती है, इस नीति की परिधि में आएंगी, यदि उस परियोजना/योजना को भारत सरकार द्वारा पूर्णत:/आंशिक रूप से वित्तपोषित किया जाता है।

5.2 यह नीति लौह एवं इस्पात उत्पादों के विनिर्माण के लिए पूंजीगत माल (परिशिष्ट-ख) की खरीद के लिए सार्वजनिक क्षेत्र के इस्पात विनिर्माताओं और उनके प्रशासनिक नियंत्रणाधीन एजेंसियों/निकायों पर लागू होती है।

5.3 परिशिष्ट-ख में लौह एवं इस्पात उत्पादों के विनिर्माण में उपयोग किए जाने वाले पूंजीगत माल की छूट संबंधी सूची शामिल है, जिन्हें आयात किया जा सकता है, तथा पैकेजों के लिए लागू न्यूनतम घरेलू सामग्री की आवश्यकता बताई गई है।

5.4 इस्पात विनिर्माण में उपयोग किए जाने वाले पूंजीगत माल के लिए 20% की खरीद वरीयता लागू है। उदाहरण के लिए, यदि आयात योग्य पूंजीगत माल के लिए न्यूनतम बोलीदाता (एल1) कोई विदेशी

कंपनी है, जिसने उत्पाद पैकेज के लिए 100 करोड़ रुपये की कीमत लगाई है, तो नीति के तहत, समान पूंजीगत माल के घरेलू आपूर्तिकर्ता के लिए 20% की खरीद वरीयता लागू होगी।

5.5 परिशिष्ट-ग में इस्पात बनाने वाले सीपीएसई के लिए स्वदेशी प्रौद्योगिकी आपूर्तिकर्ताओं से खरीद करने के निर्देश और कार्यप्रणाली दी गई है।

5.6 यह नीति उन परियोजनाओं और गैर-परियोजनाओं पर लागू होगी, जहाँ किसी संविदा में लौह एवं इस्पात उत्पादों (परिशिष्ट-क) का कुल अधिप्राप्ति मूल्य मदवार आधार पर 5 लाख रुपये से अधिक है।

5.7 लौह एवं इस्पात उत्पादों की अधिप्राप्ति से संबंधित निविदाओं के लिए कोई वैश्विक निविदा इन्क्वायरी (जीटीई) आमंत्रित नहीं की जाएगी (डीएमआईएंडएसपी नीति का परिशिष्ट-क)। लौह एवं इस्पात उत्पादों के विनिर्माण जिनका अनुमानित मूल्य 200 करोड़ रु. तक हो, (डीएमआईएंडएसपी नीति के परिशिष्ट-ख) के लिए पूंजीगत माल की अधिप्राप्ति से संबंधित निविदाओं के लिए कोई वैश्विक निविदा इन्क्वायरी (जीटीई) व्यय विभाग द्वारा यथा नाम-निर्दिष्ट सक्षम प्राधिकारी के अनुमोदन के अलावा आमंत्रित नहीं की जाएगी।

5.8 यह नीति सरकार के मंत्रालय अथवा विभाग या उनके सार्वजनिक क्षेत्र के उपक्रमों की किसी ईपीसी संविदा और/अथवा अन्य आवश्यकता को पूरा करने के लिए निजी एजेंसियों द्वारा लौह एवं इस्पातों की अधिप्राप्ति पर लागू है।

6. अधिप्राप्ति के लिए निविदा प्रक्रिया

6.1 प्रापण एजेंसियां डीएमआईएंडएसपी नीति का पालन करते समय वित्त मंत्रालय और सीवीसी के अनुदेशों के अनुसार मानक अधिप्राप्ति संबंधी प्रक्रियाओं का पालन करेगी।

6.2 माल की अधिप्राप्ति के साथ-साथ ईपीसी संविदाओं के लिए निविदा दस्तावेज में परिशिष्ट क और परिशिष्ट ख में उल्लिखित आवश्यकताओं के अनुपालन के लिए योग्यता मानदंड को स्पष्ट रूप से रेखांकित किया जाना चाहिए।

6.3 विनिर्माताओं, बिक्री एजेंटो, अधिकृत वितरकों, अधिकृत डीलरों और अधिकृत आपूर्ति घरों सहित सभी बोलीदाता अपनी बोली के हिस्से के रूप में फॉर्म-1 जमा करेंगे, भले ही वे विनिर्माता हो या अन्य।

6.4 वे बोलीदाता जो परिशिष्ट-क के अंतर्गत आने वाले लौह एवं इस्पात उत्पादों के घरेलू विनिर्माताओं के विक्रय एजेंट/अधिकृत वितरक/अधिकृत डीलर/अधिकृत आपूर्ति घर हैं, वे नीति के अंतर्गत घरेलू विनिर्माताओं की ओर से स्व-प्रमाणन के साथ बोली लगाने के लिए पात्र हैं, बशर्ते कि बोलीदाता डिलीवरी के समय घरेलू विनिर्माता द्वारा जारी किया गया प्राधिकार प्रमाणपत्र प्रस्तुत करें।

6.5 डीएमआईएंडएसपी नीति के परिशिष्ट ख के अंतर्गत आने वाले उत्पादों के लिए बोलीदाता को कंपनी के सांविधिक लेखापरीक्षक या लागत लेखापरीक्षक (कंपनियों के मामले में) या किसी प्रैक्टिसिंग लागत लेखाकार या प्रैक्टिसिंग चार्टर्ड अकाउंटेंट (कंपनियों के अलावा आपूर्तिकर्ताओं के संबंध में) द्वारा जारी प्रमाणन प्रस्तुत करेगा, जिसमें यह घोषणा की गई होगी कि लौह एवं इस्पात उद्योग में

उपयोग किए जाने वाले पूंजीगत माल निर्धारित घरेलू मूल्य संवर्धन के अनुसार घरेलू स्तर पर विनिर्मित किए गए हैं।

6.6 यदि किसी वस्तु के भारतीय आपूर्तिकर्ताओं को किसी विदेशी सरकार द्वारा अधिप्राप्ति में भाग लेने और/या प्रतिस्पर्धा करने की अनुमति नहीं है, प्रतिबंधात्मक निविदा शर्तों के कारण, जिनका प्रत्यक्ष या अप्रत्यक्ष रूप से भारतीय कंपनियों पर प्रतिबंध है, जैसे अधिप्राप्ति करने वाले देश में पंजीकरण, अधिप्राप्ति करने वाले देश में विशिष्ट मूल्य की परियोजनाओं का निष्पादन आदि, तो वह उचित पारस्परिक कार्रवाई के लिए प्रापण संस्थाओं को ऐसे विवरण उपलब्ध कराएगा।

6.7 इस्पात मंत्रालय द्वारा उन देशों की संस्थाओं की पहचान की गई है, जो भारतीय कंपनियों को इस्पात मंत्रालय से संबंधित किसी भी वस्तु के लिए अपनी सरकारी अधिप्राप्ति में भाग लेने की अनुमति नहीं देते हैं, उन्हें इस्पात मंत्रालय से संबंधित सभी वस्तुओं के लिए भारत में सरकारी अधिप्राप्ति में भाग लेने की अनुमति नहीं दी जाएगी, सिवाय इस्पात मंत्रालय द्वारा प्रकाशित उन वस्तुओं की सूची के जो उन्हें भाग लेने की अनुमति देती हैं।

6.8 उपरोक्त शर्त जैम पोर्टल सहित केन्द्र सरकार की प्रापण संस्थाओं द्वारा आमंत्रित सभी निविदाओं का हिस्सा होगी।

6.9 यदि बोली दस्तावेजों में घरेलू आपूर्तिकर्ताओं के खिलाफ प्रतिबंधात्मक या भेदभावपूर्ण शर्तें शामिल की जाती हैं, तो अधिप्राप्ति करने वाले प्रशासनिक विभाग (इसके प्रशासनिक नियंत्रण के तहत किसी भी इकाई द्वारा अधिप्राप्ति सहित) द्वारा इसकी जिम्मेदारी तय करने के लिए जांच की जाएगी। इसके बाद, संबंधित प्रावधानों के तहत प्रापण संस्थाओं के दोषी अधिकारियों के खिलाफ प्रशासनिक या अन्यथा उचित कार्रवाई की जाएगी। ऐसी सभी कार्रवाई की सूचना डीएमआईएंडएसपी नीति के तहत स्थायी समिति को भेजी जाएगी।

6.10 इस आदेश के उल्लंघन के लिए किसी प्रापण इकाई द्वारा प्रतिबंधित आपूर्तिकर्ता प्रतिबंध की अवधि के दौरान किसी अन्य अधिप्राप्ति करने वाली इकाई द्वारा अधिप्राप्ति के लिए इस आदेश के तहत वरीयता के लिए पात्र नहीं होगा। ऐसी अन्य प्रापण संस्थाओं के लिए प्रतिबंध उस तारीख से प्रभावी होगा जिस दिन यह अन्य अधिप्राप्ति करने वाली संस्थाओं के संज्ञान में आता है।

6.11 यदि, इस मामले को इस्पात मंत्रालय के पास भेजा जाता है, तब इस्पात मंत्रालय के अधीन गठित शिकायत निवारण समिति सरकारी एजेंसी के दृष्टिकोण पर विचार करने के बाद बोलीदाता से सभी दस्तावेजों के प्राप्त होने और उसका संदर्भ भेजे जाने के 4 सप्ताह के भीतर शिकायत का निपटारा करेगी। बोलीदाता से यह अपेक्षित होगा कि वे इस मामले के संदर्भ के 2 सप्ताह के भीतर इस्पात मंत्रालय के अंतर्गत शिकायत निवारण समिति को लौह एवं इस्पात उत्पादों में दावा किए गए घरेलू मूल्यवर्धन के समर्थन में आवश्यक दस्तावेज प्रस्तुत करे।

6.12 निविदा दस्तावेज में निर्धारित घरेलू मूल्यवर्धन का बोलीदाता द्वारा गलत घोषणा किए जाने की स्थिति में प्रापण ऐजेंसी शास्ती को स्पष्ट रूप से परिभाषित करेगी। मौजूदा नियमों के अनुसार शास्ती में ऐसे विनिर्माता/ सेवा प्रदाता आदि की ईएमडी को जब्त करना, अन्य वित्तीय शास्ती लगाना और उसे ब्लैकलिस्ट किया जाना शामिल हो सकता है।

7. इस्पात मंत्रालय द्वारा कार्यान्वयन की निगरानी

7.1 इस नीति के प्रावधान प्रकाशन की तारीख से 5 वर्षों की अवधि के लिए लागू रहेंगे और इस नीति की अवधि को इस्पात मंत्रालय के विवेक पर और आगे बढ़ाया जा सकता है।

7.2 इस्पात मंत्रालय इस नीति के कार्यान्वयन की निगरानी करने के लिए नोडल मंत्रालय होगा।

7.3 डीएमआईएंडएसपी नीति के अंतर्गत सभी एजेंसियां तिमाही आधार पर घोषणा पत्र भेजेगी जिसमें पिछले वित्तीय वर्ष के दौरान इस नीति के अनुपालन की सीमा और उसके अनुपालन न किए जाने के कारणों को दर्शाया जायेगा।

अनुलग्नक-क

लौह एवं इस्पात उत्पादों की सूची जिनकी अधिप्राप्ति केवल घरेलू स्रोतों से की जा सकती है

क्र.सं.	लौह एवं इस्पात उत्पाद	एचएस कोड	स्थिति
1	600 मि.मी. अथवा उससे अधिक की चौड़ाई वाले लौह अथवा गैर-मिश्रधातु इस्पात के फ्लैट रोल्ड उत्पाद, हॉट रोल्ड, क्लेड, प्लेट लगाया हुआ अथवा कोट किया हुआ नहीं	7208	मेल्ट एंड पोर
2	600 मि.मी. अथवा उससे अधिक की चौड़ाई वाले लौह अथवा गैर-मिश्रधातु इस्पात के फ्लैट रोल उत्पाद, कोल्ड रोल्ड (कोल्ड रिड्यूज्ड किया हुआ), क्लेड, प्लेट लगाया हुआ अथवा कोट किया हुआ नहीं	7209	मेल्ट एंड पोर
3	600 मि.मी. अथवा उससे अधिक की चौड़ाई वाले लौह अथवा गैर-मिश्रधातु इस्पात का फ्लैट रोल उत्पाद, क्लेड, प्लेट लगाया हुआ अथवा कोट किया हुआ	7210	मेल्ट एंड पोर
4	600 मि.मी. से कम की चौड़ाई वाले लौह अथवा गैर-मिश्रधातु इस्पात का फ्लैट रोल उत्पाद, क्लेड, प्लेट लगाया हुआ अथवा कोट किया हुआ नहीं	7211	मेल्ट एंड पोर
5	600 मि.मी. से कम की चौड़ाई का लौह अथवा गैर-मिश्रधातु इस्पात का फ्लैट रोल उत्पाद, क्लेड, प्लेट लगाया हुआ अथवा कोट किया हुआ	7212	मेल्ट एंड पोर
6	लौह एवं गैर-मिश्रधातु इस्पात का अनियमित रूप से वूंड क्वाइल में बार्स और रॉड, हॉट रोल्ड	7213	मेल्ट एंड पोर
7	लौह अथवा गैर-मिश्रधातु इस्पात के अन्य बार्स और रॉड्स जिसे फोर्ज किए जाने की तुलना में आगे अधिक वर्क नहीं किया हुआ, हॉट रोल्ड, हॉट ड्रॉन अथवा हॉट एक्सट्रूडेड परंतु रोलिंग के बाद उसे टिविस्ट किये जाने सहित	7214	मेल्ट एंड पोर
8	लौह अथवा गैर-मिश्रधातु इस्पात का अन्य बार्स एंड रॉड्स	7215	मेल्ट एंड पोर
9	लौह अथवा गैर-मिश्रधातु इस्पात का एंगल, शेप और सेक्शन्स	7216	मेल्ट एंड पोर
10	लौह अथवा गैर-मिश्रधातु इस्पात का वायर	7217	मेल्ट एंड पोर
11	600 मि.मी. अथवा उससे अधिक की चौड़ाई का स्टेनलैस इस्पात का फ्लेट रोल्ड इस्पात	7219	मेल्ट एंड पोर
12	600 मि.मी. से कम की चौड़ाई का स्टेनलैस इस्पात का फ्लैट रोल्ड इस्पात	7220	मेल्ट एंड पोर
13	स्टेनलैस स्टील के अन्य बार्स और रॉड्स; स्टेनलैस स्टील का एंगल शेप और सेक्शन्स	7222	मेल्ट एंड पोर
14	अन्य मिश्रधातु इस्पात के वायर	7229	मेल्ट एंड पोर
15	लौह अथवा इस्पात के रेल, रेलवे अथवा ट्रामवे ट्रेक निर्माण सामग्री	7302	50% घरेलू मूल्यवर्धन
16	कास्ट लौह के ट्यूब, पाइप और हॉलो पाइप	7303	50% घरेलू मूल्यवर्धन
17	लौह (कास्ट आयरन को छोड़कर) अथवा इस्पात के ट्यूब पाइप और हॉलो प्रोफाइल, सीमलैस	7304	50% घरेलू मूल्यवर्धन
18	लौह अथवा इस्पात के सर्कुलर क्रॉस सेक्शन वाले अन्य ट्यूब और पाइप (उदाहरण के लिए, वेल्ड किया हुआ, रिवेट किया हुआ अथवा	7305	50% घरेलू मूल्यवर्धन

	समान रूप से बंद किया हुआ), जिसकी बाहरी त्रिज्या 406.4 मि.मी. से अधिक हो		
19	लौह अथवा इस्पात के अन्य ट्यूब, पाइप और हॉलो प्रोफाइल (उदाहरण के लिए ओपन सीन अथवा वेल्ड किया हुआ, रिवेट किया हुआ अथवा समान रूप से बंद किया गया हुआ)	7306	50% घरेलू मूल्यवर्धन
20	लौह अथवा इस्पात के ट्यूब अथवा पाइप फिटिंग (उदाहरण के लिए, कनेक्टर/कप्लिंग, एल्बो स्लीव्स)	7307	50% घरेलू मूल्यवर्धन
21	स्टेनलैस स्टील का अनियमित रूप से वूंड क्वाइल में बार्स और रॉड, हॉट-रोल्ड	7221	मेल्ट एंड पोर
22	स्टेनलैस स्टील का वायर	7223	मेल्ट एंड पोर
23	इलेक्ट्रिकल स्टील सहित 600 मि.मी. अथवा उससे अधिक की चौड़ाई वाले अन्य मिश्रधातु इस्पात का फ्लैट-रोल्ड इस्पात	7225	मेल्ट एंड पोर
24	इलेक्ट्रिकल स्टील सहित 600 मि.मी. से कम की चौड़ाई वाले अन्य मिश्रधातु इस्पात का फ्लैट-रोल्ड इस्पात	7226	मेल्ट एंड पोर
25	अन्य मिश्रधातु इस्पात का अनियमित रूप से वूंड क्वाइल में बार्स और रोड, हॉट-रोल्ड	7227	मेल्ट एंड पोर
26	अन्य मिश्रधातु इस्पात का अन्य बार्स और रॉड्स; अन्य मिश्रधातु इस्पात का एंगल, शेप्स और सेक्शन्स; एलॉय अथवा गैर- मिश्रधातु इस्पात का हॉलो ड्रील बार्स और रॉड्स	7228	मेल्ट एंड पोर
27	लौह अथवा इस्पात की शीट पाइलिंग, चाहे ड्रील किया हुआ हो अथवा नहीं, चाहे पंच किया हुआ हो अथवा नहीं, चाहे असेम्बल किये हुए तत्वों से बना हुआ हो अथवा नहीं; लौह अथवा इस्पात का वेल्ड किया हुआ एंगल, शेप और सेक्शन्स	7301	50% घरेलू मूल्यवर्धन
28	स्ट्रक्चर्स (9406 के शीर्ष का प्रीफेबरिकेटिड भवनों को छोड़कर) और स्ट्रक्चर्स का हिस्सा	7308	50% घरेलू मूल्यवर्धन
29	300 से अधिक क्षमता का लौह अथवा इस्पात का किसी सामग्री (कम्प्रेस किए हुए अथवा तरलीकृत गैस को छोड़कर) के लिए भंडार, टैंक, वैट और समान कन्टेनर चाहे उसे लाइन किया गया हो अथवा नहीं या उसे हीट से इन्सुलेट किया गया हो अथवा नहीं लेकिन यांत्रिक अथवा तापीय उपक्रम से युक्त न हो	7309	50% घरेलू मूल्यवर्धन
30	अधिकतक 300 लीटर की क्षमता का लौह अथवा इस्पात का किसी सामग्री (कम्प्रेस किए हुए अथवा तरलद्रवी गैस को छोड़कर) के लिए टैंक, कास्ट, ड्रम, केन, बॉक्स और समान कन्टेनर चाहे उसे लाइन किया गया हो अथवा नहीं या उसे हीट से इन्सुलेट किया गया हो अथवा नहीं लेकिन यांत्रिक अथवा तापीय उपक्रम से युक्त न हो	7310	50% घरेलू मूल्यवर्धन
31	लौह अथवा इस्पात का कम्प्रेस किया हुआ अथवा तरलीकृत गैस के लिए कन्टेनर	7311	50% घरेलू मूल्यवर्धन
32	लौह अथवा इस्पात का स्टेंडिड वायर, रोप, केबल, प्लेटिड बैंड, स्लिंग और उसके समान वस्तु जिसे विद्युतीय रूप से इन्सुलेट न किया गया	7312	50% घरेलू मूल्यवर्धन
33	लौह अथवा इस्पात का फेनसिंग के लिए उपयोग किये जाने वाला बार्ब्ड वायर; ट्विस्ट किया हुआ हूप अथवा सिंगल फ्लेट वायर, बार्स	7313	50% घरेलू मूल्यवर्धन

	किया हुआ अथवा नहीं और लूज तरीके से ट्विस्ट किया हुआ डबल वायर		
34	लौह अथवा इस्पात वायर का ग्रिल, नेटिंग और फेनसिंग; लौह अथवा इस्पात संबंधित एक्सपैंडेड विस्तृत धातु	7314	50% घरेलू मूल्यवर्धन
35	लौह अथवा इस्पात का चैन और उसका हिस्सा	7315	50% घरेलू मूल्यवर्धन
36	लौह अथवा इस्पात का टैंकर, ग्रेपनेल्स और उसका हिस्सा	7316	50% घरेलू मूल्यवर्धन
37	लौह एवं इस्पात की वस्तुएं	7317	50% घरेलू मूल्यवर्धन
38	लौह एवं इस्पात की वस्तुएं	7318	50% घरेलू मूल्यवर्धन
39	लौह एवं इस्पात की वस्तुएं	7319	50% घरेलू मूल्यवर्धन
40	लौह अथवा इस्पात की स्प्रिंग और स्प्रिंग के लिए लीव्स	7320	50% घरेलू मूल्यवर्धन
41	लौह अथवा इस्पात के स्टोव्स, रेंज, ग्रेड, कूकर (सेंट्रल हिटिंग के लिए सहायक बॉयलरों के साथ उन वस्तुओं सहित), बारबेक्यूज, ब्रेजियर्स, गैस रिंग, प्लेट वॉमर्स और समान गैर-विद्युतीय घरेलू उपकरण और उसका हिस्सा	7321	50% घरेलू मूल्यवर्धन
42	लौह अथवा इस्पात का सेंट्रल हिटिंग के लिए रेडियेटर जिसे विद्युतीय रूप से हीट न किया गया हो और उसका हिस्सा; लौह अथवा इस्पात का हेयर हीटर और हॉट एयर वितरक जिसे विद्युतीय रूप से हीट न किया गया हो, फेन अथवा ब्लोअर जो मोटर से चलती हो और उसके हिस्से को शामिल करते हुए	7322	50% घरेलू मूल्यवर्धन
43	लौह अथवा इस्पात का टेबल और समान घरेलू वस्तुएं और उसका हिस्सा	7323	50% घरेलू मूल्यवर्धन
44	लौह अथवा इस्पात के सेनेटरी वेयर और उसके पार्टस	7324	50% घरेलू मूल्यवर्धन
45	लौह अथवा इस्पात के अन्य कास्ट सामान	7325	50% घरेलू मूल्यवर्धन
46	लौह अथवा इस्पात का विद्युतीय इस्पात और अन्य वस्तुएं	7326	50% घरेलू मूल्यवर्धन
47	रेलवे अथवा ट्रामवे पेसेंजर कोच जो स्व-चालित नहीं है	8605	50% घरेलू मूल्यवर्धन
48	रेलवे अथवा ट्रामवे माल वेन और वेगेन जो स्व-चालित नहीं है	8606	50% घरेलू मूल्यवर्धन
49	रेलवे अथवा ट्रामवे लोकोमोटिव का हिस्सा अथवा रोलिंग स्टॉक जैसे बोगिज, बिसल बोगिज, एक्सेल और फोर्ज्ड किया हुआ पहिया और उसका हिस्सा	8607	50% घरेलू मूल्यवर्धन

परिशिष्ट- ख

लौह एवं इस्पात उत्पादों के विनिर्माण के लिए आयात किए जा सकने वाले पूंजीगत माल (गैर-संपूर्ण) और पैकेज के लिए लागू न्यूनतम घरेलू सामग्री की सूची

क्र.सं.	संयंत्र/यूनिट पैकेज	पूंजीगत माल की न्यूनतम घरेलू सामग्री (%)	आयात योग्य वस्तुएँ
1	**खनन विकास के लिए उपस्कर** • क्रशिंग एवं स्क्रीनिंग संयंत्र • खनिज बेनिफिशियेशन (लौह अयस्क और कोयला) संयंत्र; (बाउंड्री लिमिट: क्रेशर हॉपर में आरओएम की प्राप्ति, विखंडन, पृथक्करण, अयस्क/कोयला प्रसंस्करण से लेकर अंतिम उत्पाद तैयार करना) • स्लाइम बेनिफिशियेशन • स्वचालित लोडिंग सुविधा • कन्वेयर प्रणाली	75%	• वेट हाई इंटेन्सिटी मैग्नेटिक सैपरेटर / हाई ग्रेडीअन्ट मैग्नेटिक सैपेरेटर • हैवी मीडिया साइक्लोन • जाइरेटरी क्रशर • स्पाइलर कंसंट्रेटर • ऑनलाइन ऐश एनालाइजर • बॉल/रॉड/एजी मिल (3.5मी व्यास से अधिक)
2	**खनन परिवहन** • स्लरी पाइपलाइन • लंबी दूरी की कन्वेयिंग प्रणाली	30%	• पीडी पंप • वॉल्व • विशिष्ट/रोप/पाइप कन्वेयर
3	**खदानों के लिए अन्य खनन मशीनरी और हैवी अर्थ मूविंग उपस्कर** (बाउंड्री लिमिट: ड्रिलिंग, रेजिंग, लैडिंग, हॉलेज और खदान तैयार करने के लिए उपस्कर)	लागू नहीं	• डम्पर (220 टन से अधिक पे लोड क्षमता), हाइड्रोलिक एक्सकेवेटर (9 क्यूबिक मीटर बकेट क्षमता से अधिक)
4	**पेलेट संयंत्र उपस्कर** (बाउंड्री लिमिट - फ्लक्स और बाइंडर के लिए ग्राउंड हॉपर प्राप्त करना, बेल्ट कन्वेयर उत्पाद पेलेट बेल्ट कन्वेयर को आईओएफ फीडिंग)	85%	• पैलेट कार, हाई इंटेंसिव मिक्सर, बॉलिंग डिस्क, वर्टिकल रोलर मिल, ड्राइव/डिस्चार्ज एंड स्प्रोकेट असेंबली, कर्व्ड रेल, स्लाइड रेल, सिंगल डेक रोलर स्क्रीन और डबल डेक रोलर स्क्रीन, इंड्यूरेशन मशीन ड्राइव असेंबली, लेवल-2 ऑटोमेशन

	लौह/इस्पात निर्माण		
5	**कच्चे माल की हैंडलिंग प्रणाली** (बाउंड्री लिमिट - वैगन टिपलर से संबंधित उपयोगकर्ता इकाइयों तक)	95%	• बैरल कप्लिंग, हेवी ड्यूटी बियेरिंग, क्रेन रेल लुब्रिकेशन प्रणाली, स्लियू रिंग बियरिंग्स, टोंग्स (विशेष), वाइब्रेशन आइसोलेशन प्रणाली (स्प्रिंग डैम्पर), हाइड्रॉलिक मोटर और हाइड्रॉलिक पंप (वैगन टिपलर, साइड आर्म चार्ज, स्टैकर सह रिक्लेमर, स्लियू स्टैकर में स्थापित) इलैक्ट्रॉनिक कार्ड, अनबैलेंस्ड मोटर, वैगन टिपलर का कैम लिमिट स्वीच।
6	**कोक ओवन बैटरी** (टॉप चार्ज और स्टैम्प चार्ज दोनों) (कोयला बंकर से कोक डिस्चार्ज बकेट तक)	90%	• एंकरेज सिस्टम के स्प्रिंग्स, सीओजी बूस्टर, स्टैम्पिंग ट्रेन, बॉन्डिंग प्रेस
7	**कोक ड्राई क्वेन्चिंग संयंत्र** (हॉट कोक प्राप्त करने वाली बेकट से कूलिंग चैम्बर के डिस्चार्ज श्यूट ढलान तक)	90%	• मिल फैन और मोटर, कूलिंग चैम्बर के ट्विन फ्लू के लिए विशेष रिफैक्ट्री
8	**उपोत्पाद संयंत्र** (प्राथमिक गैस कूलर से स्वच्छ कोक ओवन गैस के नेटवर्क तक)	90%	• एग्जॉस्टर और मोटर, क्लॉज किल्न का बर्नर, कैटलिस्ट, टेल गैस विश्लेषक, पैलेटाइजेशन इकाई
9	**सिंटर संयंत्र उपस्कर** (बाउंड्री लिमिट - उत्पाद सिंटर बिन के नीचे वाइब्रो-फीडर हेतु कच्चे माल के लिए रिसिविंग बिन)	75%	• हाई इन्टेन्सिव मिक्सर और ग्रैनुलेटर इकाई, पैलेट कार, ड्राइव स्प्रोकेट, सिंटर मशीन के गियर बॉक्स के साथ मुख्य ड्राइव, स्लाइड रेल और कर्व्ड रेल, हॉट सिंटर ब्रेकर और ग्रिज़ली, एनुलर डिप रेल कूलर, सिंटर प्लांट एग्जॉस्टर अनुप्रयोग के लिए एलसीआई ड्राइव सिस्टम • इगनिशन फर्नेस स्पेयर पार्ट्स (रिफैक्ट्री/नियंत्रण प्रणाल/बर्नर असेंबली) • इग्ज़ोस्टर (वेस्ट गैस फैन) और सिस्टम स्पेयर पार्ट्स

10	**ब्लास्ट फर्नेस उपस्कर** बाउंड्री लिमिट*:* **इनपुट*:*** • **कच्चा माल -** संबंधित सामग्री के बंकरों का ऊपरी भाग • **कोल्ड ब्लास्ट** - स्नॉर्ट वाल्व का इनलेट • **औद्योगिक जल** - बीएफ पंप हाउस **आउटपुट** • **हॉट मेटल -** टारपीडो लेडल में भरी जाती है • **ग्रेनुलेटिड स्लैग -** ग्रेनुलेटिड स्लैग यार्ड के लिए	70%	• बेल लेस टॉप गियर बॉक्स, ऊपरी सील डिवाइस जो ऊपरी सामग्री गेट और ऊपरी सील वाल्व को कवर करती है, निचली सील डिवाइस जो निचले सामग्री गेट और निचले सील वाल्व को कवर करती है, ब्लीडर वाल्व, टिलटिंग रॉकर, वियर लाइनर्स, गौगल वॉल्व, इक्वलाइजिंग एंड रीलीफ वॉल्व, श्यूट रोटेशन मोटर्स, डिस्ट्रीब्यूशन श्यूट, फीडर स्पाउट, श्यूट्स और फनल्स आदि। • हार्थ रिफ्रैक्टरी (कार्बन ब्लॉक) • टॉप रिकवरी टर्बाइन सिस्टम (टीआरटी) • क्यू-स्टेव्स • एसजीआई स्टेव्स • कास्ट हाउस उपस्कर (मड गन, ड्रिलिंग मशीन और मुख्य ट्रॉफ मैनिपुलेटर) • प्रोब, प्रोफाइलोमीटर और स्टॉक स्तर सूचक (रडार टाईप) • गैस सफाई संयंत्र (एजीएस प्रणाली) • स्टोव सिस्टम - सिरेमिक बर्नर और तकनीकी वाल्व • अपशिष्ट ऊष्मा पुनर्प्राप्ति प्रणाली • टर्बो ब्लोअर • बॉल मिल • पीसीआई इंजेक्शन सिस्टम • लेवल-II ऑटोमेशन • कॉपर प्लेट कूलर्स • ट्यूयेर कूलर्स • स्टोव टेकनोलॉजिकल वाल्व • एसजीपी का डीवाटरिंग व्हील • टोरपेडो लैडल कार चेन असेबली • डोम फिल्ड डंप वाल्वस • ट्यूयेर स्टाक असेंबली
11	**गैस आधारित डायरेक्ट रीडक्शन संयंत्र उपस्कर** (बाउंड्री लिमिट*:* डीआरआई रिएक्टर के शीर्ष पर कच्चे माल की प्राप्ति और ईएएफ में हॉट डीआरआई का डिस्चार्ज)	50%	• रिएक्टर चार्जिंग सिस्टम • रिएक्टर • रिएक्टर डिस्चार्जिंग प्रणाली • ईएएफ में नुमैटिक ट्रांसफर • ब्रिकेटिंग प्रणाली के लिए डिस्चार्च रूट • ब्रिकेटिंग फीडिंग सिस्टम

			• ब्रिकेटिंग प्रणाली • रिडक्शन गैस सर्किट • CO_2 निष्कासन इकाई • प्रक्रिया गैस हीटर • सुधारक प्रणाली • हीट रिकवरी प्रणाली • प्रोसेस गैस कम्प्रेसर • ब्लोअर्स • सील गैस प्रणाली • फ्लू गैस फैन/हॉट फैन • प्रोसेस वाल्व • क्रिटिकल बेलोज • क्रिटिकल रिफ्रैक्ट्री • प्राकृतिक गैस शोधन पूर्व प्रणाली • लेवल-II ऑटोमेशन
12	**ऑक्सीजन संयंत्र 700 टीपीडी और उससे अधिक** (बाउंड्री लिमिट: ऑक्सीजन संयंत्र सीमा पर पानी, विद्युत)	30%	• मुख्य एयर कंप्रेसर • बूस्टर एयर कंप्रेसर • एक्सपेशन टरबाइन • रिबॉयलर • क्रायोजेनिक पंप • एएसयू के हीट विनिमय तत्व • प्रेशर कॉलम • मुख्य कंडेंसर, लो प्रेशर कॉलम • क्रूड आर्गन कॉलम, शुद्ध आर्गन कॉलम और कंडेंसर के साथ कंडेंसर ब्लॉक • मुख्य हीट एक्सचेंजर, शुद्ध आर्गन इवापरेटर सब-कूलर • एलओएक्स-आइसी-प्रोसेस पंप • एलआइएन-आइसी-प्रोसेस पंप • एलएआर-ट्रांसफर -प्रोसेस पंप • डेंस फ्लूइड एक्सपेंडर • बूस्टर हीट एक्सचेंजर • पीपीयू के लिए मॉलिक्यूलर सीव्स स्विचिंग वाल्व • क्रिटिकल सेफ्टी वाल्व • स्पेशलाइज्ड वाल्व • कंट्रोल वाल्व • कोल्ड बॉक्स • कंट्रोल वाल्व जीओएक्स-प्रोडक्ट

			• कोल्ड बॉक्स के फ्लो मापने वाले उपकरण • एक्सपेंडर - ब्रेक जेनरेटर, फ्रीक्वेंसी कन्वर्टर्स
13	**इस्पात प्रसंस्करण**		
13.1	**हॉट मेटल डी-डी-सल्फराइजेशन स्टेशन (एचएमडीएस) यूनिट के साथ को-** **इंजेक्शन प्रक्रिया** (ब्लास्ट फर्नेस (बीएफ) से हॉट मेटल को टारपीडो लेडल या ओपन-टॉप लेडल में प्राप्त होता है "सल्फर(एस)" सामग्री को कम करने के लिए डीसल्फराइजेशन शोधन से गुजारा जाता है और फिर बीओएफ कनवर्टर में स्थानांतरित किया जाता है)	75%	• इंजेक्शन लांस और सहायक उपकरणों के साथ स्वचालित सैंपलिंग इकाई • सहायक उपकरणों के साथ डी-स्लैगिंग मशीनें (स्लैग रेकिंग मशीन) • सहायक उपकरणों के साथ तापमान मापने और नमूना लेने के साधन
13.2	**हॉट मेटल डी-डी-सल्फराइजेशन स्टेशन (एचएमडीएस) यूनिट मैकेनिकल स्टिरर (केआर) प्रक्रिया के साथ** (ब्लास्ट फर्नेस (बीएफ) से हॉट मेटल टारपीडो लेडल या ओपन-टॉप लेडल में प्राप्त होता है, "सल्फर (एस)" सामग्री को कम करने के लिए डीसल्फराइजेशन शोधन से गुजारा जाता है और फिर बीओएफ कनवर्टर में स्थानांतरित किया जाता है)	70%	• सहायक उपकरणों के साथ इम्पेलर, इम्पेलर लिफ्टिंग और स्टीरिंग उपस्कर, गाइड फ्रेम • सहायक सुविधाओं के साथ डी-स्लैगिंग मशीनें (स्लैग रेकिंग मशीन) • सहायक उपकरणों के साथ तापमान मापने और नमूना लेने का साधन
13.3	**बेसिक ऑक्सीजन फर्नेस/एलडी ईकाई** [शोधित हॉट मेटलको बीओएफ कनवर्टर में डाला जाता है, जहां इसे इस्पात में परिवर्तित करने के लिए प्रसंस्कृत किया जाता है, जिसकी फिर लैडल फर्नेस (एलएफ) में आपूर्ति की जाती है]	65%	• क्लैम्पिंग के साथ लांस बॉडी, लांस कैरिज, लांस गाइड, लांस होइस्ट और ट्रॉली, सहायक उपकरणों के साथ लांस कॉपर टिप्स। • आपातकालीन टिल्टिंग ड्राइव के लिए न्यूमेटिक मोटर्स। • ज्वाइंट के साथ बॉटम स्टिरिंग प्रणाली, वाल्व स्टेशन और रोटरी • सहायक उपकरणों के साथ ऑक्सीजन/आर्गन/नाइट्रोजन के लिए वाल्व

			स्टेशन • सहायक उपकरणों के साथ उप-स्लांस प्रणाली • सभी सहायक उपकरणों सहित कंटेनर प्रयोगशाला। • सहायक उपकरणों के साथ स्वचालित गैस कपलिंग (ऑटो कपलर)। • कनवर्टर रेकिंग मशीन। • कनवर्टर टैप होल बदलने की मशीन • रिफ्रैक्टरी निगरानी (लेजर) मशीन। • कन्वर्टर शेल पार्ट्स, सस्पेंशन सिस्टम, रोटरी जॉइंट, स्लैग स्टॉपर और इसके कंट्रोल वाल्व • कन्वर्टर टिल्टिंग ड्राइव सिस्टम और सस्पेंशन सिस्टम, गियरबॉक्स और मोटर्स, न्यूमेटिक मोटर्स और कंट्रोल वाल्व, पोजीशन एनकोडर, क्लच सिस्टम, लुब्रिकेशन सिस्टम कंपोनेंट्स। • लैडल ट्रांसफर कार रेल ट्रैक सिस्टम (ए सीरीज़ टाइप) और गियरबॉक्स, स्टिरिंग कपलिंग। • लोमास गैस एनालाइज़र, मल्टी-लैब तापमान और सैंपल सिस्टम। • लैडल ट्रांसफर कारों के लिए स्टिरिंग कपलिंग। • पीएलसी और आरआइओ। • ऑटोमेशन सिस्टम और सॉफ्टवेयर। • हॉट ज़ोन हाइड्रोलिक पंप और वाल्व। • व्हील ब्लॉक के साथ हॉट ज़ोन गियर वाले मोटर्स। • कन्वर्टर बेयरिंग। • हवा और बिजली से चलने वाला स्लरी कॉम्पेक्शन पंप। • प्राइमरी आईडी फैन, बेयरिंग, मोटर्स, ड्राइव और लुब्रिकेशन सिस्टम। • डब्ल्यूडीएस-कोन
13.4	**इलेक्ट्रिक आर्क फर्नेस यूनिट** (प्राथमिक सामग्री जैसे स्क्रैप, डीआरआई, पिग आयरन और हॉट मेटल को विद्युत ऊर्जा का उपयोग	70%	• सहायक उपकरणों के साथ इलेक्ट्रोड रेगुलेशन प्रणाली • फर्नेस ट्रांसफार्मर सहित हाई करंट प्रणाली • सहायक उपकरणों के साथ ऑक्सीजन और कार्बन इंजेक्शन प्रणाली

	करके तरल इस्पात में परिवर्तित किया जाता है, जिससे कच्चे माल को पिघलाया और परिष्कृत किया जाता है)		• सहायक उपकरणों के साथ मैनुअल तापमान मापन और नमूनाकरण लांस
13.5	**लैडल फर्नेस यूनिट** [तरल इस्पात को वांछित ग्रेड प्राप्त करने के लिए संसाधित/शोधित किया जाता है और निरंतर कास्टिंग मशीन (सीसीएम) को आपूर्ति किए जाने से पहले बफर स्टॉक के रूप में रखा जाता है]	70%	• सहायक उपकरणों के साथ इलेक्ट्रोड विनियमन प्रणाली • सहायक उपकरणों के साथ मैनुअल तापमान मापन और नमूनाकरण लांस
13.6	**आरएच/आरएच-ओबी यूनिट** [आवश्यक विघटित गैस स्तर प्राप्त करने के लिए तरल इस्पात को डीगैस किया जाता है और फिर निरंतर कास्टिंग मशीन (सीसीएम) को आपूर्ति की जाती है]	65%	• सहायक उपकरणों के साथ गैस स्टिरिंग सिस्टम/लिफ्ट गैस स्टिरिंग सिस्टम वॉल्व स्टैंड • सहायक उपकरणों के साथ ऑक्सीजन लांस प्रणाली • सहायक उपकरणों के साथ हाइड्रिस मापन प्रणाली
13.7	**आर्गन/ऑक्सीजन डीकार्बराइजेशन (एओडी) इकाई**	70%	• एओडी कन्वर्टर को टिल्ट करने के लिए ड्राइव यूनिट, एयर मोटर, ब्रेक आदि। • लांस कॉपर टिप्स • पानी और ऑक्सीजन के लिए होज़ • इमरजेंसी टिल्टिंग ड्राइव के लिए न्यूमेटिक मोटर। • एओडी कन्वर्टर के लिए बेयरिंग, एयर मोटर के लिए इमरजेंसी गियर • सहायक उपकरणों के साथ ऑक्सीजन/आर्गन/नाइट्रोजन के लिए वाल्व स्टेशन। • रिफ्रैक्टरी मॉनिटरिंग (लेजर) मशीन • ऑटोमेशन सिस्टम।
13.8	**वीडी/वीओडी**	70%	• गैस एनालिसिस (ऑफ-गैस मास स्पेक्ट्रोमीटर) सिर्फ़ सेंसर। होल्डर भारत में बना है। • ऑटोमेशन और प्रोसेस कंट्रोल सॉफ्टवेयर प्लेटफॉर्म • सहायक उपकरणों के साथ वैक्यूम पंप सिस्टम • ऑक्सीजन टिप्स

			• सहायक उपकरणों के साथ ऑक्सीजन/ आर्गन/नाइट्रोजन के लिए वाल्व स्टेशन।
13.9	**सब्मर्ज्ड आर्क फर्नेस (एसएएफ) इकाई**	65%	• क्ले गन और ड्रिल मशीन • इलेक्ट्रोड उपकरण • स्लिपिंग डिवाइस असेंबली • इलेक्ट्रोड गाइडिंग असेंबली • ऊपरी और निचली मेंटल असेंबली • प्रेशर रिंग असेंबली • कॉन्टैक्ट शू असेंबली • हीट शील्ड असेंबली • इलेक्ट्रोड सील असेंबली • प्रेशर रिंग बेलोज़ • सील रिफ्रैक्टरी • फर्नेस ऑटोमेशन और कंट्रोलर सॉफ्टवेयर
13.10	**सतत कास्टिंग इकाई** (स्लैब कास्टर/बिलेट/ब्लूम राउंड/ कॉम्बी/बीम ब्लैंक) [तरल इस्पात को निरंतर कास्टिंग मशीन (सीसीएम) में स्लैब, बिलेट या ब्लूम में ढाला जाता है]	65%	• सहायक उपकरणों सहित लैडल स्लैग डिटेक्शन प्रणाली • कॉपर ट्यूब और प्लेट, मोल्ड ऑसीलेशन सिलेंडर। • रोटरी यूनियन। • सहायक उपकरणों सहित सतत तापमान माप प्रणाली। • सहायक उपकरणों के साथ टॉर्च कटिंग मशीन/ आपातकालीन टॉर्च कटर • सहायक उपकरणों सहित विद्युत ड्राइव सिस्टम सहित डी-ब्युरिंग मशीन • मार्किंग मशीन। • सहायक उपकरणों सहित रोल गैप चेकर • सहायक उपकरणों सहित इलेक्ट्रोमैग्नेटिक स्टिरर (ईएमएस)/इलेक्ट्रोमैग्नेटिक ब्रेकिंग (ईएमबीआर) प्रणाली
14	**फ्लैट उत्पाद मिल्स**		
14.1	**हॉट स्ट्रिप मिल्स/प्लेट मिल** (बाउंड्री लिमिट: सहायक उपकरणों सहित स्लैब यार्ड से डिस्पैच बे तक)	50%	• डी-स्केलर, मिल स्टैंड, बेड प्लेट, बैकअप रोल, वर्क रोल, मिल स्पिंडल, चॉक्स, एजीसी सिलेंडर, बेंडिंग ब्लॉक और सिलेंडर, शियर, डाउन कॉइलर, एंटी-फ्रिक्शन रोल नेक बेयरिंग, ऑयल फिल्म बेयरिंग, मिल

			रिड्यूसर, लोड सेल, थिकनेस गॉज, प्रोफाइल गॉज, लेवलर, रोल ग्राइंडिंग मशीन, कॉइल मार्किंग मशीन, प्लेट मार्किंग मशीन, मिल स्टैंड मोटर्स और मिल स्टैंड एमवी ड्राइव सिस्टम, ऑटोमेशन सिस्टम आदि।
14.2	**सीआरएम (पीएलटीसीएम)** (बाउंड्री लिमिट: पिकलिंग लाइन एंट्री से मिल एक्जिट तक)	50%	• वेल्डिंग मशीन, टैंशन लेवलर, मिल स्टैंड, बैकअप रोल, एंटीफ्रिक्शन बीयरिंग, ऑयल फिल्म बीयरिंग, रोल चॉक्स, रोल फोर्स सिलेंडर, रोल बेंडिंग और रोल शिफ्टिंग सिलेंडर, मिल स्पिंडल, लोड सेल, पोजिशन ट्रांसड्यूसर, इलेक्ट्रोस्टेटिक ऑइलर, साइड ट्रिमर, स्टीयरिंग सिस्टम, सरफेस इंस्पेक्शन सिस्टम, थिकनेस गेज, लेजर स्पीड गेज, टेंसियोमीटर, फ्लैटनेस गॉज, टैंशन रील, मिल रिड्यूसर, मिल स्टैंड मोटर्स और मिल स्टैंड एमवी ड्राइव सिस्टम, ऑटोमेशन सिस्टम आदि।
14.3	**सीआरएम (एचडीजीएल)** (बाउंड्री लिमिट: टेम्पर मिल और टैंशन लेवलर सहित एचडीजीएल में एंट्री से एक्जिट तक)	60%	• वेल्डिंग मशीन, रेडिएंट ट्यूब फर्नेस, जेट कूलिंग सिस्टम, इंडक्शन हीटिंग के साथ कोटिंग पॉट, पॉट रोल, एयर नाइफ वाइपिंग सिस्टम, टैंशन लेवलर, विड्थ गॉज, थिकनेस गेज, कोटिंग मोटाई गॉज, लोड सेल, रोल फोर्स सिलेंडर, मिल स्टैंड मोटर्स और मिल स्टैंड ड्राइव सिस्टम, ऑटोमेशन सिस्टम, आदि।
14.4	**सीआरएम (एसपीएम)** (बाउंड्री लिमिट: एसपीएम में एंट्री से एक्जिट तक)	50%	• मिल स्टैंड, बैकअप रोल, एंटीफ्रिक्शन बीयरिंग, ऑयल फिल्म बीयरिंग, रोल चॉक्स, रोल फोर्स सिलेंडर, मिल स्पिंडल, इलेक्ट्रोस्टेटिक ऑइलर, कॉइल मार्किंग सिस्टम, लोड सेल, थिकनेस गॉज, मिल स्टैंड मोटर्स और मिल स्टैंड एमवी ड्राइव सिस्टम, ऑटोमेशन सिस्टम, आदि।
14.5	**सीआरएम (बेल एनीलिंग फर्नेस)** (बाउंड्री लिमिट: फर्नेस बेस से पोस्ट कूलिंग उपस्कर तक)	55%	• फर्नेस, स्वचालन प्रणाली, आदि।
14.6	**सीआरएम (कलर कोटिंग लाइन)** (बाउंड्री लिमिट: सीसीएल में एंट्री से	80%	• कोटर, कोटिंग थिकनेस गेज, डिजिटल प्रिंटर, टैंशन लेवलर, स्वचालन आदि।

	एक्जिट तक)		
14.7	**टीएससीडीआर (थिन स्लैब कास्टिंग डायरेक्ट रोलिंग)** (बाउंड्री लिमिट: टूरेट से क्वाइल फिनिशिंग और पैकेजिंग एरिया)	50%	• सहायक उपकरणों सहित संपूर्ण लेडल स्लैग डिटेक्शन सिस्टम • कॉपर ट्यूब और प्लेट, मोल्ड ऑसिलेशन सिलेंडर। • रोटरी यूनियन। • सहायक उपकरणों सहित निरंतर तापमान मापने की प्रणाली। • पेंडुलम शीयर कटिंग मशीन। • सेगमेंट्स असेंबली • सहायक उपकरणों सहित रोल गैप चेकर कंप्लीट • सहायक उपकरणों सहित इलेक्ट्रोमैग्नेटिक स्टिरर (इएनएस)/इलेक्ट्रोमैग्नेटिक ब्रेकिंग (इएमबीआर) सिस्टम • टनल फर्नेस बर्नर • रफिंग और फिनिशिंग मिल स्टैंड, वर्क रोल और बैकअप रोल, एंटीफ्रिक्शन बेयरिंग, ऑयल फिल्म बेयरिंग, रोल चॉक्स, रोल फोर्स सिलेंडर, मिल स्पिंडल, मिल स्टैंड एमवी ड्राइव और मोटर, ऑटोमेशन सिस्टम, लैमिनार/पावर कूलिंग कंपोनेंट्स, हाइड्रोलिक क्वाइलर। प्रोफाइल गेज, थिकनेस गेज, विड्थ गेज। • नोजल • ग्रीस सिस्टम और सहायक उपकरण • हाइड्रोलिक सिस्टम और सहायक उपकरण • गियरबॉक्स • आरओटी रोल असेंबली • रोल असेंबली (स्लीव, शॉफ्ट, रोल) • लेडल टरेट और सहायक उपकरण (स्लीव बेयरिंग, डिस्क कपलिंग, गियरबॉक्स, हाइड्रोलिक क्लच और हाइड्रोलिक सिलेंडर) • मोल्ड ब्रेकआउट प्रिडिक्शन सिस्टम • ऑटो मोल्ड लेवल कंट्रोल न्यूक्लियोनिक गेज • मोल्ड पाउडर फीडिंग सिस्टम • सहायक उपकरणों सहित सीएनसी मोल्ड मशीनिंग सिस्टम • टंडिश और टरेट वजन प्रणाली

			• टनल फर्नेस रिफ्रैक्टरी रोल। • टनल फर्नेस शटल ड्राइव सिस्टम और गैस पहुंचाने की प्रणाली। • बैकअप रोल हाइड्रोस्टेटिक लुब्रिकेशन सिस्टम • रोल बाइट लुब्रिकेशन सिस्टम • सहायक उपकरणों सहित इन-फर्नेस कैमरा • क्रॉप शीयर • डेस्केलर सिस्टम और घटक। • कॉइल मार्किंग मशीन • ऑनलाइन कॉइल वजन प्रणाली • कट टू लेंथ स्टेकर सिस्टम • रोल शॉप (सीएनसी कॉम्बी ग्राइंडर, सीएनसी रोल ग्राइंडर, सीएनसी नाइफ ग्राइंडर, सीएनसी टर्निंग मशीन, लेथ मशीन) • क्वाइल स्ट्रैपिंग मशीन • डाउन कोइलर सिस्टम • मिल मापने की प्रणाली और सेंसर (ऑटोमैटिक गेज कंट्रोल (एजीसी) सेंसर (रोल फोर्स, गैप, दबाव) • अपने सेंसर सहित लूपर कंट्रोल सिस्टम • कंडीशन आधारित निगरानी प्रणाली और उसके सेंसर • क्वाइल शटल कार और पैलेट कन्वेइंग सिस्टम। • क्रेन कॉइल टोंग। • आरओ और यूएफ मेम्ब्रेन • सेल्फ-क्लीनिंग फिल्टर
14.8	**प्लेट मिल के लिए नॉर्मलाइज़िंग फैसिलिटी** (बाउंड्री लिमिट: नॉर्मलाइज़िंग फर्नेस में एंट्री से तैयार प्लेट्स के डिस्पैच तक)	50%	• फर्नेस बर्नर, फर्नेस हर्थ रोलर्स, लेवलर, लोड सेल, ऑटोमेशन
14.9	**एसएसएम (सिलिकॉन स्टील मिल)** (बाउंड्री लिमिट : पिकलिंग लाइन एंट्री से एसएसएम के डिस्पैच तक)	50%	• मिल स्टैंड, वर्क रोल और बैकअप रोल, एंटीफ्रिक्शन बीयरिंग, ऑयल फिल्म बीयरिंग, रोल चॉक्स, रोल फोर्स सिलेंडर, मिल स्पिंडल, मिल स्टैंड एमवी ड्राइव सिस्टम और मोटर्स, ऑटोमेशन सिस्टम, एनीलिंग फर्नेस, डीकार्बराइजिंग लाइन, इलेक्ट्रिकल स्टील परीक्षण इकाईयां (उदाहरण के लिए फिशर

			स्कोप मोटाई मापने वाला उपकरण, फ्रैंकलिन इंसुलेशन रेजिस्टिविटी टेस्टर, चुंबकीय कंसोल, स्टैकिंग फैक्टर टेस्टर)।
14.10	**सीआरएम (क्लस्टर मिल स्टैंड)** सेंडज़िमिर मिल (बाउंड्री लिमिट : सेंडज़िमिर मिल में एंट्री से एग्जिट तक)	50%	• सेंडज़िमिर मिल स्टैंड, वर्क रोल और बैकअप रोल, एंटीफ्रिक्शन बेयरिंग, ऑयल फिल्म बेयरिंग, रोल चॉक्स, रोल फोर्स सिलेंडर, मिल स्पिंडल, मिल स्टैंड एमवी ड्राइव सिस्टम और मोटर्स, ऑटोमेशन सिस्टम
14.11	**एचआरएम (स्टेकेल मिल)** (बाउंड्री लिमिट : कॉइलर फर्नेस एंट्री से स्टेकेल मिल तक और कॉइलर फर्नेस एग्जिट तक)	40%	• स्टेकेल मिल स्टैंड, हीटेड कॉइलर, वर्क रोल और बैकअप रोल, एंटीफ्रिक्शन बेयरिंग, ऑयल फिल्म बेयरिंग, रोल चॉक, रोल फोर्स सिलेंडर, मिल स्पिंडल, मिल स्टैंड एमवी ड्राइव सिस्टम और मोटर्स, ऑटोमेशन सिस्टम
15	**लॉग प्रोडक्ट मिल्स**		
15.1	**बार मिल/डब्ल्यू/एमएम/एलएसएम** (बाउंड्री लिमिट : फर्नेस एंट्री से डिस्पेच तक)	75%	• फास्ट फिनिशिंग ब्लॉक, रोल टर्निंग लेथ, प्रोफाइल गेज, ऑटोमेशन सिस्टम, आदि
15.2	**रेल मिल/हेवी स्ट्रकचरल मिल** (बाउंड्री लिमिट: मटीरियल हैंडलिंग को छोड़कर फर्नेस एंट्री से रेल वेल्डिंग संयंत्र एग्जिट तक)	45%	• मिल स्टैंड, मिल मोटर और ड्राइव सिस्टम, हीट ट्रीटमेंट इकाई, स्ट्रेटनिंग मशीन, • एनडीटी इकाईयां, वेल्डिंग मशीन, प्रोफाइल गेज, हॉट सॉ, कोल्ड सॉ, हॉट मार्किंग मशीन, रोल टर्निंग लेथ, सॉ ग्राइंडिंग मशीन, ऑटोमेशन सिस्टम, आदि।
15.3	ईआरडब्ल्यूपीपी (इलेक्ट्रिकल रेजिस्टेंस वेल्डेड पाइप संयंत्र) (बाउंड्री लिमिट: स्ट्रिप फीडिंग से फिनिशिंग इकाईयां और ईआरडब्ल्यूपीपी के डिस्पैच तक)	50%	• प्री-फॉर्मिंग यूनिट, ब्रेक-डाउन स्टैंड, एज बेंडर, यूनिवर्सल केज, फिनिशिंग पास (मल्टीपल स्टैंड), पाइप गाइड, हाई फ्रीक्वेंसी वेल्डिंग मशीन, हाई पावर इलेक्ट्रिक इंडक्टर, हाइड्रो टेस्टिंग, अल्ट्रासोनिक मशीन
15.4	एसडब्ल्यूपीपी (सर्पिल वेल्डेड पाइप संयंत्र) (बाउंड्री लिमिट: पाइप बनाने से फिनिशिंग इकाईयां और एसडब्ल्यूपीपी के डिस्पैच तक)	50%	• सबमर्ज्ड आर्क वेल्डिंग, आउटसाइड वेल्डिंग (स्केलप जॉइंट), एक्स- रे स्टेशन, हाइड्रो टेस्टिंग, बेवलिंग मशीन, अल्ट्रासोनिक मशीन, एंड रेडियोग्राफ स्टेशन

16	**व्हील संयंत्र**		
16.1	व्हील संयंत्र (राउंड/इनगॉट की रिसिप्ट से लेकर तैयार व्हील तक)	30%	• सर्कुलर सॉ, फोर्जिंग प्रेस, व्हील रोलिंग मिल, व्हील डिशिंग प्रेस, व्हील स्टैम्पिंग मशीन, रिम स्प्रेइंग मशीन, मोबाइल चार्जर, (हैंडलिंग रोबोट), मशीनिंग इकाईयां , टेस्टिंग इकाईयां, ऑटोमेशन सिस्टम आदि
16.2	रेलवे व्हील के लिए हीट ट्रीटमेंट इकाईयां (बाउंड्री लिमिट: हॉट डायमेंशन मेज़रमेंट से ब्लैक व्हील स्टोरेज तक का एग्जिट)	40%	• फर्नेस बर्नर, हर्थ रोलर्स, ऑटोमैटिक व्हील हैंडलिंग और क्वेंचिंग मशीन
16.3	व्हील और रेल के लिए नॉन डेस्ट्रक्टिव टेस्टिंग (एनडीटी) इकाईयां (बाउंड्री लिमिट: एनडीटी इकाईयां के एंट्री और एग्जिट)	30%	• हार्डनेस टेस्टिंग मशीन, अल्ट्रासोनिक टेस्टिंग मशीन, मैग्नेटिक पार्टिकल इंस्पेक्शन मशीन, एडी करंट टेस्टिंग मशीन
16.4	रोलिंग मिल स्टैंड के लिए फोर्ज्ड रोल विनिर्माण की इकाईयां (बाउंड्री लिमिट: फोर्ज्ड ब्लैंक रोल एंट्री से फिनिश्ड रोल के डिस्पैच तक)	30%	• फोर्जिंग प्रेस, मैनिपुलेटर्स, रोल हार्डनिंग मशीन, क्रायोजेनिक ट्रीटमेंट फैसिलिटी, टेम्परिंग फर्नेस, रोल ग्राइंडर, रोल टर्निंग लेथ, हार्डनेस टेस्टिंग मशीन, अल्ट्रासोनिक टेस्टिंग मशीन
16.5	आरजीबीएस/रोल शॉप	50%	• सीएनसी वर्क रोल ग्राइंडर/ सीएनसी कॉम्बी ग्राइंडर, सीएनसी रोल टर्निंग लेथ, • रोल के लिए इलेक्ट्रिक डिस्चार्ज टेक्सचरिंग (ईडीटी) और इलेक्ट्रिक डिस्चार्ज मशीनिंग (ईडीएम) की इकाईयां
17	रिफ्रेक्टरी ब्रिक (कच्चे माल की प्राप्ति से लेकर तैयार ब्रिक तक)	50%	• हाइड्रोलिक प्रेस
18	इल्केट्रिकल (विद्युत गुणवत्ता प्रणाली)	30%	• एमवीस्टेटकॉम • (स्टेटिक सिंक्रोनस कंपेंसेटर) प्रणाली
	अन्य सहायक और उपयोगिता वाले उपस्कर		
19	**कैल्सीनेशन संयंत्र** (कैल्साइन्ड लाइम और डोलो)		• फायरिंग सिस्टम, शाफ्ट लेवल इंडिकेटर, ऑटोमेशन सिस्टम • वीएफडीऔर सॉफ्ट स्टार्टर कार्ड। ड्राइविंग एयर ब्लोअर, डीडस्टिंग ड्राफ्ट फैन,

		कूलिंग एयर फैन, लाइम कूलिंग फैन, वेस्ट गैस फैन, गैस बूस्टर फैन असेंबली • हाइड्रॉलिक सिलेंडर, हाइड्रॉलिक मोटर्स, हाइड्रॉलिक स्टेशन।
20	**इलेक्ट्रिक मोटर चालित कोल्ड ब्लास्ट ब्लोअर** (एक्सियल/ एक्सियल लास्ट स्टेज रेडियल के साथ)	• एक्सियल / एक्सियल लास्ट स्टेज रेडियल ब्लोअर के साथ • ड्राइव सिस्टम के साथ मोटर • ब्लो - ऑफ वाल्व • ब्लोअर नॉन - रिटर्न वाल्व • नियंत्रण और इंस्ट्रूमेंटेशन आइटम
21	स्टीम टर्बाइन चालित कोल्ड ब्लास्ट ब्लोअर (एक्सियल/एक्सियल लास्ट स्टेज रेडियल के साथ)	• एक्सियल / एक्सियल लास्ट स्टेज रेडियल ब्लोअर के साथ • ब्लो - ऑफ वाल्व • ब्लोअर नॉन - रिटर्न वाल्व • कंट्रोल एंड इंस्ट्रूमेंटेशन आइटम
22	**डीजल इंजन चालित कोल्ड ब्लास्ट ब्लोअर** (एक्सियल/एक्सियल लास्ट स्टेज रेडियल रेडियल के साथ)	• एक्सियल/एक्सियल लास्ट स्टेज रेडियल ब्लोअर के साथ / रेडियल ब्लोअर और सिस्टम • डीजल इंजन • ब्लो-ऑफ वाल्व • ब्लोअर नॉन - रिटर्न वाल्व • कंट्रोल एंड इंस्ट्रूमेंटेशन आइटम
23	**गैस फायरड़/हीट रिकवरी बॉयलर**	• विशेष ग्रेड प्लेट्स और ट्यूब्स • फ्लेम स्कैनर • इंस्ट्रूमेंटेशन एंड कंट्रोल
24	**स्टीम टरबाइन** (एक्सट्रेशन/बीपीटीजी)	• स्पेशल ग्रेड ब्लेड सामग्री • गवर्निंग सिस्टम • टर्बो पर्यवेक्षी प्रणाली • इंस्ट्रूमेंटेशन एंड कंट्रोल
25	**गैस होल्डर**	• गैसहोल्डर सील, सीलेंट। • फिटिंग के साथ लेवल वेट रोप • वी.आर.वाल्व गैस्केट • डबल/ट्रिपल मेम्ब्रेन सिस्टम के लिए स्पेशल मेम्ब्रेन • हाईड्रोलिक
26	**हाई प्रेशर गैस बूस्टर** (आउटलेट प्रेशर > 2000 एमएम डब्ल्यूसी)	• गैस बूस्टर जिसमें कंट्रोल और बाईपास वाल्व शामिल हैं • पिस्टन रिंग्स • कंसेंट्रेट रिंग टाईप वाल्व (एसएस)

27	**प्रदूषण नियंत्रण प्रणालियाँ**	• टीआर सेट • कंट्रोलर्स • इंसुलेटरर्स • ईएसपी इलेक्ट्रिकल कंपोनेंट • कंट्रोल एंड इंस्ट्रूमेंटेशन आइटम
28	**जल एवं अपशिष्ट उपचार प्रणाली**	• मेंब्रेन • इवेपोरेटर (कंप्रेसर और टाइटेनियम शीट) • एचपी पंप्स • कंट्रोल एंड इंस्ट्रूमेंटेशन आइटम
29	**कंप्रेस्ड एयर स्टेशन**	• सेंट्रीफ्यूगल कंप्रेसर कोर असेंबली जिसमें इम्पेलर्स, बुल गियर, पिनियन शाफ्ट, बेयरिंग्स, वाइब्रेशन प्रोब्स और लोकल कंट्रोल पैनल शामिल हैं ।
30	**हाइड्रोजन संयंत्र**	• इलेक्ट्रोलाइज़र इकाई • एचपी कंप्रेसर • कंट्रोल एंड इंस्ट्रूमेंटेशन आइटम
31	**पैकेज्ड चिलर्स**	• कंप्रेसर • कंट्रोल एंड इंस्ट्रूमेंटेशन आइटम
32	**अन्य उपयोगिता वाले क्षेत्र जैसे-** एयर कंडीशनिंग और वेंटिलेशन सिस्टम, वीएएम बेस्ड चिलर सिस्टम, फायरफाइटिंग सिस्टम, गैस बूस्टर (डीपी 2000 एमएम डब्ल्यूसी से कम), कूलिंग वॉटर सिस्टम (पंपिंग स्टेशन, फिल्टर, कूलिंग टावर, हीट एक्सचेंजर, आदि), गैस मिक्सिंग स्टेशन, पॉल्यूशन कंट्रोल सिस्टम, इंटर प्लांट पाइपिंग सिस्टम	• आइटम/इक्विपमेंट में सब-कंपोनेंट/पार्ट्स होते हैं जो आयात किए जाते हैं • कंप्रेसर, चिलर, क्रेन एसी यूनिट, एक्पेनशन वाल्व, उपकरण, उच्च तापमान अनुप्रयोग वाले एसी।
33	**इलेक्ट्रिक ओवरहेड ट्रैवलिंग क्रेन और गैन्ट्री क्रेन, इलेक्ट्रिक होइस्ट**	• बैरल कपलिंग, हेवी ड्यूटी बेयरिंग, क्रेन रेल लुब्रिकेशन, स्लू रिंग बेयरिंग, टोंग्स
34	**इंजीनियरिंग शॉप**	• सीएनसी लेथ, सीएनसी मिलिंग मशीन
35	पावर जेनरेशन, ट्रांसमिशन और डिस्ट्रीब्यूशन सिस्टम; शॉप इलेक्ट्रिक्स जिसमें पावर और कंट्रोल सिस्टम और उससे जुड़े इलेक्ट्रिकल काम शामिल हैं	विद्युत मंत्रालय की मिनिमम लोकल कंटेंट (एमएससी)% गाइडलाइन के अनुसार

नोट : सभी उपस्कर की अधिप्राप्तिअनुपालन विद्युत मंत्रालय की दिशानिर्देशों के अंतर्गत/ क्लास-I श्रेणी के अनुसार किया जाएगा। ऐसे मामलों में जहाँ उपकरण क्लास-I श्रेणी में शामिल नहीं हैं, या जहाँ उपस्कर की श्रेणीकरण विशिष्टता विद्युत मंत्रालय की/दिशानिर्देशों में स्पष्ट रूप से परिभाषित नहीं है, वहाँ डीपीआईटीटी द्वारा जारी क्लास-I और क्लास-II श्रेणियों से संबंधित प्रावधानों का पालन किया जाएगा।

36	**इंस्ट्रूमेंटेशन आइटम/उपस्कर** **	डीपीआईटीटी के दिशानिर्देशों के अनुसार*	• अबोव/अंडर बर्डन जांच प्रणाली • प्रोफाइलोमीटर • बर्डन कैमरा • तुयेरे फिनोमिना डिटेक्शन प्रणाली (टीपीडीएस) • टॉप गैस एनालाइज़र (सीओ,सीओ$_2$,एच$_2$,ओ$_2$, पॉल्यूटेंट्स) • फ्लो जाम स्विच • एलिमेंटल एनालाईजर • मॉइस्चर एनालाईजर(न्यूक्लिओनिक) • सीवी एनालाईजर • थिकनेस गेज • हॉट मेटल डिटेक्टर • विड्थ गेज • फर्नेस कैमरा • मल्टीफेज प्रोफ़ाइल गेज • मल्टीफंक्शन/शेप गेज • सतह निरीक्षण प्रणाली • लेजर डॉप्लर वेलोसीटी मीटर • ऑप्टिकल बैरियर • हॉट रोलिंग के लिए थर्मल इमेजिंग सिस्टम • ऑटोमैटिक गेज कंट्रोल (एजीसी) सेंसर (रोल फोर्स, गैप, प्रेशर) • ऑनलाइन मैकेनिकल प्रॉपर्टी प्रेडिक्शन सिस्टम (एआई + सेंसर) • ऑयल फिल्म थिकनेस मॉनिटरिंग सिस्टम (कोल्ड रोलिंग) • एक्स-रे या न्यूक्लिओनिक आधारित कोटिंग थिकनेस गेज • मास फ्लो मीटर • हाइड्रिस (मोल्टन स्टील में हाइड्रोजन का पता लगाना) • मोल्ड लेवल मीजरमेंट • ब्रेक-आउट प्रीडीक्शन प्रणाली (बीओपीएस) • इल्क्ट्रोमैग्नेटिक ब्रेक (ईएमबीआर) नियंत्रण और सेंसर • लेडल ट्रैकिंग और प्रबंधन प्रणाली • स्लैग डिटेक्शन सिस्टम (एसडीएस)/ स्लैग मॉनिटरिंग सिस्टम • बीओएफ एंडपॉइंट डिटेक्शन (लेजर-इंडुय्स्ड

			ब्रेकडाउन स्पेक्ट्रोस्कोपी-एलआईबीएस) • सब-लांस सिस्टम (टेम्परेचर + O_2 + कार्बन + सैंपलिंग) • लैडल रिफ्रैक्टरी वियर मॉनिटरिंग (लेजर/ अल्ट्रासोनिक/इंफ्रारेड) • कंटीन्यूअस एमिशन मॉनिटरिंग सिस्टम (सीईएसएस- एसओx , एनओx, पीएस, सीओ, सीओ$_2$, ओ$_2$, एच2 के लिए इम्पोर्टेड एनालाइज़र) • बीओएफ/ ईएएफ (सीओ, सीओ$_2$, ओ$_2$, एच2 डस्ट) के लिए ऑफ - गैस एनालाइज़र • वॉटर क्वालिटी एनालाइज़र (पीएच, कंडक्टिविटी, ऑयल - इन - वॉटर, टीओसी, सिलिका, बीओडी, सीओडी, टीएसएस, टीडीएस, फिनोल, साइनाइड) • लेजर - आधारित गैस लीक डिटेक्टर (सीएज$_4$, सीओ, एच$_2$, एच2एस) • अक्सोटिक/ अल्ट्रासोनिक रिसाव का पता लगाना • वाइब्रेशन / कंडीशन मॉनिटरिंग सेंसर / एक्सियल शिफ्ट / डिफरेंशियल एक्सपेंशन मॉनिटरिंग सिस्टम • टक्कर रोधी प्रणाली (रडार/लेजर/लिडार) • ओवन पहचान प्रणाली (ओआईएस) • पाइरोमीटर • लोमास विश्लेषक • प्रेशर,टेम्परेचर और इलेक्ट्रोटेक्निकल पैरामीटर्स के लिए मास्टर कैलिब्रेटर • सिंटर संयंत्र में इरिच मिक्सर्स में स्थापित उपकरण और हैंज़ेल निर्मित लुब्रिकेशन प्रणालियाँ • टर्बाइन और टर्बो ब्लोअर के लिए गवर्नर सिस्टम • बाई-प्रोडक्ट संयंत्र के लिए टेल गैस एनालाइज़र • कोक बकेट लिफ्टर और रिवर्सिंग विंच में प्रयोग में आने वाले फोर्स सेंसर • एनकोडर, • हाइड्रोलिक वाल्व नियंत्रक • बीएलटी में स्थापित उपस्कर (टिल्ट स्विच,

			सोनिक सेंसर, एनकोडर,आदि) • फ्लेम सेंसर/स्कैनर
37	**ऑटोमेशन आइटम/उपस्कर ****	डीपीआईटीटी के दिशानिर्देशों के अनुसार *	
38	**वॉयस कम्युनिकेशन सिस्टम ****	डीपीआईटीटी के दिशानिर्देशों के अनुसार *	
39	**फायर डिटेक्शन और अलार्म (एफडीए) प्रणाली ****	डीपीआईटीटी के दिशानिर्देशों के अनुसार *	
40	**सीसीटीवी प्रणाली ****	डीपीआईटीटी के दिशानिर्देशों के अनुसार *	

नोट:

* इंस्ट्रूमेंटेशन, ऑटोमेशन संचार उपस्कर, फायर डिटेक्शन एंड अलार्म (एफडीए) प्रणाली और सीसीटीवी प्रणाली डीपीआईआईटी के साथ-साथ एमईआईटीवाई दिशानिर्देशों के अनुसार क्लास- I और क्लास- II आपूर्तिकर्ता मानदंडो के अनुरूप पूंजीगत वस्तुओं के लिए घरेलू सामग्री आवश्यकताओं का अनुपालन करेगी।

** अत्यधिक विशिष्ट उपस्कर, कंपोनेंट्स, और ज़रूरी पार्ट्स जैसे इंस्ट्रूमेंटेशन, ऑटोमेशन, कम्युनिकेशन सिस्टम, फायर डिटेक्शन और अलार्म (एफडीए) सिस्टम, और सीसीटीवी सिस्टम के लिए सेमीकंडक्टर चिप्स अभी वैश्विक प्रौद्योगिकी वाली अग्रणी कंपनियों से लिए जा रहे हैं। हालांकि, पूरे सिस्टम असेंबली, इंटीग्रेशन, और मैन्युफैक्चरिंग का कार्य भारत में ही किया जा रहा है, और शेष कंपोनेंट्स स्वदेसी स्रोतो से अधिप्राप्त किये जा रहे हैं।

परिशिष्ट-ग

लौह एवं इस्पात क्षेत्र में स्वदेशी प्रौद्योगिकियों को बढ़ावा देना

1) **उद्देश्य:**

इस्पात विनिर्माण के सभी चरणों में स्वदेशी प्रौद्योगिकियों का अंगीकरण, विकास और विस्तार को प्रोत्साहित करके भारतीय लौह एवं इस्पात क्षेत्र में आत्मनिर्भरता को बढ़ावा देना।

2) **विषय क्षेत्र:**

यह नीति इस्पात बनाने या इस्पात विनिर्माण संयंत्र स्थापित करने वाले केन्द्रीय सार्वजनिक क्षेत्र के उद्यमों पर लागू होती है।

3) **नीति निदेश:**

3.1 ऐसे मामले जहां प्रौद्योगिकी और पूर्व इंजीनियरिंग एवं आपूर्ति के लिए प्रमाण उपलब्ध हैं, लेकिन वर्तमान क्षमता आवश्यकता से मेल नहीं खाते हैं, ऐसे मामलों में स्वदेशी प्रौद्योगिकी प्रदाताओं के लिए निम्नलिखित शर्तें लागू होंगी:

3.1.1 उत्पादन क्षमता प्रस्तावित संयंत्र की क्षमता का 30% होगी

3.1.2 वेंड़र्स के साथ स्पष्ट साझेदारी की प्रामाणिक उपलब्धता

3.1.3 प्रस्तावित संयंत्र की क्षमता के कम से कम 75% के लिए परियोजनाओं की डिटेल इंजीनियरिंग कार्यों का अनुभव

3.2 ऐसे मामले जहां प्रौद्योगिकी उपलब्ध है, लेकिन अर्लियर सप्लाई के लिए कोई संदर्भ उपलब्ध नहीं है, ऐसे मामलों में स्वदेशी प्रौद्योगिकी प्रदाताओं के लिए निम्नलिखित शर्तें लागू होंगी:

3.2.1 स्वदेशी प्रौद्योगिकी आपूर्तिकर्ता ने प्रस्तावित परियोजना की कम से कम 75% विशेषताओं से मेल खाते हुए परियोजनाओं की डिटेल इंजीनियरिंग कार्य किया हो

3.2.2 स्वदेशी प्रौद्योगिकी आपूर्तिकर्ता ने प्रस्तावित परियोजना की महत्वपूर्ण विशेषताओं से 100% मेल खाते हुए डिटेल इंजीनियरिंग कार्य किया हो

3.2.3 वेंड़र्स के साथ स्पष्ट गठजोड़ की उपलब्धता

3.2.4 प्रौद्योगिकी उपलब्धता के प्रमाणिक साक्ष्य (आईपीआर या अन्य पर्याप्त साक्ष्य)

3.3 ऐसे मामलों में जहाँ कोई भारतीय प्रौद्योगिकी उपलब्ध नहीं है, वहाँ यदि कोई विदेशी प्रौद्योगिकी प्रदाता तीन वर्षों के भीतर भारतीय सीपीएसई (जिसमें अधिप्राप्ति करने वाली इकाई भी शामिल है) को प्रशिक्षण और सहयोग सहित प्रौद्योगिकी हस्तांतरण करने का वचन देता है, तो उसे घरेलू मूल्य संवर्धन के प्रतिशत पर ध्यान दिए बिना माना हुआ श्रेणी-1 आपूर्तिकर्ता (डीम्ड क्लास-1 सप्लायर) माना जाएगा। इस स्थिति में, क्रय वरीयता उस विदेशी प्रौद्योगिकी प्रदाता को दी जाएगी, जैसा कि डीपीआईआईटी के सार्वजनिक अधिप्राप्ति (मेक इन इंडिया को प्राथमिकता) आदेश में समय-समय पर संशोधित किया गया है।

4) **कार्यान्वयन निरीक्षण:**

इस्पात मंत्रालय द्वारा गठित स्थायी समिति कार्यान्वयन की निगरानी करेगी, विवादों का समाधान करेगी तथा पात्रता एवं प्रोत्साहन मानदंडों को समय-समय पर अद्यतन करेगी।

प्रपत्र-1

मेल्ट एंड पोर आवश्यकताओं (परिशिष्ट- क*) और/या घरेलू मूल्य वर्धन आवश्यकताओं (परिशिष्ट-क और परिशिष्ट-ख*) के अनुपालन के लिए स्व-प्रमाणन का हलफनामा

*परिशिष्ट-ख पूंजीगत वस्तुओं के लिए, नीति के तहत अनिवार्य रूप से वैधानिक लेखापरीक्षक/लागत लेखापरीक्षक/सीए प्रमाणपत्र के साथ यह शपथपत्र अवश्य संलग्न होना चाहिए।

मैं,_____,निवास_____,मेसर्स_____

_के अधिकृत हस्ताक्षरकर्ता होने के नाते _____ एतद्द्वारा पूर्णतया प्रतिज्ञा और घोषणा करता/करती हूँ;

1. मैंने दिनांक_____ को जारी अधिसूचना संख्या_____ घरेलू स्तर पर विनिर्मित लौह एवं इस्पात उत्पाद (डीएमआई एवं एसपी) नीति, 2025, को पढ़ और समझ लिया है। मैं उक्त नीति और उस निविदा की सभी शर्तों और नियमों का पालन करने के लिए सहमत हूं जिसके संबंध में यह शपथपत्र प्रस्तुत किया गया है।

2. यह शपथपत्र निम्नलिखित लौह एवं इस्पात उत्पाद/पूंजीगत वस्तुओं से संबंधित है:

उत्पाद का नाम: _____

एचएस कोड: _____

परिशिष्ट वर्गीकरण: परिशिष्ट-क/परिशिष्ट-ख (जैसा लागू हो, चुनें)

प्रापण एजेंसी: _____

3. मेल्ट एंड पोर - यह केवल परिशिष्ट-क में उल्लिखित उन वस्तुओं पर लागू होता है जिनमें मेल्ट एंड पोर संबंधी शर्त होती है।

मैं एतद्द्वारा घोषणा करता/करती हूँ कि उपरोक्त उत्पाद भारत में मेल्ट एंड पोर की आवश्यकताओं जैसा कि विशेष रूप से परिशिष्ट- क में अधिसूचित किया है, को पूरा करते हैं। विशेष रूप से:

भारत में ही इस्पात को मेल्ट और पोर किया गया था।

पहला सॉलिड शेप (स्लैब/बिलेट/इनगॉट/अन्य) निम्नलिखित स्थान(स्थानों) पर उत्पादित किया गया था:

इस्पात निर्माण इकाई: _____स्थान: _____ हीट रिकॉर्ड; _____ बैच विवरण: _____

मैं प्रापण एजेंसी द्वारा आवश्यकता पड़ने पर इस घोषणा को प्रमाणित करने के लिए मिल परीक्षण प्रमाण पत्र, हीट रिकॉर्ड और कोई अन्य दस्तावेजी प्रमाण प्रस्तुत करने का वचन देता हूं।

(यदि लागू न हो, तो "लागू नहीं" लिखें।)

4. घरेलू मूल्य संवर्धन - परिशिष्ट-क डीवीए मदों और परिशिष्ट-ख पूंजीगत वस्तुओं पर लागू:

मैं एतद्द्वारा घोषणा करता/करती हूँ कि उत्पाद(उत्पादों) का घरेलू मूल्यवर्धन (डीवीए)% _____ है। डीवीए की गणना डीपीआईआईटी दिशानिर्देशों और डीएमआईएंडएसपी नीति, 2025 में निर्दिष्ट फार्मुला के अनुसार की गई है।

4क. परिशिष्ट- ख पूंजीगत वस्तुओं (अनिवार्य) के लिए: वैधानिक लेखापरीक्षक/लागत लेखा परीक्षक/चार्टर्ड लेखाकार द्वारा जारी प्रमाण पत्र संलग्न है, जो नीति के अनुसार पूंजीगत वस्तु पैकेज के डीवीए की पुष्टि करता है।

(यदि यह केवल परिशिष्ट-क का आइटम है, तो इस खंड को रद्द कर दें।)

5. मैं पुष्टि करता/करती हूँ कि: दी गई सभी जानकारी सत्य और सही है। सभी इनपुट स्टील की लागत, आयातित सामग्री और घरेलू सामग्री की गणना सत्यापित की जा चुकी है। सभी उत्पादन, खरीद और मूल्य निर्धारण संबंधी रिकॉर्ड जांच के लिए उपलब्ध हैं।

यदि कोई भी जानकारी गलत या भ्रामक पाई जाती है: प्रापण एजेंसी अपने मानदंडों के अनुसार मुझे/मेरी फर्म को सरकारी निविदाओं से अयोग्य घोषित कर सकती है। मैं नीति और निविदा शर्तों के अनुसार, ईएमडी की जब्ती सहित सभी मूल्यांकन लागतों और जुर्माने का भुगतान करने के लिए सहमत हूं।

6. मैं संबंधित रिकॉर्ड को बनाए रखने और उन्हें किसी भी वैधानिक प्राधिकारी को उपलब्ध कराने का वचन देता हूं।

7. घोषणा: मैं एतद्द्वारा घोषणा करता/करती हूँ कि ऊपर दिए गए कथन मेरी जानकारी और विश्वास के अनुसार सत्य है। मैं समझता/समझती हूँ कि किसी भी प्रकार की गलत जानकारी देने पर डीएमआईएंडएसपी नीति, लागू कानूनों और निविदा शर्तों के तहत दंड का प्रावधान होगा।

(स्थान एवं दिनांक)

मैसर्स_____

के लिए और उनकी ओर से

(अधिकृत हस्ताक्षरकर्ता)

[फा. सं. 8(2)/2023-आईडी-I]

अभिजीत नरेंद्र, संयुक्त सचिव

MINISTRY OF STEEL

NOTIFICATION

New Delhi, the 17th December, 2025

G.S.R. 904(E).— In supersession of earlier Domestically Manufactured Iron & Steel Products Policy, the revised Domestically Manufactured Iron & Steel Products Policy-2025 for providing preference to Domestically Manufactured Iron & Steel Products in Government procurement is hereby published for general information.

POLICY FOR PROVIDING PREFERENCE TO DOMESTICALLY MANUFACTURED IRON & STEEL PRODUCTS IN GOVERNMENT PROCUREMENT- REVISED, 2025

1. **Background**

1.1. This policy provides preference for Domestically Manufactured Iron and Steel Products (DMI&SP) in Government procurement.

1.2. The policy applies to procurement of iron & steel products notified in Appendix A, procurement of capital goods listed in Appendix B and technology from indigenous technology suppliers in Appendix C.

2. **Definitions**

2.1. **Bidder** may be a domestic/foreign manufacturer of iron & steel or their selling agents/ authorized distributors/authorized dealers/ authorized supply house or any other company engaged in the bidding of projects funded by Government agencies.

2.2. **Domestically Manufactured Iron & Steel Products** are those iron and steel products that are manufactured by entities that are registered and established in India, including in Special Economic Zones (SEZs).

2.3. **Domestic Manufacturer** is a manufacturer conforming to Section 2(72) of the Central Goods and Services Tax (CGST) Act, 2017.

2.4. **Domestic value addition** means the amount of value added in India which shall be the total value of the item to be procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all custom duties) as a proportion of the total value of the item to be procured, in percent. The 'domestic value addition' definition shall be in line with the DPIIT guidelines and shall be suitably amended in case of any changes by DPIIT in the future. For the purpose of this policy document, domestic value addition and local content have been used interchangeably.

% Domestic value addition =

{Total value of the item to be procured (excluding net domestic indirect taxes) – The value of

imported content in the item (including all customs duties)}

---------- X 100%

{Total value of the item to be procured}

2.5. **Finished Steel** means flat and long products, which can be subsequently processed into manufactured items.

2.6. **Government** for the purpose of the Policy means Government of India.

2.7. **Government agencies** include Government PSUs, Societies, Trusts, and Statutory bodies set up by the Government of India.

2.8. **Indigenous Technology:** A technology shall be deemed to be Indigenous technology if, at least 51 % of the entity's equity is held by Indian residents and the IPR is owned or co-owned by an Indian entity or licensed exclusively to them and the core engineering R&D, and project execution capabilities reside in India.

2.9. **L1** means the lowest tender, or the lowest bid or the lowest quotation received in a tender, bidding process, or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation.

2.10. **MoS** means Ministry of Steel, Government of India.

2.11. **Margin of purchase preference** means the maximum extent to which the price quoted by a domestic supplier may be above L1 for the purpose of purchase preference. In the case of DMI&SP policy, the margin of purchase preference shall be 20% for items in Appendix B.

2.12. **Melt & Pour** is defined as the steel that has been produced in a steel-making furnace and poured into its first solid shape. The location where this process takes place is called the country of melt and pour (COM). The COM is the original location where crude steel is first produced in a liquid state and poured into its first solid shape. The country of melt and pour (COM) should be India. The first solid shape can be a semi-finished product, like a slab, billet, ingot, or a finished steel mill product.

2.13. **Net Selling Price** means the invoiced price excluding net domestic taxes and duties.

2.14. **Semi-Finished Steel** means Ingots, billets, blooms, and slabs, which can be subsequently processed into finished steel.

3. **Exclusions**

3.1. Waivers may be granted by the Ministry of Steel to all such Government procurements subject to the below conditions:

3.1.1. Where specific grades of steel are not manufactured in the country, or

3.1.2. Where the quantities as per the demand of the project cannot be met through domestic sources.

3.2. Exemption requests shall be submitted to the Standing Committee along with sufficient proof of unavailability of iron & steel products domestically.

4. **Standing Committee**

4.1. A Standing Committee chaired by the Secretary (Steel), shall oversee the implementation of the policy.

4.2. The Committee shall comprise of experts drawn from Industry/Industry Association/Government Institution or Body/Ministry of Steel. The said Committee in MoS shall have the mandate for the following:

4.2.1. Monitor the implementation of the policy.

4.2.2. Review and notify the list of Iron & Steel products, the domestic content requirement criteria and policy directives as mentioned in Appendix A, Appendix B and Appendix C.

4.2.3. Issue necessary clarifications for implementation of the policy including grant of exclusions to procuring agencies.

4.2.4. Constitute a grievance redressal committee for preliminary examination of complaints related to implementation of this policy.

4.2.5. Issue directions for suitable action to Ministries/Departments concerned in case of non-compliance with this policy by the procuring agency and advise.

4.3. Wherever a procuring entity concludes that an unreasonably high price has been quoted by the sole bidder/manufacturer, the matter may be referred to the Committee. In such cases, the procuring entity would be required to substantiate its case with complete and thorough documentation.

4.4. Specifying foreign certifications/unreasonable technical specifications in bid document is a restrictive and discriminatory practice against local suppliers. If foreign certification is required to be stipulated because of non-availability of Indian Standards and/or for any other reason, the same shall be done only after written approval of the Committee.

5. **Applicability**

5.1. The policy applies to every Ministry or Department of Government and all agencies/entities under their administrative control and to projects funded by these agencies for the purchase of iron & steel products for government projects. All Central Sector Schemes (CS)/Centrally Sponsored Schemes (CSS) for which procurement is made by States and Local Bodies, come within the purview of this Policy if that project/scheme is fully/partly funded by the Government of India.

5.2. The policy applies to public sector steel manufacturers and agencies/entities under their administrative control for purchase of capital goods (Appendix-B) for manufacturing iron & steel products.

5.3. Appendix-B contains the list of capital goods used in manufacturing iron & steel products which can be imported, and the applicable minimum domestic content requirement for packages.

5.4. A purchase preference of 20% is applicable for capital goods used in steel manufacturing. For example, if the lowest bidder (L1) for an importable capital good is a foreign company with a quoted price of Rs.100 crore for the product package, under the policy, procurement preference of 20% will be applicable to a domestic supplier of the same capital good.

5.5. Appendix-C contains directives and methodology for steelmaking CPSEs to procure from indigenous technology suppliers.

5.6. The policy shall apply to projects and non-projects where the total procurement value of iron and steel products (Appendix-A) in a contract is greater than Rs. 5 lakhs, on itemized basis.

5.7. No Global Tender Enquiry (GTE) shall be invited for tenders related to the procurement of iron and steel products (Appendix-A of the DMI&SP Policy). No Global Tender Enquiry (GTE) shall be invited for tenders related to the procurement of Capital Goods for manufacturing iron & steel products (Appendix-B of the DMI&SP Policy) having estimated value up to Rs. 200 crore except with the approval of competent authority as designated by Department of Expenditure.

5.8. The policy applies to the purchase of iron & steel products by private agencies for fulfilling an EPC contract and/or any other requirement of a Ministry or Department of Government or their PSUs.

6. **Tender procedure for procurement**

6.1. Procuring agencies shall follow standard government procurement procedures while adhering to the DMI&SP policy.

6.2. The tender document, for procurement of both Goods as well as for EPC contracts, should explicitly outline the qualification criteria for adherence to the requirement as mentioned in Appendix A and Appendix B.

6.3. All bidders – including manufacturers, selling agents, authorized distributors, authorized dealers, and authorized supply houses – shall submit Form-1 as part of their bid, irrespective of whether they are the manufacturer or otherwise.

6.4. Bidders who are selling agents/authorized distributors/authorized dealers/authorized supply houses of the domestic manufacturers of iron & steel products, covered by Appendix-A, are eligible to bid with self-certification on behalf of the domestic manufacturers under the policy, subject to the bidder furnishing an authorization certificate issued by the domestic manufacturer at the time of delivery.

6.5. For products covered under Appendix B of the DMI&SP policy, the bidder shall furnish certification issued by the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) declaring that the capital goods to be used in iron & steel industry are domestically manufactured in terms of the domestic value addition prescribed.

6.6. If Indian suppliers of an item are not allowed to participate and/ or compete in procurement by any foreign government, due to restrictive tender conditions which have direct or indirect effect of barring Indian companies such as registration in the procuring country, execution of projects of specific value in the procuring country etc., it shall provide such details to the procuring entities for appropriate reciprocal action.

6.7. Entities of countries that have been identified by the Ministry of Steel as not allowing Indian companies to participate in their Government procurement for any item related to the Ministry of Steel shall not be allowed to participate in Government procurement in India for all items related to Ministry of Steel, except for the list of items published by Ministry of Steel permitting their participation.

6.8. The stipulation above shall be part of all tenders including those on GeM portal invited by the Central Government procuring entities.

6.9. In case restrictive or discriminatory conditions against domestic suppliers are included in bid documents, an inquiry shall be conducted by the Administrative Department undertaking the procurement (including procurement by any entity under its administrative control) to fix responsibility for the same. Thereafter, appropriate action, administrative or otherwise, shall be taken against erring officials of procurement entities under relevant provisions. Intimation on all such action shall be sent to the Standing Committee under the DMI&SP policy.

6.10. A supplier debarred by any procuring entity for violation of this Order shall not be eligible for preference under this Order for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities.

6.11. In case, the matter is referred to the Ministry of Steel, the grievance redressal committee set up under the MoS shall dispose of the complaint within 4 weeks of its reference and receipt of all documents from the bidder after taking into consideration, the view of the Government Agency. The bidder shall be required to furnish the necessary documentation in support of domestic value addition claimed in iron & steel products to the grievance redressal committee under MoS within 2 weeks of the reference of the matter.

6.12. Procuring agency shall define the penalties, in case of a wrong declaration by the bidder of the prescribed domestic value addition, in the tender document. The penalties may include forfeiting of the EMD, other financial penalties, and blacklisting of such manufacturer/service provider etc., in terms of extant rules.

7. Implementation monitoring by the Ministry of Steel

7.1. The policy provisions shall be applicable for 5 years from the date of publication and may further be extended at the discretion of the Ministry of Steel.

7.2. MoS shall be the nodal ministry to monitor the implementation of the policy.

7.3. Agencies covered under DMI&SP policy shall send declaration on a quarterly basis indicating the extent of compliance to the policy and reasons for non-compliance thereof, during the preceding financial year.

Appendix-A

List of iron and steel products which can only be procured from domestic sources

Sl. No	Iron & Steel Products	HS Code	Condition
1	Flat-rolled products of iron or non-alloy steel, of a width of 600 mm or more, hot rolled, not clad, plated or coated	7208	Melt & Pour
2	Flat-rolled products of iron or non-alloy steel, of a width of 600 mm or more, cold rolled (cold-reduced), not clad, plated or coated	7209	Melt & Pour
3	Flat-rolled products of iron or non-alloy steel, of a width of 600 mm or more, clad, plated or coated	7210	Melt & Pour
4	Flat-rolled products of iron or non-alloy steel, of a width of less than 600 mm, not clad, plated or coated	7211	Melt & Pour
5	Flat-rolled products of iron or non-alloy steel, of a width of less than 600 mm, clad, plated or coated	7212	Melt & Pour
6	Bars and rods, hot-rolled, in irregularly wound coils, of iron or non-alloy steel	7213	Melt & Pour
7	Other bars and rods of iron or non-alloy steel, not further worked than forged, hot rolled, hot-drawn or hot-extruded, but including those twisted after rolling	7214	Melt & Pour
8	Other bars and rods of iron or non-alloy steel	7215	Melt & Pour
9	Angles, shapes and sections of iron or non-alloy steel	7216	Melt & Pour
10	Wire of iron or non-alloy steel	7217	Melt & Pour
11	Flat-rolled products of stainless steel, of a width of 600 mm or more	7219	Melt & Pour
12	Flat-rolled products of stainless steel, of a width of less than 600 mm	7220	Melt & Pour
13	Other bars and rods of stainless steel; angles, shapes and sections of stainless steel	7222	Melt & Pour
14	Wire of other alloy steel	7229	Melt & Pour

15	Rails, railway or tramway track construction material of iron or steel	7302	50% Domestic Value Addition
16	Tubes, pipes and hollow profiles, of cast iron	7303	50% Domestic Value Addition
17	Tubes, pipes and hollow profiles, seamless, of iron (other than cast iron) or steel	7304	50% Domestic Value Addition
18	Other tubes and pipes (for example, welded, riveted or similarly closed), having circular cross-sections, the external diameter of which exceeds 406.4 mm, of iron or steel	7305	50% Domestic Value Addition
19	Other tubes, pipes and hollow profiles (for example, open seam or welded, riveted or similarly closed), of iron or steel	7306	50% Domestic Value Addition
20	Tube or pipe fittings (for example, connectors/couplings, elbow sleeves), of iron or steel	7307	50% Domestic Value Addition
21	Bars and rods, hot-rolled, in irregularly wound coils, of stainless steel	7221	Melt & Pour
22	Wire of stainless steel	7223	Melt & Pour
23	Flat-rolled products of other alloy steel, of a width of 600 mm or more, including electrical steel	7225	Melt & Pour
24	Flat-rolled products of other alloy steel, of a width of less than 600 mm, including electrical steel	7226	Melt & Pour
25	Bars and rods, hot-rolled, in irregularly wound coils, of other alloy steel	7227	Melt & Pour
26	Other bars and rods of other alloy steel; angles, shapes and sections, of other alloy steel; hollow drill bars and rods, of alloy or non-alloy steel	7228	Melt & Pour
27	Sheet piling of iron or steel, whether or not drilled, punched or made from assembled elements; welded angles, shapes and sections, of iron or steel	7301	50% Domestic Value Addition
28	Structures (excluding prefabricated buildings of heading 9406) and parts of structures	7308	50% Domestic Value Addition
29	Reservoirs, tanks, vats and similar containers for any material (other than compressed or liquefied gas), of iron or steel, of a capacity exceeding 300 whether or not lined or heat insulated, but not fitted with mechanical or Thermal equipment	7309	50% Domestic Value Addition
30	Tanks, casks, drums, cans, boxes and similar containers, for any material(other than compressed or liquefied gas), of iron or steel, of a capacity not exceeding 300L,whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment	7310	50% Domestic Value Addition
31	Containers for compressed or liquefied gas, of iron or steel	7311	50% Domestic Value Addition
32	Stranded wire, ropes, cables, plaited bands, slings and the like, of iron or steel, not electrically insulated	7312	50% Domestic Value Addition
33	Barbed wire of iron or steel; twisted hoop or single flat wire, barbed or not, and loosely twisted double wire, of a kind used for fencing, of iron or steel	7313	50% Domestic Value Addition
34	Grill, netting and fencing, of iron or steel wire; expanded metal of iron or steel	7314	50% Domestic Value Addition
35	Chain and parts thereof, of iron or steel	7315	50% Domestic Value Addition

36	Anchors, grapnels and parts thereof, of iron or steel	7316	50% Domestic Value Addition
37	Articles of iron and steel	7317	50% Domestic Value Addition
38	Articles of iron and steel	7318	50% Domestic Value Addition
39	Articles of iron and steel	7319	50% Domestic Value Addition
40	Springs and leaves for springs, of iron or steel	7320	50% Domestic Value Addition
41	Stoves,ranges,grates,cookers(including those with subsidiary boilers for central heating), barbecues, braziers, gas-rings, plate warmers and similar non-electric domestic appliances, and parts thereof, of iron or steel	7321	50% Domestic Value Addition
42	Radiators for central heating, not electrically heated, and parts thereof, of iron or steel; air heaters and hot air distributors, not electrically heated, incorporating a motor-driven fan or blower, and parts thereof, of iron or steel	7322	50% Domestic Value Addition
43	Tables and similar house hold articles and parts thereof, of iron or steel	7323	50% Domestic Value Addition
44	Sanitary ware and parts thereof, of iron or steel	7324	50% Domestic Value Addition
45	Other cast articles of iron or steel	7325	50% Domestic Value Addition
46	Electrical steel and other articles of iron or steel	7326	50% Domestic Value Addition
47	Railway or tramway passenger coaches, not self-propelled	8605	50% Domestic Value Addition
48	Railway or tramway goods vans and wagons, not self-propelled	8606	50% Domestic Value Addition
49	Parts of railway or tramway locomotives or rolling-stock; such as bogies, bissel-bogies, axles and forged wheels, and parts thereof	8607	50% Domestic Value Addition

Appendix- B

List of Capital Goods (non-exhaustive) which can be imported for Manufacturing Iron & Steel products, and minimum domestic content applicable for the package

S. No.	Plant /Unit package	Minimum domestic content of Capital Goods (%)	Importable Items
	Mining		
1	**Equipment for Mining development** • Crushing & Screening Plant • Mineral beneficiation (iron ore and coal) plant; (Boundary Limit: from Receiving of ROM at the crusher hopper, comminution, segregation, ore/coal processing up to final product preparation) • Slime Beneficiation • Automatic Loading facilities • Conveyer system	75%	• Wet High Intensity Magnetic Separator / High Gradient Magnetic Separator • Heavy Media Cyclone • Gyratory Crusher • Spiral Concentrator • Online Ash Analyzer • Ball/Rod/AG Mill (Greater than 3.5 m dia)
2	**Mining transportation** • Slurry Pipelines • Long distance conveying system	30%	• PD Pump • Valves • Specialized/rope/pipe conveyor
3	**Other Mining Machinery & Heavy Earth Moving equipment for mines** (Boundary Limit: Equipment for drilling, raising, lading, haulage, and mine preparation)	Not Applicable	• Dumper (above 220 tons pay load capacity), Hydraulic Excavators (above 9 Cubic meter bucket capacity) • Blast Hole Drills 10"(Electric/Diesel) • Diesel driven Track Dozer >850 HP Capacity • Diesel Driven Wheel Dozer >500 HP capacity • Diesel driven Front End Wheel Loader >8 Cubic Meter bucket Capacity
4	**Pellet Plant Equipment** (Boundary Limit – Receiving Ground Hopper for flux & Binder, Belt Conveyor feeding IOF to product pellet belt conveyor)	85%	• Pellet car, High Intensive Mixer, Balling Discs, Vertical roller mill, Drive/discharge end Sprocket assembly, curved rail, Slide rails, Single deck roller screen and Double deck roller screen, Induration Machine Drive assembly, Level-2 automation
	Iron/steel making		
5	**Raw Material Handling System** (Boundary Limit – from Wagon Tippler to respective user units)	95%	• Barrel Couplings, Heavy Duty Bearings, Crane Rail Lubrication System, Slew Ring Bearings, Tongs (Special), Vibration Isolation System (Spring Damper), Hydraulic motor & hydraulic pump (installed in wagon tippler, side arm charger, stacker cum reclaimer, slew stacker), electronic cards, unbalanced motor, cam limit switch of wagon tippler.
6	**Coke Oven Battery** (Both top charged & stamp charged) (From Coal bunker to coke discharge bucket)	90%	• Springs of the anchorage systems, COG booster, stamping train, bonding press

S. No.	Plant /Unit package	Minimum domestic content of Capital Goods (%)	Importable Items
7	**Coke Dry Quenching Plant** (From Hot coke receiving bucket to discharge chute of cooling chamber)	90%	• Mill fan & Motor, Special Refractory for Twin Flue of Cooling Chamber.
8	**By-Product Plant** (From Primary Gas cooler to clean coke oven gas up to the network)	90%	• Exhauster & Motor, burner of the clause kiln, Catalyst, Tail gas analyzer, Palletization unit.
9	**Sinter Plant Equipment** (Boundary Limit – Receiving Bin for Raw Material to Vibro-Feeder below Product Sinter Bin)	75%	• Highly Intensive Mixer & Granulator Unit, Pallet cars, Drive Sprocket, Main Drive with Gear Box of sinter machine, slide rail & curved rail, Hot Sinter breaker and Grizzly, Annular Dip Rail Cooler, LCI Drive system for Sinter Plant Exhauster application. • Ignition Furnace Spare parts (Refractory/Control System/Burner Assembly) • Exhauster (Waste Gas Fan) and System Spare Parts
10	**Blast Furnace Equipment** Boundary Limit: **Input** • **Raw material-** Top of bunkers of respective material • **Cold Blast**- Inlet of the snort valve • **Industrial water**- BF pump house **Output** • **Hot Metal**- Filled in the torpedo ladle • **Granulated Slag** - to the granulated slag yard	70%	• Bell less top gear box, upper seal device covering upper material gate and upper seal valve, lower seal device covering lower material gate and lower seal valve, Bleeder valve, Tilting Rocker, Wear liners, Goggle Valve, Equalizing & Relief Valve, Chute Rotation Motors, Distribution chute, Feeder spout, Chutes & Funnels etc. • Hearth Refractory (carbon blocks) • Top Recovery Turbine system (TRT) • Cu-staves • SGI Staves • Cast house equipment (Mud gun, Drilling machine and main trough Manipulator) • Probes, Profilometer & Stock level indicator (radar type) • Gas cleaning plant (AGS system) • Stove system – ceramic burner & technological valve • Waste Heat Recovery system • Turbo blowers • Ball Mill • PCI Injection System • Level-II automation • Copper plate coolers • Tuyere cooler • Stove technological valves • Dewatering Wheel of SGP • Torpedo Ladle Car chain assembly • Dome filled dump Valves • Tuyere stock assembly
11	**Gas based Direct Reduction Plant Equipment** (Boundary Limit: Receipt of raw	50%	• Reactor charging system • Reactor • Reactor discharging system

S. No.	Plant /Unit package	Minimum domestic content of Capital Goods (%)	Importable Items
	material at the top of the DRI reactor & discharge of hot DRI to EAF)		• Pneumatic transfer to EAF • Discharge route to briquetting system • Briquetting feeding system • Briquetting system • Reduction gas circuit • CO2 removal unit • Process gas heater • Reformer system • Heat Recovery System • Process Gas Compressors • Blowers • Seal Gas System • Flue Gas Fan/ Hot Fan • Process valves • Critical bellows • Critical refractories • Natural Gas pre-treatment system • Level-II automation
12	**Oxygen Plant 700 tpd & Above** (Boundary limit: Water, Power at oxygen plant boundary)	30%	• Main Air Compressor • Booster Air Compressor • Expansion Turbine • Reboiler • Cryogenic Pumps • Heat exchange elements of • ASU • Pressure Column • Main Condenser, Low Pressure Column • Crude Argon Column, Pure Argon Column and Condenser with Condenser Block • Main Heat Exchangers, Pure Argon Evaporator Sub-cooler • LOX-IC-Process Pump • LIN-IC-Process Pumps • LAR-Transfer -Process Pumps • Dense Fluid Expander • Booster Heat Exchangers • Molecular Sieves Switching Valves for PPU • Critical Safety valves • Specialized valves • Control Valves • Cold box • Control Valves GOX-Product • Flow Measuring devices of Cold box • Expander - Brake Generator, Frequency Converters
13	**Steel Processing**		
13.1	**Hot Metal De- De-Sulphurization Station (HMDS) Unit with Co-Injection Process** (Hot metal from the blast furnace (BF) is	75%	• Injection Lance and automatic sampling Unit with auxiliaries • De-slagging Machines (slag raking machine) with auxiliaries

S. No.	Plant /Unit package	Minimum domestic content of Capital Goods (%)	Importable Items
	received in a torpedo ladle or open-top ladle, undergoes desulfurization treatment to reduce "Sulphur (S)" content, and is then transferred to the BOF converter)		• Temp. measuring and sampling device with auxiliaries
13.2	**Hot Metal De- De-Sulphurization Station (HMDS) Unit with Mechanical Stirrer (KR) Process** (Hot metal from the blast furnace (BF) is received in a torpedo ladle or open-top ladle, undergoes desulfurization treatment to reduce "Sulphur (S)" content, and is then transferred to the BOF converter)	70%	• Impeller, Impeller lifting & stirring equipment, Guide Frame with auxiliaries • De-slagging Machines (slag raking machine) with auxiliary facilities • Temp. measuring and sampling device with auxiliaries
13.3	**Basic Oxygen Furnace / LD Unit** [Treated hot metal is poured into the BOF converter, where it undergoes processing to convert it into steel, which is then supplied to the ladle furnace (LF)]	65%	• Lance body with clamping, Lance carriage, Lance guide, Lance hoist & trolley, Lance copper tips with auxiliaries. • Pneumatic motors for emergency tilting drive. • Bottom stirring system, valve station & rotary joint along with auxiliaries • Valve stations for oxygen/ argon/ nitrogen with auxiliaries • Sub-lance system with auxiliaries • Container lab with all auxiliaries. • Automatic gas coupling (auto coupler) with auxiliaries. • Converter wrecking machine. • Converter tap hole changing machine • Refractory monitoring (laser) machine. • Converter Shell parts, Suspension System, Rotary joint, Slag Stopper & its control valves • Converter Tilting Drive system & Suspension system, gearboxes & Motors, Pneumatic Motors & control valves, Position Encoders, Clutch system, Lubrication system components. • Ladle Transfer Car Rail Track System (A series type) & gearboxes, stirring couplings. • LOMAS Gas Analyzer, Multi-lab temperature & sample system. • Stirring couplings for ladle transfer Cars. • PLCs and RIOs. • Automation system and software. • Hot Zone Hydraulic Pumps and Valves. • Hot Zone Geared Motors with wheel block. • Converter Bearings. • Air & Electric operated Slurry Compaction Pump. • Primary ID fan, bearings, motors, drives & Lubrication system.

S. No.	Plant /Unit package	Minimum domestic content of Capital Goods (%)	Importable Items
			• WDS-Cone
13.4	**Electric Arc Furnace Unit** (Primary materials such as scrap, DRI, pig iron, and hot metal in combination is converted into liquid steel using electrical energy to melt and refine the raw materials)	70%	• Electrode regulation system with auxiliaries • High current system including furnace transformer • Oxygen & Carbon Injection System with auxiliaries • Manual Temp Measuring & sampling Lance with auxiliaries
13.5	**Ladle Furnace Unit** [Liquid steel is processed/ treated to achieve the desired grade and held as buffer stock before being supplied to the continuous casting machine (CCM)]	70%	• Electrode regulation system with auxiliaries • Manual Temp Measuring & sampling Lance with auxiliaries.
13.6	**RH/ RH-OB Unit** [The liquid steel is degassed to achieve the required dissolved gas levels and then supplied to the continuous casting machine (CCM)]	65%	• Gas Stirring System/ Lift Gas Stirring System Valve Stand with auxiliaries • Oxygen Lance System with auxiliaries • Hydris Measurement System with auxiliaries
13.7	**Argon-Oxygen Decarburization (AOD) Unit**	70%	• Drive Unit for tilting of AOD converter, Air Motor, Brakes etc. • Lance copper tips • Hoses for water and oxygen • Pneumatic motors for emergency tilting drive. • Bearing for AOD Converter, Emergency Gears for air motor • Valve stations for oxygen/ argon/nitrogen with auxiliaries. • Refractory monitoring (laser) machine • Automation system.
13.8	**VD/VOD**	70%	• Gas analysis (Off-Gas Mass Spectrometers) only sensor. Holder is make in India • Automation and Process control software platform • Vacuum Pump System with Auxiliary • Oxygen tips • Valve stations for oxygen/ argon/nitrogen with auxiliaries.
13.9	**Submerged Arc Furnace (SAF) Unit**	65%	• Clay gun and drill M/c • Electrode equipment • Slipping device assembly • Electrode guiding assembly • Upper & Lower mantle assembly • Pressure ring assembly • Contact shoe assembly • Heat shield assembly • Electrode seal assembly • Pressure ring bellows • Seal refractory • Furnace automation and Controller Software

S. No.	Plant /Unit package	Minimum domestic content of Capital Goods (%)	Importable Items
13.10	**Continuous Casting Unit** (Slab Caster/ Billet/ Bloom Round/ Combi/ Beam Blank) [The liquid steel is cast into slabs, billets, or blooms in the continuous casting machine (CCM)]	65%	• Ladle slag detection system completes with auxiliaries • Copper tube and Plate, Mould oscillation Cylinder. • Rotary Union. • Continuous temperature measuring system with auxiliaries. • Torch cutting machine/ Emergency torch cutter along with auxiliaries • De-burring machine along with electrical drive system with auxiliaries • Marking machine. • Roll gap checker completes with auxiliaries • Electromagnetic Stirrer (EMS)/ Electromagnetic Braking (EMBr) system along with auxiliaries
14	**Flat Product Mills**		
14.1	**Hot Strip Mills/ Plate Mill** (Boundary Limit: Slab yard to Dispatch Bay, including auxiliaries)	50%	• De-scalars, mill stand, bed plates, backup rolls, Work Rolls, mill spindles, chocks, AGC cylinders, bending blocks & cylinders, shears, down coilers, anti-friction roll neck bearings, oil film bearings, mill reducers, load cells, thickness gauge, profile gauge, width gauge, levelers, roll grinding machines, Coil Marking Machine, Plate Marking Machine, mill stand motors & mill stand MV drive system, automation system, etc.
14.2	**CRM (PLTCM)** (Boundary Limit: Pickling line entry to mill exit)	50%	• Welding machine, tension leveler, mill stands, backup rolls, antifriction bearings, oil film bearings, roll chocks, roll force cylinders, roll bending and roll shifting cylinders, mill spindles, load cells, position transducers, Electrostatic Oiler, Side Trimmer, Steering System, Surface Inspection System, thickness gauges, laser speed gauge, tensiometer, Flatness Gauge, tension reel, mill reducers, mill stand motors & mill stand MV drive system, automation system etc.
14.3	**CRM (HDGL)** (Boundary Limit: entry to exit of HDGL including temper mill & tension leveler)	60%	• Welding machine, radiant tube furnaces, jet cooling system, coating pot with induction heating, pot rolls, air knife wiping system, tension leveler, width gauge, thickness gauge, coating thickness gauge, load cells, roll force cylinders, mill stand motors & mill stand drive system, automation system, etc.
14.4	**CRM (SPM)** (Boundary Limit: entry to exit of SPM)	50%	• Mill stands, backup rolls, antifriction bearings, oil film bearings, roll chocks, roll force cylinders, mill spindles, Electrostatic Oiler, Coil Marking System, load cells, thickness gauge, mill stand motors & mill

S. No.	Plant /Unit package	Minimum domestic content of Capital Goods (%)	Importable Items
			stand MV drive system, automation system, etc.
14.5	**CRM (Bell Annealing Furnace)** (Boundary Limit: From furnace bases to post cooling equipment)	55%	• Furnace, automation system, etc.
14.6	**CRM (Color Coating Line)** (Boundary Limit: Entry to exit of CCL)	80%	• Coater, Coating thickness gauge, digital printer, tension leveler, automation, etc.
14.7	**TSCDR (Thin Slab casting Direct Rolling)** (Boundary Limit: From turret to coil finishing & packaging area)	50%	• Ladle slag detection system complete with auxiliaries • Copper tube and Plate, Mould oscillation Cylinder. • Rotary Union. • Continuous temperature measuring system with auxiliaries. • Pendulum shear cutting machine. • Segments assembly • Roll gap checker complete with auxiliaries • Electromagnetic Stirrer (EMS)/Electromagnetic Braking (EMBr) system along with auxiliaries, • Tunnel furnace burners • Roughing & Finishing Mill stands, work roll & backup rolls, antifriction bearings, oil film bearings, roll chocks, roll force cylinders, mill spindles, mill stand MV drive and motors, automation system, laminar/power cooling components, hydraulic coilers. Profile gauge, thickness gauge, width gauge. • Nozzles • Grease system and auxiliaries • Hydraulic system and auxiliaries • Gearbox • ROT roll assembly • Roll assembly (Sleeve, Shaft, Roll) • Ladle turret and auxiliaries (Slew bearing, Disc coupling, Gearbox, Hydraulic clutch and Hydraulic Cylinder) • Mould breakout prediction system • Auto mould level control nucleonic gauge • Mould powder feeding system • CNC mould machining system with auxiliaries • Tundish and Turret weighing system • Tunnel furnace refractory rolls. • Tunnel furnace shuttle drive system and gas conveying system. • Backup roll hydrostatic lubrication system • Roll bite lubrication system • In-furnace camera with auxiliaries • Crop shear • Descaler system and component. • Coil marking machine

S. No.	Plant /Unit package	Minimum domestic content of Capital Goods (%)	Importable Items
			• Online Coil weighing system • Cut to Length Stacker System • Roll Shop (CNC Combi grinders, CNC Roll Grinders, CNC Knife Grinders, CNC Turing Machine, Lathe Machines) • Coil Strapping machines • Down coiler system • Mill Measuring system and Sensors (Automatic gauge control (AGC) sensors (roll force, gap, pressure) • Looper Control System along its sensors • Condition based monitoring System and its sensors • Coil shuttle car and pallet conveying system. • Crane coil tong. • RO and UF membranes • Self-cleaning filters
14.8	**Normalizing Facilities for Plate Mill** (Boundary Limit: entry to Normalizing furnace to dispatch of finished plates)	50%	• Furnace burners, Furnace hearth rollers, leveler, load cell, automation
14.9	**SSM (Silicon Steel Mill)** (Boundary Limit: Pickling line entry to dispatch of SSM)	50%	• Mill stand, work roll & backup roll, antifriction bearings, oil film bearings, roll chocks, roll force cylinders, mill spindles, mill stand MV drive system & motors, automation system, annealing furnace, decarburizing line, electrical steel testing facilities (e.g. Fischer scope thickness measuring device, Frankline Insulation Resistivity Tester, Magnetic Console, Stacking Factor tester).
14.10	**CRM (Cluster Mill stand)** Sendzimir Mill (Boundary Limit: entry to exit of Sendzimir Mill)	50%	• Sendzimir Mill stand, work roll & backup rolls, antifriction bearings, oil film bearings, roll chocks, roll force cylinders, mill spindles, mill stand MV drive system & motors, automation system
14.11	**HRM (Steckel Mill)** (Boundary Limit: From coiler furnace entry to Steckel Mill and exit to coiler furnace)	40%	• Steckel Mill stand, heated coilers, work roll & backup rolls, antifriction bearings, oil film bearings, roll chocks, roll force cylinders, mill spindles, mill stand MV drive system & motors, automation system
15	**Long Product Mills**		
15.1	**Bar Mill/ WRM/MM/ LSM** (Boundary Limit: From furnace entry to dispatch)	75%	• Fast finishing blocks, Roll turning lathes, Profile Gauge, automation systems, etc.
15.2	**Rail Mill/ Heavy Structural Mill** (Boundary Limit: From furnace entry to exit of the rail welding plant excluding material handling)	45%	• Mill stands, mill motor & drive system, heat treatment facility, straightening machine, NDT facilities, welding machine, Profile Gauge, Hot Saw, Cold Saw, Hot Marking Machine, Roll Turning Lathe, Saw Grinding Machine, automation system, etc.
15.3	**ERWPP (Electrical Resistance Welded Pipe Plant)**	50%	• Pre-forming Unit, Break-Down Stand, Edge Bender, Universal Cage, Finishing Pass

S. No.	Plant /Unit package	Minimum domestic content of Capital Goods (%)	Importable Items
	(Boundary Limit: From strip feeding to finishing facilities and dispatch of ERWPP)		(multiple stands), Pipe Guide, high frequency welding machine, high power electric inductors, hydro testing, ultrasonic machine
15.4	**SWPP (Spiral Welded Pipe Plant)** (Boundary Limit: From pipe forming to finishing facilities and dispatch of SWPP)	50%	• Submerged arc welding, outside welding (skelp joint), X-ray station, hydro testing, beveling machine, ultrasonic machine, end radiograph station
16	**Wheel Plant**		
16.1	**Wheel Plant** (receipt of round/ingot to finished wheel)	30%	• Circular saw, forging press, wheel rolling mill, wheel dishing press, wheel stamping machine, rim spaying machine, mobile chargers, (Handling Robots), machining facilities, testing facilities, automation system etc.
16.2	**Heat Treatment Facilities for Railway Wheels** (Boundary Limit: exit of Hot Dimension Measurement to Black Wheel Storage)	40%	• Furnace burners, hearth rollers, automatic wheel handling and quenching machine
16.3	**Non-Destructive Testing (NDT) Facilities for Wheels and Rails** (Boundary Limit: entry & exit of NDT facilities)	30%	• Hardness testing machine, Ultrasonic testing machine, Magnetic particle inspection machine, Eddy current testing machine
16.4	**Facilities for Manufacturing of Forged Rolls for Rolling Mill Stands** (Boundary Limit: entry of forged blank roll to dispatch of finished rolls)	30%	• Forging Press, Manipulators, roll hardening machine, Cryogenic treatment facilities, tempering furnaces, roll grinders, roll turning lathes, hardness testing machine, ultrasonic testing machine
16.5	**RGBS/ Roll Shop**	50%	• CNC work roll grinder/CNC combi grinder, CNC Roll turning lathe, • Facilities for Electric Discharge Texturing (EDT) and Electro Discharge Machining (EDM) for rolls
17	**Refractory Brick** (Receipt of raw material to finished brick)	50%	• Hydraulic Press
18	**Electrical** (Power Quality System)	30%	• MVSTATCOM • (Static Synchronous Compensator) System
	Other auxiliary and utility equipment		
19	**Calcination Plant** (Calcined Lime & Dolo)		• Firing system, Shaft level indicator, Automation system • VFD & Soft Starter Cards. Driving Air Blower, Dedusting Draft Fans, Cooling Air Fans, Lime Cooling Fan, Waste Gas Fans, Gas Booster Fan assembly • Hyd. Cylinders, Hyd. Motors, Hyd. Station.
20	**Electric Motor Driven Cold Blast Blower** (Axial/Axial with last stage radial)		• Axial/ Axial with last stage radial Blower • Motor with Drive System • Blow-off Valve • Blower non-return valve • Control & Instrumentation items

S. No.	Plant /Unit package	Minimum domestic content of Capital Goods (%)	Importable Items
21	**Steam Turbine Driven Cold Blast Blower** (Axial/Axial with last stage radial)		• Axial/ Axial with last stage radial Blower • Blow-off Valve • Blower non-return valve • Control & Instrumentation items
22	**Diesel Engine Driven Cold Blast Blower** (Axial/Axial with last stage radial/radial)		• Axial/ Axial with last stage radial Blower/radial Blower and Systems • Diesel Engines • Blow-off Valves • Blower non-return valves • Control & Instrumentation items
23	**Gas Fired/ Heat Recovery Boilers**		• Special Grade Plates & Tubes • Flame Scanner • Instrumentation & controls
24	**Steam Turbine** (Extraction/ BPTG)		• Special Grade Blade Material • Governing System • Turbo Supervisory system • Instrumentation & controls
25	**Gas Holder**		• Gasholder seal, sealant. • Level weight ropes with fittings. • V. R. Valve gaskets • Specialized membranes for double/triple membrane system. • Hydraulics
26	**High pressure gas boosters** (Outlet pressure > 2000 mm WC)		• Gas booster proper including control and bypass valves • Piston Rings • Concentric Ring Type Valves (SS)
27	**Pollution Control Systems**		• TR sets • Controllers • Insulators • ESP electrical components • Control & Instrumentation items
28	**Water & Effluent Treatment System**		• Membranes • Evaporators (Compressor & Titanium Sheet) • HP Pumps • Control & Instrumentation items
29	**Compressed Air Station**		• Centrifugal Compressor core assembly including Impellors, Bull Gear, Pinion Shafts, Bearings, Vibration Probes and Local Control Panel.
30	**Hydrogen Plant**		• Electrolyser unit • HP Compressors • Control & Instrumentation items
31	**Packaged Chillers**		• Compressors • Control & Instrumentation items
32	**Other Utility areas like**– Air conditioning & ventilation system, VAM based chiller system, firefighting system, gas boosters (DP less than 2000 mm WC), cooling water system (pumping station, filters, cooling		• Items / Equipment have sub-components / parts which are imported • Compressors, Chillers, Crane AC units, Expansion Valve, Instruments, High Temperature Application AC.

S. No.	Plant /Unit package	Minimum domestic content of Capital Goods (%)	Importable Items
	towers, heat exchangers, etc.), gas mixing stations, pollution control systems, inter plant piping system		
33	**Electric overhead travelling crane and gantry crane, electric hoist**		• Barrel coupling, heavy duty bearing, crane rail lubrication, slew ring bearings, tongs
34	**Engineering shop**		• CNC lathe, CNC milling machine
35	Power Generation, transmission & Distribution system; Shop Electrics including Power & control system and associated electrical works	As per Minimum local content (MLC) % guideline of Ministry of Power	
Note: All equipment shall be procured/ complied as per the Class-I category of the Ministry of Power guidelines. In case(s) where the equipment is not mentioned in Class-I category, or where classification/specification of the equipment is not explicitly or clearly defined under the Ministry of Power guidelines, the provisions issued by DPIIT for Class-I and Class-II categories shall accordingly be followed.			
36	**Instrumentation items/ equipment ****	As per DPIIT guideline *	• Above / under burden probe system • Profilometer • Burden camera • Tuyere phenomena detection system (TPDS) • Top gas analyzers (CO, CO_2, H_2, O_2, pollutants) • Flow jam switch • Elemental analyzers • Moisture analyzer (Nucleonic) • CV analyzer • Thickness gauge • Hot metal detector • Width gauge • Furnace camera • Multifunction profile gauge • Flatness/shape gauge • Surface inspection system • Laser doppler velocity meter • Optical barrier • Thermal imaging systems for hot rolling • Automatic gauge control (AGC) sensors (roll force, gap, pressure) • Online mechanical property prediction systems (AI + sensors) • Oil film thickness monitoring systems (cold rolling) • X-Ray or Nucleonic Based Coating Thickness Gauges • Mass flow meter • Hydris (hydrogen detection in molten steel) • Mold level measurement • Break-Out Prediction System (BOPS) • Electromagnetic Brake (EMBr) Control & Sensors • Ladle tracking and management system • Slag Detection System (SDS)/ Slag Monitoring Systems

S. No.	Plant /Unit package	Minimum domestic content of Capital Goods (%)	Importable Items
			• BOF Endpoint Detection (Laser-Induced Breakdown Spectroscopy – LIBS) • Sub-Lance Systems (Temp + O_2 + Carbon + Sampling) • Ladle Refractory Wear Monitoring (Laser/Ultrasonic/Infrared) • Continuous Emissions Monitoring Systems (CEMS – imported analyzers for SOx, NOx, PM, CO, CO_2, O_2, H2) • Off-gas analyzer for BOF/ EAF (CO, CO_2, H_2, dust) • Water quality analyzers (pH, Conductivity, Oil-in-water, TOC, Silica, BOD, COD, TSS, TDS, Phenol, Cyanide) • Laser-based gas leak detectors (CH_4, CO, H_2, H2S) • Acoustic / ultrasonic leak detection • Vibration / condition monitoring sensors / Axial shift / Differential expansion monitoring systems • Anti-collision system (Radar/ Laser/ Lidar) • Oven Identification System (OIS) • Pyrometers • LOMAS Analyzers • Master calibrators for pressure, temperature and electrotechnical parameters • Instruments installed in Eirich Mixers in Sinter plant, and Hanzel make lubrication systems. • Governor systems for Turbines and Turbo-blowers • Tail gas analyzers for By-product plant • Force sensors used in Coke bucket Lifter & reversing winch • Encoders, • Hydraulic valve controllers • Instruments installed in BLTs (Tilt switch, sonic sensor, encoders, etc.) • Flame sensors/scanners
37	**Automation items/ equipment ****	As per DPIIT guideline *	
38	**Voice Communication system ****	As per DPIIT guideline *	
39	**Fire Detection and Alarm (FDA) system ****	As per DPIIT guideline *	
40	**CCTV system ****	As per DPIIT guideline *	

S. No.	Plant /Unit package	Minimum domestic content of Capital Goods (%)	Importable Items

Note:

* Instrumentation, automation, communication equipment, Fire Detection & Alarm (FDA) system, and CCTV system shall comply with the domestic content requirements for capital goods in line with Class-I and Class-II supplier norms as per DPIIT as well as MEITY guidelines.

** Highly specialized equipment, components, and critical parts such as semiconductor chips for instrumentation, automation, communication systems, fire detection & alarm (FDA) systems, and CCTV systems are currently being sourced from global technology leaders. However, the overall system assembly, integration, and manufacturing activities are being carried out in India, with the remaining components procured through domestic sources.

Appendix-C

Promotion of Indigenous Technologies in Iron & Steel Sector

1) **Objective:**
To promote self-reliance in the Indian iron and steel sector by incentivizing the adoption, development, and scale-up of indigenous technologies across all stages of steel manufacturing.

2) **Scope:**
This policy applies to Central Public Sector Enterprises involved in steelmaking or putting up a steel manufacturing plant.

3) **Policy Directives:**

3.1 In cases where technology and proof for earlier engineering & supply is available but does not match the present capacity requirement, following conditions will be applicable for indigenous technology providers:

3.1.1 Production capacity reference to be 30% of the capacity of the proposed plant.

3.1.2 Availability of demonstrable tie ups with the vendors.

3.1.3 Experience of detailed engineering of projects for at least 75% of the capacity of the proposed plant.

3.2 In cases where technology is available but no reference for earlier supply is available, following conditions will be applicable for indigenous technology providers:

3.2.1 The indigenous technology supplier has done detailed engineering of projects matching at least 75% of the features of the proposed project.

3.2.2 The indigenous technology supplier has done detailed engineering matching 100% of the critical features of the proposed project.

3.2.3 Availability of demonstrable tie ups with the vendors.

3.2.4 Demonstrable evidence of technology availability (IPR or other sufficient evidence).

3.3 In cases where no Indian technology is available, a foreign technology supplier committing to transfer technology, including training and handholding to an Indian CPSE (including the procuring entity), within three years, shall be considered as deemed Class-I supplier irrespective of percentage of Domestic Value Addition. In this case, purchase preference shall be given to the foreign technology supplier as defined in DPIIT's Public Procurement (Preference to Make in India) Order amended from time to time.

4) **Implementation Oversight:**
The Standing Committee constituted by Ministry of Steel shall monitor implementation, resolve disputes, and update the eligibility and incentive criteria periodically.

Form-1

Affidavit of Self-Certification for Compliance with Melt & Pour Requirements (Appendix-A) and/or Domestic Value Addition Requirements (Appendix-A & Appendix-B*)

*For Appendix-B capital goods, this affidavit must accompany the statutory auditor's / cost auditor's / CA certificate, as mandated under the policy.

I, _____, Resident of _____, being the authorised signatory of M/s _____,

do hereby solemnly affirm and declare as under:

1. I have read and understood the Domestically Manufactured Iron & Steel Products (DMI&SP) Policy, 2025, issued vide Notification No. _____ dated _____. I agree to abide by all terms and conditions of the said policy and the tender in which this affidavit is submitted.

2. This affidavit pertains to the following iron & steel product(s)/capital good(s):

Name of product(s): _____

HS Code(s): _____

Appendix classification: Appendix-A / Appendix-B (select as applicable)

Procuring agency: _____

3. Melt & Pour - Applicable only for Appendix-A items with Melt & Pour condition

I hereby declare that the above product(s) satisfy the Melt & Pour in India requirement as notified in Appendix-A. Specifically:

The steel was melted and poured in India.

The first solid shape (slab/billet/ingot/other) was produced at the following location(s):

Steelmaking facility: _____Location: _____ Heat numbers; Batch details: _____

I undertake to produce mill test certificates, heat records, and any other documentary proof to substantiate this declaration whenever required by the procuring agency.

(If not applicable, write "Not Applicable".)

4. Domestic Value Addition - Applicable for Appendix-A DVA items and Appendix-B capital goods:

I hereby declare that the Domestic Value Addition (DVA) for the product(s) is: _____ %. The DVA has been computed as per DPIIT guidelines and the formula specified in the DMI&SP Policy, 2025.

4A. For Appendix-B Capital Goods (Mandatory): A certificate issued by the statutory auditor / cost auditor / chartered accountant is enclosed herewith, confirming the DVA of the capital good package in accordance with the policy.

(If Appendix-A item only, strike this clause out.)

5. I confirm that: All information furnished is true and correct. All input steel costs, imported content, and domestic content calculations have been verified. All manufacturing, purchase, and pricing records are available for examination.

If any information is found incorrect or misleading: The procuring agency may disqualify me / my firm from Government tenders as per the procuring agency norms. I agree to pay all assessment costs and penalties, including forfeiture of EMD, as per policy and tender conditions.

6. I undertake to maintain the relevant records, and make them available to any statutory authority.

7. Declaration: I do hereby declare that the statements made above are true to the best of my knowledge and belief. I understand that any misrepresentation shall attract penalties under the DMI&SP Policy, applicable laws, and tender conditions.

For and on behalf of

(Place & Date)

M/s _____

(Authorised Signatory)

[F. No. 8(2)/2023-ID-I]

ABHIJIT NARENDRA, Jt. Secy.

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File No.: FP-20013/20/2017-FP-PNG (E-15325)
Government of India
Ministry of Petroleum and Natural Gas
(Flagship Programme Cell)
****

Shastri Bhawan, New Delhi
Dated 15th January, 2025

To,

1. Chairman, IOCL
2. C&MD, BPCL/ HPCL/ ONGC/ OIL/ GAIL/ EIL/ Balmer Lawrie
3. Managing Director, CPCL/ NRL/ MRPL/ BCPL/ OVL
4. DG, DGH
5. DG, PPAC
6. Secretary, OIDB
7. ED, OISD
8. ED, CHT
9. Director, RGIPT/ IIPE
10. Secretary, PNGRB
11. CEO & MD, ISPRL

Subject: Implementation of Domestically Manufactured Iron & Steel Products (DMI&SP) Policy of Ministry of Steel - regarding

Sir/ Madam,

I am directed to refer to D.O. letter No. S-13022/2/2020-IDD dated 02.01.2025 of Secretary, Ministry of Steel regarding implementation of Domestically Manufactured Iron & Steel Products (DMI&SP) Policy and to forward herewith the same.

2. In this regard, it is requested to ensure strict compliance with Domestically Manufactured Iron & Steel Products (DMI&SP) policy of Ministry of Steel for achieving the vision of 'Atmanirbhar Bharat' and promoting domestic manufacturing capabilities in the steel sector.

Encl.: as above.

Yours faithfully

Sreelatha 15/01/2025

(Sreelatha A.K.)
Under Secretary to the Govt. of India

Copy for information to,

1) Sr. PPS/ PPS/ PS to Secretary, P&NG
2) PPS to AS&FA/ AS, MoPNG
3) Sr. PPS/ PPS to JS(M&OR)/ JS (GP)/ JS (G)/ JS (IC)/ EA/ JS (E)/ DDG, MoPNG

संदीप पौण्डरीक, भा.प्र.से.
सचिव
Sandeep Poundrik, IAS
Secretary

सत्यमेव जयते

भारत सरकार
इस्पात मंत्रालय
GOVERNMENT OF INDIA
MINISTRY OF STEEL

No. S-13022/2/2020-IDD

02nd January, 2025

Dear Sir,

The Ministry of Steel introduced the **Domestically Manufactured Iron & Steel Products (DMI&SP) Policy** in May 2017 to promote indigenous manufacturing in the iron and steel sector, as a vital initiative under the "Make in India" program.

The policy mandates procurement of domestic steel for Government procurement The policy applies to all Ministries, Departments, and entities under their administrative control, including projects under Central Sector (CS) and Centrally Sponsored Schemes (CSS), fully or partially funded by the Government of India.It covers iron and steel products purchased under EPC contracts or other requirements of Ministries, Departments, PSUs. Products must meet specified local content thresholds (20%-50%) to qualify as domestically manufactured for products listed under Appendix-A of the policy.

However, it has come to our attention that some government organisations, especially EPC contractors procuring steel for government projects, are not adhering to the DMI&SP Policy.

I request your kind intervention to direct Public Sector Undertakings (PSUs), government organisations and procuring divisions under your Ministry to ensure strict compliance with the DMI&SP Policy. Adherence to these rules is essential for achieving the vision of 'Atmanirbhar Bharat' and promoting domestic manufacturing capabilities in the steel sector.

With regards,

Yours sincerely,

(Sandeep Poundrik)

Shri Pankaj Jain
Secretary, Ministry of Petroleum and Natural gas,
Shastri Bhavan, New Delhi

Room No. 291, Gate No. 5, Udyog Bhawan, New Delhi-110011
Tel. : +91-11-23063912, 23063489 (Fax); E-mail : secy-steel@nic.in

Annexure-A– XVII to SCC

PRICE VARIATION

Price Variation Formula for Steel

1. The Contract Price shall be adjusted for any increase/decrease on account of variation in steel prices as per the formula below:

$$V = P \times Q \times \frac{M - MO}{MO}$$

Where,

V = Total Variation in material (steel) cost i.e. increase or decrease in the amount (in Rupees) to be paid or recovered.

P = Base Price (excluding taxes and duties) of Steel, i.e., INR_____

Q = Quantity of steel measured (part or full)

MO = Price Index for steel reinforcement bars, structural steel shall be the All India Wholesale Monthly Price Index **for MILD STEEL: LONG PRODUCTS** released by Office of Economic Advisor to Government of India, Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry corresponding to the period of the base price(i.e., _____during the month of_____)

M = Price Index for steel reinforcement bars, structural steel shall be the All India Wholesale Monthly Price Index **for MILD STEEL: LONG PRODUCTS** released by Office of Economic Advisor to Government of India, Department of Industrial Policy and Promotion (CIPP), Ministry of Commerce and Industry on sub-order date for the purchase of steel under the contract by the contractor.

Bidder while submitting their offer will consider the base price of steel as given above (i.e., the value of P). The variation payable by Owner / EIL shall be based on the base price of steel (i.e., the value of P) as the reference point. **Therefore, the upward variation is admissible subject to the Purchase Price of Steel being higher than the Base Price (P).**

Notes:

a) Upward price variation will be payable for the entire approved extended completion period (*)considering the applicable indices as per the above formula. Accordingly, in case of delay by the contractor beyond contractual delivery date for reasons attributable to contractor, no upward price variation shall be payable.

However, downward/ negative price variation shall be applicable for the entire actual completion period.

(*) Approved extended completion period shall mean the justified extension in completion period which is without any levy of penalty/ LD/ PRS.

For example: If CDD is May and the actual completion date is December out of which extension upto October is not attributable to the contractor, the upward price variation shall be payable only till October. However, downward price variation shall be applicable till December.

b) For the purpose of PRS/ Liquidated Damages, the contract value shall be considering inclusive of price variation on account of steel price variation.

c) Even if there is no price adjustment claim, Contractor shall submit all relevant data to prove that there is no downward variation.

d) Old materials (i.e., having corresponding WPI older than WPI for base price mentioned in bidding document) shall not qualify for adjustment.

e) Formula shall be applied whenever the main item is operated for the first time (full or

part), and price adjustments immediately effected.

f) Price variation for materials shall be applicable for measured and certified quantity (erected) only.

g) Adjustment Bill to be raised after every publication of firm WPI for the corresponding period.

h) Steel escalation formula shall be implemented only when price increase due to variation is more than +2%. However for any decrease, formula will be applicable.

Annexure-A– XVIII to SCC

LABOUR LIABILITY CERTIFICATE

(On contractor's Letterhead)

LABOUR LIABILITY CERTIFICATE

Name of Contractor :
Name of the Work :
W. O. No. & Date :

I hereby undertake full liability up the period as contract (Present & future) arising out of the in connection with employment and term conditions of employment of any persons, Engineers engaged directly by us in executing the contract entered with M/s Numaligarh Refinery Limited for the purpose of complying with the provisions of the labour acts – viz. **(1) MINIMUM WAGE ACT, (2) PAYMENT OF WAGE ACT, (3) CONTRACT LABOUR (R&A) ACT- 1970, (4) EQUAL REMUNERATION ACT, (5) PAYMENT OF BONUS ACT, (6) CHILD LABOUR (P&A) ACT-1986 AND (7) WORKMEN COMPENSATION ACT 1923, (8) EMPLOYEES PF ACT/SCHEME** and other Acts & Rules in force at the time of signing of this certificate.

I shall be personally responsible for any litigation consequence, if any arising out of non-implementation of the aforesaid statutory Acts and Numaligarh Refinery Limited will in anyway be responsible for such matter.

Yours faithfully,

M/s …….
Authorized signatory (Proprietor / Signatory having power of attorney)
Date:

Numaligarh Refinery Limited

Contractors' Performance Evaluation Procedure

Applicable for tenders floated w.e.f. 1st August, 2021

(*For information of bidders*)

No. NRL/Contractor Evaluation/01 Date: 08.07.2021

1.0 Introduction:

Project construction activities of 3MMTPA Green Field Numaligarh Refinery was started in 1994 under EIL as EPCM Consultant and commercial production started since Oct, 2000. Since then NRL has completed its journey for last about 20 years of operation with vast experience in handling of various types of contracts and issues related to contractors' performance management. However, a comprehensive, measurable and efficient contractors' performance evaluation procedure, based on objective analysis and due transparency is yet to be established. Due to this, bids of non-performing or under-performing contractors are evaluated on equal footing with the performing contractors, without any consideration of their past performance parameters.

View above, it is felt necessary to put in place a dynamic performance monitoring/evaluation procedure so that contractors are continuously monitored, evaluated and made accountable of their performance and a rating is done continuously on each work performed by a contractor. This rating shall be used in the evaluation of the bids in subsequent tenders.

2.0 Procedure:

Contractors' Performance Evaluation shall be carried out based on following 4 parameters:

Table-1:

Sl. No.	Parameters	Max. Marks
1	**Compliance of safety and housekeeping at worksite:** a. Unsafe Acts and unsafe conditions reported at site b. Incident/Accident reported at construction site c. Use of PPE d. Response to BBS e. Good Housekeeping at the worksite	15
2	**Resource mobilization/delay in completion:** a. Non deployment of Engineer/Supervisor/Equipment as per the contractual provisions b. Not bringing materials under Work Order as per the Site requirement / Not deploying manpower as per site requirement c. Late signing of Agreement d. Late start of the physical work at site e. Delay in completion of the work	15
3	**Quality of works and documentation:** a. Quality of materials b. Quality of workmanship/deviation of work procedures at site c. Non-compliance of EIC instruction related to work quality/ workmanship d. Submission of wrong measurement/bill e. Non-compliance of SCC/ GCC provisions f. Non-submission of contract closing documents (including final bill) in time	15
4	**Compliance of statutory / regulatory guidelines:** a. Compliance of timely wage payment directly in the bank account of the workmen b. Compliance of PF and ESI/Insurance c. Compliance of advance Forest Royalty Payment for forest materials used d. Any other reported non-compliance of applicable regulatory/ statutory guidelines.	15
	Total Marks =	**60**

3.0 Methodology for Evaluation

Following uniform negative marking system shall be followed under selected parameters:

Table-2:

Sl. No.	Parameters	Deductions	Max. Marks Deductible
1	**Safety Norms and Housekeeping:** Non compliances of basic safety performance (like use of PPE/ Near-miss/ BBS/ poor housekeeping) warning letter / field note /e-mail shall be issued to the contractor for each instances		15
1.1	After first two instances of non-adherence of PPE / high potential near-miss / BBS / poor housekeeping / work improperly / work without permit / use of improper/non-tested equipment etc. (to be decided by EIC).	0.6	
1.2	Against each instance from 5th instance onward of non-adherence of PPE / high potential near-miss / BBS / poor housekeeping / work improperly / work without permit / use of improper/non-tested equipment etc. (to be decided by EIC).	1	
1.3	Against each First Aid incident reported at site for which contractor is responsible.	2	
1.4	Against each LTA Incident reported at site for which contractor is responsible.	2	
1.5	Against each major Fire and/or any accident resulting in body part amputation	10	
1.6	Against any fatal accident reported at site due to unsafe conditions at site / unsafe act of contractor / his staff during the execution of the works	15	
2	**Resource Mobilization / delay in completion**		15
2.1	Non deployment of Engineer/Supervisor/Equipment as per tender and/or as advised by EIC or his authorized representative – against each 7 days delay beyond the target date notified through written communication by EIC or his authorized representative on each occasion.	1	
2.2	Non-availability of supply materials and manpower as per tender and/or as advised by EIC or his authorized representative – against each 7 days delay beyond the target date notified through written communication by EIC or his authorized representative on each occasion	2	
2.3	Delay in start of physical works at site after site handover as agreed in the KOM – for every 7 days of delay	1	
2.4	Delay in completion of work beyond scheduled completion date – for every 1 month of delay attributable to contractor	2	
3	**Quality of works and documentation:**		15
3.1	Bringing and using off-spec materials at site for every occasion –against written communication by EIC or his authorized representative	2	
3.2	Non-compliance of EIC instruction related to work quality/ workmanship for every occasion – as per the written communication by EIC or his authorized representative	2	
3.3	Non-compliance of SCC/GCC provisions, work's bar chart, S-curve, progress report as planned – for every occasion – as per the written communication by EIC or his authorized representative	1	
3.4	For submission of wrong/duplicity of measurements / bills – in each occasion. Submitted bill shall be taken as proof of such act of the Contractor.	2	
3.5	Non- submission of proper contract closing documents to the EIC in time from the date of completion of the work or advised by EIC or his authrourised representative e.g. delay analysis of completion time, labour liability indemnity/ no-dues certificate/ FRCC/ material	3	

	reconciliation statement, etc. (as applicable in particular contract) within: a) 45 days time period having contact value less than 50 Cr. b) 90 days above 50 Cr.		
4	**Compliance of statutory / regulatory guidelines**		15
4.1	For Non-Compliance of Workmen wage payment (reported case of less than the minimum wage prescribed by NRL paid to workers, late payment, non-payment to bank accounts of workmen as per the contract provisions) – for each occasion	2	
4.2	Non-compliance of PF and ESI of the workmen – in each case	2	
4.3	Non-compliance of payment of advance Forest Royalty Payment for forest materials used and/or any other non-compliance of applicable laws/acts/rules of the land in vogue	1	
		Total =	60

4.0 Methodology for implementation

4.1 Based on the marks scored (Total marks 60 minus marks deducted due to non-compliance during the evaluation period as per Table-2 above) by the contractor their performance shall be evaluated for qualifying or not qualifying for the future tenders.

4.2 Based on the above ratings, the following actions shall be taken for allowing such contractors in subsequent tenders:

Sl No	Performances	Actions
01	Performance of the contractor shall be declared **Satisfactory** on compliance of the following criteria: 1.1 Score 60% or above in the combined allocated points of Parameter-1 (Safety Norms and Housekeeping) and Parameter-4 (Compliance of statutory / regulatory guidelines) **And** 1.2 Score overall 61% or above in the compliance of overall parameters 1 to 4.	Contractor whose performance is **Satisfactory** will be eligible to participate in all future tenders of NRL.
02	Performance of the contractor shall be declared **Unsatisfactory** if they do not meet the criteria as described above under the sl. no. 01 above.	Contractor whose performance is **Unsatisfactory** shall be **debarred for 1 year** from participating in NRL's tenders from the date of notification of the performance by NRL.

4.3 If the contractor performance is **unsatisfactory**, then the notification for debarring the contractor shall be issued by Commercial Dept.

4.4 **Other Points related to implementation:**

i) Contractor's performance shall be continuously evaluated based on the evaluation procedure outlined above, during the entire execution period till closure of the contract.

ii) When any marks shall be deducted due to non-compliance of the set parameters for the evaluation, contractor shall be communicated through written communication about the total marks being scored, the total marks deducted at that stage and their performance ratings.

iii) Final performance shall be evaluated within 60 days after completion of the work.

iv) Performance evaluation shall be applicable for all service & work contracts awarded by NRL (or by NRL authorized agencies / PMC / EPCM).

v) This policy shall not be applicable for supply tenders, as well as services & works provided on OEM/Proprietary basis.
Also, certain works & services pertaining to expert/specialized contracts, as decided by NRL, shall fall outside the ambit of this policy. (For such cases, this policy shall not be part of the respective tender document).

vi) Performance evaluation process shall be part of the tender so that contractors are aware about the evaluation process well in advance.

vii) If a contractor is executing more than one contract at any point of time, and their performance is found to be unsatisfactory in any one of the contract, necessary action will be taken accordingly. However, he will continue to execute the contracts under him till completion of the job in totality

viii) If the contractor has disagreement with the rating/ marks deduction at any occasion, he may approach to EIC with documentary evidence. If EIC is satisfied with the proof submitted by the contractor, EIC may take corrective action in the rating.

ix) For habitual defaulter (03 occasions) debar period may be doubled in subsequent cases (3rd occasion onwards). This shall be decided by NRL through a committee consisting of functional heads of Executing, HR and Commercial department.

x) Debarring and holiday listing will not be treated as the same action. Debarring will restrict the contractor from participation in NRL tenders. However, Holiday Listing may restrict the contractor from participation in tenders of other PSUs also. Hence debarred contractors list will be maintained separately by NRL and not to be included in the NRL Holiday Listed vendors.

xi) As per provisions of NRL's holiday listing policy in vogue, action against any defaulting contractors may be processed and taken separately.

For any clarifications contractor(s) may contact respective EIC.

****

Numaligarh Refinery Limited
Numaligarh

Ref: NRL/NR/WR/IR/PRPJECT/2025 Date: 24/12/2025

Note to: Head-Project Refinery (For internal circulation only)

Revised Wage Rate Applicable for Polypropylene Unit (PPU) Project Tenders w.e.f 10.10.2025.

contract workers of mega project at Numaligarh are provided below:

A. Wage Rates:

1. For migrant workmen, the rates of wages shall be followed as per the Central Govt. Circular of MoL&E and other statutory provisions will be applicable as per the Labour Laws. The Wage Rates will be revised in every six (6) months as per Central Govt. Wage Circular
2. For other than migrant workers engaged in the mega project at Numaligarh, the wage rates shall be revised every six (6) months keeping the central wage rates as a basic wage with two additional components included in the daily wage rate.
3. Present Wage rates for migrant workers as per Central Govt. vide Notification No. S.O.188(E) dated 19 January 2017 is provided below:

Category	Wage Rates for Mega Project (Migrant Workers)/ Class C/ As per Central Govt. vide Notification No. S.O.188(E) dated 19 January 2017.
Un-skilled	541.00
Semi-Skilled	632.00
Skilled	760.00
Highly Skilled	893.00

* Rate applicable for migrant workers as per central govt wage circular. This will be subject to revision as an when new circular is brought out.

Wage built up for other than migrant workers:

Basic rates for different categories of other than migrant workers are also as per Central Govt. Circular, Class C Category.

Category	Components			
	Central Govt. MoL&E (Class C) Rate (Basic)/Rs	Statutory Allowance (13.13%)/Rs	Special Allowance (Rs)	Total Wage per Day (Rs)
Unskilled	541.00	71.03	173.00	785.00
Semi-Skilled	632.00	82.98	203.00	918.00
Skilled	760.00	99.79	178.00	1038.00
Highly Skilled	893.00	117.25	149.00	1159.00

*As an when new circular comes out, basic rates as well as build up cell will be updated accordingly.

4. The revised wage rates shall become effective from the date of signing of the settlement i.e., 10th October 2025.
5. As build in escalation mechanism is in the wage rate structure itself, validity of wage rates settlement is open ended with no sunset clause.

B. Leave:

1. Provisions of leaves per year will be as follows:

   a) EL -18 days
   b) CL - 12 days
   c) SL – 6 days

C. General:

1. All records and registers required under statutory provisions of all labour laws will be duly complied by the contractors.
2. Height Allowance & Hazardous Allowance shall be paid as per applicable rules/laws.
3. Loading factors like PPE, tools & tackles, height allowance, contractors' profits etc. shall be applicable as per the terms & conditions of the contract.
4. It is agreed by Numaligarh Refinery Contractors representatives and the contract workers unions that the contractors and contract workmen will abide by all the safety norms and wear all safety gadgets as prescribed by NRL authority. Contractor will provide all safety items as per the job requirement and provision of the contract. Contract workmen will abide by Security restrictions and Biometric Attendance logging system or any other online/offline system as may be implemented in the NRL from time to time.
5. Working hours of contract workmen will be 8 hours a day excluding lunch break period.
6. No contract workers below 18 years and above 60 years will be allowed to work.
7. The unions assured that they will extend full cooperation to the contractors in ensuring good conduct, discipline, punctuality as per notified working hours and efficient performance by the contract workers. Unions also agreed that undertaking on good conduct, discipline in workplace and other behaviour related issue shall be obtained by the contractors from the individual workers and workers will extend full cooperation to the same.
8. No contract workmen will be allowed to move through entry / exit gate during office timing without authorisation by the contractor/ authorised representative.
9. Contract workmen will deposit / surrender the gate pass issued to them on completion of job or on separation at the time of final payment. Failure to do so by the contract workmen without adequate reason / justification will make him ineligible under a contract.
10. The parties entered into settlement on their own volition. The settlement is just and fair to the parties.

Kajal Saikia

Dr. Kajal Saikia
Sr. Chief General Manager (HR&L)

CC: Functional Heads- for kind information.

Enclosure: 1. Present Central Govt. Wage Circular (MoLE Order dated 25/09/2025)

F.No.1/6(3)/2025-I.S-II
Government of India
Ministry of Labour& Employment
Office of the Chief Labour Commissioner(C)
New Delhi

Dated: 25/09/2025

ORDER

In exercise of the powers conferred by Central Government vide Notification No. S.O. 188(E) dated **19th January, 2017** of the Ministry of Labour and Employment the undersigned hereby revise the rates of Variable Dearness Allowance on the basis of the average Consumer Price Index for Industrial workers reaching 413.42 from 402.09 as on 31.12.2024 (Base 2016=100) and thereby resulting in an increase of 11.33 points. The revised Variable Dearness Allowance as under shall be payable from 01.10.2025:-

The rates of Variable Dearness Allowance for employees employed in **CONSTRUCTION OR MAINTENANCE OF ROADS OR RUNWAYS OR IN BUILDING OPERATIONS INCLUDING LAYING DOWN UNDERGROUND ELECTRIC, WIRELESS, RADIO, TELEVISION, TELEPHONE,TELEGRAPH AND OVERSEAS COMMUNICATION CABLES AND SIMILAR OTHER UNDERGROUND CABLING WORK, ELECTRIC LINES, WATER SUPPLY LINES AND SEWERAGE PIPE LINES.**

Category of worker	Rates of V.D.A. Area wise per day (in Rupees)		
	A	B	C
Unskilled	282	237	191
Semi-Skilled/Unskilled Supervisory	314	266	222
Skilled/Clerical	344	314	266
Highly Skilled	372	344	314

Therefore the minimum rates of wages showing the basic rates and Variable Dearness Allowance payable w.e.f. 01.10.2025 will be as under :-

Category of worker	Rates of wages including V.D.A. per day (in Rupees)		
	A Area	B Area	C Area
Unskilled	523+282=805	437+237=674	350+191=541
Semi-Skilled/Unskilled Supervisory	579+314=893	494+266=760	410+222=632
Skilled/ Clerical	637+344=981	579+314=893	494+266=760
Highly Skilled	693+372=1065	637+344=981	579+314=893

The VDA has been rounded off to the next higher rupee as per the decision of the Minimum Wages Advisory Board.

The classification of workers under different categories will be same as in Part-I of the notification, whereas classification of cities will be same as in the Part-II of the notification dated 19th January, 2017. The present classification of cities into areas A, B & C is enclosed at Annexure I for ready reference.

(Ashutosh A T Pednekar)
Chief Labour Commissioner(C)

CERTIFIED UNDER
ISO 9001: 2008
ISO 14001: 2004
OHSAS 18001: 2007
DNV Certification B.V., The Netherlands

NUMALIGARH
REFINERY
LIMITED

A GOVERNMENT OF INDIA ENTERPRISE

CIN -U11202AS1993GOI003893

To
The Branch Manager
State Bank of India
Commercial Branch
Guwahati

Sub: Particulars of Bank Account

Dear Sir,

Kindly arrange to confirm the particulars of Bank Accounts to receive funds from our customers.

Particulars of Bank Accounts

1	Beneficiary Name:	**M/s Numaligarh Refinery Limited**
2	Credit Account no:	**30006662772**
3	Centre (Location):	**Guwahati**
4	Bank:	**State Bank of India**
5	Branch:	**Commercial Branch / 04418**
6	Branch Address:	**Commercial Branch, Swagota Square, 3rd Floor, Near Rajib Bhawan, Guwahati – 781005 (assam)**
7	Account Type:	**Cash Credit**
8	IFSC of Branch	**SBIN0004418**

Thanking You.

For,
Numaligarh Refinery Limited

Authorised Signatory

For STATE BANK OF INDIA
A-2619
Assistant General Manager
& Team Leader(AMT-II)
Commercial Branch, Guwahati

Refinery Office : Pankagrant, P.O. Numaligarh Refinery Complex, Dist. Golaghat, Assam, Pin - 785699, Phone (03776) 265595, Fax : (03776) 265428 / 265514

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Email : nrlcal@vsnl.net

Numaligarh Refinery Limited

ANNEXURE - XXVIII

TO

SPECIAL CONDITIONS OF CONTRACT

TABLE OF CONTENT

1. SECTION-I – CONTRACT DEFINITIONS 4
2. SECTION II – GENERAL INFORMATION ABOUT SITE 15
3. SECTION III – INTERPRETATION, ORGANIZATION AND CONTRACT PERFORMANCE SECURITY(CPS) 17
   - 3.1. INTERPRETATION OF CONTRACT DOCUMENTS: 17
   - 3.2. OWNER'S ADMINISTRATION 22
   - 3.3. CONTRACTOR'S ADMINISTRATION 24
   - 3.4. INSTRUCTIONS AND NOTICES UNDER THE CONTRACT 26
   - 3.5. CONTRACT PERFORMANCE SECURITY 26
4. SECTION IV –TIME SCHEDULE, FORCE MAJEURE AND PRICE ADJUSTMENT 29
   - 4.1. TIME SCHEDULE 29
   - 4.2. FORCE MAJEURE 31
   - 4.3. EXTENSION OF TIME 33
   - 4.4. PRICE ADJUSTMENT FOR DELAY IN COMPLETION 36
5. SECTION-V – PERFORMANCE OF WORK 39
   - 5.1. EXECUTION OF WORK 39
   - 5.2. CO-ORDINATION AND INSPECTION OF WORK 39
   - 5.3. CO-ORDINATION WITH OTHER CONTRACTORS 39
   - 5.4. WORK ON SUNDAYS AND HOLIDAYS 40
   - 5.5. GENERAL CONDITIONS FOR CONSTRUCTION AND ERECTION WORK 40
   - 5.6. PLANS, DRAWINGS, SPECIFICATIONS AND APPROVALS TO BE FURNISHED BY THE OWNER 41
   - 5.7. PLANS, DESIGNS, DRAWINGS AND SPECIFICATIONS TO BE FURNISHED BY THE CONTRACTOR 42
   - 5.8. RELEASE OF WORK FRONT/ JOB SITE AND SETTING OUT WORK 44
   - 5.9. CONTRACTOR'S RESPONSIBILITY 46
   - 5.10. CONTRACTOR'S RESPONSIBILITY TO CO-OPERATE 46
   - 5.11. CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH APPLICABLE LAW 46
   - 5.12. RIGHTS OF VARIOUS INTERESTS 47
   - 5.13. SUB-LETTING OF WORK 48
   - 5.14. MATERIAL TO BE SUPPLIED BY CONTRACTOR 51
   - 5.15. MATERIAL AND EQUIPMENT SUPPLIED BY THE OWNER 66
   - 5.16. WORK IN MONSOON AND DEWATERING 71
   - 5.17. EXECUTION OF THE WORK 72
   - 5.18. SAMPLES 73
   - 5.19. ACTION AND COMPENSATION IN CASE OF BAD WORK 73
   - 5.20. DEFECT LIABILITY PERIOD 74
   - 5.21. SUB-CONTRACTOR WARRANTIES 75
   - 5.22. WRONGFUL APPROPRIATION OF MATERIALS 75
   - 5.23. POWER, WATER AND OTHER FACILITIES 76
   - 5.24. VESTING OF PLANT, EQUIPMENT AND MATERIALS 80
   - 5.25. PERFORMANCE OF CONTRACTOR 81
   - 5.26. SCHEDULE OF ACTIVITIES 81
6. SECTION-VI – INSPECTION, TESTING AND QUALITY ASSURANCE 83
   - 6.1. QUALITY ASSURANCE 83
   - 6.2. INSPECTION AND TESTING OF MATERIALS/EQUIPMENT 84
   - 6.3. INSPECTION AND TESTING OF WORKS 87
   - 6.4. MECHANICAL COMPLETION, COMISSIONING AND POSSESSION OF WORKS 88
   - 6.5. COMPLETION CERTIFICATE 92
   - 6.6. CONTRACTOR'S GUARANTEES 95
7. SECTION VII – SUSPENSION OF WORKS AND TERMINATION 102
   - 7.1. SUSPENSION OF WORK AND SUPPLIES 102
   - 7.2. TERMINATION 105
   - 7.3. CHANGE ORDER 110
   - 7.4. CANCELLATION OF CONTRACT 116
8. SECTION VIII – MEASUREMENTS, BILLING AND PAYMENTS 119

Page 753 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

8.1. MEASUREMENTS 119
8.2. MODE OF MEASUREMENT 119
8.3. FINAL BILL 120
8.4. CLAIMS IN FINAL BILL 121
8.5. SCHEDULE OF PRICES 121
8.6. ON ACCOUNT PAYMENTS AND ADVANCES 124
8.7. ON-ACCOUNT PAYMENT FOR LUMPSUM CONTRACT 124
8.8. MODE OF PAYMENT 127
8.9. CLAIMS 127
8.10. PAYMENT OF CONTRACTOR'S BILL 128
8.11. TAXES, DUTIES, LEVIES ETC. 129
8.12. OVERPAYMENTS AND UNDERPAYMENTS 131
8.13. TIME LIMIT FOR SUBMISSION AND PAYMENT OF FINAL BILL AND WAIVER OF RIGHTS OF ALL CLAIMS 132
8.14. DISCHARGE OF OWNER'S LIABILITY 132
8.15. FINAL CERTIFICATE 133
9. SECTION IX – SAFETY RULES AND REGULATIONS 135
10. SECTION X – MISCELLANEOUS 136
10.1. LIMITATION OF LIABILITY 136
10.2. LIENS 136
10.3. CHANGES IN CONSTITUTION 137
10.4. EMPLOYEES OF THE OWNER NOT INDIVIDUALLY LIABLE 138
10.5. OWNER NOT BOUND BY PERSONAL REPRESENTATION 138
10.6. INDEMNIFICATION AND INSURANCE 138
10.7. ACCIDENTS AND DAMAGE 140
10.8. PATENT INDEMNIFICATION 140
10.9. CONFIDENTIALITY 141
10.10. MATERIALS OBTAINED FROM DISMANTLING 142
10.11. ARTICLES OF VALUE FOUND 143
10.12. NON-WAIVER OF DEFAULT 143
10.13. SEVERABILITY 143
10.14. PUBLICITY 143
10.15. EXCLUSION OF THE GOVT. OF INDIA'S LIABILITY 143
10.16. DEVELOPMENT OF MSE 144
10.17. MISCELLANEOUS 144
11. SECTION XI – LABOUR LAWS, OTHER REGULATIONS AND ARBITRATION 149
11.1. LABOUR LAWS 149
11.2. IMPLEMENTATION OF APPRENTICES ACT / PROVIDENT FUND ACT 150
11.3. EMPLOYEES PROVIDENT FUND ACT AND SCHEME 150
11.4. CONTRACTOR TO INDEMNIFY OWNER 151
11.5. HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS 152
11.6. CONTRACTOR TO PAY WAGES DIRECT TO ITS LABOURERS 152
11.7. MEDICAL FITNESS 152
11.8. SETTLEMENT OF DISPUTES 152

1. SECTION-I – CONTRACT DEFINITIONS

1.1. The following words and expressions used in the Contract shall have the meanings hereby assigned to them unless the context otherwise requires provided that if any interpretation is required under any circumstance, the decision of the Owner with regard to the same shall be final and binding on the Contractor:

(i). "**Affiliates**" shall mean in relation to either Party. A person who controls, is controlled by, or is under common control with such Party (as used in this definition, the expression 'control' for the purpose of this Contract means, with respect to a person which is a company or corporation, the ownership, directly or indirectly, of more than 50% (fifty percent) of the voting shares of such person or corporation, the power to direct the management and policies of such person, whether by operation of law or by contract or otherwise).

(ii). "**Applicable Law**" means all laws, brought into force and effect by the Government of India or the State Government(s) including rules, regulations and notifications made thereunder, and judgements, decrees, injunctions, writs and orders of any court of record, applicable to this Contract and the exercise, performance and discharge of the respective rights and obligations of the Parties hereunder, as may be in force and effect during the subsistence of the Contract.

(iii). "**Applicable Permits**" means all permissions, clearances, licenses, permits (including statutory approvals), exemptions, registrations, waivers, consents, no-objections, filings or other authorizations of whatsoever nature including approvals of or from any Government Authority (presently or at any time hereafter during the subsistence of this Contract), as may be required for the purpose of execution of Works and for undertaking, performing or discharging the obligations or fulfilment of the purposes contemplated by this Contract.

(iv). "**Approval**" shall mean approved or confirmed in writing by the Owner or by Engineer-in Charge or by Consultant authorized in this behalf by the Owner.

(v). "**Battery Limit**" shall mean the demarcated area within which the Unit is to be located.

(vi). "**Bid**" shall mean the proposal submitted by the Contractor for the purpose of carrying out the Works and all other documents submitted thereto in accordance with the Bidding Documents.

(vii). "**Bidding Documents"** mean the Notice Inviting Tender/ Letter Inviting Bids, the instruction to bidders (including annexures), form of bid (including appendices), Contract Agreement, General Conditions of Contract, the Special Conditions of Contract, the Specifications and all other reports, surveys, drawings and documents including amendments, addendum(s) if any, issued to Bidder based on which Bid is to be submitted. For the avoidance of doubt, reference to term "Tender Documents" in this Contract means Bidding Documents as the context may require.

(viii). "**Change Order**" means an order given in writing by the Engineer-in-Charge to effect additions to or deletions from or alterations into the Work.

Page 755 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(ix). **"Bills of Materials"** shall mean the bill of materials from time to time prepared by the Contractor for the purpose of carrying out the Works and approved by the Owner pursuant to the provisions of the Contract.

(x). "**Catalyst**" shall mean any catalyst, or adsorbent or other like chemical(s) or additive(s) required to be loaded for operating the Unit.

(xi). **"Code-1 Approval"** means final approval of drawings/documents incorporating all comments of the Owner (including Owner's Consultant).

(xii). **"Code-2 Approval"** means tentative approval of the drawings/ documents by the Owner (including Owner's Consultant) with comments to be incorporated by Contractor, with the intent that subject to incorporation of and/or rectification in accordance with such comments, construction/ manufacture can proceed based on commented drawings/ documents pending their re-submission and grant of Code-1 Approval.

(xiii). **"Code-3 Approval"** means that on review of the drawings/ documents by the Owner (including Consultant) the same have not been found in accordance with the applicable codes, standards, design basis and contractual stipulations and must therefore be re-submitted for review and approval after appropriate correction and/or re-preparation.

(xiv). "**Change in Law"** means the occurrence of any of the following *after the last date of submission of Price Bid* pursuant to the Bidding Documents and which materially and adversely affects the impacts performance of this Contract:

(a) the enactment of any new Applicable Law;
(b) the repeal or modification or re-enactment of any exiting Applicable Law;
(c) the commencement of any Applicable Law which has not entered into effect until the last date of submission of Price Bid pursuant to the Bidding Documents; or
(d) a change in the interpretation or application of any Applicable Law by a judgement of a court of record which has become final, conclusive and binding, as compared to such interpretation or application by a court of recordprior to the last date of submission of Price Bid pursuant to the BiddingDocuments.

(xv). "**Completion"** shall mean the successful provision of all materials and inputs and the successful completion and conclusion of all activities required in all respects to complete the Works in accordance with the Contract but shall not include the obligation of the Contractor to rectify Defects during the Defect Liability Period. For the avoidance of doubt, reference to term "Final Completion" in this Contract means Completion as the context may require.

(xvi). "**Completion Certificate**" shall mean the Completion Certificate issued by the Owner/ Engineer-in-Charge under Clause 6.5 hereof.

(xvii). "**Commissioning**" shall mean successfully pressing into service the Unit(s), equipment(s), vessels, pipeline(s), Machinery and systems and sub systems comprised within the Plant in accordance with procedures as approved in applicable operating

manual and as per the requirement of Process Licensor after successful testing, and trial run of the Plant/ Unit and associated facilities.

(xviii). **"Commissioning Certificate"** shall mean Commissioning Certificate issued separately by Engineer-in-Charge under Clause 6.4(v) hereof.

(xix). "**Consultant"** shall mean the consulting engineers to the Owner engaged for a particular project/service and shall include their duly authorized representatives. For the avoidance of doubt, reference to term "PMC" or "Project Management Consultant" in this Contract means Consultant as the context may require.

(xx). "**Construction Equipment**" shall include all scaffolding, shuttering, all appliances/equipment, machinery, instruments or things of whatsoever nature required in or for the execution, completion, operation or maintenance of the Works or Temporary Works (as hereinafter defined) but does not include materials or other things intended to form or forming part of the Permanent Works.

(xxi). "**Construction Materials**" shall mean all materials whatsoever required for permanent incorporation in the constructed Works, including but not limited to, cement, iron and steel rods, plates, sheets and structural of any or all kinds, sand, stone, aggregate, bricks, earth and clay, nuts and bolts, screws and nails and other fasteners of all kinds, wood and boards of all kinds, electrical and other wires, sanitary pipes and other sanitary fittings, sewage pipes and other sewage fittings, drainage pipes and associated fixtures and fittings, switches, lights, fans, contactors, cut-outs, switch boards, bus bars and control panels, bulbs and other electrical fittings whatsoever, basins, taps, valves, stoppers, flanges, cisterns, toilets, toilet-seats and other sanitary fittings of any kind whatsoever, water proofing compounds, chemicals, paints, varnishes, white-washes, distempers, plaster of paris and other finishing materials whatsoever, barricading materials of all kinds and welding and other electrodes, lead and other alloys and compounds and consumables whatsoever involved for and/or incorporated in the Permanent Works.

(xxii). "**Contractor**" shall mean the Bidder or the consortium (as applicable) selected by the Owner pursuant to the Bidding Documents for the successful performance of the Work and supply of materials in accordance with the Contract and shall include the successors, legal heirs, administrators, authorised representatives and permitted assigns of the Contractor, and if the Contractor is joint venture or consortium, shall include each member thereof.

(xxiii). "**Contractor's Representative**" means the person nominated by the Contractor to act on its behalf for the purposes of the Contract and notified as such in writing to Engineer-in-Charge with copy to Owner.

(xxiv). "**Contractor's Personnel**" means the Contractor's Representative, all personnel engaged by the Contractor engages at the Site for the purpose of carrying out its obligations in accordance with the provisions of this Contract and its Sub-Contractors including staff, labour and other employees of the Contractor and of each Sub-Contractors, and any other personnel assisting the Contractor in the execution of the Works.

(xxv). "**Contract"** shall mean Contract Agreement entered into between the Owner and the Contractor for the purpose of execution of the Works, together with the Contract Documents; including all appendices and attachments thereto as it may be amended, supplemented or modified from time to time in accordance with the provisions of the Contract and any other document which the Parties designate or specify in writing as forming part of the Contract; they shall constitute the Contract and the term "Contract" shall in all such documents be construed accordingly.

(xxvi). "**Contract Documents**" means the documents listed in Clause 1.1 of the Contract Agreement (including any amendments thereto).

(xxvii). "**Contractor's Documents"** shall mean the documents prepared by the Contractor for the purpose of execution of the Works including calculations, digital files, computer programs, drawings, manuals, models, specifications and other documents of a technical nature.

(xxviii). "**Contract Price**" means the fixed sum referred to in the Letter of Acceptance / Contract Agreement as the total sum payable under the Contract to the Contractor as consideration towards successful performance of the Works in accordance with the provisions of the Contract or such other sum as may be adjusted in accordance with the terms of the Contract. For the avoidance of doubt, reference to term "Lumpsum Price" in this Contract means Contract Price as the context may require.

(xxix). **"Design Documentation**" means the drawings, diagrams, details, documents, specifications, samples, models or information (including calculations, logic or sequence overview diagrams and functional design specifications for computer software).

(xxx). "**Drawings**" or "**Plans**" shall include maps, plans, sketches and tracings or prints forming part of the Tender Documents and any detail or working drawings amendments and/or modifications thereof approved in writing by the Owner/ Engineer-in-Charge or any agency notified by the Owner to the Contractor for this purpose and shall include any other Drawings or Plans as may from time to time be furnished by or approved in writing by the Owner/Engineer-in-Charge or any other agency nominated by the Owner in this behalf.

(xxxi). "**Day"** means a day of 24 (twenty four) hours from the midnight to midnight irrespective of the number of hours worked in that day.

(xxxii). "**Defect**" shall mean any damage, defect, deficiency, fault, failure, inadequacy or discrepancy in the Works or any part or component thereof or any omission or non-conformance with this Contract and includes any damage to the Work to the extent that such damage is caused directly or indirectly by any error, omission, deficiency, insufficiency or defect in or to the Works.

(xxxiii). "**Delivery Schedule**" means the delivery schedule submitted by the Contractor in accordance with Clause 5.14(v)(c) and finalised by the Engineer-in-Charge and the Contractor in accordance with Clause 5.14(v)(c) or the delivery schedule prepared and issued by the Engineer-In-Charge in accordance with Clause 5.14(v)(e), as the case may be.

Page 758 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(xxxiv). "**Engineer-in-Charge**" shall mean the person nominated from time to time by the Owner and shall include those who are expressly authorised by Owner to act for and on its behalf for operation of this Contract.

(xxxv). "**Effective Date**" with respect to Contract means the date of issue of Letter of Acceptance issued by the Owner accepting the Bid in accordance with the Bidding Documents.

(xxxvi). **"Facilities"** shall mean land, transport, telephone, telex and fax communication and other amenities and facilities whatsoever as may be required for or incidental for successful performance of Contractor's obligations under the Contract.

(xxxvii). **"FEED Package"** shall mean all technical details such as specifications, drawings, documents, guidelines and/or instructions which shall form the basis for Contractor to take up detailed engineering, procurement and construction activities for the Unit.

(xxxviii)."**Final Certificate**" shall mean the Final Certificate issued by the Engineer-in-Charge under Clause 8.15 hereof.

(xxxix). "**Force Majeure**" shall have the meaning as set out in Clause 4.2.2.

(xl). "**GCC**" means the general conditions of contract forming part of the Contract.

(xli). **"INR" or "Indian Rupees"** means the legal currency of the Republic of India.

(xlii). **"Invoice**" shall mean a fully supportive Bill / invoice for the payment of "on account" monies to the Contractor in terms of Clause 8.7(iv) below and associated Clauses thereunder. For the avoidance of doubt, reference to term "Running Account Bill" in this Contract means Invoice as the context may require.

(xliii). **"Letter of Acceptance"** means the letter of acceptance issued by the Owner to the Successful Bidder (as defined in the Bidding Documents), accepting the Bid submitted by such Successful Bidder (subsequently termed as Contractor).

(xliv). "**Good Industry Practice**" means the designs, skill, diligence, efficiency, reliability, prudence practices, methods, techniques, standards of engineering, procurement, construction, equipment, safety, operation and performance, as may change from time to time and which are reasonably and ordinarily expected from a reasonably skilled and experienced contractor engaged in the same type of undertaking as envisaged under this Contract and which would be expected to result in the performance of its obligations by the Contractor in accordance with this Contract, Applicable Laws and Applicable Permits in reliable, safe, economical and efficient manner.

(xlv). "**Government Authority**" means the Government of India, any state government or any local authority or any department, division, instrumentality or agency thereof or any corporation (to the extent acting in a legislative, judicial or administrative capacity and not as a contracting party with Owner or the Contractor) or commission under the direct or indirect control of such central, state or local government or any political sub-division thereof or any court, tribunal, arbitrator or judicial body within India, as the case may be and having jurisdiction over all or any part of the Works or the performance

of all or any of the services or obligations of the Contractor under or pursuant to the Contract.

(xlvi). "**GST**" shall mean Goods and Services Tax charged on the supply of material(s) and services. The term "GST" shall be construed to include the Integrated Goods and Services Tax (hereinafter referred to as "IGST") or Central Goods and Services Tax (hereinafter referred to as "CGST") or State Goods and Services Tax (herein after referred to as "SGST") or Union Territory Goods and Services Tax (hereinafter referred to as "UTGST") depending upon the import / interstate or intrastate supplies, as the case may be.

(xlvii). "**Insolvency Event**" means, if the Contractor: (a) is subject to admission of a petition in bankruptcy or insolvency or liquidation or for the alteration or adjustment of a substantial part of indebtedness before a Government Authority (excluding an arbitrator) against it under any bankruptcy, insolvency or other Applicable Law relating to debtors or for alteration or adjustment of indebtedness; or (b) files, or consents to, any petition in bankruptcy or for reorganisation under any bankruptcy or insolvency law, or for the appointment of an interim resolution professional, resolution professional or receiver for a substantial portion of its property, or (c) commences proceedings for or takes any corporate action authorizing or providing for its dissolution or liquidation; or (d) is subject to a receiver being appointed by a Government Authority (excluding an arbitrator) over a substantial part of the property of the Contractor.

(xlviii). "**Manuals**" shall mean the Erection and Installation Manual of the various equipment and machinery forming part of the Work(s) or Plant(s)/Unit(s) as well as the Operation and Maintenance Manuals thereof.

(xlix). "**Materials**" shall mean all materials, plant, machinery, instruments, components, equipment, sub-assemblies and assemblies, parts, spares and other items or things required for permanent incorporation in the Works to establish the Plant and/or Works complete in all respect, and shall include the replacement of any defective materials and of any materials damaged, lost, or destroyed during transit, storage, fabrication, erection, installation, testing, Pre-commissioning, Commissioning or otherwise upto and until issue of the Completion Certificate.

(l). "**Mechanical Completion**" means the installation of all equipment and facilities and the completion of all Works required to complete the Plant and associated facilities in all respects, and thereafter the completion of all activities as listed in API-700 to be performed by the Contractor including Pre-commissioning and Start-up activities, completion of all punch list items as provided by Owner/PMC and/or Process Licensor and/or statutory bodies like OISD, CCE, TAC, Factory Inspector, pollution control authorities etc., relevant Government Authorities and insulation of hot lines/ Steam lines, but excluding for the limited purpose of enabling milestone payment due upon commissioning of the Unit(s), insulation of other lines, final painting, Alkali Boil Out, furnace drying, and punch list items which, in the sole opinion of the Engineer-in-charge, do not affect Commissioning. Notwithstanding any exclusion as aforesaid, Mechanical Completion shall be understood not to have achieved for any purpose other than the milestone payment due on Mechanical Completion or for the purpose of any payment milestone(s) subsequent to Mechanical Completion unless the excluded items are completed. For the avoidance of doubt, reference to term "Ready for Start up" in this Contract means Mechanical Completion as the context may require.

(li). "**Mechanical Completion Certificate**" shall mean a Mechanical Completion Certificate in respect of Mechanical Completion of the Plant or Work, issued by Engineer-in-charge under clause 6.4(ii) and 6.4(iii) hereof. For the avoidance of doubt, reference to term "Final Test Certificate" in this Contract means Mechanical Completion Certificate as the context may require.

(lii). "**Mobilization**" shall mean establishment of sufficiently adequate infrastructure by the Contractor at " Site" comprising of Construction Equipment, aids, tools, tackles including setting of site offices with facilities such as power, water, communication etc., establishing manpower organization comprising of resident engineers, supervising personnel and an adequate strength of skilled, semi-skilled and un-skilled workers, who, with the so established infrastructure shall be in a position to commence execution of Work at Site(s), in accordance with the agreed time schedule of completion of Work. Mobilization shall be considered to have been achieved, if the Contractor is able to establish infrastructure as indicated above to begin Work at all the Site(s) as per the Time Schedule, where so warranted in accordance with agreed schedule of Work implementation to the satisfaction of Engineer-in-charge/Owner.

(liii). "**Managing Director**" shall mean the Managing Director of the Numaligarh Refinery Limited (NRL) or its successor in office as designated by the Owner.

(liv). "**Month**": means a month according to the Gregorian calendar.

(lv). "**Order"** shall respectively mean any written order or instructions given by the Owner or by the Engineer-in-Charge to the Contractor within the scope of their respective powers in terms of the Contract. For the avoidance of doubt, reference to term"Instruction" in this Contract means Order as the context may require.

(lvi). **"Owner"** shall mean Numaligarh Refinery Limited, a company within the meaning of Companies Act, 2013 and having its registered office at 122A, GS Road, Christian Basti, Guwahati District, Assam State, Pin Code -781005, which expression shall unless repugnant to the context or meaning thereof, include all its successors, administrators, executors and permitted assigns. For the avoidance of doubt, reference to term "**NRL**" in this Contract means Owner as the context may require.

(lvii). "**Parties**" means the Owner and the Contractor collectively and "**Party**" means Owner or Contractor individually".

(lviii). "**Performance Guarantee Tests**" shall mean the test or series of tests to be carried out by the Contractor to prove the contractual guarantees with respect to the Plant or anypart thereof, whether with reference to its input, throughput, output, quality, quantityor consumption or otherwise. For the avoidance of doubt, reference to term "Performance Test" in this Contract means Performance Guarantee Tests as the contextmay require.

(lix). "**Performance Test Certificate**" shall have the meaning as set out in Clause 6.4(vi).

(lx). "**Permanent Work**" shall mean and include Works which shall be incorporated in and form a part of the Work to be handed over to the Owner by the Contractor on completion of the Contract.

(lxi). **"Plant"** shall mean the totality of the Unit(s) and associated Facilities comprised in the Scope of Contract, which form a distinct operating system.

(lxii). "**Pre-commissioning"** shall mean all activities required to be performed after final testsfor all plant, equipment and machinery comprised within the Plant/Unit which is the subject matter of the Contract to bring the equipment covered from an inactive condition to a state ready for trial run and shall include but not be limited to checking of systems and vessels, flushing and steam blowing, air blowing of pipelines, system leak checking upto the specified pressure, purging the system using inert gas, checking of total instrumentation system of the Plant, checking of electrical equipment for proper earthing, installation of resistance, conducting operability tests on individual equipment, vessels and systems, integration of all control systems of the Unit with the control systems of the Refinery or other installation(s) concerned and all other activities required to be performed in terms of the Contract and as per API 700 under the head "Check list for plant completion " and division of responsibilities between the Owner and the Contractor after final tests and before commissioning of the Plant. The activities to be performed by the Contractor shall also include loop checking during pre-commissioning activities for completely integrated instrumentation and control system, including package/sub-package system items and units for which control system is being integrated by the Contractor in line with the requirements set out in the Bidding Documents.

(lxiii). "**Price Bid**" means the financial quote submitted by the Contractor as a part of its Bid pursuant to the Bidding Documents. For the avoidance of doubt, reference to term "Schedule of Prices" in this Contract means Price Bid as the context may require.

(lxiv). **"Price Schedule"** shall mean the Price Schedule annexed to the Detailed Letter of Acceptance.

(lxv). "**Progress Schedule**" means the progress schedule submitted by the Contractor in accordance with Clause 4.1(ii) and Clause 4.1(iii) and finalised by the Engineer-in-Charge and the Contractor in accordance with Clause 4.1(iv) or the progress schedule prepared and issued by the Engineer-In-Charge in accordance with Clause 4.1(viii), as the case may be.

(lxvi). "**Project**" shall mean the project embracing the Works and/or Plant and/or Unit(s) comprised in the Scope of Contract.

(lxvii). **"Process Licensor"** shall mean the Process Licensor for the Unit or of any part thereof as per Technical section of Bidding Document.

(lxviii). "**Scope of Supply**" shall mean the totality of materials by expression or implication envisaged in the Contract including (but not limited to) the supply as identified in the Bidding Documents.

(lxix). "**Scope of Contract**" shall mean the totality of Work and services to be performed by the Contractor within the Scope of Work and totality of materials to be supplied by the Contractor within the Scope of Supply for due performance of its obligations in accordance with the Contract and shall include (but not be limited to) all Works/services and supplies **by expression or implication** envisaged in the Bidding Documents.

(lxx). "**Contract Performance Security**" shall have the meaning as set out in Clause 3.5(i).

(lxxi). "**Site**" means the land on which the Work is to be executed or carried out and such other place(s) for purpose of performing the Contract. For the avoidance of doubt, reference to term "**Job Site**" in this Contract means Site as the context may require.

(lxxii). "**Sub-contract"** means any part of Works which the Contractor desires to assign to the Sub-Contractor, with the prior written consent of the Owner/ Engineer-in-Charge, for execution in accordance with the provisions of this Contract.

(lxxiii). "**Sub-Contractor**" means any person or persons (other than the Contractor) to whom any part of Work has been sub-contracted by the Contractor, with the prior written consent of the Owner/ Engineer-in-Charge, and the permitted legal successors in title to such person, but not an assignee to such person.

(lxxiv). "**Specifications"** means all directions, various technical specifications, provisions and requirements attached to the tender document, which pertain to the method and manner of performing the Work to the quantities and qualities of the Work and the materials to be furnished under the Contract for the Work as may be exemplified or modified by Owner during the performance of the Contract in order to provide for the unforeseen conditions or in the best interests of the Work and in the absence of any specifications as aforesaid covering any particular Work or supply or part or portion thereof shall mean the relevant BS, AWS, API, ASTM, BIS, AWWA or NACE, ASME, HEI, IEC, Indian Boiler Regulation (IBR), IEEE standard or code, as the case may be, approved by the Engineer-in-Charge and in the absence of any such standard or code covering the relative Work or part or portion thereof, shall mean the relevant Indian Standard and international standard or practice applied as a standard Engineering practice for the Work and approved in writing by the Engineer-in-Charge with or without modification(s). All references to any code, standard, specification or practice in the specifications shall be deemed to be a reference to the latest edition of relative code, standard, specification or practice, as the case may be, prevailing as on the last date of submission of the Price Bid in accordance with the Bidding Documents, notwithstanding the mention of any previous year or date of edition relative thereto in the specifications.

(lxxv). "**Start-up**" shall mean all activities required to be performed after Pre-commissioning and prior to trial operation and shall include final Pre-commissioning inspection and check out of equipment, vessels and system(s) and supporting sub-system(s), initial operation of complete equipment and systems within the Plant/Unit to obtain necessary pre-trial operation data, confirmation and correction of calibration and change of safety interlock/ control loop, if required, shutdown inspection and adjustment and other steps required to be taken prior to and enable Commissioning/trial operation.

(lxxvi). "**Subsystems**" shall mean the further breakdown of a System into its subsections and subcomponents, each designed to fulfil a precisely demarcated function or role in the working of the System. (Example: Demineralization of boiler feed water and fuel injection for boilers for the Steam Generation system).

Page 763 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(lxxvii). **“Supply” or “Supplies”** shall mean the totality of the materials and equipment by expression or implication required to be supplied by the Contractor for permanent incorporation in the Works in accordance with the provisions of the Contract.

(lxxviii). **“System**" shall mean the breakdown of the Plant / Unit into specific sections and components, each designed to fulfil a precisely demarcated function or role in the working of the Plant/Unit. For the avoidance of doubt and by way of illustration, fresh water system, circulating water system, steam and power generation and distribution systems, fuel system, effluent system in a power plant.

(lxxix). **“Bidder"** means the company, corporation, entity or person operating under the laws of India or legally registered with any other country with whom business is permitted as per Applicable Law and opts to submit Bid to Owner in response to the Bidding Documents and shall include their representatives, successors and permitted assigns. if the Bidder is joint venture or consortium, shall include each member thereof. For the avoidance of doubt, reference to term “Tenderer” in this Contract means Bidder as the context may require.

(lxxx). "**Temporary Work**" shall mean all temporary Works of every kind required in or about the execution, completion, or maintenance of the Work in accordance with the provisions of the Contract.

(lxxxi). "**Time Schedule**" shall mean the time schedule for Completion of the Works incorporated in the Contract or as may be extended by the Owner or Engineer-in- Charge pursuant to the provisions hereof and shall include interim time schedules set up for achieving interim/ phase-wise/ stage-wise/progress/ completion/ testing/ Commissioning/ handing over, as may be prescribed by the Owner/Engineer-in-Charge,within the overall Time Schedule as originally envisaged or as extended. For the avoidance of doubt, reference to term “**Time for Completion**” in this Contract means Time Schedule as the context may require.

(lxxxii). **“Tools”** shall mean all tools and things whatsoever to be supplied by the Contractor to the Owner within the Scope Supply or in relation to the operation and maintenance of the Plant or any part, machinery, or component thereof.

(lxxxiii). “**Unit**” shall mean the totality of the Units and Facilities comprised in the Scope of Contract, which form a distinct operating system.

(lxxxiv). “**Unit Rate**” shall mean the unit rate for the particular item of supply as specified in Bill of Materials and for Services as specified in the Bill of Activity.

(lxxxv). "**Utilities**" shall mean power, electricity, gases of all kinds, steam and other sources of energy, water (including raw water and treated water of all kinds), fuels, chemicals of all types (except catalysts and adsorbents forming part of the Plant/Unit or Process) whatsoever (required for or incidental to the performance, testing or pre-commissioning of the Works, not being materials required for permanent incorporation in the Works.

(lxxxvi). “**Working Day**” means any day other than declared to be holiday or rest day by the Owner.

Page 764 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(lxxxvii). "**Week**" means a period of any consecutive 7 (seven) days.

(lxxxviii). **"Work" or "Scope of Work" or "Service" or "Scope of Services"** shall mean the totality of the work, services and activities to be performed or undertaken and the totality of the responsibilities to be discharged, as envisaged by expression or implication in the Contract, including (but not limited to) the work as detailed in Tender Documents and shall include all works including (but not limited to), design, detailed engineering, preparation and supply of drawings and details, project management (including pre-construction activities, procurement, inspection and expediting), construction, Pre-commissioning, Start-up and Commissioning and supply of consumables, construction and other requisite machinery and equipment, utilities and Temporary Works for, relative or incidental to and/or in connection with the performance of the Contract up to Completion (including testing, Commissioning, handing over, troubleshooting, rectification, maintenance including all variations, extras, additional, altered, or substituted Works as required for the purpose of the completion of the Work contemplated under the Contract.

1.2. <u>Abbreviations:</u>

(a) **GOI** means the Government of India.

(b) **GCC** means General Conditions of Contract.

(c) **SCC** means Special Conditions of Contract.

(d) **SOR/SOP/PS** means Schedule of Rates/ Schedule of Prices/ Price Schedule.

Page 765 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

2. SECTION II – GENERAL INFORMATION ABOUT SITE

2.1. LOCATION OF SITE AND ACCESSIBILITY:

(i) The details of the Site where the Contractor is required to execute the Works in accordance with the Contract is as set out in the SCC and unless otherwise provided in the SCC, is within the below mentioned refinery ("**Refinery**") premises of the Owner and its associated infrastructures e.g. township, marketing terminal etc.

Location of Refinery: Numaligarh Refinery, PO-NR Project, Golaghat, Assam-785699

(ii) The Contractor agrees that entry into the premises of the Refinery is restricted to persons who have been issued a pass/ permit by the Owner and further, access to various Work areas inside the premises of the Refinery is subject to permits issued by the Owner for each specific Work area. The Contractor agrees and undertakes to obtain such pass/ permit with respect to the Contractor's Personnel as may be required for the purpose of performing its obligations in accordance with the provisions of the Contract.

(iii) Subject to Clause 2.1(ii) above, the Owner shall provide the Contractor all necessary access to the Site to enable the Contractor to perform its obligation under the Contract.

(iv) Subject to prior written consent of the Owner, the Contractor if necessary, shall at its own cost and expense, build other temporary access roads to the Site for the purpose of executing Works in accordance with the provisions of the Contract. The Contractor shall permit the use of such constructed temporary roads for vehicles/personnel of the Owner or any other parties who may be engaged by the Owner at the Site. The Contractor shall also facilitate the construction of the permanent roads upon commencement of construction thereof by the Owner or other contractor authorised by the Owner during the subsistence of this Contract.

(v) The Contractor agrees that non availability of access roads and/or railway siding or permits for entry of vehicles and equipment to any specific area inside the premises of the Refinery shall in no case be the cause to condone any delay in the execution of the Works or be the cause for any claims, Damages or extra compensation whatsoever by the Contractor.

2.2. GEOGRAPHICAL INFORMATION OF THE SITE:

Site Location	Pankagrant, Numaligarh
Co-ordinates	26°35'25.40"N , 93°45'2.80"E
District / State / Country	Golaghat / Assam / India
Nearest Railway Station	Golaghat
Nearest Airport	Jorhat
Nearest Sea Port	Kolkata
Nearest National Highway	NH-39

2.3. METEOROLOGICAL INFORMATION OF THE SITE:

Page 766 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(i) The below-mentioned meteorological design data required towards preparing engineering specifications are provided by the Owner solely for reference purposes only and the Contractor shall independently crosscheck the same for design and engineering purposes.

(ii) The Contractor shall ensure that its design criteria for the purpose of execution of Works under the Contract shall in no event be lower than the below-mentionedmeteorological design data.

Elevation above mean sea level	90m
Ambient temperature	6°C(min), 38°C(max) (Design at 40°C)
Relative humidity	Relative humidity 85% max (Design at 100% at 40°C)
Rainfall	For 1hr period: 90mm and for 24hr period: 160mm
Wind Data	Velocity: 36-140 km/hr., and wind direction: NE to SW
Earthquake Design Criteria	Seismic Zone V (IS:1893)

Page 767 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

3. SECTION III – INTERPRETATION, ORGANIZATION AND CONTRACT PERFORMANCE SECURITY

3.1. INTERPRETATION OF CONTRACT DOCUMENTS:

(i). Contract Documents

Subject to Clause 3.1(ii), all documents forming part of the Contract (and all parts thereof) are intended to be corelative, complementary and mutually explanatory. The Contract shall be read as a whole.

(ii). Order of Precedence

3.1.2.1. Subject to Clause 3.1.2.2, in the event of any ambiguity or conflict between the Contract Documents with respect to commercial terms or conditions to the extent that the two provisions cannot co-exist, the following shall prevail in descending order of precedence with Contract Document set out at (a) below having the highest precedence:

(a) Contract Agreement;
(b) Detailed Letter of Acceptance/ Work order
(c) Letter of Acceptance
(d) Statement of Agreed Variations;
(e) Special Conditions of Contract;
(f) Instructions to Bidders;
(g) Price Schedule;
(h) General Conditions of Contract;
(i) any other documents forming the part of the Contract.

For the avoidance of doubt, any amendment/Change Order issued after signing of formal contract shall take precedence over respective clauses of formal contract and its annexures.

3.1.2.2. With respect to any commercial term or condition, if any provision in this Annexure XXVIII of SCC is repugnant to or at variance with any provision(s) of the main SCC and/or the Agreed Variations or if any provision of the SCC is repugnant to or at variance with any provision(s) of the Agreed Variations, and the two cannot be reconciled or otherwise co-exist, then unless a different intention appears, theprovision(s) of the main SCC shall be deemed to override the provision(s) of Annexure XXVIII of SCC andthe provision(s) of the Agreed Variations shall be deemed to override the provision(s) of the main SCC, but only to the extent that such repugnancies in the Annexure XXVIII of SCC cannot be reconciled with the main SCC and/or Agreed Variations or to the extent that such repugnancies in the main SCC cannot be reconciled with the Agreed Variations, as the case may be.

3.1.2.3. In case of an irreconcilable contradiction in the technical requirements or technical specifications between Indian standards/applicable codes and standards, GCC, SCC, Specifications, Drawings, Schedule of Prices and/or Agreed Variations to the extent that the two provisions cannot co-exist or be read together to satisfy both or all, the following shall prevail in descending order of precedence with Contract Document set out at (a) below having the highest precedence:

Page 768 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(a) Contract Agreement;
(b) Detailed Letter of Acceptance/ Work order;
(c) Letter of Acceptance;
(d) Statement of Agreed Variations;
(e) Latest Statutory Guidelines from state and central authorities;
(f) Job specifications/ Scope of Work;
(g) Drawings;
(h) Technical/Material Specifications;
(i) Quality Assurance Procedures;
(j) Applicable Codes and Standards;
(k) Special Conditions of Contract;
(l) General Conditions of Contract;
(m) Price Schedule;
(n) Instructions to Bidders;
(o) Any other documents forming the part of the Contract.

3.1.2.4. In the event of any doubt, ambiguity or conflict in the interpretation of the Contract Documents or any discernable error or omission in any Contract Document, the Contractor shall, prior to commencing the Work or Supply, as the case may be, apply in writing to the Engineer-in-Charge for its decision to resolve such doubt, ambiguity or contradiction or correction of the error or making good the omission, as the case may be and decision of the Engineer-in-charge in this regard shall be final and binding on the Contractor. In the event, the Contractor fails to apply to the Engineer-in-Charge for its decision in accordance with this Clause 3.1.2.4 prior to commencing the relative Work or Supply, the Contractor shall perform such Work or make such supply, as the case may be, at its own risk, and the provisions of Clause 3.1.2.7 below shall apply to such Work performed or Supply made by the Contractor, as the case maybe.

3.1.2.5. Notwithstanding anything provided in Clause 3.1.2.4 above, either the Contractor or any representative of the Owner or Consultant may, at any time prior to or during the execution of the Works or Supply of any material or any part thereof (if the Contractor has failed to make an application as provided for in Clause 3.1.2.4), apply to the Engineer-in-Charge in writing for its decision to resolve any doubt, ambiguity or contradiction or for the correction of any error or for making good the omission in the Contract Documents, as the case may be.

3.1.2.6. The decision of the Engineer-in-Charge on any application under Clause 3.1.2.4 or Clause 3.1.2.5 above shall be in writing and shall be final and binding on the Contractor and shall form part of the Contract Documents, with the intent that the Contract documents shall be read as though the said decision is and was at all times incorporated therein.

3.1.2.7. In the event, the Contractor performs or executes any Work or makes any Supply at variance with the decision of the Engineer-in-Charge under Clause 3.1.2.6 above, then such Work shall, if the Engineer-in-Charge so consider

necessary, be deemed to be a defective Work/ supply and the provision of Clause 6.3(viii) below and associated clauses thereunder shall apply thereto.

(iii). HEADINGS AND MARGINAL NOTES:

All headings and marginal notes to the clauses of this Annexure XXVIII of SCC or to the Specifications or toany other part of Bidding Documents are solely for the purpose of giving concise indication/ for convenience of reference only and not a summary of the contents thereof, and shall not be used in, and shall not affect, the construction or interpretationof the Contract.

(iv). SINGULAR AND PLURAL:

(a) In the Contract Documents, unless otherwise stated specifically, the singular shall include the plural and vice versa wherever the context so requires.

(b) References to a "person" and words denoting a natural person shall be construed as a reference to any individual, firm, company, corporation, society, trust, government, state or agency of a state or any association or partnership (whether or not having separate legal personality) of two or more of the above and shall include successors and assigns.

(v). CONTRACTOR TO PERFORM AT ITS COST

(a) Wherever it is mentioned or stated in the Bidding Documents that such a supply is to be effected or such a Work is to be carried out or the Contractor shall perform certain Work or provide certain facilities, it shall be understood that the same shall be effected/carried out by the Contractor at its own cost, unless a different intention is specifically and expressly stated herein or otherwise explicit from the context and the Lumpsum Price (Contract Price) shall be deemed to have included the cost of such performance and/or provision, as the case may be.

(b) Any Work or supply shown, indicated or included in any description of the Work, Plans, Drawings, Specifications and/or Schedule of Price/Price Schedule or other Contract or Bidding Documents shall be deemed to form part of the Work and/or Supply contracted for, as the case may be, notwithstanding failure to show, indicate or include such Work or supply in any other or others among the documents aforesaid with the intent that the indication or inclusion of the Work or supply within any one of the said documents shall be deemed to be sufficient indication or inclusion of the Work or supply, as the case may be, within the Work and Supply covered by the Contract.

(c) Works shown upon the Drawings but not mentioned or described in the Specifications without being shown on the Drawings shall nevertheless be deemed to be included in the same manner as if they are shown in the Drawings and described in the Specifications.

(VI). COMPLIANCE WITH STANDARDS

Page 770 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(a) The Materials, Design Documentation and workmanship shall satisfy the applicable relevant Indian standards, Good Industry Practices and the Specifications contained herein, and Codes referred to by expression or implication. In the event, the Specifications stipulate requirement in addition to those contained in the standard Codes and specifications, the Contractor shall follow such additional requirements. In absence of any standard/specification/code of practice for detailed specifications covering any part of the Works required to be performed by the Contractor in terms of the Contract, the instructions/directions of the Engineer-in-Charge in this regard shall be final and binding on the Contractor.

(b) The Owner/Consultant may, at its sole discretion as a measure of convenience to the Contractor, furnish Hindi or any other vernacular translation of the several Contract Documents or part thereof. Provided that such translation shall not in any manner be construed as a substitution of the Contract Documents in English language and in the event of any ambiguity or conflict therein, the Contract Documents in English language shall prevail over the vernacular translation of Contract Documents.

(vii). In this Contract, unless the context otherwise requires,

(a) references to any legislation or any provision thereof shall include amendment or re-enactment or consolidation of such legislation or any provision thereof so far as such amendment or re-enactment or consolidation applies or is capable of applying to any transaction entered into hereunder;

(b) references to laws of India or Indian law or regulation having the force of law shall include the laws, acts, ordinances, rules, regulations, bye laws or notifications which have the force of law in the territory of India and as from time to time may be amended, modified, supplemented, extended or re-enacted;

(c) the words “include” and “including” are to be construed without limitation and shall be deemed to be followed by “without limitation” or “but not limited to” whether or not they are followed by such phrases;

(d) references to “construction” or “building” include, unless the context otherwise requires, survey and investigation, design, developing, engineering, procurement, supply of plant, materials, equipment, labour, delivery, transportation, installation, processing, fabrication, testing, and commissioning of the Project, including maintenance during the Construction Period, removing of defects, if any, and other activities incidental to the construction and “construct” or “build” shall be construed accordingly;

(e) references to “development” include, unless the context otherwise requires, construction, renovation, refurbishing, augmentation, up-gradation and other activities incidental thereto during the Construction Period, and “develop” shall be construed accordingly;

Page 771 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(f) any reference to any period of time shall mean a reference to that according to Indian standard time;

(g) any reference to day shall mean a reference to a calendar day;

(h) any reference to month shall mean a reference to a calendar month as per the Gregorian calendar;

(i) references to any date, period or Project Milestone shall mean and include such date, period or Project Milestone as may be extended pursuant to this Contract;

(j) any reference to any period commencing "from" a specified day or date and "till" or "until" a specified day or date shall include both such days or dates;

(k) references to any gender shall include the other and the neutral gender;

(l) "indebtedness" shall be construed so as to include any obligation (whether incurred as principal or surety) for the payment or repayment of money, whether present or future, actual or contingent;

(m) references to the "winding-up", "dissolution", "insolvency", or "reorganisation" of a company or corporation shall be construed so as to include any equivalent or analogous proceedings under the law of the jurisdiction in which such company or corporation is incorporated or any jurisdiction in which such company or corporation carries on business including the seeking of liquidation, winding-up, reorganisation, dissolution, arrangement, protection or relief of debtors;

(n) save and except as otherwise provided in this Contract, any reference, at any time, to any agreement, deed, instrument, licence or document of any description shall be construed as reference to that agreement, deed, instrument, licence or other document as amended, varied, supplemented, modified or suspended at the time of such reference; provided that this sub-clause (n) shall not operate so as to increase liabilities or obligations of the Owner hereunder or pursuant hereto in any manner whatsoever;

(o) any agreement, consent, approval, authorisation, notice, communication, information or report required under or pursuant to this Contract from or by any Party or the Engineer-in-Charge shall be valid and effective only if it is in writing under the hand of a duly authorised representative of such Party or the Engineer-in-Charge, as the case may be, in this behalf and not otherwise;

(p) the Schedules and Recitals to this Contract form an integral part of this Contract and shall be in full force and effect as though they were expressly set out in the body of this Contract;

(q) references to Recitals, Articles, Clauses, Sub-clauses, Provisos or Schedules in this Contract shall, except where the context otherwise requires, mean references to Recitals, Articles, Clauses, Sub-clauses, Provisos and Schedules of or to this Contract; reference to an Annex shall, subject to anything to the contrary specified therein, be construed as a reference to an Annex to the

Page 772 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

Schedule in which such reference occurs; and reference to a Paragraph shall, subject to anything to the contrary specified therein, be construed as a reference to a Paragraph of the Schedule or Annex, as the case may be, in which such reference appear;

(r) the damages payable by either Party to the other of them, as set forth in this Contract, whether on per diem basis or otherwise, are mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalty ("**Damages**"); and

(s) time shall be of the essence in the performance of the Parties' respective obligations. If any time period specified herein is extended for the reasons specified in the Contract, such extended time shall also be of the essence.

(viii). Unless expressly provided otherwise in this Contract, any documentation required to be provided or furnished by the Contractor to the Owner shall be provided free of cost and in three copies, and if the Owner is required to return any such documentation with its comments and/or approval, it shall be entitled to retain two copies thereof.

(ix). The rule of construction, if any, that a contract should be interpreted against the parties responsible for the drafting and preparation thereof, shall not apply.

3.2. OWNER'S ADMINISTRATION

(i). ENGINEER-IN-CHARGE

(a) The Owner shall appoint the Engineer-In-Charge who shall act on behalf of the Owner under the Contract.

(b) The Engineer-In-Charge shall be vested with, and (unless and until the Owner notifies the Contractor otherwise in writing) shall be deemed to have, the full authority of the Owner under the Contract except in respect of Clause 6.2 and 6.4 hereof.

(c) Unless otherwise expressly provided in the Contract, appointment or engagement of the Engineer-In-Charge or any exercise of its power or failure to exercise its power shall not relieve the Contractor of any of its obligations and liabilities under the Contract in any manner. For the avoidance of doubt, any failure or omission of approval and/or consent and/or to disapprove any matter by the Engineer-In-Charge shall not relieve the Contractor of any of its obligations and liabilities under the Contract.

(d) <u>General duties of Engineer-In-Charge</u>

The general powers of the Engineer-In-Charge include:

(i). quality assurance in relation to the Contractor's design, specifications, workmanship and materials and monitoring and checking the preparation of the design and specification of the Works and thesupply, installation, construction, testing, commissioning, Completion of the Works;

Page 773 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(ii). verification of the Works being carried out by the Contractor in accordance with the Contract and the standards of safety, quality and performance required by the Contract and Applicable Law;

(iii). coordination among the Contractor, the Owner and itself in approving or certifying documents, which have been submitted to the Engineer-In-Charge by the Contractor.

(e) Specific duties of Engineer-In-Charge

The specific duties and powers of the Engineer-In-Charge shall include:

(i) monitor either at regular intervals or on a continuous basis the design, manufacture and site progress against the Approved Progress Schedule and the Contractor's systems for controlling the progress of the Works;

(ii) receive and review for compliance with the Contract and suitability for operation and maintainability and approve or reject the Contractor's Documents specified in the Contract as requiring the Engineer-In-Charge's approval;

(iii) inspect, check and comment at all stages upon the design undertaken. Receive the Contractor's Documents required to be submitted to the Engineer-In-Charge for information only;

(iv) if required by the Owner, review mass balances and utility consumption data for performance and layout drawings for operation and maintenance;

(v) establish programme validation points for quality audit of the design, manufacture and construction;

(vi) examine either on a continuous basis or at regular intervals the steps taken by the Contractor in respect of quality assurance and checking that the same are adhered to (for which purpose, the Engineer-In-Charge may arrange and carry out such inspections and controls as it deems necessary in order to ensure the quality of the Works and compliance with the Contract. Comment on the training programme for Owner's operation and maintenance personal;

(vii) witness and inspect the assembly of the plant/equipment at the manufacturer's premises, and its erection on the Site in accordance with the Approved Progress Schedule and the Site tests and the Commissioning procedures;

(viii) liaise with the Contractor, as the case may be, for the purpose of meeting statutory requirement;

(ix) carry out a quality audit on the design procedures and review the material quality as per the requirements of the Contract;

(x) monitor the Contractor's applications for licences and approvals;

(xi) issue the Completion Certificate provided that such certificate shall only be valid and effective if the same has been countersigned by the Owner;

(xii) monitor test and procedures, the Commissioning of the Works and Performance Tests, if any, as per terms of the Contract;

(xiii) notify to the Contractor of such Defects, which in the Engineer-In-Charge's view, need to be rectified prior to the issue of the Completion Certificate;

(xiv) consider and make decisions upon any applications for extensions of the Time for Completion under Clause 4.3; and

(xv) any other powers and duties expressly provided for in the GCC.

(ii). Other Owner's Personnel

The Owner or Engineer-In-Charge may from time to time assign its duties under the Contract and/or delegate its authority under the Contract to assistants and may also revoke such assignment or delegation without any consent required from the Contractor. These assistants may include a site engineer, and/or independent inspectors appointed to inspect and/or test items of the Works, Plant and/or Materials.

3.3. CONTRACTOR'S ADMINISTRATION

(i). The Contractor shall appoint the Contractor's Representative which shall have all authority necessary to act on its behalf under the Contract, except to replace the Contractor's Representative. The Contractor's Representative shall be qualified, experienced and competent in the main engineering discipline applicable to the Works.

(ii). Unless the Contractor's Representative is named in the Contract, the Contractor shall, within 10 (ten) days from the Effective Date, submit to the Owner for consent the name and particulars of the person that the Contractor proposes to appoint as Contractor's Representative. If consent is withheld or subsequently revoked, or if the appointed person fails to act as Contractor's Representative, the Contractor shall similarly submit the name and particulars of another suitable replacement for such appointment.

(iii). The Contractor shall not, without the Owner's prior consent, revoke the appointment of the Contractor's Representative or appoint a replacement (unless the Contractor's Representative is unable to act as a result of death, illness, disability or resignation, in which case its/her appointment shall be deemed to have been revoked with immediate effect and the appointment of a replacement shall be treated as a temporary appointment until the Owner gives its/her consent to this replacement, or another replacement is appointed, under this Sub-Clause).

(iv). Unless otherwise agreed by the Owner, the whole time of the Contractor's Representative shall be given to directing the Contractor's performance of the Contract.

Page 775 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

The Contractor's Representative shall act for and on behalf of the Contractor at all times during the performance of the Contract, including issuing and receiving all Notices and other communications under Clause 3.4 (Instructions and Notices under the Contract).

(v). Unless otherwise agreed by the Owner, the Contractor's Representative shall be based at the Site for the whole time during the execution of Works at the Site. If the Contractor's Representative is to be temporarily absent from the Site during the execution of the Works, a suitable replacement shall be temporarily appointed by the Contractor, subject to the prior consent of the Owner. The Contractor's Representative may delegate any powers, functions and authority except the authority to:

(a) issue and receive Notices and other communications under Clause 3.4
(b) receive instructions under Clause 3.4

to any suitably competent and experienced person and may at any time revoke the delegation. Any delegation or revocation shall not take effect until the Owner has received a Notice from the Contractor's Representative, naming the person, specifying the powers, functions and authority being delegated or revoked, and stating the timing of the delegation or revocation.

(vi). The Contractor shall also provide and employ to the satisfaction of the Engineer-in-Charge sufficient and qualified personnel who are skilled and experienced in their respective calling and supervisory staff who are competent to adequately supervise the type of Works comprised in the Contract in such manner as will ensure Works of the best quality and expeditious working in accordance with the provisions of the Contract. Whenever in the opinion of the Engineer-in-Charge, additional properly qualified supervisory staff is considered necessary, they shall be employed by the Contractor without additional charge on account thereof.

(vii). The Contractor shall provide and maintain an office at the Site for accommodation of the Contractor's Personnel and such office shall be open at all reasonable hours to receive instructions, notices or other communications.

(viii). In the event, the Contractor's Personnel shall in the opinion of Engineer-in-Charge (whose opinion in this behalf shall be final) be guilty of any misconduct or be incompetent or insufficiently qualified or negligent in the performance of their duties or that in the opinion of the Owner or the Engineer-in-Charge, it is undesirable for administrative or any other reason for such person or persons to be employed in the Work, the Contractor, if so directed by the Engineer-in-Charge, shall forthwith remove such person or persons from Site thereon. Any Contractor Personnel so removed from the Site shall not again be employed in connection with the Works without the written permission of the Engineer-in-Charge and shall be immediately replaced at the expense of the Contractor by a qualified and competent substitute. For the avoidance of doubt, all cost related to repatriation of its personnel removed from the Site shall be solely to the account of the Contractor.

(ix). The Contractor shall be responsible for the proper behaviour of all the Contractor's Personnel and shall exercise a proper degree of control over them and in particular and without prejudice to the said generality, the Contractor shall be bound to prohibit and prevent the Contractor's Personnel from trespassing or acting in any way detrimental

or prejudicial to the interest of the community or of the properties or occupiers of land and properties in the neighbourhood and in event of such Contractor's Personnel so trespassing, the Contractor shall be responsible therefore and indemnify the Owner of all consequent claims or actions for damages or injury or any other grounds whatsoever. The decision of the Engineer-in-Charge upon any matter arising under this clause shall be final. Contractor shall ensure that no Contractor's Personnel is ever engaged in any anti national activity.

(x). If and when required by the Owner, all Contractor's Personnel entering the Owner's premises shall be properly identified by badges of a type acceptable to the Owner which must be worn at all times on the Owner's premises.

(xi). The Contractor shall keep the Owner/Consultant indemnified from and against all personal and third party claims whatsoever (inclusive of all costs incurred between attorney and client) arising out of any act or omission on part the Contractor's Personnel, whether committed, omitted or arising within or without the scope of the Contract, Sub-contract, agency or employment, as the case may be.

3.4. INSTRUCTIONS AND NOTICES UNDER THE CONTRACT

Subject to any provisions in this Contract to the contrary, any notice, or communication sought to be served by the Contractor to the Owner with reference to the Contractor's Contract shall be deemed to have been sufficiently served upon to the Owner (notwithstanding any enabling provisions under any law to the contrary) only if delivered by facsimile/E mail transmission followed by courier mail delivery, or by Registered Acknowledgement Due Post to the office address set forth below:

Address: **CHIEF GENERAL MANAGER (REFINERY PROJECTS)**
Numaligarh Refinery Limited
Numaligarh, District-Golaghat
Assam - 785699

Without prejudice to any other mode of service provided for in this Contract or otherwise available to the Owner, any notice, order or other communication sought to be served by the Owner to the Contractor with reference to this Contract, shall be deemed to have been sufficiently served if delivered by facsimile transmission followed by courier mail delivery, or by Registered Acknowledgement Due Post to the Principal office/ Site office or address or email address provided by the Contractor from time to time during execution of Contract.

3.5. CONTRACT PERFORMANCE SECURITY

This clause shall be read in conjunction with Clause 62 of the SCC.

(i). Contract Performance Security:

The Contractor shall, within 30 (Thirty) days from the date of issue of the Letter of Acceptance, furnish a Contract Performance Security ("**CPS**") for performance of its obligations under the Contract for an amount equivalent to 10% (Ten percent) of the Contract Price in the manner specified in Clause 3.5(ii) hereof. Such CPS is to be held by the Owner in lieu of cash as security for the due performance of the Contractor's obligation under the Contract and due discharge of Contractor's liabilitiesunder and/or arising out of the Contract, provided that nothing herein stated shall make

Page 777 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

it incumbent upon the Owner to utilize the CPS in preference to any otherremedy which the Owner may have, nor shall be construed as confining the claims of the Owner against the Contractor to the quantum of the CPS.

However, if the value of Work as per actual execution exceeds the accepted value of Bid i.e. value given in the Purchase Order, further recoveries towards CPS shall be effected at Ten percent (10%) of the value in excess of the Price Bid from Running Account Bills and the Final Bill. Similarly, if the value as per actual execution ofWorks is less than the Price Bid, recovery towards CPS, effected in the Running Account Bills, in excess of Ten percent (10%) of the value of Work as per actualexecution shall be refunded to the Contractor along with final Bill.

(ii). The CPS shall be in form of one or more interest free, irrevocable and unconditional bank guarantee(s) from an Indian bank acceptable to the Owner and recognised as a scheduled commercial bank by the Reserve Bank of India and in a format, provided by the Owner, for a sum equivalent to 10% (ten percent) of the Contract Price. Such Bank Guarantee(s) to the extent that the Lumpsum Price as designated by the Contractor in its Price Bid in Foreign Currency, shall be for an amountof 10% (Ten percent) of the designated Foreign Currency(ies), and to the extent that the Lumpsum Price as designated by the Contractor in its Price Bid in Indian Rupees, shall be for an amount of 10% (Ten percent) of the designated Indian Rupees, and shallbe valid in the first instance for a period of at least 03 (three) months beyond the defect liability period, plus six months claim period or any written extension(s) thereof , reckoned from the scheduled date of final completion under the Contract. Provided that if and after the Contractor has successfully completed all Contractor's obligations under the Contract as witnessed by the issue of a Completion Certificate under Clause 6.5(iii), so that the only surviving obligations of the Contractor under the Contract concern or relate to and arise out of the Defect Liability Period and obligations consequent thereto, the Contractor may opt to replace the existing Bank Guarantee(s) aforesaid furnished by the Contractor to the Owner under this Clause with similar interest free, irrevocable and unconditional bank guarantee(s) for a sum equivalent to 5% (five per cent) of the Lumpsum Price designated by the Contractor in its Price Bid in Foreign Currency and for a sum equivalent to 5% (five percent) of the Lumpsum Price designated by the Contractor in its Price Bid in Indian Rupees. Such replacement bank guarantee(s) shall be from an Indian bank acceptable to the Owner and recognised as a scheduled commercial bank by the Reserve Bank of India and in a format, provided by the Owner, shall be valid for at least 03 (three) months beyond the defect liability period, plus six months claim period or any written extension(s) thereof.

(iii). The CPS and other withheld amounts from the Running Account Bill(s), if any, at any time remaining in the hands of the Owner, shall be free of any liability for payment of any interest to the Contractor.

(iv). Upon determination of the Contract prior to completion of Work(s) for any cause, the Owner shall release/discharge/return, as the case may be, to Contractor, the unutilised balance of the CPS, if any, for the time being remaining in the hands of theOwner after settlement of accounts and discharge of all amounts due from the Contractor to the Owner and fulfilment of all obligations of the Contractor in accordance with the provisions of the Contract.

(v). Whenever any claim against the Contractor for the payment of a sum of money arises out of or under the Contract and the Contractor fails to make good such amount

through any other means, the Owner shall be entitled to recover such sum by appropriating in part or in whole the CPS of the Contractor. In the event ofthe CPS is insufficient then the balance of the total sum recoverable, as thecase may be, shall be deducted from any sum then due or which at any time thereaftermay become due to the Contractor. The Contractor shall pay to the Owner on demandany balance remaining due. In case of recovery of any amount from the CPSduring the execution of Contract, the Contractor shall replenish such CPS to the original value of the CPS within 14 (fourteen) days of such encashment/appropriation of CPS by the Owner.

(vi). The CPS shall be extended by such further period(s) as the Owner may require until due performance of all the Contractor's obligations under the Contract.

Without prejudice to any other right or remedy available to the Owner, the Owner may at any time and from time to time before issue of the Completion Certificate under the Contract require the Contractor by notice in writing to renew/ extend the CPS for such period(s) as the Owner may deem fit, and upon such request, the Contractor shall renew/ extend the CPS for the required period(s), and without prejudice to any other right or remedy under the Contract, and unless the Owner shall not have required such renewal, the Owner shall be entitled to encash andappropriate the CPS if not renewed at least 14 (Fourteen) days prior to thedate of expiry thereof during the subsistence of this Contract.

(vii). Alternatively, contractor may furnish CPS through Insurance Surety Bond (ISB) from a Surety Insurer acceptable to the owner, as per guidelines issued by IRDAI in format enclosed with the tender document and in which case, the aforementioned provisions of this Clause 3.5 shall apply mutatis mutandis.

4. SECTION IV –TIME SCHEDULE, FORCE MAJEURE AND PRICE ADJUSTMENT

4.1. TIME SCHEDULE

(i). The Contractor shall complete the whole of the Works, and each section thereof (if any), within the Time Schedule for the Works or Section (as the case may be), including Completion of all Work and intermediate milestones which is stated in the Contract as being required for the Works or section to be considered to be completed for the purposes of Completion of Work in accordance with the provisions of the Contract.

(ii). Unless stated otherwise elsewhere, the Contractor shall submit to the Owner within 14 (fourteen) days from the Effective Date for approval in respect of each Job Site, a detailed progress schedule in graphical or other suitable form as a product of a project management software e.g. Primavera, MS Projects etc. giving dates of various activities and milestones within the Time Schedule and Works within the Scope of Work, providing sufficient margin to cover for contingencies and any remedial Work necessary.

(iii). The progress schedule(s) to be submitted to the Engineer-in-Charge for approval shall be accompanied as part thereof by a document which will list, relative to each operation, the labour, machinery and equipment to be employed by the Contractor to achieve the desired rate of progress, it being understood, however, that the quantity and types therein indicated shall merely constitute an indication of minimums, and approval of such progress schedule, shall not in any manner absolve the Contractor from its obligations to complete the Works in all respects within the Time for Completion specified in this behalf elsewhere in the Bidding Documents and/or to employ additional labour, machinery and equipment necessary to achieve the desired rates of progress and/or to achieve Completion of the Works within the Time Schedule.

(iv). Within 14 (fourteen) days of submission of the progress schedule by the Contractor in accordance with Clause 4.1(ii) and Clause 4.1(iii), the Engineer-in-Charge and the Contractor shall mutually discuss and finalise the progress schedule and the progress schedule so finalised shall be the "**Approved Progress Schedule**" and shall form part of the Contract. The Contractor shall commence the various Works/activities involved on or before the date(s) mentioned in the Approved Progress Schedule and to conclude the said Work(s)/ operation(s) on or before date mentioned in this behalf in the Approved Progress Schedule. The Contractor shall execute the Works in accordance with the order and procedure set out in the dates shown upon the Approved Progress Schedule and the Payment Schedule. The Approved Progress Schedule and the Payment Schedule shall not be altered or amended without the Owner's prior consent in writing, which, shall not be unreasonably withheld.

(v). The Contractor shall adhere to the order of procedure and method set out in the Progress Schedule unless the Contractor obtains the written consent of the Engineer-in-Charge/Owner to vary such order or method.

(vi). The Owner shall notify the Contractor if the rate of progress of the Works or any part thereof is too slow to meet the Time for Completion and that the slowdown in the rate of progress is not due to a circumstance for which the Contractor is entitled to an extension of time. Following receipt of such a notice the Contractor shall take such steps as may be necessary and as the Owner may approve, to remedy or mitigate the likely

delay, including revision of the Progress Schedule and the Payment Schedule and/or carrying the Works at night or on public holidays. The Contractor shall not be entitled to any additional payment for taking such steps.

(vii). The Progress Schedule shall also indicate the latest dates of finishing of various activities and achievement of milestones comprising the Work in the critical path and the interlinking of the various activities and bring to light the specific/critical items on which the inputs from the Owner / Engineer-in-Charge /Consultant or other agencies, if any, would be required, to ensure adherence to the Progress Schedule.

(viii). If the Contractor fails to submit the progress schedule in accordance with Clause 4.1(ii) and Clause 4.1(iii) or if the Owner/Engineer-in-charge and Contractor fail to agree upon the Progress Schedule in accordance with Clause 4.1(iv) above, then the Engineer-in-Charge shall prepare the Progress Schedule (the dates of progress as fixed by the Engineer-in-Charge being final and binding upon the Contractor except as herein otherwise expressly provided), and shall issue the Progress Schedule so prepared to the Contractor, which shall then be the Approved Progress Schedule and all the provisions of Clause 4.1 shall apply mutatis mutandis.

(ix). All the Contractor's activities shall be performed and completed strictly in accordance with the Approved Progress Schedule and to achieve the targets, the Contractor shall have to plan adequate mobilisation of all resources. The Engineer-in-Charge, shall however, have the right to review the progress and modify the sequence of carrying out the Works suiting the Site conditions and the Contractor shall be required to complywith such modifications, revise the Approved Progress Schedule, get it approved and complete its activities within the revised Approved Progress Schedule without any extra cost to the Owner.

(x). During execution of the Works, the Contractor shall submit at its own cost a detailed monthly progress report to the Engineer-in-Charge in 3 (three) copies, latest by 7th (seventh) of every month. The Contractor shall also be required to attend Site progress review meetings organized by the Engineer-In-Charge or its authorised representative periodically. The deliberations in the meetings shall *inter alia* include the weekly program, progress of Work (including details of manpower, tools and plants deployed by the Contractor *vis-à-vis* agreed schedule), delays, if any and recovery program of Contractor to mitigate such delays.

(xi). If, at any time actual progress is too slow to complete the Works or a section (if any) in accordance with the Approved Progress Schedule and Time for Completion and/or progress has fallen (or will fall) behind the Approved Progress Schedule then the Owner/ Engineer-In-Charge may instruct the Contractor to submit, a revised programme describing the revised methods which the Contractor proposes to adopt inorder to expedite progress and complete the Works or a Section (if any) to bring back the progress in line with the Approved Progress Schedule and/or Time for Completion.

(xii). Unless the Owner provide a notice in writing to the Contractor stating otherwise, the Contractor shall adopt the revised methods as per Clause 4.1(xi), which may require increase in the working hours and/or in the numbers of Contractor's Personnel and/or the Construction Equipment, at the Contractor's risk and cost. If such revised methods cause the Owner to incur additional costs, the Owner shall be entitled to recover such additional costs from the Contractor from the CPS and/ or the amounts due and payable to the Contractor under the Contract, without prejudice to any otherremedy the Owner may have.

(xiii). Post adoption of the revised programme in accordance with Clause 4.1(xi) and Clause 4.1(xii) above, if the Contractor fails to sufficiently improve actual progress to complete the Works or a section (if any) as per their respective Time For Completion in accordance with the Approved Progress Schedule and/or within the Time for Completion; it shall be deemed to be in material breach of the Contract to which the provisions of Clause 7.2 below relating to termination of Contract shall apply, but without prejudice to any other consequences or rights or remedies which the Owner may have in this behalf.

4.2. FORCE MAJEURE

(i). Neither Party shall be responsible for any failure to perform its obligations under the Contract if it is prevented or delayed in performing those obligations by an event of Force Majeure.

(ii). The term "**Force Majeure**" shall include following events or circumstances or combination of the following acts, events or circumstances, which acts, events or circumstances: (i) are beyond the reasonable control and without the fault or negligence of the party affected ("**Affected Party**"), (ii) which could not have been prevented by Good Industry Practice or by the exercise of reasonable skill and care, (iii) which, having arisen, affected Party could not reasonably have avoided or overcome or prevented by the exercise of reasonable diligence the Affected Party, (iv) which is not caused or contributed by the Affected Party, and (v) which or any consequences of which, prevents the Contractor from wholly or partly performing any duties under the Contract:

(a) act of terrorism;

(b) riot, war, invasion, act of foreign enemies, hostilities (whether war be declared or not), civil war, rebellion, revolution, insurrection of military or usurped power;

(c) ionizing radiation or contamination, radio activity from any nuclear fuel or from any nuclear waste from the combustion of nuclear fuel, radioactive toxic explosive or other hazardous properties of any explosive assembly or nuclear component;

(d) epidemics, pandemics, earthquakes, flood, fire, hurricanes, typhoons or other physical natural disaster, but excluding weather conditions regardless of severity; and

(e) freight embargoes, strikes at national or state-wide level.

For the avoidance of doubt, a) inclement weather, or b) third party breach, or c) delay in supply of Materials (other than due to a nationwide transporters' strike), or d) commercial hardship shall not constitute a Force Majeure event.

Page 782 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

Note: Strike or lock-out in the Works of manufacturers of Long Lead and Critical Tagged equipments (if any) as specified in the Special Conditions of Contract, in excess of a continuous period of 7 (seven) days at any time during the period established for the supply of such equipment, shall constitute a force majeure event provided that:

i) The strike or lock-out, as the case may be, was not foreseeable at the time of placing the order on the manufacturer; and

ii) The strike/ lockout occurred at least 3 (three) months after the Contractor placed the order on the manufacturer.

It is clarified that the expression "manufacturer of Long Lead and Critical Tagged Equipment" and "manufacturer" shall not include a sub-manufacturer of such equipment or any part or component thereof or a vendor of such equipment or any part or component thereof who is not a manufacturer; and the expression "Long Lead and Critical Tagged Equipment" shall not include any part or component thereof.

(iii). Within 10 (ten) days from the date of occurrence of any Force Majeure event, if Affected Party desires to invoke such Force Majeure event as a cause for delay in the performance or non-performance of any obligation hereunder, it shall notify the other Party in writing of such date and the nature and expected duration of Force Majeure event.

(iv). Thereafter within 21 (twenty one) days from the date of occurrence of such Force Majeure event, the Affected Party shall submit to the other Party describing in detail the particulars of the occurrence of such Force Majeure event, including an estimation of its expected duration and probable impact upon the performance of such Party's obligations hereunder, and thereafter continues to furnish timely regular reports with respect thereto during the continuation of the Force Majeure event and steps taken to overcome adverse effects of such events. Such Affected Party shall substantiate the Force Majeure event with data, document, newspaper cuttings, information etc, as the case may be, from Government agencies/local bodies/reputed agencies.

(v). Upon cessation of such Force Majeure event, the Affected Party having invoked such Force Majeure event as a cause of such delay shall submit to the other Party, not later than 7 (seven) days, reasonable proof of the nature of such delay and its initialestimated effect upon the time of performance. The Party having invoked such event of Force Majeure as a cause of such delay shall inform the other Party about measureswhich the Affected Party is taking, or proposes to take, to alleviate the impact of sucha Force Majeure event.

(vi). An event of Force Majeure shall not relieve the Affected Party from liability for an obligation which arose before the occurrence of such event of Force Majeure, nor does that event affect the obligation to pay money in a timely manner which matured prior to the occurrence of such event.

(vii). The Contractor has no entitlement and the Owner has no liability for:

(a) any costs, losses, expenses, damages or the payment of any part of the Contract Price during an event of Force Majeure; and

Page 783 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(b) any delay costs incurred by the Contractor due to an event of Force Majeure.

(viii). A Force Majeure event affecting a portion of the Works only shall not excuse the Contractor's failure to timely complete the unaffected portions of the Works.

(ix). If the Contractor is prevented from performing its obligations under the Contract by reason of a Force Majeure event of which notice has been given within the stipulated period and suffers delay by reason of such Force Majeure event, the Contractor shall be entitled to an extension of time for any such delay in accordance with Clause 4.3 below provided such Force Majeure event is accepted by the Owner.

(x). Notwithstanding anything to contrary in this Contract:

(a) any act, event, or occurrence listed above and asserted as a Force Majeure that results materially from the acts or omissions, negligence or wilful misconduct of the Affected Party shall not constitute a Force Majeure; and

(b) the Affected Party shall not be relieved for the obligations under this Contract to the extent that the acts or omissions, negligence or wilful misconduct of the Affected Party contributes to or aggravates the Force Majeure event.

(xi). The Parties shall cooperate to develop and implement a plan of remedial and reasonable alternative measures to mitigate the impact of the Force Majeure event. Upon the cessation of the Force Majeure event, the Affected Party shall make its best efforts to resume normal performance of its obligations under the Contract as soon as possible.

(xii). If the performance of the Contract is substantially prevented, hindered or delayed for a continuous period of more than 140 (one hundred forty) days on account of one or more Force Majeure events during the subsistence of the Contract, the Parties will attempt to develop a mutually satisfactory solution, failing which either Party may terminate the Contract by giving a written notice to the other.

(xiii). In the event that the Parties are unable to agree in good faith about the existence or occurrence of a Force Majeure event, such dispute shall be finally settled in accordance with the Clause 11.8 (Settlement of Disputes); provided however that the burden of proof as to the occurrence or existence of such Force Majeure event shall be upon the Party claiming relief on account of such Force Majeure event.

4.3. EXTENSION OF TIME

(i). Relevant Events: Subject to the provisions of Clause 7.3, Contractor may apply to Owner for an extension of time in respect of any milestone or portion thereof, if any, if the following events occur ("**Relevant Event**"), which delays or prevents, or will delay or prevent, the Contractor from achieving such milestone by the time specified in the Progress Schedule:

(a) Any occurrence of a Force Majeure event as provided in Clause 4.2 titled 'Force Majeure; or
(b) Change Order as provided in Clause 7.3; or

Page 784 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(c) Delay or default by the Owner in complying with its obligations under the Contract having a material effect on the performance of the Contractor resulting in unavoidable delay in performance, or

(d) any suspension order given by the Owner under Clauses 7.1.

(ii). Within 10 (ten) days of the occurrence of the Relevant Event, which in the opinion of the Contractor, is likely to lead to delay in the commencement or completion of any particular Work(s) or operation(s) or the entire Works and would entitle the Contractor to an extension of the time in the Approved Progress Schedule(s), the Contractor shall inform the Engineer-in-Charge in writing about occurrence of the Relevant Event , date of commencement of such Relevant Event and submit the data and document as may be required for substantiating such Relevant Event.

(iii). Thereafter, if even upon the cessation or fulfilment of such Relevant Event, the Contractor is of opinion that an extension of the time specified in the Progress Schedule relative to particular operation(s) or item(s) or Work or the entire Works is necessary, the Contractor shall, within 10 (ten) days after the cessation or fulfilment of the Relevant Event, make a written request to the Engineer-in-Charge in accordance with Clause 4.3(iv) below for extension of the relative time specified in the Progress Schedule and the Engineer-in-Charge may on receipt of such request at any time prior to Completion of the Work extend the relative time of completion in the Progress Schedule for such period(s) as it considers necessary, if he/she is of opinion/decision (which shall be final and binding on the Contractor) that such Relevant Event constitutes a ground for extension of time in terms of the Contract, subject to the provisions of Clause 4.3(v) below and that such act, event or circumstances has in fact resulted in insurmountable delay which in turn impacted the critical path and delayed the performance of the Works.

(iv). The application for extension of time made by the Contractor to the Engineer-in-Charge shall contain full details of –

(a) The notice under Clause 4.3(ii) with a copy each of the notice sent to the Engineer-in- Charge,

(b) The activity of the Approved Progress Schedule affected by the Relevant Event,

(c) The bottleneck(s) or obstruction(s) perceived/experienced, and the reason(s) therefor,

(d) Extension required/ necessitated on account of sub-clause (c) above,

(e) Extension required /necessitated on account of reasons (as the case may be) attributable to the Owner

(f) Extension required/ necessitated (as the case may be) on account of Force Majeure event, and

(g) The total extension of time (if any) required/ necessitated for completion, taking the above into account and after eliminating all overlaps.

(v). Notwithstanding the provisions of Clause 4.3(iii) hereof, the Owner may at any time after final Completion of the Plant or Works in all respects of its own initiative consider a request for extension of time made by the Contractor to the Engineer-in-Charge under Clause 4.3(iii) or at the request of the Contractor made by way of appeal either against the decision of the Engineer-in-Charge taken under Clause 4.3(iii) or against the Engineer-in- Charge's failure to take a decision under Clause 4.3(iii), if satisfied of the existence of any ground(s) justifying the delay, extend the date for completion of the

Work or any item or operation thereof for such period(s) as the Owner may consider necessary, and the decision of Owner as to the existence or otherwise of any grounds justifying the extension and as to the period(s) of extension necessary shall be final and binding upon the Contractor.

(vi). Upon occurrence of the Relevant Event, the Contractor shall at all times use its reasonable efforts to minimise any delay in the performance of its obligations under the Contract.

(vii). Upon an extension of the time for completion of the Work or part thereof or any operation(s) involved therein in accordance with Clause 4.3(iii) or Clause 4.3(v), the extended date of Completion shall be deemed to be the relative date of Completion in the Progress Schedule.

(viii). No assurance, representation, promise or other statement by any personnel, Engineer-in-Charge or representative of the Owner in relation to extension of time for commencement or completion of any Work(s) or operation thereof or of the entire Works under the Contract shall be binding upon the Owner or shall constitute an extension of time under Clause 4.3(iii) or Clause 4.3(v) hereof, unless the same is communicated to the Contractor by the Engineer-in-Charge under Clause 4.3(iii) or by the Head Projects -, Numaligarh Refinery under Clause 4.3(v) and the writing specifically states to embody an extension of time within the provisions of Clause 4.3(iii) or 4.3(v) as the case may be. Without prejudice to the foregoing, the mere agreement or prescription of a Progress Schedule by the Engineer-in-Charge or any representative of the Owner at variance with the Progress Schedule or containing an extended time of commencement or completion in respect of the entire Work(s) or any part thereof or operation thereof shall not in any way constitute an extension of time in terms of the Contract so as to bind the Owner or to relieve the Contractor from any of its obligations or liabilities under the Contract, nor shall it constitute a promise on behalf of the Owner or a waiver by the Owner of any of its rights in terms of the Contract relative to the performance of the Contract within the time specified under this Contract, but shall be deemed only (at the most) as a guidance to the Contractor for better organising its Work on a recognition that the Contractor has failed to organise its Work / supplies and/ or to perform the same within the time specified in the Progress Schedule.

(ix). Certain Delays not excused:

Contractor shall not be entitled to any extension of time in respect of any delays caused directly or indirectly by any of the following:

(a) any default by Contractor; or

(b) inclement weather conditions (including, without limitation, monsoon or other storm conditions); or

(c) commercial hardship including lack of financial resources or arrangements.

Note: Time extension shall not be granted to the Contractor if it has concurrently delayed the completion of scheduled progress of the Works.

4.4. PRICE ADJUSTMENT FOR DELAY IN COMPLETION

(i). If Mechanical Completion of the Plant is not achieved by the Contractor within the scheduled date of Mechanical Completion specified in the Time Schedule or if any Works for which a separate Progress Schedule has been established is not achieved by the Contractor within the scheduled date of completion specified in the relevant Progress Schedule (each of the said date(s) is hereinafter referred to as the "**Starting Date for Discount Calculation**"), the Owner shall be entitled to adjustment by way of discount in the Contract Price, a sum equivalent to the Lumpsum Price specified below for each Week or part thereof that the Work remains incomplete beyond the starting date for discount calculation, namely :

(a) For Mechanical Completion of the Plant or Completion of the Works, as the case may be, achieved within 1 (one) Week of the Starting Date for Discount Calculation – 1/8 % (one eighth percent) of the Lumpsum Price;

(b) For Mechanical Completion of the Plant or Completion of the Works as the case may be, achieved within 2 (two) Weeks of the Starting Date for Discount Calculation – ¼ % (one quarter percent) of the Lumpsum Price;

(c) For Mechanical Completion of the Plant or Completion of the Works as the case may be, achieved within 3 (three) Weeks of the Starting Date for Discount Calculation – ½ % (one half percent) of the Lumpsum Price;

(d) For Mechanical Completion of the Plant or Completion of the Works, as the case may be, achieved within 4 (four) Weeks of the Starting Date for Discount Calculation – ¾ % (three fourth percent) of the Lumpsum Price;

(e) For Mechanical Completion of the Plant or Completion of the Works, as the case may be, achieved within 5 (five) Weeks of the Starting Date for Discount Calculation – 1% (one percent) of the Lumpsum Price;

(f) For Mechanical Completion of the Plant or Completion of the Works, as the case may be, achieved within 6 (six) Weeks of the Starting Date for Discount Calculation – 1½ % (one and one half percent) of the Lumpsum Price;

(g) For Mechanical Completion of the Plant or Completion of the Works, as the case may be, achieved within 7 (seven) Weeks of the Starting Date for Discount Calculation – 2% (two percent) of the Lumpsum Price;

(h) For Mechanical Completion of the Plant or Completion of the Works, as the case may be, achieved within 8 (eight) Weeks of the Starting Date for Discount Calculation – 2½ % (two and one half percent) of the Lumpsum Price;

(i) For Mechanical Completion of the Plant or Completion of the Works, as the case may be, achieved within 9 (nine) Weeks of the Starting Date for Discount Calculation – 3 % (three percent) of the Lumpsum Price;

(j) For Mechanical Completion of the Plant or Completion of the Works, as the case may be, achieved within 10 (ten) Weeks of the Starting Date for Discount Calculation – 3 ½ % (three and one half percent) of the Lumpsum Price;

Page 787 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(k) For Mechanical Completion of the Plant or Completion of the Works, as the case may be, achieved within 11 (eleven) Weeks of the Starting Date for Discount Calculation – 4% (four percent) of the Lumpsum Price;

(l) For Mechanical Completion of the Plant or Completion of the Works, as the case may be, achieved within 12 (twelve) Weeks of the Starting Date for Discount Calculation – 4½ % (four and one half percent) of the Lumpsum Price;

(m) For Mechanical Completion of the Plant or Completion of the Works, as the case may be, achieved within 13 (thirteen) Weeks of the Starting Date for Discount Calculation – 5% (five percent) of the Lumpsum Price.

For avoidance of doubt, the adjustment in the Lumpsum Price under this Clause 4.4 (i) by way of price discount shall in no event exceed 5% (five per cent) of the total Contract Price.

(ii). The Starting Date for Discount Calculation shall be subject to revision upon extension of the date for Mechanical Completion of the Plant or final date for Completion of the Works as the case may be in accordance with Clause 4.3 above. For the avoidance of doubt, any extension under Clause 4.3 above shall entitle the Contractor for an equivalent extension in the Starting Date for Discount Calculation under Clause 4.4(i) above.

(iii). Notwithstanding anything to the contrary contained herein, application of price adjustment under Clause 4.4(i) above shall be without prejudice to any other right of the Owner, including the right of termination under Clause 7.2 and associated clauses thereunder.

(iv). Nothing in this Clause 4.4 shall prevent the Owner from exercising its right of termination of Contract under Clause 7.2 below and associated clauses there under, and Owner shall be entitled, in the event of exercising its said right of termination after the last date for Mechanical Completion and/or Completion of the Works as stipulated in the Approved Progress Schedule or any extension thereof, without prejudice to any other right or remedy available to the Owner, to discount as aforesaid in the Contract Price in addition to any amount as may be due consequent to a termination under Clause 7.2 below and associated clauses there under.

(v). In the event, the Owner delays in providing Utilities and feedstock and concurrently, the Contractor delays the completion of the Works as per the Approved Progress Schedule, the Contractor shall not be entitled to waiver of price adjustment under this Clause 4.4 due to such delay attributable to the Owner in provisioning of the Utilities and feedstock.

(vi). Contractor agrees with the Owner, that the above-mentioned price adjustment: (a) represents a genuine pre estimate of the damages likely to be suffered by the Owner and not as a penalty; (b) shall be payable by the Contractor without any requirement of proof of the actual loss or damage caused to the Owner; and (c) recovery shall be without prejudice to the rights of the Owner under this Contract, including the right of termination thereof. The Contractor further agrees that the price reduction amount is

Page 788 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

over and above any right which Owner has to risk purchase under Clause 7.2(x) and any right to get the Defects in the Work rectified at the cost of the Contractor.

Page 789 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

5. SECTION-V – PERFORMANCE OF WORK

5.1. EXECUTION OF WORK

(i). The Contractor agrees that time is of essence and of paramount importance and undertakes to ensure due Completion of Works in accordance with the timelines set out in the Contract.

(ii). The Contractor shall perform and execute the Works in strict conformity with the provisions of the Contract and with such explanatory detailed Drawings, Specifications and any relative Instructions as may be furnished from time to time to the Contractor by the Engineer-in-Charge. The Contractor shall ensure that Work throughout are executed as per the Good Industry Practices in the most substantial, proper and workman like manner with the quality of material and workmanship in strict accordance with the Specifications.

5.2. CO-ORDINATION AND INSPECTION OF WORK

(i). The Engineer-in-Charge shall be entitled from time to time or at any time, at its sole discretion, to issue written orders or instructions to the Contractor relating to the performance and/or execution of Work(s) by the Contractor or otherwise, in relation to any matter regarding the Contract or arising therefrom and to revise or revoke any orders or instructions previously issued, and the Contractor shall, subject to Clause 5.2(ii), obey and/or abide thereby.

(ii). In the event, the Contractor requires any clarification in respect of any orders or instructions issued by the Engineer-in-Charge, or there exists any contradiction between any orders or instructions issued by the Engineer-in-Charge and the Contract Documents, the Contractor shall refer such matters immediately in writing to the Engineer-in-Charge for its decision before proceeding further with the Work and the decision of the Engineer-in-Charge on any such matters shall be final and binding upon the Contractor, who shall perform the Work in accordance with such decision of the Engineer-In-Charge, without entitlement to any claim against or compensation from the Owner whatsoever.

5.3. CO-ORDINATION WITH OTHER CONTRACTORS

(i). The Contractor acknowledges that the Owner will have other Works, including Works at the Site or adjacent thereto, carried out by other contractors employed by the Owner concurrently with the Works and further agrees that it is of paramount importance that all Works thereon are fully and completely coordinated, in view of their concurrent and sequential nature.

(ii). The Contractor agrees to execute the Works in such a manner that the Work of other agencies/contractors engaged by Owner operating at the Site is not hampered due to any action or omission of the Contractor. The Contractor shall ensure due and proper coordination with such agencies/ other contractors of the Owner while performing its obligations under the Contract. In the event of any dispute or difference between the Contractor and such agencies/ other contractors, the decision of Engineer-in-Charge shall be final and binding on the Contractor.

5.4. WORK ON SUNDAYS AND HOLIDAYS

(i). Subject to Clause 5.4(ii), the Contractor agrees to execute the Work on Sundays and holidays, if necessary, to ensure due completion of the Works in accordance with the timelines set out in this Contract without any extra compensation.

(ii). The Contractor shall apply for permission of the Engineer-in-Charge in writing at least 2 (two) days prior to carrying out Works on Sundays and holidays.

5.5. GENERAL CONDITIONS FOR CONSTRUCTION AND ERECTION WORK

(i). The Contractor shall appraise itself of all the conditions prevailing in the Refinery, marketing terminals and other sensitive location and the restrictions placed on movement of personnel and equipment, types of equipment and tools permitted, working methods allowed etc. in the light of security and safety regulations operative in the area.

(ii). The Contractor shall comply with the safety regulations provided in the Contract at all times during execution of Works.

(iii). The Owner shall not be liable for any payment towards idle time wages or compensation for temporary stoppage of Work or restrictions whatsoever and the Contract Price being all-inclusive and definitive lump-sum price shall cover the cost of such contingencies and eventualities.

(iv). The Contractor shall ensure special care in transportation, storage, working on equipment and other construction activities to protect the existing features and prevent damage to any facilities at the Site. The Contractor shall ensure that necessary protective structures and barricades are erected at various places at the Site in accordance with the directions of the Engineer-in- Charge without any extra compensation.

(v). The working time for execution of the Works is 48 (forty eight) hours per Week. Overtime Work shall be permitted in cases of specific need and the Owner will not be liable to compensate the Contractor for any overtime Work.

For the avoidance of doubt, the Contractor shall obtain prior approval of the Engineer-In-Charge or its authorized representative before carrying out Work beyond the above-mentioned working hours.

The Contractor shall submit to the Owner reports at regular intervals regarding the progress of Work. The details and proforma of the report will mutually be agreed after award of the Contract. The Contractor shall provide display boards showing progress and labour strength at Work Site, as directed by the Engineer-In-Charge.

(vi). Site Clearance

(a) The Contractor shall clear the Site of all unwanted trees, bushes undergrowth and over ground and underground structures, pipes and installations, and shall re-route, if necessary, any private utilities located on or within the job Sites and

Page 791 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

shall take care to keep the Site clean at all times for easy access to the Site and also from the safety point of view to the satisfaction of the Engineer-in-Charge.

(b) The Contractor shall clean and keep clean the Site from time to time to the satisfaction of the Engineer- in-Charge for easy access to the Site and to ensure safe passage, movement and working till Completion of Work. All dismantled material shall be shifted /removed by Contractor at its own cost to designated place. The Contractor shall clear away and remove from the Site any wreckage, rubbish and Temporary Works which are no longer required in accordance with Good Industry Practice, Applicable Laws and instructions of the Engineer-in-Charge, unless required to be maintained at the Site as per the express instructions of Engineer-in-Charge.

(c) If the Works involves dismantling of any existing structure in whole or part, any RCC foundation or , paved area, shall be taken to limit the dismantling up to the exact point and/ or lines as directed by the Engineer-in-Charge and any damage caused to the existing structure beyond the said line or point shall be repaired and restored to the original condition at the cost and risk of Contractor and to the satisfaction of the Engineer-in-Charge, whose decision shall be final and binding upon the Contractor.

(d) The Contractor shall dispose off the unserviceable materials, debris etc. into the designated area as directed by Engineer-in-Charge without any extra compensation. The Contractor shall sort out, clear and stack the serviceable materials obtained from the dismantling/ renewal at places as directed by the Engineer-in-charge, without any extra compensation.

(e) The prices quoted in Schedule of Price are deemed to be inclusive of all Works required to be performed by Contractor under the Clause 5.5(vi).

(f) The Contractor shall be the custodian of the dismantled materials till the Engineer-in-Charge takes charge thereof.

5.6. PLANS, DRAWINGS, SPECIFICATIONS AND APPROVALS TO BE FURNISHED BY THE OWNER

(i). Plan(s) and Drawing(s) and other information forming part of the Bidding Documents shall constitute only a general guidance to enable the Contractor to visualize the Work and/or supplies contemplated under the Contract. The Owner assumes no responsibility as to the correctness thereof, and the Contractor is expected prior to submitting its Bid to have undertaken a complete and independent survey and to have made its own study of all factors relevant to the performance of the Work or making the Supplies. The Contractor shall exercise its knowledge and competence in scrutinizing and evaluating such information and shall proceed with use of such information only after satisfying itself of its sufficiency and correctness for use.

(ii). Detailed working plan(s), other design(s), drawing(s), specification(s) and approval(s) required to be furnished by the Owner for the actual execution of the Works shall be furnished from time to time as and when required during the execution of the Works. For this purpose; if required, Contractor shall seek and Owner/Engineer-In-Charge shall submit a tentative programme (which will be updated from time to time) showing the expected date of release of such plan(s), other design(s), drawing(s), specification(s)

Page 792 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(iii). It shall be the exclusive responsibility of the Contractor to call upon the Engineer in-charge (in respect of approvals to be furnished by the Owner) for and to pursue and obtain from the Engineer-in-Charge any plan(s), drawings(s), specification(s) or approval(s) required to be furnished to the Contractor under the Contract for the proper execution of the Work or any particular item or job therein or making availableany front or any supply of materials or utilities to be supplied by the Owner, as the casemay be, as and when required, sufficiently in advance of the stage of delivery of the materials or of the commencement or progress of the Work for the performance or continuance of which the same shall be required.

(iv). The Contractor shall carefully study the plans/drawings furnished to the Contractor, in conjunction with all other connected plans/drawings and other Contract documents and shall bring to the notice of the Engineer-in-Charge for clarification/correction any ambiguity, error, discrepancy, contradiction or omission therein prior to the execution of the related Works or undertaking the related supply (ies) as the case may be under the provisions of clause 5.1(vi) hereof.

(v). Copies of all detailed working Drawings relating to Work shall be kept at the Contractor's office of the Site and shall be made available to the Engineer-in-Charge at any time during the execution of Work. The Drawings and other Documents issued by the Owner to the Contractor shall remain property of the Owner and shall be returned to the Owner on completion of the Work or prior determination of the Contract.

5.7. PLANS, DESIGNS, DRAWINGS AND SPECIFICATIONS TO BE FURNISHED BY THE CONTRACTOR

(i). Where the Contractor shall, within the Scope of Work, be required to prepare or furnish any plan(s), drawing(s), design(s) detailed working or specifications in respect with the performance of the Work or selection, procurement or making any supply or any particular Work, the Contractor shall furnish a schedule of submission of its deliverables ("**Schedule of Submission of Deliverables**") for prior approval of Engineer-In-Charge. The date of submission of deliverables shall match with the Progress Schedule and shall be so planned that at any point of time, the progress of Work is not hindered on account of non-availability of approved plan(s), drawing(s), design(s) or specifications. Notwithstanding any approval of schedule of deliverables by the Engineer-In-Charge, the Contractor shall be solely responsible in case of any delay in execution of Work on account of non-availability of such deliverables.

(ii). The Contractor shall within the scope of its Work also carry out investigative and design studies and prepare detailed design for the various Materials and Works covered in the Contract Documents. Such detailed designs along with referred codes, standards and practices, back-up calculations, computer runs and other details on basis of which the designs have been prepared shall be subject to the Owner's approval. Detailed working Drawings and Materials specifications shall be prepared and established on the basis of the approved design(s) and shall also be subject to the Owner's approval.

(iii). The Contractor shall design the Works and prepare the Contractor's Documents in accordance with the provisions of the Contract and submit the same to the Engineer-in-Charge for its approval:

(a) in good time as per the Schedule of Submission of Deliverables such Contractor's Documents as may be needed for approval.

(b) during the progress of the Works within such reasonable times as the Engineer-in-Charge may require such drawings of the general arrangement and details of the Works as may be specified in the Contract or as the Engineer-in-Charge may reasonably require.

(c) unless otherwise specified in Tender documents, The Contractor shall furnish 6 (six) prints each of the drawings for approval of the Engineer- in-Charge.

(iv). The Engineer-in-Charge shall be entitled at any time to suggest any amendment(s) / modification(s) in the plans, designs, drawings or specifications and the Contractor shall thereupon either convince the Owner of such amendment/ modification being unnecessary in whole or in part or shall implement the same and shall cause the plans, drawings, designs or specifications to be accordingly amended, provided that no such amendment / modification suggested by the Owner or any approval of amendments or modifications in the plans, drawings, designs or specifications by the Owner shallanyway absolve the Contractor of any of its obligations, responsibilities or liabilities under the Contract inclusive of and relative to the utility and suitability of the Contractor's plans, drawings, designs or Specifications for the related Work(s) and the fulfilment of all Specifications and performance and other guarantees of the consequentWorks, any such suggestion or approval by the Owner as aforesaid or otherwise being intended only by way of suggestion/ assistance to the Contractor and prima facie satisfaction of the Owner, without any attendant liability upon the Owner/Engineer-in- Charge/ Consultant/ specified authority in this behalf and without any estopped against the Owner from asserting that notwithstanding such approval, the plan, drawing,design, specification or other item or thing approved and any resultant Work or supplywere faulty and/or not in accordance with the provisions of the Contract.

(v). The drawings, samples and models once approved under Clause 5.7(iv) shall be signed or otherwise identified by the Engineer-in-Charge.

(vi). The Contractor's Documents, which the Engineer-in-Charge disapproves shall be modified to comply with its comments and requirements and re-submitted for its approval without delay which in any event shall be no later than 7 (seven) days from the Contractor's receipt of the Engineer-In-Charge's comments and requirements. The provisions of Clause 5.7(iv) shall apply in relation to the re-submission of such modified Design Documentation.

(vii). The Contractor shall not cause any Work to be done or any installation, material or equipment to be supplied or fabricated or erected at variance with plans, drawings, designs or specifications approved by the Owner and / or amended or modified in accordance with this Clause 5.7(vii).

(viii). The Contractor shall assume all liabilities and responsibilities for the design in respect of the Works, in particular the functional adequacy, compliance with all relevant statutory and authorities' requirements, structural integrity and safety and any Defect or inadequacy in the design. No (a) failure to notify the Contractor that any of the Contractor's Documents is not acceptable; (b) examination or lack of examination of the Contractor's Documents; and/or (c) comment, opinion or approval expressed in respect

Page 794 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

of the Contractor's Documents or otherwise in respect of the Works or lack of comment, opinion or approval in regard thereto, by the Engineer-in-Charge, the Owner or its consultants, shall in any respect relieve or absolve the Contractor from any obligations or liability under or in connection with this Contract nor shall the Engineer-in-Charge, the Owner or its Consultant(s) be liable to the Contractor in any way for any such failure, examination, comment, opinion or approval.

Any inaccuracies, errors and non-compliance to contractual requirements will be rectified by the Contractor. For the avoidance of doubt, any delay occurring on this in this regard shall be solely to the account of the Contractor.

(ix). The Contractor shall submit all documents and drawings including those of Contractor's sub-vendor's or manufacturer's etc. shall be submitted to the Owner/ Consultant after having been fully vetted duly reviewing in detail, approved and corrected by the Contractor in accordance with the Contract and shall bear Contractor's seal / certifications to this effect. All documents / drawings and submissions made to the Owner/ Consultant by the Contractor without compliance to this requirement shall be rejected and will not be acceptable and the delay and liability in this regard shall be solely to the account of the Contractor.

(x). The Works shall be free of all Defects in materials and workmanship and shall be adequate, stable, safe and strictly compliant with the instructions of Engineer-in-Charge, the Drawings and Designs, the Specifications and the Good Industry Practice, such that the Facility when complete shall be capable of meeting the guaranteed performance levels set out in the Bidding Documents.

5.8. RELEASE OF WORK FRONT/ JOB SITE AND SETTING OUT WORK

(i). The Work front/Job Site/ Free Issue Material (if applicable) required by the Contractor for the performance of the Works shall be handed over by the Owner to the Contractor sequentially in the stages meeting the Contractor's requirements for the Works with a view that the Contractor shall so plan its Works as to perform and achieve completion in a sequential manner without starting all the Works at the same time.

(ii). Within 14 (fourteen) days from the date submission of Progress Schedule under Clause 4.1(ii), as a part of the Progress Schedule, the Contractor shall submit and finalised in consultation with the Owner a programme ("**Front Release Programme**") showing sequential requirements of the Site taking into account other Works concurrently being undertaken by the Owner/ its other contractors at and about the same Job Site and/or on the performance or completion of which the Contractor's performance depends.

(iii). In the event that the Owner, for any reason(s) not attributable to the Contractor is unable to hand over to the Contractor, the relative Work front/Job Site on the planned date of release as specified in the Front Release Programme as a result of which the Contractor is prevented from continuing with the Work, the Contractor shall give written notice thereof to the Engineer-in-Charge and the Owner, specifying the particular Work front/job site with reference to which the default has occurred and specifying that the notice is being given under this Clause 5.8(iii) and if the Work front/Job Site is not thereafter sufficiently made available to the Contractor within 14 (fourteen) days from the receipt of such notice and the Contractor cannot commence or progress with the Work, the provisions of clause 4.3 above with regard to extension

of time shall mutatis mutandis apply if so required as the Contractor's sole remedy in accordance with the provisions of Clause 7.1.(x) below.

(iv). The Engineer-in-Charge shall furnish the Contractor with only 4 (four) corners of the Site and a level benchmark. The Contractor at its own cost and initiative shall set out the Works and shall be solely responsible for the accuracy of such setting out.

(v). The Contractor shall provide, fix and be responsible for the maintenance of all stakes, template, level marks, profiles, and other similar things and shall take all necessary precautions to prevent their removal or disturbance and shall be responsible for the consequence of such removal or disturbance should the same takes place and in such case, shall be responsible for their efficient and timely reinstatement. The Contractor shall also be responsible for the maintenance of all existing survey marks, boundary marks, distance marks and centre line marks, either existing or supplied and fixed by the Contractor. The Work shall be set out to the satisfaction of the Engineer-in-Charge. The approval thereof or joining with the Contractor by the Engineer-in-Charge in setting out the Work shall not relieve the Contractor of any of its responsibilities.

(vi). Before beginning the Work, the Contractor shall at its own cost, provide all necessary reference and level posts, bamboos, flags, ranging rods, strings and other materials for proper layout of the Work in accordance with the scheme for bearing marks acceptable to the Engineer-in-Charge. The centre, longitudinal or face lines and cross lines shall be marked by means of small masonry pillars. Each pillar shall have distinct marks at the centre to enable theodolite to be set over it. No Work shall be started until all these points are checked and approved by the Engineer-in-Charge in writing but such approval shall not relieve the Contractor of any of its responsibilities. The Contractor shall also provide all labour, material and other facilities, as necessary, for the proper checking of layout and inspection of the points during construction.

(vii). The Contractor shall ensure that the pillars bearing geodetic marks located at the Site of Work under construction are duly protected and fenced.

(viii). On Completion of Work, the Contractor must submit the geodetic documents according to which the Work was carried out.

(ix). The Contractor shall be entirely and exclusively responsible for the horizontal and vertical alignment, the levels and correctness of every part of Work and shall rectify effectually any errors or imperfections therein. Such rectification shall be carried out by Contractor at its own cost, when instructions are issued by the Engineer-in-Charge.

(x). The Contractor shall make available to the Engineer-in-Charge free of cost all necessary Instruments and assistance in checking of setting out for Work and in the checking of any Work made by Contractor for the purpose of setting out and taking measurement of Work.

(xi). In case any doubts arise in the mind of the Contractor in regard to any expressions, interpretations, statements, calculations of quantities, supply of material rates or any other provision under the Contract, the Contractor shall refer the same to the Engineer-in-Charge for its clarification, instructions, guidance or clearing of doubts. The decision of the Engineer-in-Charge shall be final and the Contractor shall be bound by such a decision.

(xii). The Contractor shall take adequate precautions, to ensure that its operations do not create nuisance or misuse of the Work space that shall cause unnecessary disturbance or inconvenience to others at the Work Site.

(xiii). Contractor will be entirely and exclusively responsible to provide and maintain at its expenses all lights, guards, fencing, etc. when and where even necessary or as may be required by the Engineer-in-Charge/Site-in-Charge for the protection of Works or safety and convenience to all the Contractor's Personnel or general public.

5.9. CONTRACTOR'S RESPONSIBILITY

(i). Notwithstanding anything to the contrary in the Contract Documents, the Contractor shall exclusively provide all Material, labour, equipment, machinery, facilities, utilities and consumables and Temporary Works and other items and things whatsoever for due performance of this Contract as may be required for or in connection with the Works, including those indicated by expression or implication in the Tender Documents, Schedule of Prices, the Specification, Plans, Drawings, and/or other ContractDocuments or howsoever otherwise as shall or may from time to time and at any timebe necessary for or in connection with the Works, either for incorporation in or within the Permanent Works or in or relative to the execution and performance of the Works.

(ii). The Contractor shall, within the Scope of Work erect and/or cause to be erected any and all Temporary Works, ancillary Works and enabling Works, including preparing approaches and working areas for movement and operation of cranes, preparing and levelling areas for assembly and erection , dewatering of surface and sub-soil water and protection of existing Works, drains, pipes, trenches, cables overhead and underground Works and other facilities and utilities falling within the job site and/or approximate thereto and repair and/or replacement of any and all existing Works, drains, pipes, trenches, cables, wires and facilities and/or utilities damaged or destroyed by the Contractor or which may have to be temporarily or permanently diverted or re-routed to enable the contractual Works.

5.10. CONTRACTOR'S RESPONSIBILITY TO CO-OPERATE

Subject to Clause 5.3, the Contractor shall co-operate with and afford the Owner and other contractors engaged at the Site, access to the Work and shall supply at cost as determined by the Engineer- in-Charge (whose decision will be final), power and water for the performance of the Work entrusted to them and/or for the carriage and storage of materials by them and whenever any Work by the Contractor is being done in association, collaboration or in proximity with any other contractors, the Contractor shall co-operate with the Owner or other contractor(s)/agency(ies) involved in such Work and shall ensure the harmonious working between the Contractor and the Owner/ other contractor(s)/ agency(ies) involved, and shall comply with any instructions issued by the Engineer-in-Charge for the purpose.

5.11. CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH APPLICABLE LAW

The Contractor shall conform in all respects with the provisions of Applicable Laws (including statutory regulations) with respect to execution of the Works or any Temporary Works in accordance with the provisions of the Contract. The Contractor shall indemnify, hold harmless and keep indemnified the Owner against any and all losses arising out of any non-compliance

Page 797 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

of Contractor with the Applicable Laws in relation to performance of its obligations under this Contract.

(i). <u>Compliance with Codes and Standards</u>:

Contractor agrees that the Work and all systems, components and parts of the Work shall comply with, however not limited to the following:

(a) Those design criteria, codes and standards which are specified in Contract Document, Scope of Work and as agreed between the Contractor and the Owner in writing pursuant to the Contract.

(b) The requirements of all relevant codes and standards including:

(i) Factories Act, 1948
(ii) Petroleum Rules, 1976
(iii) Tariff Advisory Committee Guidelines
(iv) Liquid effluent discharge, as per Minimal National Standards for liquid effluents and air emissions conforming to Pollution Control Board Standards
(v) Civil Aviation Rules
(vi) Boilers Act, 1923 and Indian Boiler Regulation 1950
(vii) Electricity Act 2003 and the rules made thereunder including those by CEA (Central Electrical Agency)
(viii) Requirement of Chief Controller of Explosives (PESO)
(ix) Requirements of other authorities concerned with the Works or out of any license, permission, sanction, approval or no objection relative thereto, and the terms thereof.
(x) Requirement of Town and Country Planning Department
(xi) Requirement of all applicable labour laws including Building and Other Construction Workers Act, 1996
(xii) OISD (Oil industry Safety Directorate) requirements
(xiii) CEA (Central Electrical Authority)
(xiv) Legal Metrology Act, 2009
(xv) CPWD (Central Public Works Department) standards shall be considered for civil material related testing
(xvi) International standards: ANSI, ASME, ASTM, API, SA, NACE, ISO, DIN, EN etc.
(xvii) Any other standards that may be required for the purpose of execution of Works in accordance with the Applicable Law.

(c) Contractor shall certify that all design criteria, codes and standards included in this Contract are in compliance with the Applicable Laws and Applicable Permits. Any modification to the agreed design criteria will be subject to Contractor providing a detailed justification for such modification and Owner's/Engineer-in-Charge approval of the same.

5.12. RIGHTS OF VARIOUS INTERESTS

(i). Wherever the Work being done by any department of the Owner or by other contractors employed by the Owner is contingent upon Work completed under the Contract, the respective rights of the various interests involved shall be determined by the Engineer-in-Charge to secure the completion of the various portions of the Works in general harmony.

(ii). If the Contractor's Work or any part thereof shall be consequent or resultant upon any Works performed by any other person or shall be in continuance thereof or otherwise based or founded or dependent thereon, the Contractor shall before commencement of the Works, bring to the notice of the Engineer-in-Charge, in writing, any Defects existing in said prior Works.

5.13. SUB-LETTING OF WORK

(i). The Contractor shall not assign, Sub-Contract or subject the whole or any part of the Work in any manner to any third-party lien, right or interest, provided that the Contractor may, with the prior written approval of Engineer-In-Charge and subject to the other provisions in this behalf, Sub-Contract any particular Work or part of the Work to a Sub-Contractor approved by the Engineer-in-Charge. Provided any such consent by the Engineer-In-Charge shall not relieve the Contractor from any liability or obligation under the Contract and it shall be responsible for the acts, defaults and neglects of any Sub-Contractor, its agents, servants or workmen as fully as if they were the acts, defaults or neglects of the Contractor, its agents, servants or workmen.

Provided that the Contractor shall not be required to obtain such consent for:

(a) the provision of labour,
(b) the purchase of Materials which are in accordance with the standards specified in the Contract, or
(c) The subcontracting of any part of the Works for which the sub-contractor is named in the Contract.

(ii). In the event of the Contractor proposing a Sub-Contractor for any part of the Works after execution of the Contract, it shall submit to the Engineer-in-Charge for approval the details of Sub-Contractors for construction in the format provided in the Bidding Documents to take prior approval from the Engineer-in-Charge. The Contractor shall ensure that only competent and resourceful agencies with proven track record and performance of executing Works in accordance with Good Industry Practices shall be engaged as its Sub-Contractor. Provided such Sub-Contractor should not be in holiday list of Owner/ MOPNG/ Consultant/ Process Licensor. The Contractor will submit the requisite credentials of the agency (ies) it proposes to engage as Sub-Contractor sufficiently in advance to the Owner. The details so furnished by the Contractor shall be reviewed by the Owner/ Engineer-in-Charge. In case the agency(ies) proposed by the Contractor for the subcontracting are not considered acceptable, the Contractor will be required to furnish credentials of alternate agency(ies) for approval of the Engineer-in-Charge. Based on the review and assessment, the agency(ies) shall be either approved or rejected by the Engineer-in-Charge within 21 (twenty-one) days of furnishing of their credentials by the Contractor.

(iii). Where a list of approved agencies for a Sub-Contracting Work is provided in the Contract, the Contractor shall inform the name of the Sub-Contractor selected by it

within a period as agreed with the Engineer-in-Charge, however not later than 7 (seven) days of the date of such selection.

(iv). At the commencement of every month the Contractor shall furnish to the Engineer-in-Charge list of all Sub- Contractors engaged by the Contractor for working at the Site during the previous month with particulars of the general nature of the subcontract or Works.

(v). Notwithstanding any sub-letting with such approval as aforesaid and notwithstanding that the Engineer-in-Charge shall have received copies of any Sub-contracts, the Contractor shall remain solely responsible for the quality and proper and expeditious execution of the Works and the performance of all the conditions of the Contract in all respects as if such sub-letting or sub-contracting had not taken place, and as if such Works had been done directly by the Contractor.

(vi). If any Sub-Contractor engaged upon the Works at the Site executes any Work which in the opinion of the Engineer-in-Charge is not in accordance with the Contract Documents, the Owner may after consulting the Contractor, by written notice to the Contractor request it to terminate such contract and the Contractor upon the receipt of such notice shall terminate such Sub-Contract at the risks and cost of the Contractorand dismiss the Sub-Contractors and the latter shall forthwith leave the Site failing which the Owner shall have the right to remove such Sub-Contractors from the Site. Any action taken by the Owner under this Clause shall not relieve the Contractor of anyof its liabilities under the Contract or give rise to any right to compensation, extension of time or otherwise. The Contractor shall keep Owner indemnified against the consequences of the same if any

(vii). Following scope of jobs shall not be allowed to be Sub-Contracted and shall be retained with the Contractor and performed by the Contractor in all cases:

(a) safety compliance with all jobs;
(b) planning, scheduling and monitoring activities;
(c) quality assurance and quality control activities including HSE;
(d) total project management;
(e) procurement (except for procurement of cement, steel and aggregate); and
(f) Mechanical Completion, Pre-commissioning, Start up and Commissioning.

(viii). The Contractor shall not Sub-Contract all or substantially whole of the Works. For the avoidance of doubt, the decision of the Engineer-In-Charge in respect of the substantiality of the Works proposed to be Sub-Contracted shall be final and binding on the Contractor.

(ix). The Contractor shall separately provide details of the performance of its Sub-Contractors along with overall progress status to identify progress and constraint and concerned person in-charge of the Sub-Contractor may also be called for periodic and monthly review meeting taken by Owner.

(x). ENGINEERING SUB-CONTRACTOR:

Page 800 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

Subject to the provisions of the Notice Inviting Tender, the Contractor/ its Sub-Contractor executing residual process design and detailed engineering shall follow inter alia the methodology mentioned below:

(a) The residual process design and detailed engineering shall be done by the Contractor or specified engineering Sub-Contractor identified by the Contractor in its Bid and approved by the Owner. No other or further Sub-Contracting shall be permitted.

(b) The residual process design and detailed engineering shall be carried out at the principal international design office of the Contractor/ above-mentioned engineering Sub-Contractor, as the case may be, with adequate strength of technical personnel and support design aids.

(c) The Contractor/ such engineering Sub-Contractor shall extensively use latest design software including 3D Modelling with PDS/PDMS software.

(d) In the case of residual design engineering and/or detailed engineering being done by such engineering sub-Contractor, the Contractor shall locate its lead engineers of the respective disciplines viz civil, structural, pressure vessels, static and rotating equipment, piping, electrical and instrumentation at the design Centre (office) of such engineering Sub-Contractors to control, monitor and approve the engineering design Work/deliverables of such engineering Sub-Contractor prior to their issue for review or construction, as applicable. Such placement shall be a precondition 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 deployed lead engineers, and the relevant dates of their deployment, and all drawings issued for review or construction shall be countersigned by such deployed lead engineer. All interactions on Design/ Review/ Discussions with Owner/ Owner's representative shall be done under single point responsibility of the Contractor.

(e) After start of construction Works, the Contractor and/or its engineering Sub-Contractor, as the case may be, shall position at Workthe 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.

(xi). RELATIONSHIP WITH CONSORTIA

(a) Where the successful Bidder (as defined in the Bidding Documents) is a consortium, all consortium members shall enter into the Contract as Contractor in accordance with the Bidding Documents. The lead member as per the submitted Bid shall represent the consortium members in all dealings with the Owner and will be authorised to do all acts, deeds, matters and things required

Page 801 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

to be done by the Contractor under the Contract, including exchange of correspondence, raising invoices, drawings, documents and receiving payments.

(b) All dealings had with and/or all acts, deeds, matters and things done by or payments made to and invoices/documents drawn and/or negotiated by a person/entity appointed or nominated by the consortium or the Owner as aforesaid shall be binding upon the Contractor and each member of the consortium, and in so far as the Owner shall require a discharge in respect of any dealing had or act, deed, matter or thing done or payment made as aforesaid, the same shall constitute a valid discharge to the Owner.

(c) Each and every member of the consortium shall be jointly and severally liable to the Owner for and in respect of all liabilities and obligations of the Contractor under the Contract.

(d) The constitution of the consortium or the relative distribution of Work(s)and/or activities amongst the consortium members within the relative expertise of each as approved by the Owner shall not be altered or assigned, asthe case may be, except with the prior written consent of the Owner with the intent that any contrary alteration or assignment shall be deemed to be an unauthorized assignment of Contract and in which case, the Owner shall be entitled to terminate the Contract.

5.14. MATERIAL TO BE SUPPLIED BY CONTRACTOR

(i). MATERIALS

(a) This Annexure XXVIII of SCC and other Contract Documents shall, on issue of the Letter of Acceptance to the Contractor, constitute a firm indivisible contract for the saleand supply, to the Owner, of all Materials required for incorporation in the Permanent Works as determined by the Contractor, within the Scope of Work,to be necessary to establish, commission and operate (so far as concerns mandatory spares) the Plant/ Unit delivered at the Site for imported materials as well as indigenous materials at the price quoted by the Contractor in the Schedule of Prices. It is hereby clarified that the Contract shall include a contract for the sale and supply within the price of materials (and any recoveries in respect thereof under any policy of insurance) of all Materials required for the replacement of any defective materials and any materials lost, damaged or destroyed during transit, storage, fabrication, erection or otherwise prior to the issue of the Completion Certificate.

(b) Unless otherwise specified by the Owner, the Contractor shall procure and provide the whole of the equipment and materials required for the Works including consumables, Tools, tackles for the Completion and maintenance of the Work except the equipment and materials which will be issued by Owner (as specified in the main SCC or elsewhere in the Bidding Documents) and shall makeits own arrangement for procuring such materials and for the transport thereof. The Owner may give necessary recommendation to the respective authority if so desired by the Contractor but assumes no further responsibility of any naturein this regard.

Page 802 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(c) All materials to be provided by the Contractor shall be in conformity with the Specifications laid down in the Contract and the Contractor shall, if requested by the Engineer-in-Charge, furnish proof to the satisfaction of Engineer-in-Charge that the materials so comply.

(d) The Contractor shall be responsible, at its own cost and initiative within the Scope of Services, to take delivery of the materials from the port of delivery in India in respect of imported materials and from the factory or ware-house or other place(s) of delivery in respect of indigenous materials and to transport these to the Contractor's stockpiles, godowns or other places of storage approved by the Engineer-in-Charge, and to transport the same from said godowns or place(s) of storage to the Work Site for incorporation in the Permanent Works.

(e) The Work of delivery and transportation of materials shall include the following:

(i) payment of custom duty, social welfare surcharge (SWS), GST and GST compensation cess, if applicable, clearance of the goods through custom and port clearance including filling and/or filing of all custom manifests, bills of entry, and custom declarations and other documents as may be required for the clearance of the goods from customs or port authorities, including making necessary payment of customs duties, SWS, GST and GST compensation cess.

(ii) stevedoring, clearing, forwarding and handling services as required for clearing, forwarding and handling imported and indigenous materials and consignments including payment at Contractor's cost of any demurrage, wharfage, port charges, siding charges, retention charges, detention charges, container imbalance charges or other charges whatsoever and howsoever designated or levied by any seaport, railway, air-port, ship, shipping lines, and/or other authorities for or in connection with the loading, unloading or detention of any materials or vessels or other means of transport beyond the free period or unloading, clearance, retention or detention or loading, as the case may be, provided by the relevant authority(ies) or carrier(s) in this behalf.

(iii) all Works and operations necessary to lift and to remove the material from port, ware-house, railway or other siding, factory or other places of delivery, loading, handling, transporting and unloading and safely stacking placing or storing the same at approved godowns, yards or other place(s) of storage including lashing or other-wise securing or protecting the same in transit and during and in storage.

(iv) supply, procurement, mobilisation, and deployment of all labour thereof, equipment and machinery necessary for lifting, loading, handling, removing, transporting, unloading, stacking or securing the materials.

Page 803 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(v) transit and storage insurance of all materials for the full replacement value thereof delivered at site.

(vi) all acts, deeds, matters or things required to fulfil all local, municipal and other statutory authorities with respect to the transportation of any materials through or into any State, municipal, local or other barriers or limits or for the import of the materials or any of them within the limits of such barrier, including payment of local toll (if applicable), terminal and/or other taxes payable on the passage or entry of the materials through or within any local limits, for which purpose the Owner shall give the Contractor and/or Contractor's designate(s) any and all authority(ies) as may be reasonably required inthis behalf. There will be no materials under the scope of Contract which will be directly consigned to Owner, unless otherwise specificallymentioned elsewhere in the Bidding Documents. The Owner will not issue/provide Road Permits/e-Way bill /Entry Permits/Transit Permits to the Contractor except in respect of material directly purchased by the Owner. E-way bills, if applicable, from the designated date shall berequired to be filed on the Common Portal by the Contractor and / or Contractor's designate(s). Contractor and / or Contractor's designate(s)to ensure the validity of the e-way bill during the transit of the goods. Owner's decision on acceptance of E-way bill shall be final and bindingon the Contractor.

(vii) all other acts, deeds, matters and things whatsoever ancillary, auxiliary or incidental to the above including but not limited to the grading of the site and/or creation of temporary approaches and ramps etc. as may be required.

(f) Anti-dumping duty and safeguard duty as applicable on imported material shall be in the Contractor's scope. The Owner will not bear any liability towards payment of safeguard duty, anti-dumping duty, protective duty and applicable GST on same or countervailing duty on subsidized articles or any other such duties of customs imposed by the Government including under Customs Tariff Act, 1975 applicable on import of any materials to India for the subject Work.

(ii). GENERAL PROVISION WITH REGARD TO MATERIALS

(a) The Contractor shall, within the Scope of Work, undertake the following activities and responsibilities with respect to and in addition and without prejudice to the activities and responsibilities under Clause 5.14(i) and associated clauses there under in respect of Materials:

(i) The Contractor shall in taking delivery, ensure compliance of any condition for delivery applicable to deliveries from the concerned authority or carrier, and shall be exclusively responsible to pay and bear any detention, demurrage or penalty or other charges payable by virtue of any delay or failure by the Contractor in lifting the Materials or in observing any of the conditions aforesaid, and shall keep the Owner / Consultant indemnified from and against all consequences thereof.

(ii) The Contractor shall maintain a day-to-day account of all Materials indicating the daily receipt(s), consumption(s) and balance of each material and category thereof. Such account shall be in the format, if any, prescribed by the Engineer-in-Charge and shall be supported by all documents necessary to verify the correctness of the entries in the account. Such account shall be maintained at the Contractor's relative officer(s) and site(s) and shall be open for inspection and verification (by verification of documents in support of the entry as also by feasible verification of the stock) at all times by the Engineer-in-Charge and its representative(s) with authority at all times without obstruction to enter into or upon any godown or other place(s) or premise(s) where the materials or any part of them are lying or stored and to inspect the same itself and/or through its representative(s).

(iii) All Materials shall be taken delivery of, held, stored and utilised by the Contractor as Trustee of the Owner, and delivery of the material to the Contractor shall constitute an entrustment thereof to the Contractor, with the intent that any utilisation, application or disposal thereof by the Contractor otherwise than for permanent incorporation in the contractual Works in terms of the Contract shall constitute a breach of trust by the Contractor.

(iv) All Materials, including materials in respect of which licences/release orders/permits/authorisation have been accorded in the name of the Owner shall, without prejudice to the responsibility/liability of the Contractor in respect thereof, vest in the Owner at the time when it/they would have ordinarily vested in the Owner on a direct delivery to the Owner, and the Contractor shall be deemed to be acting on behalf of the Owner and as an agent of the Owner in respect of deliveries taken by the Contractor.

(v) The Contractor shall at all times be exclusively responsible for any and all losses, damages, deterioration, misuse, wastage, theft, or other application or misapplication or disposal of the materials or any of them hereof and shall keep the Owner/Consultant indemnified from and against the same and shall forthwith at its own cost and expenses replace any such material, lost, damaged, deteriorated, misused, wasted, stolen, applied, mis-applied and/or disposed as aforesaid with other material of equivalent quality and quantity delivered at the Contractor's risks and costs in all respects.

(vi) The Contractor shall at all times be exclusively responsible for any and all losses, damages, deterioration, misuse, wastage, theft, or other application or misapplication or disposal of the materials or any of them hereof and shall keep the Owner/Consultant indemnified from and against the same and shall forthwith at its own cost and expenses replace any such material, lost, damaged, deteriorated, misused, wasted, stolen, applied, mis-applied and/or disposed as aforesaid with other material of equivalent quality and quantity delivered at the Contractor's risks and costs in all respects.

(vii) The Contractor shall take out, at its own cost and keep in force at all times, during transit, handling, storage, and erection upto completion in all respect of the Work, policy(ies) with insurance company(ies) approved by the Owner for the full replacement value of the materials at site against the risks hereinafter specified. Such policies shall be in the joint names of the Owner and the Contractor, with exclusive right in the Owner to receive all monies due in respect of such policy(ies) and with right in the Owner (but without obligation to do so) to take out and pay the premia for any such policy(ies) and deduct the premia and any other costs and expense in this behalf from the monies for the time being due or in future becoming due to the Contractor.

(A) Notwithstanding anything herein provided, the Contractor shall be and remain solely and exclusively liable to repair, restore or replace, as the case may be, the materials damaged or destroyed as a result of any act or omission, notwithstanding the existence or otherwise of any policy(ies) of insurance aforesaid, with the intent that any policy(ies) of insurance aforesaid taken out by or on behalf of the Contractor or by the Owner, shall not in any manner absolve the Contractor from its full liability under Clause 6.5(iv) below or otherwise with respect to the materials, but shall constitute merely an additional security and not a substitution of liability.

(B) It shall be the exclusive responsibility of the Contractor to lodge and pursue any or all claims in respect of the insurance aforesaid.

(C) The Contractor shall, as a condition to the certification of any Running Account Bill, satisfy the Owner/ Engineer-in-Charge of the existence of one or more policy(ies) of insurance, covering the materials as specified herein. The policy(ies) of insurance aforesaid shall cover all insurable risks, including but not limited to, any loss or damage commencing from the supplier's warehouse in handling, transit, storage and during erection, theft, pilferage, riot, civil commotion, force majeure (including earthquake, flood, storm, cyclone, tidal wave, lightening and other adverse weather conditions), accidents of kinds, fire, war risks and explosion.

(viii) An inventory shall be made by the CONTRACTOR of all surplus construction materials and empties including but not limited to scrap, wastages and unserviceable material supplied and/or remaining in the hands of the CONTRACTOR upon completion of the contract for whatsoever reason, and the CONTRACTOR shall forthwith, upon being required to do so, place the OWNER in undisputed possession of and transport the said material to the OWNER's stores or otherwise as reasonably directed by the Engineer-in-Charge.

(ix) If the Contractor shall default in replacing at the job site, free of any cost to the Owner, any material lost, damaged, deteriorated, misused, wasted, short, stolen, misapplied or disposed of within the provisions hereof above, or shall fail to return to the Owner any surplus material or empties within the provision hereof above, the Contractor shall be

Page 806 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

liable to pay to the Owner the cost of such materials or empties delivered at Owner's stockpile/godown plus charges calculated at 15% (Fifteen percent) of the said costs determined by the Engineer-in-Charge, and the decision of the Engineer-in-Charge as to such cost shall be final and binding upon the Contractor.

(x) Contractor shall be required to issue tax invoice in accordance with GST Act and/or Rules so that input credit can be availed by Owner. In the event that the Contractor fails to provide the invoice in the form and manner prescribed under the GST Act read with GST Invoicing Rules thereunder, Owner shall not be liable to make any payment against such invoice.

(xi) To enable Owner to avail input tax credit (ITC), the Contractor/supplier shall furnish/submit any and all certificates, documents and declarations as are required by Owner to avail of the ITC.

(iii). BILLS OF MATERIALS

(a) The Contractor shall within 6 (six) Weeks from the date of Letter of Acceptance, furnish to the Owner a detailed Bill of Materials specifying the materials, which on preliminary determination made by the Contractor, will be required to be incorporated in the Permanent Works in order to establish the Works/ Unit and to operate the Plant/Unit (to the extent of the mandatory spares), including construction materials.

(b) Each item entered in the Bill of Materials shall be priced, so far as possible, inconformity with the details provided by the Contractor in the Schedule of Price. The Bill of Materials and said price break–up therein and in the Schedule of Prices submitted by the Contractor are intended only to form a basis for the purpose of calculating on account payments and for calculating payments due to the Contractor under Clause 7.4(iv) below upon cancellation of contract, and for no other purpose.

(c) The Owner shall review or cause to be reviewed the prima facie adequacy, sufficiency, validity and/or suitability of the materials listed in the Bill of Materials for the Works for which they are intended, and of the prices indicated in the Bill of Materials in respect thereof. Such review shall be performed in conjunction with the design, engineering, specification and other technical reviews to be done by the Owner and all provisions applicable thereto with reference to critical drawings shall be applicable to the review of the Bill of Materials.

(d) The priced Bill of Materials as approved by the Owner shall constitute the Bill of Materials envisaged in the Contract Documents. However, no such approval shall, in any manner, absolve the Contractor of its full responsibility under the Contract to sell and supply to the Owner at and within the price of materials quoted in the Price Schedule, all materials required for the permanent incorporation in the Works and which are required to establish, commission and operate(to the extent of mandatory spares) the Unit in accordance with the Contract and the specifications, complete in all respects including spares,

Page 807 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

Tools, tackles and testing equipment, so far as included within the scope of supply, whether or not any particular material is actually included within or omitted in the Bill of Materials and whether or not the price thereof is included in the price indicated in the Bill of Materials and whether or not the price thereof is inconformity with the price thereof indicated in the Bill of Materials. The review and approval of the Bill of Materials and the prices therein are intended only for the satisfaction of the Owner that the priced Bill of Materials, prima-facie covers the materials required to be supplied by the Contractor within the Scope of Supply.

(e) The Bill of Materials shall be subject to amendment in both items and prices in so far as necessary consequent upon any amendment in any relevant related technical particulars, and upon any amendment, the amended Bill of Materials as approved by the Owner, shall thereafter constitute the Bill of Materials as envisaged in the Contract Documents, provided that unless the amendment results from a Change Order and/or Agreed Variation, no such amendment shall in any manner impose any liability on the Owner to pay customs and other import duties in excess of the customs and other import duties payable on the value of imported materials as indicated in the Schedule of Price but for such amendment.

(iv). MAKE OF MATERIALS

(a) All equipment and materials to be supplied under this Contract shall be from master supplier list as indicated in the Bidding Documents or as otherwise approved by the Engineer-in-Charge/Owner.

(b) Wherever any item is specified by a brand name, manufacturer or vendor, the make mentioned shall be for establishing type, function and quality desired. Other makes will be considered, provided sufficient information is furnished to the Owner/ Engineer-in-Charge, to assess the makes proposed by the Contractor as equivalent and acceptable.

(c) Where the makes of materials are not indicated in the Bidding Documents, the Contractor shall furnish details of proposed makes and supplies and supply the same after obtaining the Owner's/Engineer-in-Charge's approval.

(v). SUPPLY OF MATERIALS

(a) The Contractor shall supply the materials required to be supplied within the Contractor's scope of supply for incorporation in the Permanent Works in accordance with and to meet the requirements in quality, quantity and other particulars of the descriptions, specifications, plans, drawings, designs and other documents applicable thereto, and the Contractor shall be deemed to have undertaken that all materials selected, procured and supplied by the Contractor within the scope of supply shall be of the best quality and workmanship and shall be capable of producing the designed and desired results and to perform the designed and desired functions to meet the contractual requirements in all respects of the Works.

Page 808 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(b) The Contractor shall undertake and complete the supply of Materials within the Scope of Supply to meet the scheduled progress and requirements of the Work within the Scope of Work, and on no account later than the delivery dates in this behalf specified in the Delivery Schedule.

(c) Within 6 (six) Weeks from the date of issue of the Letter of Acceptance, the Contractor shall submit to the Owner for approval in respect of each Work or groups of Work, a detailed delivery schedule in graphical or other suitable form giving dates of starting and finishing the various supplies relative to the Works, providing sufficient margin to cover for contingencies. Within 2 (two) Weeks of submission of such delivery schedule by the Contractor, the Engineer-in- Charge and the Contractor shall mutually discuss and finalise the Delivery Schedule which shall form part of the Contract with obligations on the Contractor to make the various deliveries/supplies involved on or before the date(s) mentioned in respect thereof in the Delivery Schedule and default by the Contractor to make within the prescribed date(s) any supply shall be deemed to be a breach by the Contractor to which the provisions of Clause 7.2(i) below relating to termination of Contract shall be applicable, but without prejudice to any other right or remedy that Owner may have on this behalf.

(d) All Materials shall be deemed to have been accepted only when the Material is received at the Site and accepted by the Engineer-in-Charge. Such acceptance shall however, be subject to the terms and conditions hereof, including the right of rejection and/or replacement as elsewhere herein specified.

If the Contractor fails to submit to the Owner the Delivery Schedule as envisaged in sub-clause (c) above or if the Engineer-in-Charge and the Contractor shall fail to agree upon the Delivery Schedule as envisaged in sub-clause (c) above, the Engineer-in- Charge shall in consultation with the Contractor so far as reasonably feasible, prepare the Delivery Schedule as best as it can and the dates of delivery as fixed by the Engineer-in-Charge shall be final and binding upon the Contractor except as herein otherwise expressly provided. The Engineer-in- Charge shall issue the Delivery Schedule so prepared to the Contractor, and the provisions of Clause 5.14(v)(c) shall apply there to as though it was an approved Delivery Schedule.

(e) Without prejudice to the foregoing, it is clarified that approval of such Delivery Schedule and/or revision, if any, by Owner during execution of Work, shall not in any way absolve the Contractor from its/its obligations to complete the Work in all respects within the Time Schedule specified in this behalf elsewhere in the Tender Documents and shall be deemed only (at the most) to be a guidance to the Contractor for better organizing its Work.

(f) All materials brought to Site shall be the property of the Owner. Only construction machinery/ Construction equipment(s) brought to the Site by the Contractor and properly recorded with the Owner shall be allowed to be taken out of Refinery premises.

(vi). PACKING AND FORWARDING

Page 809 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(a) The Contractor shall be responsible for the Materials being properly packed and reliable protection measures shall be taken to protect them from moisture, rain, rust, corrosion, vibration and other damage that may occur during transportation, so that the Materials shall be able to withstand multiple handling, loading and unloading and transoceanic shipment and inland transportation and to ensure Materials are delivered in an acceptable condition to Project Site. Prior to packing, cleaning and painting shall be properly carried out to provide full protection of Materials, in accordance with the Contract. Materials shall be assembled to the maximum extent practicable prior to dispatch. Packing case sizes and weights shall take into consideration of the remoteness of the delivery points and absence of heavy handling facilities during the transit and exposure to extreme temperature, salt and precipitation during the transit and storage. Wherever necessary, the Contractor shall ensure that heavy equipment shall be mounted on skids, so that the cable slings can be readily attached. Special packing instructions may be included in the Specification for Materials and the same shall be followed precisely.

(b) Spares and Tools shall be packed with separate cases in order to prevent mixing with the other materials. Small-sized spare parts shall be sealed in transparent plastic bag and desiccant shall be provided in the bag when necessary.

(c) New materials shall be used for Packing and all packing materials shall become property of the Owner on receipt of Materials at Site.

(d) (i) Detailed packing list (1 no.) in waterproof envelope shall be inserted in each package wherever practicable. One copy of "Detailed Packing List" shall be fastened outside of the package in waterproof envelope and covered by metal/plastic cover.

Additional marking such as 'handle with care', 'this side up', 'fragile' or any other additional indications for protection and safe handling shall be added depending on the type of Materials. All cases will bear warning signs on the outside denoting centre of gravity and sling marks. Letter figures, marks etc. used for marking shall be stencil printed. Handwriting should be avoided as far as possible. Size of letters shall be optimum for each package dimensions.

In case of Bundles or other packages wherever marking cannot be stenciled the same shall be embossed on metal or similar tag and wired securely at minimum two convenient points.

(ii) A storage code will be marked on each package and will be additionally shown in the detailed packing list. The storage code states either “Climatic Room”, or “Indoors”, or “Outdoor with Tarpaulin”, or “Outdoor”.

(iii) All protrusions shall be suitably protected, and openings shall be blocked by wooden covers/ plastic I steel caps or other temporary cover.

Wherever requires, the parts of Materials shall be packed in polyethylene bags and silica gel similar dehydrating compound shall be put inside the bags to protect them. All tube ends and openings of pipes and vessels shall be protected and sealed against the ingression of dust, moisture and air. Pipe/Tubes made of stainless steel, copper etc., shall be packed in wooden cases, if necessary or wrapped in polyethylene foil when shipment in box containers.

Pipes shall be packed as under, if in scope of delivery:

(A) below 50mm diameter in wooden / crate. if necessary, or otherwise in bundles;
(B) 50mm diameter and above but below 100mm diameter in bundles;
(C) 100mm diameter and above loose or in bundles.

Individual bundles must contain the pipes of same size and shall be tagged.

(e) IMPORTED SUPPLIES

(i) The Contractor wherever applicable, shall, after proper painting, pack and crate all Materials for shipment in a manner suitable for export to a tropical, humid climate 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 and/or sea and during storage at Contractor's own warehouse and at the Site, as the case may be, till the time of erection.

(ii) The Contractor shall notify the Owner and Engineer-in-Charge of the date of each shipment from the port of embarkation as well as of the expected date of arrival of such shipment at the designated port of arrival only for the Owner's/Engineer-in-Charge's information.

(iii) The packing material used should be duly certified by a Phytosanitary Certificate issued as per international norms.

(iv) Ocean transportation should preferably be by Indian Flagship. All the cargo to be shipped by Contractor shall be under deck cargo. On Deck Cargo Bill of Lading shall not be accepted.

However, in case of towers, reactors, vessels and other large-sized equipment/material, Contractor may, at its own discretion, make on-deck shipment. In case of damage to such equipment/material, during delivery or at any stage before Commissioning of Plant in accordance with this Contract, Contractor shall be responsible for repair/replacement of equipment/material.

Over Dimensional Cargo (ODC) and/or OWC materials (exceeding weight 30 MT per lift) should be shipped through geared vessels to handle loading and unloading at the Ports.

Page 811 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(v) The Contractor shall furnish shipping documentation strictly in the English language. The onus of transport and delivery of all Materials/equipment's to be imported from source/Works to the Project Site shall rest with the Contractor completely as a part of this Contract.

(vi) The Contractor shall make its own arrangement for shipment and may appoint their forwarding agent.

(vii) The guidelines of Ministry of Shipping and Waterways / Ministry of Road Transport and Highways / Government of India for both imported and indigenous shipments shall be duly followed by the Contractor.

(f) INDIGENOUS SUPPLIES

(i) The Contractor shall, wherever applicable, after proper painting, pack and crate all items in such a manner as to protect them from deterioration and damage during rail and road transportation, during storage at Contractor's own warehouse and at the site, as the case may be till the time of erection.

(ii) The Contractor shall notify Owner/Engineer-in-Charge of the date of each shipment from the Works and expected date of arrival at the site for the information of Owner/ Engineer-in-Charge.

(iii) The Contractor's notification shall also give all shipping information concerning the weight, size and content of each packing and such other information as the Owner/ Engineer-in-Charge may require.

(iv) The following documents shall be sent to the Owner/Engineer-in-Charge within 3 (three) days from the date of shipment:

(A) tax invoice (2 copies);

(B) packing list (2 copies);

(C) test certificate (4 copies);

(D) railway receipt/lorry receipt (2 copies);

(E) insurance certificate (2 copies) or copy of Contractor's Policy;

(F) third party inspection release note or inspection certificate as per quality assurance approved by Owner/ Engineer-in-Charge or waiver certificate issued by Owner/ Engineer-in-Charge (2 copies).

(g) Without prejudice to any other liabilities or obligations of the Contractor, The Contractor shall be responsible for all damages or breakage to the Materials due to the defective or insufficient packing as well as for corrosion due to insufficient protection.

(h) In case of short-shipment, the Contractor shall make prompt delivery of the short-shipped materials at no cost to Owner.

(vii). SHIPPING AND OTHER DOCUMENTS

(a) Without prejudice to any other obligations of the Contractor under the Contract, and in addition to any other documents required to be furnished by the Contractor under the Contract, the Contractor shall, in respect of all items and materials imported into India, after making necessary payments to Customs and clearing the consignments, obtain and furnish to the Owner, along with its monthly invoices, the following documents (hereinafter for the sake of brevity collectively referred to as the "the said documents") according to the provisions of the following clauses, namely:

(i) invoice and any other document as required under Applicable Laws (including but not limited to GST laws);

(ii) clean Bill of Lading/Air way bill;

(iii) packing lists/Mill Tally Sheets;

(iv) certificate of Country of origin/ Preferential Certificate of country of origin where material is imported from a country with whom Preferential Treaty Agreement is available for the sourced material) and other relevant documents relating to the identification of the materials;

(v) consular's Invoice, if necessary;

(vi) export License/documents, if applicable;

(vii) phytosanitary Certificate (in original) for packing material as per international norms;

(viii) third party inspection release note;

(ix) if shipped by sea, A certificate from the shipping company or their agent stating that goods are shipped on ship/ vessel covered by the Institute Classification clause equivalent to Lloyds 100 A1 and ship/vessel is not more than 20 years old and is seaworthy; and

(x) any other document(s) or literature submitted by it during Custom clearance.

(b) While importing the Materials, the Contractor shall comply with all Applicable Laws and Applicable Permits including the Customs Act, 1962. The Contractor shall comply with the rules applicable for import, logistics and storage of hazardous goods issued by Government Authorities.

(c) The Bill of Lading shall be drawn to show the Bill to and Ship to Contractor. Supplier's invoice should indicate the material is intended for Numaligarh

Refinery Ltd. (NRL). The bill of lading shall clearly indicate the description of the items/materials giving the dimensions, quantities, weights, and all other details required for Customs clearance of the consignment, and/or as may be specified by the Owner from time to time in this behalf.

(d) The Bill of Lading 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.

(e) The Contractor shall not less than 7 (seven) clear days before the contemplated date of shipment, inform the Engineer-in-Charge of the contemplated date of relative shipment of the item(s) or material(s) and of the contemplated date of arrival thereof in India. On the order of placement of imported materials, the Contractor shall provide the copy of such purchase order to Owner through email immediately and hard copy shall be couriered within 7 Days of placement of order.

(viii). CONSTRUCTION EQUIPMENT

(a) The Contractor shall be exclusively responsible to arrange for importation into India in its own name on drawback or re-export or other basis construction equipment, if any, required to be imported into India for the purposes of the Work and to pay and bear the customs, import and other duties and levies (if any) payable thereon or in respect thereof, and will be solely responsible for the timely and proper compliance of all applicable terms and conditions and formalities relative thereto.

(b) The Contractor shall within 4 (Four) Weeks from the date of receipt of Letter of Acceptance, furnish to the Engineer-in-Charge a list of the said equipment which it proposes to import into India on a draw-back/re-export basis for the purposes of the Work, together with complete details thereof. The Owner may without obligation or responsibility render such assistance as may be reasonably required by the Contractor from the Owner to enable the Contractor to obtain the relative Import License(s)/Permit(s) for the importation of the said equipment on a draw-back/re-export basis.

(ix). MISCELLANEOUS IMPORTS

(a) The Contractor shall be exclusively responsible at its own costs and initiative to arrange for importation into India, to import into India, to pay Custom duties, SWS, GST, GST compensation cess (if applicable) and Port and other charges and levies, to clear from Customs and to transport to the Site all consumables, spares for the Contractor's equipment and other materials and things provided that the Owner may, without obligation or responsibility, render the Contractor such assistance by way of recommendation to the Import Control authorities in India or otherwise as may be reasonably required by the Contractor from the Owner to enable the Contractor to obtain Import License(s)/Permit(s) for importation of such consumables, spares, material and other items as the Owner considers necessary for importation by the Contractor for the purpose of the Contract, taking into account local availability.

(b) Any obligation undertaken or recommendation, facility or assistance provided by the Owner to the Contractor for or in relation to the importation of any equipment or material whatsoever into India by or on behalf of the Contractor pursuant to the provisions hereof or otherwise shall be without any responsibility or liability whatsoever upon the Owner and without right in the Contractor to raise any claim or demand or to seek extension of time on account of any delay or failure on the part of the Owner or any delay or failureby the Contractor in obtaining Import License(s) and/or permits for importationthereof into India.

(c) All materials and equipment Imported into India by or on behalf of the Contractor for and in connection with the Work and any obligation undertaken or recommendation, facility or assistance provided by the Owner relative thereto shall be on the clear understanding that the materials and equipment shall be utilised only for and relative to the performance of the Work covered by the Contract.

(d) All the equipment and Temporary Works and Materials when brought to or erected on the job site, shall be exclusively intended for execution of Works and the Contractor shall not remove the same or any part thereof, except for the purpose of moving it from one part of the job site to another, without the prior consent in writing of the Engineer-in-Charge.

(e) Upon Completion of the Works, the Contractor shall within the Scope of Work remove from the Job Site all the equipment and Temporary Works remaining thereon.

(f) All equipment, Materials and Temporary Works shall at all times be and remain at the risks of the Contractor in all respects. The Owner shall not, at any time, be liable for the loss or destruction of or damage to any equipment, Temporary Works or Materials for any reason whatsoever.

(x). CERTIFICATE OF VERIFICATION AND GOOD CONDITION

(a) The Contractor shall, before supply of material covered within the scope of supply, at its own risks, costs and initiative, undertake or cause to be undertaken all tests, analysis and inspections as shall be required to be undertaken with regard to the materials under the specifications and any codes, practices, orders and instructions with respect thereto and shall cause the results thereof to be recorded, reported or certified, as the case may be, and shall not offer for delivery or deliver any material(s) which has/have not passed such tests/analysis or inspection and which are not accompanied by the tests results, reports and/or certificates in this behalf provided in the applicable specifications, code(s) and/or practices.

(b) On arrival of the material at site, the Contractor shall give written notice thereof to the Engineer-in-Charge and Inspection Agency notified by the Owner in this behalf, to inspect the materials, and shall keep in readiness for inspection, the materials and the relevant tests results, reports and certificates hereto.

(c) Notwithstanding any other provisions in the Contract for analysis or tests of materials and in addition thereto, the Contractor shall, if so required by the Engineer-in-Charge or Inspection Agency in writing at its own risks and costs, analyse, test, prove and weigh all materials (including materials incorporated in the Works) required to be analysed, tested, proved and/or weighed by the Engineer-in-Charge or Inspection Agency in this behalf and shall have such analysis or tests conducted by the agency(ies), or authority(ies) if any specified by the Engineer-in-Charge or Inspection Agency. The Contractor shall provide all equipment, labour, materials and other things whatsoever required for testing, preparation of the samples, measurement of Work and/or proof of weighment of the materials as directed by the Engineer-in-Charge or Inspection Agency.

(d) If on Inspection or proof, analysis or tests as aforesaid the Engineer-in-Charge or Inspection Agency nominated by the Owner in this behalf is prima facie satisfied that the material received is inconformity with the material requirements of the Bill of Materials and description given in the shipping documents and in the Contractor's invoices in this behalf and that the test reports/results/certificates given in respect thereof are prima facie inconformity with the relevant result/reports/certificates required in respect thereof in terms of the specifications and/or relevant codes and practices, and that the material appears to be prima facie in good order and condition, the Engineer-in-Charge shall promptly issue to Contractor, a Certificate of Verification and Good Condition in respect of such material, and this shall constitute the Certificate of Verification and Good Condition elsewhere envisaged in the Contract Documents.

(e) Such certificate is only intended to satisfy the Owner that prima facie the material supplied by the Contractor is in order and shall not in any manner absolve the Contractor of its/its full responsibility under the Contract in relation thereto, including in relation to specification fulfilment and/or performance or other guarantees.

(f) Notwithstanding that any area(s) or source(s) has/have been suggested by the Owner to the Contractor from which any material for incorporation in the Works can be obtained, the Contractor shall independently satisfy itself of the suitability, accessibility and sufficiency of the source(s) of supply suggested by the Owner and suitability of the material available from such source(s) with the intent that any suggestion as aforesaid shall not in any manner relieve the Contractor of its full liability in respect of the suitability and quality of the material(s) obtained from said source(s) and the Contractor shall obtain material(s) there from and incorporate the same within the Permanent Works entirely at its own risks and costs in all respects, with the intent that any such suggestion by the Owner shall only be by way of assistance to the Contractor and shall not entail any legal responsibility or liability upon the Owner.

(xi). SPARES

(a) COMMISSIONING SPARES

Page 816 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

The Contractor shall procure and supply all spare parts required during Commissioning of the Plant. The price of supply shall be deemed to be inclusive of the provision of all such commissioning spares required till successful commissioning of the Plant. The Contractor should make available all the commissioning spares required at site at least 6 (six) Weeks prior to Commissioning.

(b) MANDATORY SPARES

The Contractor shall within the Lumpsum Price supply all the mandatory spares as specified elsewhere in Bidding Document required for the Plant. The handing over of the spares will be followed through ERP/ Computerised system and the templates against individual category of items shall be duly filled in by the Contractor including price for each item before handing over the mandatory spares to Owner. Methodology/Modalities to be followed for handing over of spares as per ERP/ Computerised system shall be provided by Owner to the Contractor.

(c) OPERATION AND MAINTENANCE (O&M) SPARES

(i) In case any operation and maintenance spares are required during Defect Liability Period, the same shall be provided by the Contractor free of cost to the Owner without any implication/tax liability to the Owner.

(ii) The Contractor shall, within 3 (three) months of finalisation of all the suppliers by the Contractor, furnish to the Owner the current price list for O&M spares for 2 (two) years operation beyond the Defect Liability Period as recommended by manufacturers of various equipment (other than commissioning, mandatory and O&M spares required during the Defect Liability Period). Price lists of these spares are intended for information purpose only, shall not be included in quoted Lumpsum Price.

5.15. MATERIAL AND EQUIPMENT SUPPLIED BY THE OWNER

(i). <u>MATERIALS AND EQUIPMENT TO BE ISSUED BY THE OWNER FREE OF COST:</u>

Owner, if so stipulated in SCC, may issue cement, reinforcement steel and structural steel or any other materials and equipment to the Contractor free of cost for permanent incorporation in the Works as per the terms and conditions specified in the SCC or elsewhere in the Contract Documents.

(ii). <u>MATERIALS AND EQUIPMENT TO BE ISSUED BY THE OWNER ON CHARGEABLE BASIS:</u>

If after the award of the Contract, the Contractor desires the Owner to issue/supply any other materials, for the purposes of the execution of Works, such materials may be issued by the Owner, if available, at rates and terms and conditions to be fixed by the Engineer-in-Charge unless otherwise specified in the Contract. The Owner reserves the right not to issue any such materials/ equipment. For the avoidance of doubt, non-issue

Page 817 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

of such materials/equipment by the Owner will not entitle the Contractor for any compensation whatsoever either in time or in cost.

(iii). GENERAL:

(a) Materials/ Equipment specified as to be issued by Owner will be supplied to Contractor by Owner from its stores or from nearest suitable railhead or other point(s) of collection as may be determined by the Owner taking into account the source(s) of supply of the material. It shall be the responsibility of Contractor at its own risks and costs to take delivery of the materials/ equipment and arrange for its loading, transport and unloading at Site at its own cost. The materials/ equipment shall be issued between the working hours and as per the rules of Owner as framed from time to time. The Contractor shall, in taking delivery, ensure compliance of any conditions for delivery applicable to deliveries from Owner's stores or railways or other transporters concerned, and shall be exclusively responsible to pay and bear any demurrage or penalty or other charges payable by virtue of any failure or delay by the Contractor in lifting the supplies and/or any failure by the Contractor to observe the conditions of supply as aforesaid, and the Contractor shall keep the Owner indemnified from and against all consequences thereof.

(b) The Contractor shall bear all incidental charges for the storage and safe custody of materials/ equipment at Site after these have been issued to the Contractor.

(c) The Contractor shall hold and store any equipment or material(s) supplied by the Owner only as per Original Equipment Manufacturer (OEM) storage manual if any, and at such place and/or premises as may be approved by the Engineer-in-Charge, provided that no such approval shall absolve the Contractor in whole or part of its full liabilities in respect of such equipment or material, and the Contractor shall be and remain responsible at all times at its own risk and cost to ensure that the equipment and material(s) supplied by the Owner is/are retained at all times in premises that are water tight and otherwise suitable for the storage of the concerned equipment or materials so as to prevent damage or deterioration for any cause whatsoever or theft or other loss, and shall arrange such watch and ward therefor as shall be necessary to ensure the safety thereof.

(d) It shall be the duty of Contractor to inspect the materials/ equipment supplied to it at the time of taking delivery and satisfy itself of the quantity and quality and condition thereof prior to taking delivery and the Owner shall not be liable for any claims or complaints whatsoever in respect of quality, quantity or conditions of the equipment or materials once the Contractor has taken delivery thereof, except for established latent Defects which could not be determined at the time of delivery. After the materials/ equipment have been delivered by Owner, it shall be the responsibility of Contractor to keep them in good condition and if the materials/ equipment are damaged or lost, at any time, they shall be repaired and / or replaced by it at its own cost according to the directions of the Engineer-in-Charge.

(e) The Contractor shall on receiving and opening the packing cases or other packaging of equipment and material on behalf of the Owner, verify and tally

the actual contents with the packing list and bring any discrepancies to the notice of the Engineer-in-charge. The Contractor shall also sort out and segregate and hand over to the Owner's stores, the Instruction Manuals, Operation and Maintenance Manuals, Special Maintenance Tools, Erection Spares, Commissioning Spares, and Maintenance Spares and other extras, if received with the main equipment. The erection spares may be got issued from the Owner's stores if required, after getting authorization from the Engineer-in-charge. The commissioning spares may be got issued from the Owner's Stores, if Commissioning is included in the Contractor's scope.

(f) The equipment and/or material(s) supplied or procured by the Owner shall be utilized by the Contractor only for incorporation in the Permanent Works and even so shall not (unless specifically authorized by the Owner in this behalf) be utilized for manufacturing any item(s) which can be obtained in finished form from standard manufactures.

(g) The Contractor shall, if desired by the Engineer-in-Charge, be required to execute an indemnity bond in the prescribed form, for safe custody and accounting of all materials issued by Owner.

(h) The Contractor shall furnish to the Engineer-in-Charge sufficiently in advance a detailed statement showing its requirement of the types and quantities of equipment and materials agreed to be supplied by the Owner, indication of the time when specific types and quantities thereof shall be required by it for the Works so as to enable the Owner to verify the quantities of materials specified by the Contractor and to enable the Owner to make arrangements for the supply thereof.

(i) The Contractor shall maintain a day-to-day account of all equipment and materials supplied to it by the Owner indicating the daily receipt(s), consumption and balance(s) in hand of each material and category thereof. Such account shall be maintained in such form (if any) as shall be prescribed by the Engineer-in-Charge and shall be supported by all documents viz., requisitions, issues etc. necessary to verify the correctness of the entries in the account. Such account shall be maintained at the Contractor's office at the site, and shall be open for inspection and verification (by verification of documents in support of the entry as also by physical verification of the stocks) at all times by the Engineer-in-charge without notice, and for the purpose the Engineer-in-Charge shall be permitted and enabled without obstruction to enter into any godown or other place or premises where the equipment or materials or any part thereof shall be stored and to inspect the same and to take by itself and/or through its representative(s) an inventory thereof.

(j) Contractor shall ensure that only the required quantities of materials areissued. Contractor shall not be entitled to cartage (carriage charges) and incidental charges for returning the surplus materials, if any, to the stores where from they were issued or to the place as directed by the Engineer-in- Charge.

(k) Materials/Equipment supplied by Owner shall be held by Contractor as trustee and shall not be utilised for other purpose (s) than issued for.

(l) The equipment and material supplied by the Owner shall be insured by the Owner against normal risks during transit, storage and erection. The Contractor shall, however, be responsible forthwith to make/lodge with the insurers and pursue on behalf of the Owner any and all claims under the policy(ies) and to fulfill all formalities required to obtain payment thereunder and/or to assist the Owner in making or pursing any such claim(s) and/or in obtaining payment thereunder.

No such insurance(s), shall in any manner absolve the Contractor from its full liabilities hereunder, with the intent that the Contractor shall at all times be exclusively responsible for any and all loss(es), damage(s), deterioration, misuse, theft, misapplication or disposal of the equipment or material(s) supplied by the Owner or any of them contrary to the provisions hereof and shall keep the Owner indemnified from and against the same and shall forthwith at its own cost and expense replace any such equipment and material(s) lost, damaged, deteriorated, misused, stolen, misapplied and/or disposed as aforesaid, with other equipment or material of equivalent quality and quantity to the extent that the same is not covered by any insurance as above, and if covered, to the extent that payment under the relative policy(ies) is for any reason not available to the Owner

(m) The Contractor shall use the equipment and materials supplied by the Owner for incorporation in the Permanent Works, carefully and judiciously with no wastage or the minimum possible wastage, wherever some wastage is inevitable or unavoidable, in any case within the wastage limit, if any, specified by the Owner in respect of any such materials. For any excess wastage or generation of scrap or misuse or injudicious, careless or wrong use of Owner supplied materials, or in case of loss, damage or deterioration of the materials during storage with the Contractor, as to all of which the decision of the Engineer-in-charge shall be final and binding on the Contractor, the Contractor shall be bound to replace the material of equivalent quantity and grade, acceptable to the Owner within the time limit specified by the Owner, and where this is not possible, practicable or advisable, in the opinion of the Owner, which shall be final and binding on the Contractor, the Owner shall be compensated by the Contractor for the loss caused, for the replacement costs, which shall be Worked out by the Owner based on the assessed landed cost plus the costs of procurement at 15% (fifteen percent) of the assessed landed costs for the Owner. This amount shall forthwith be remitted by the Contractor within a Week of demand made by the Owner, failing which the Owner shall be entitled to recover / adjust the amount demanded from any money (ies) due from the Owner to the Contractor and/or from any Security or any other deposits of the Contractor lying with the Owner, under this and/or any other contract, without any further notice to the Contractor.

(n) Notwithstanding anything herein provided and notwithstanding the transfer of all risks in respect of such equipment and materials to the Contractor, the ownership in respect of all Owner supplied equipment and materials shall at all times be and remain in the Owner.

(o) The excess equipment and material and the scrap material generated from the Work, in so far as the Owner supplied materials are concerned, shall be returned to the Owner's stores. On completion of the Work, the Contractor shall duly render accounts for the materials and equipment issued by the Owner, to the satisfaction of the Owner. Any shortages, losses and/or damages shall be to the Contractor's account and all the conditions stipulated under sub-Clause(m) above shall apply in this case also.

(p) The Contractor shall within the scope of the Contractor's obligations and price payable under the Contract and without entitlement to claim any additional cost, charge, remuneration or compensation therefor be responsible to co-ordinate the supply of Owner supplied materials and equipment (including parts and components thereof) and to expedite with the manufacturer(s), supplier(s) and transporter(s) of such materials and equipment the timely supply and delivery thereof to meet the Contractor's requirements and the progress of the Work in such manner as the Contractor considers necessary taking into account the location of the manufacturer or supplier or transporter, and the urgency of the requirement so as to ensure that there is no delay in any supply or delivery of such material or equipment as could affect the progress of the Work.

(q) The Owner shall not be responsible for any delay in the supply of any such equipment and/or materials supplied or procured or agreed to be supplied or procured by the Owner, and no such delay or failure shall in any way render the Owner liable for any claim for damages or compensation by the Contractor notwithstanding that an increase in the time of performance of the Contract is involved by virtue of such delay and notwithstanding any labour, machinery or equipment brought upon or to the job site by the Contractor for the performance of the Work being rendered idle by such delay or failure, Provided that:

If inspite of best efforts on the part of the Contractor to coordinate andexpedite deliveries of such material or equipment for permanent incorporationin the Work, the Contractor has been unable to persuade or otherwise to get the manufacturer, supplier or transporter thereof to agree to supply or deliverthe material or equipment within the date(s) of the anticipated requirement ofsuch equipment or material by the Contractor for permanent incorporation in the Work thereafter to match the actual requirement of such material to matchthe progress of Work achieved by the Contractor, the Contractor shall give written notice thereof to the Engineer-in-Charge and to the Owner at least 15 (fifteen) days prior to the requirement specifying the material or equipment involved, the manufacturer, supplier or transporter involved, the steps which the Contractor has taken to expedite supply or delivery of such material or equipment, and the anticipated date of actual requirement of such material or equipment for incorporation in the Permanent Works to match the actual progress of the Work by the Contractor, so that Engineer-in-Charge and/or Owner may also intervene to expedite delivery of such material(s) or equipment; and

If notwithstanding such notice by the Contractor, the Engineer-in-Charge and Owner have not been able to arrange supply/delivery of such equipment or

material to match the Contractor's requirement thereof within 15 (fifteen) days of the notice or the requirement, whichever is later, the Contractor shall give further notice thereof to the Engineer-in-Charge in accordance with the provisions of Clause 4.3 above, and the provisions of Clauses 4.3 above with regard to extension of time shall apply with regard to any period of delay thereafter in the supply of such material or equipment if the Contractor is able to demonstrate by the documents to the satisfaction of the Engineer-in-Charge or Owner, as the case may be, that the Contractor has taken all reasonable steps to expedite the supply or delivery of the equipment/material and that the completion of the Work has actually been delayed because of the unavailability of such equipment or material, and that there has been no concurrent delay by the Contractor in the performance of any other Work. In such event, the Contractor shall be entitled to extension of the time specified in the Time Schedule for the number of days by which the completion of the Work has been actually delayed because of the unavailability of such equipment or material absent any concurrent delay by the Contractor.

5.16. WORK IN MONSOON AND DEWATERING

(i). The execution of the Work may entail working in the monsoon also. The Contractor must maintain a minimum labour force as may be required for successful performance of its obligation in accordance with the provisions of the Contract and further, plan and execute the construction and erection according to the prescribe schedule. No extra rate will be considered for such Work in monsoon.

(ii). During the monsoon and other period, it shall be the responsibility of the Contractor to keep the Site free from water at its own cost.

(iii). The Contractor shall plan and organise all operations taking into account all suspensions or shutdowns necessitated by weather conditions and the severity of weather conditions (foreseen or unforeseen) shall on no account constitute a ground for extension of time for completion nor shall entitle the Contractor to claim any idle charges or additional compensation howsoever designated.

(iv). Notwithstanding the shut down or suspension of any operations necessitated by weather conditions, the Contractor shall, without entitlement to any additional compensation or remuneration, at its own cost and initiative take all steps necessary to protect the Site and Works, Materials, equipment and machinery at site during adverse weather conditions and the effects thereof and shall, at its own cost and initiative, do and perform, to the satisfaction of the Engineer-in-Charge, all such consequential rectification, repairs and/or reworking as shall be necessary.

(v). The Contractor shall plan well in advance for the collection of materials and equipment and the erection of such tarpaulins, sheds, wind breakers and/or other protection as shall or may be necessary for Work during adverse weather conditions.

(vi). The Contractor shall also arrange and bring to job site and install such pumps and special equipment and machinery as may be necessary to enable Work during the monsoon or adverse weather conditions and shall, at its own cost and initiative, arrange for dewatering the job sites so as to keep the construction site and areas to be Worked upon free of water.

Page 822 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(vii). The Contractor shall not be entitled to any extra compensation or remuneration for or relative to any Work during the monsoon or adverse weather conditions or for or relative to any special arrangements to be made and/or equipment or machinery to be brought to the job sites and/or operated to enable such workings.

(viii). The completion of Work under the Contract may require Contractor to execute Works in monsoon season also. The Contractor shall ensure that adequate Contractor Personnel are deployed at the Site as may be required during monsoon to execute the Work in accordance with the Time Schedule and provisions of the Contract. No extra charges shall be payable by the Owner to the Contractor for such Work during monsoon. It shall be the responsibility of the Contractor to keep the Site free from water during and off the monsoon period at its own cost and expenses.

5.17. EXECUTION OF THE WORK

(i). The Contractor shall provide sufficient labour, staff (qualified and unqualified), machinery, tools and equipment, software, Material and things whatsoever necessary for the proper performance of the Work in accordance with the Contract and to ensure the rate of progress as envisaged in the Progress Schedule.

(ii). If in the opinion of the Engineer-in-Charge (whose opinion in this behalf shall be final), the WWork(s)/operation(s) at any Job Site or as a whole is/are not meeting the progress necessary to achieve the relative date of completion in the Progress Schedule, the Engineer-in-Charge may instruct the Contractor to employ/provide additional labour, staff, machinery, tools, equipment or Material necessary to achieve the required progress and the Contractor shall forthwith comply with such instruction(s).

(iii). In the event, the Contractor fails to comply with such instruction(s) to the satisfaction of the Engineer-in-Charge (whose decision in this behalf shall be final and binding upon the Contractor), the Engineer-in-Charge may, at its discretion, at the risk and cost of Contractor, appoint, procure or provide the Material(s) and/or the additional labour/personnel and or equipment as the Engineer-in-Charge (whose decision in this behalf shall be final and binding upon the Contractor) considers necessary to achieve the necessary progress in relation to any particular WWork/operation or the Work as a whole, or may appoint Sub-Contractor(s) for the performance of any particular WWork or operation and/or for the Supply of any requisite material. In so doing, the Engineer-in-Charge shall be deemed to be acting for and on behalf of and as agent of the Contractor and any such appointment(s), procurement or provision shall be deemed to have been made by the Contractor and shall be paid for by the Contractor and/or out of any amounts payable to the Contractor. In such cases, the Owner shall also be entitled to receive from the Contractor a supervision charge equivalent to 15% (Fifteen Percent) of the total cost of such appointment(s), procurement(s) and/or provision(s), and the Owner shall be entitled (without prejudice to any other mode of recovery) to deduct the same from the running account/final bills of the Contractor or any amount howsoever becoming payable to the Contractor from time to time and the decision of the Engineer-in-Charge as to the cost incurred in this behalf shall be final and binding upon the Contractor.

(iv). In the event, the Engineer-in-Charge at any stage (notwithstanding that the time for completion of the relative Work or item of Work as specified in the Progress Schedule

Page 823 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

has not expired) determines that the performance of any Work or item of Work by the Contractor is unsatisfactory (whether in the rate of progress, the manner, quality or workmanship of the performance or in the adherence to specifications, or in the omission, neglect or failure to do, perform, complete or finish any Works or item, or for any other cause whatsoever), the Engineer-in-Charge shall be entitled (without prejudice to any other rights of the Owner and/or obligations of the Contractor under the Contract) at its discretion and after consulting the Contractor at the risk and cost of the Contractor either to appoint, procure and/or provide such labour, staff, machinery, tools, Materials etc. as the Engineer-in-Charge (whose decision shall be final and binding upon the Contractor) considers necessary to achieve satisfaction in relation to the particular Work, operation or item or Work, or the Work as a whole, as the case may be, or to appoint one or more Sub-Contractors for the satisfactory performance thereof or any part thereof, or to undertake the performance thereof or any part thereof departmentally, and the provisions of clause 5.17(iii) above shall mutatis mutandis apply to any action taken by the Engineer-in-Charge pursuant to this Clause in the same manner as applicable to an action taken under the said Clause.

(v). After and so far as the performance of any Work or Supply of any Materials under Clause 5.17(iii) or under Clause 5.17(iv) shall involve payment of any advance(s) or down payment(s) or any other payment in advance of the payments for relative Works or supplies to the Contractor, such payment(s) shall be funded out of the amounts payable or becoming payable on the Running Account Bills or other bills of the Contractor and/or out of the CPS.

(vi). Any action, taken by the Engineer–in-Charge under clause 5.17(iii) and/or 5.17(iv) shall be without prejudice to the full liability of the Contractor under the Contract including the Owner's right under Clause 4.4 and associated clauses thereunder, and under clauses 7.2(viii) and 7.2(ix) hereof.

5.18. SAMPLES

The Contractor shall furnish to the Engineer-in-Charge for approval when requested or if required by the Specifications, adequate samples of all materials and finishes to be used in Work. Such samples shall be submitted sufficiently in advance and before commencement of the Work so as the Owner can carry out tests and examinations thereof and approve or reject the samples for use in the Works. All materials furnished and finishing applied in Work shall be fully equal to the approved samples.

5.19. ACTION AND COMPENSATION IN CASE OF BAD WORK

The Engineer-in-Charge shall be entitled to reject at any time any defective material, item or component (including specially manufactured or fabricated items and components) supplied by the Contractor for incorporation in the Works, notwithstanding previous inspection and/or testing thereof by or on behalf of the Owner without rejection and notwithstanding previous approval thereto by or on behalf of the Owner (the decision of the Engineer-in-Charge as to any Defect as aforesaid being final and binding upon the Contractor), and upon such rejection, the Contractor shall either perform such Work or improvement thereon or in respect thereof, as shall be necessary to bring the material item/component to the requisite standard, or shall, if so required by the Engineer-in-Charge, remove the rejected material/item/component from the job site within the time specified by the Engineer-in-Charge and replace it at its own cost and

expense (without additional remuneration or compensation in respect thereof) with material(s)/item(s)/component(s) approved by the Engineer-in-Charge.

5.20. DEFECT LIABILITY PERIOD

5.20.1 The primary Defect Liability Period for the complete Works/Unit(s) shall be 12 (twelve) months from the date of the issue of the Commissioning Certificate or 8000 hours of run, whichever shall be earlier, provided that if the Unit(s) cannot be commissioned for a cause solely attributable to the Owner within 12 (twelve) months from the Mechanical Completion, the primary Defect Liability Period shall be 18 (eighteen) months from the date of Mechanical Completion ("**Defect Liability Period**").

Notwithstanding the expiry of the primary Defect Liability Period aforesaid, the Contractor shall be and remain liable:

(i). To correct and/or rectify or replace, as the case may be, the defective Works or Materials with respect to which a greater defect liability period than as stated above has been specified in any of the Contract Documents, for the entirety of the period so specified; and

(ii). To pass on to the Owner the benefit(s) of any or all warranties or guarantees which may be available to the Contractor from its vendors in respect of Materials or parts or components thereof which enure(s) for a period in excess of the primary Defect Liability Period specified above.

5.20.2 The Contractor shall at its own cost and initiative, within the Scope of Work, correct, repair and/or rectify to the satisfaction of the Owner/Engineer in- Charge any and all Defects and/or imperfections in the design of the Work and/or in the Works performed and/or Systems, Materials (including plant, equipment and machinery) incorporated therein as shall be discovered during the said Defect Liability Period and if it be not possible to correct, repair and/or rectify any defective Works and/or System(s), incorporated therein, the Contractor shall at his own cost and initiative replace and/or re-install the defective Works, System(s) and/or Materials and shall, insofar as necessary for the purpose, at his own cost and initiative re-perform in whole or in part the relative and/or any associated Works to the satisfaction of the Owner/Engineer-in-Charge, and shall within the Scope of Supply, Supply any and all Materials required to correct, repair and/or rectify the Defect and/or imperfections and/or to replace or re-install the defective Works.

5.20.2.1 The responsibility under Clause 5.20.1 (i) above shall, without prejudice to the foregoing, include the responsibility on the part of the Contractor at his own cost and initiative (and without cost to the Owner), to provide and furnish, within the Scope of Work, all labour, equipment, crafts and inputs, whatsoever required in and relative to the correction, repair, rectification, replacement, installation and/or re-performance of the relative Work(s) and/or system(s), and to Supply within the Scope of Supply, all Materials and other items to be incorporated therein including, without prejudice to the generality of the foregoing, the supply by the Contractor of all Materials.

5.20.2.2 Contractor to note that during Defect Liability Period of any equipment / instruments / facilities, rectifications (not normal maintenance) if any, are to be done by the respective OEMs (Original Equipment Manufacturer) along with the Contractor. However, Contractor is to identify all such critical instrumentations / equipment / facilities for which specialized assistance services from OEM will be required immediately after Commissioning and prior approval to be taken from Owner before Mechanical Completion. The complete coordination is to be done by Contractor including cost thereof.

5.20.3 The Defect Liability Period for any Works re-performed and/or Systems,Materials, components or other items supplied and incorporated therein pursuant to the obligations of the Contractor under Clause 5.20.1 shall be 12 (twelve) months from the date of correction, repair, rectification, replacement and/or re-installation thereof, as the case may be, with the intent that the provisions of Clause 5.20.2 above and associated provisions thereunder shall apply thereto in respect of all Defects discovered during a period of 12 (twelve) months from the date of completion of the relative correction, repair, rectification, replacement and/or re- installation, as the case may be, in the same manner and to the same extent as applicable in respect of the original Works. For the purpose of clarification, it is stated that such extended Defect Liability Period shall be applicable only to the particular Work, System, Material, component or other item corrected, repaired rectified, replaced, re-performed or re-installed, as the case may be (example: if the bearings of an equipment are replaced, the extended Defect Liability Period shall be applicable only with respect to the bearings, while the basic Defect Liability Period shall be applicable to the relative equipment).

5.20.4 Should the Contractor fail to fulfil his obligations under Clause 5.20.1, 5.20.2 and / or 5.20.3 and associated clauses there under, the provisions of Clause 6.3 (vi) below shall mutatis mutandis apply.

5.20.5 In fulfilment of the Contractor's obligation related to Defects, the Contractor shall so arrange the working as to cause the least inconvenience to the Owner in operating the Unit and/or avoid shut-downs thereof except during the periods of planned shut-down or idleness in the course of normal operation of the System(s).

5.21. SUB-CONTRACTOR WARRANTIES

The Contractor shall obtain warranties and guarantees from its Sub-Contractors, suppliers and the manufacturers with respect to the materials, workmanship and equipment which form a part of the Works. The Contractor shall ensure that all such warranties and guarantees subsisting post expiry of the Defects Liability Period, if any, shall be assigned for the benefit of the Owner. For Work of special importance to the Owner and that requires special skills, the Contractor shall invariably engage Sub-Contractor who are specialists and are firms of repute. If desired by the Owner/ Engineer-In-Charge, the Contractor shall assign the guarantee received by the Contractor from the Sub-Contractor, in favour of the Owner.

5.22. WRONGFUL APPROPRIATION OF MATERIALS

Wrongful appropriation, or proven attempt of wrongful appropriation of materials belonging to the Owner or any other contractor working within the Site by the Contractor, or its agents, or employees or workers shall be deemed to be a breach of Contract on the part of the Contractor, and the Owner shall, in addition to the remedies available under this Contract, be entitled to terminate the Contract forthwith at the risk and cost of the Contractor.

5.23. POWER, WATER AND OTHER FACILITIES

(i). The Contractor shall be responsible to provide within the Scope of Work all facilities, necessary for performance of the Works including water (including water for hydrostatic testing if any), power, transportation, labour, tools, construction and testing equipment, machinery and land at or about the job site(s) for the Contractor's field offices, godowns, workshop; residential accommodation for Contractor's staff; quarry rights and borrow areas, access roads and right(s) of way to or about the Job Site(s) and Contractor's offices, godowns, workshop accommodation, quarries and / or borrow areas.

(ii). The Owner does not warranty or undertake the provision of any facility, whatsoever to the Contractor, or assistance in obtaining / procuring the same or other assistance whatever for or in the performance or testing of the Work and the Contractor shall not imply by conduct, expression or assurance or by any other means, any promise or obligation on the part of the Owner contrary to the provisions hereof and any such promise or obligation understood by the Contractor shall not be binding upon the Owner.

(iii). Any assistance which the Owner renders to the Contractor in terms hereof or otherwise relative to the Work by provision of any facility, water, power, transportation, tools, construction and / or testing equipment, and machinery, provision of land for quarries or borrow areas or for Contractor's office, godowns, workshops or accommodations or provisions of right of way, access road(s) and / or railway siding facilities, or other facility, for or in the performance or testing of the Work shall be, without any attendant obligation upon the Owner or liability on the Owner for any failure, omission, delay or refusal in providing or continuing to provide the same, and shall not for any cause afford a basis or defence to the Contractor for the performance of any of its obligations under the Contract, nor a ground for extension of time for completion or other claim whatsoever.

(iv). Power Supply

(a) Without prejudice to the provisions of Clause 5.23(i) above, as and when adequate power supply becomes available for the Site, the Owner may at its discretion provide source of supply of power at one point from the nearest sub-station, from which source the Contractor shall at its own cost and initiative make arrangement for temporary distribution of power to Contractor's Work(s) at the Site. The number of local switch board/power outlets and location shall be at the discretion of the Owner.

(b) All arrangements for the distribution of power from sources aforesaid and the Work relative thereto shall be made, performed and/or installed in conformity with the provisions of the Electricity Act, 2003 and other Applicable Laws

Page 827 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

governing the supply and transmission, distribution of electricity, and NRL safety systems and procedures and duly approved by the Engineer-in-Charge.

(c) The Contractor shall, at its own costs and initiative on completion or prior determination of the Work or otherwise during execution of the Work, if required by the Engineer-in-Charge because of hindrance caused thereby or for any other cause, forthwith remove or re-route the distribution lines, installations and/or other Work(s) in respect thereof as the case may be, required to be removed/ re-routed.

(d) Except where supply of power is specified as free issue in SCC, the Owner shall recover from the Contractor such payment as may be due for power consumed by the Contractor from Owner's source(s) of supply at the rate prescribed by the Owner in this behalf from time to time. The amount due to the Owner in respect of such power supplied shall without prejudice to any other mode of recovery available to the Owner, be deductible from the Running Account/ Final Bill(s) of the Contractor and / or any monies due to the Contractor under this or any other Contract from time to time.

(e) The Contractor shall provide at its own cost suitable electric meters certified by State Electricity Board or other authority and approved by the Engineer-in-Charge for measurement of Power units consumed by the Contractor for determination of the payment due thereon to the Owner. Such meters shall be under the control and custody of the Owner.

(f) In the event of failure or defect of meter(s), power charges shall be calculated on the consumption determined by the Engineer-in-Charge (whose decision shall be final both as regards the existence of a Defect or failure, and as regard the power consumed).

(g) The Owner may at any time without notice and without specifying any cause suspend or discontinue power supply to the Contractor, and such suspension or discontinuance shall not entitle the Contractor to any compensation or damages nor shall it constitute a basis for extension of time for completion.

(h) Power supplied by the Owner to the Contractor shall be entirely at the risk of the Contractor as to the continuity and regularity of supply, maintenance of voltage and adequacy of load without any warranty by or liability to the Owner in respect thereof and without entitlement to the Contractor on grounds of discontinuance, fluctuation of voltage or inadequacy of load or any other cause whatsoever to claim from Owner any damages, compensation or extension of time or otherwise in respect thereof or consequences thereof.

(v). Water Supply

(a) Without prejudice to the provisions of Clause 5.23(i) above and the following clauses thereunder, in the event of the Owner having adequate source of water supply at the Site available for distribution, the Owner may at its discretion provide water to the Contractor for the Work from the Owner's source of supply. The Contractor shall at its own cost and initiative provide suitable

Page 828 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

pumping installations and pipe netWork for the transportation of water to and distribution to the Contractor's place of Work.

(b) Such installation, pipes and other equipment shall be laid out / installed by the Contractor only with the prior approval of the Engineer-In-Charge so as not to interfere with the layout and progress of the other construction Work at the Site and access to or about the Site.

(c) The Contractor shall forthwith on Completion of the Work or earlier determination of the Contract or during the execution of the Work(s), if so required by the Engineer-in-Charge, on ground of hindrance or obstruction caused thereby or other causes whatsoever at its own cost and initiativeremove or re-route, as the case may be, any installations, pipes and / or other equipment or any part or portion thereof installed or erected by the Contractor for the transportation and/ or distribution of water, and fill any trenches, ditches or other excavations made by the Contractor for the purpose thereof and restore the site to the same condition in which it was prior to the installation.

(d) Unless otherwise supply of water is specified as free issue in main SCC, the Owner shall recover from the Contractor such payment as may be due for water supplied to the Contractor from Owner's source of supply at the rate prescribed by the Owner in this behalf from time to time. The amount due to the Owner in respect thereof shall (without prejudice to any other mode of recovery available to other Owner) be deductible from the Running Account / Final Bill of the Contractor and / or payments due to the Contractor from time to time.

(e) The Contractor shall provide at its own cost and initiative suitable water meters approved by the Engineer-In-Charge for measurement of water units supplied to the Contractor for determination of the payment due in this behalf to the Owner. Such meters shall be under the custody and control of the Owner.

(f) In the event of failure or defect of meters, water charges shall be calculated on the consumption determined by the Engineer-in-Charge (whose decision shall be final both as regards the existence of a Defect or failure and as regards the water consumed).

(g) The Owner may at any time without notice or specifying any cause suspend or discontinue water supply to the Contractor and such suspension or discontinuation shall not entitle the Contractor to any compensation or damages or constitute a basis for extension of Time for Completion or other claim whatsoever.

(h) Water supplied by the Owner to the Contractor shall be entirely at the risk of the Contractor as to the continuity and regularity of supply and maintenance and adequacy of pressure without any warrant by or liability to the Owner in respect thereof and without entitlement to the Contractor on grounds of discontinuance, irregularity, drop or rise in pressure or other cause whatsoever to claim from Owner any damages, compensation or extension of time or otherwise in respect thereof or the consequences thereof.

Page 829 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(vi). Land

(a) Without prejudice to the provision of Clause 5.23(i) above and following clauses there under, the Owner may at its discretion and convenience, if it has sufficient available land at its disposal, provide land to the Contractor near or about the job site on chargeable basis as per prevailing rate or free of cost, for the construction of the Contractor field office(s), godowns, workshops, assembly yard and/or Temporary Works required for or in connection with the execution of the Work(s). Such land shall be utilized by the Contractor only for the purpose of the Contract and for the duration of the Contract.

(b) The Contractor shall at its own cost and initiative construct temporary buildings or other Works necessary for the purpose and make suitable arrangements for water and power supply thereto and for provision of sanitary, drainage and dewatering arrangements thereof in accordance with plans / designs / layouts previously approved by the Engineer-in-Charge in this behalf.

(c) Any land provided by the Owner to the Contractor within the provisions hereof shall be strictly on a licence basis and shall not create any right, title or interest whatsoever in the Contractor herein or in respect thereto.

(d) Unless otherwise specified as free issue, the Contractor shall pay the licence fee as per prevailing rate as specified in main SCC or other part of Tender Document, forany land made available to the Contractor within the provisions hereof, and theOwner shall be entitled (without prejudice to any other mode of recovery), to recover licence fee from the Running / Final Bill(s) of the Contractor and /or anyother payments due to the Owner from time to time under this or any other Notwithstanding anything herein provided, the Owner reserves the right at any time during the pendency of the Work to ask the Contractor to vacate the land or any part thereof by giving 7 (seven) days written notice to the Contractor in this behalf.

(e) Forthwith on or before the expiry of such notice or within 2 (two) Weeks of the completion of the Works or the earlier determination of the Contract, the Contractor shall remove all constructions, Works, piping and other installations, whatsoever, not forming part of the contractual Works put up or erected by the Contractor upon the land, and shall have the land cleared, levelled and dressed to the satisfaction of the Engineer-in-Charge

(f) The Contractor shall not be entitled upon any vacation or notice within the provisions of Clause 5.23(vi)(d) to claim any resultant compensation or damage from the Owner, nor shall such notice or vacation constitute a ground or basis for any claim by the Contractor for compensation or damages or ground extension of time for completion.

(vii). The Owner shall be entitled, at any time without notice to the Contractor, to suspend or withdraw use by the Contractor of any part of such area or Land, or access thereto and no suspension or withdrawal of such facility, or disruption or inadequacy thereof by virtue of flood, storm, disrepair or other cause whatsoever, shall form the basis of any claim by the Contractor, for compensation or damages or ground for extension of time for Completion. Upon such notice or within 2 (two) Weeks of the completion of

Page 830 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

the Works or the earlier determination of the Contract the provisions of Clause 7.2 shall mutatis mutandis apply.

(viii). ACCESS TO SITE

(a) The Contractor shall at its own cost and initiative arrange for and provide any access to the Work area and stringing or other yards for labour, equipment and material as maybe necessary for any cause in addition to the ingress and egress available through public highways. Any arrangements in respect thereof as may be entered into by the Contractor with any person interested in the land through which access is sought, shall be in writing and a copy of the writing (certified by or on behalf of the Contractor to be true copy thereof) shall forthwith be lodged with the Owner. Such a writing shall specifically stipulate that the Owner shall not be responsible for any claims under the Contractor for any damage, loss or injury to the land or any material, item or thing there on or in, and the Contractor shall keep the Owner/Consultant indemnified from and against any claim, action or proceedings in respect thereof.

(b) The Contractor shall at its own cost and initiative arrange for and obtain all necessary permissions, permits, E-way bills, if applicable, consents, and licenses as may be necessary to transport the materials, tools, equipment, machinery and labour along or across any highway, roadway, or other way, or railway, tramway, bridge, dike, dam or embankment, or lake, pond, canal, river, state terminal, or other line, border or barrier.

(ix). SAFETY STANDARDS FOR TEMPORARY BUILDINGS

All temporary buildings, sheds, workshops, field station, etc. shall be constructed in conformation with the safety and security regulations of the Owner, as regards location and type of structures.

5.24. VESTING OF PLANT, EQUIPMENT AND MATERIALS

(i). Vesting of Plant, Equipment and Materials

The equipment and materials forming a part of the Works to be supplied pursuant to the Contract shall become the property of the Owner when such equipment or material is delivered to the Site pursuant to the Contract.

(ii). Contractor to Procure Title to Plant, Equipment and Materials

The Contractor shall procure that title to all equipment and other materials vested in the Owner under Clause 5.24(i) shall be free from any lien, charge or any other security interest and that no person shall have any claim to title thereto.

(iii). Setting Aside and Marking Plant, Equipment and Materials

Where, prior to delivery, the property passes to the Owner, the Contractor shall, so far as is practicable, set the property aside and mark it as the Owner's property in a manner reasonably required by the Engineer-In-Charge.

Page 831 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(iv). Inspection of Plant, Equipment and Materials

The Contractor shall permit the Engineer-In-Charge, the Owner and any persons authorised by the Owner at any time upon reasonable notice to inspect any Works or part thereof and shall grant the Engineer-In-Charge or procure the grant of access to the premises of the Contractor, its Sub-Contractors or any other premises for such purposes or any other premises where such Works or part thereof may be located.

(v). All such Works shall be in the care and possession of the Contractor solely for the purposes of the Contract and shall not be within the ownership or disposition of the Contractor.

(vi). Third party inspection agencies acting pursuant to the requirements of Government Authorities shall have the same rights of inspection and examination as are granted to Owner pursuant.

(vii). The right of inspection and examination by Owner and by its designated Consultants and other representatives provided herein is intended solely for the 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 right under this Contract.

5.25. PERFORMANCE OF CONTRACTOR

The performance of Contractor under the Contract shall be evaluated on each job by Engineer-in-Charge and recorded in the standard format adopted by Owner. Further, review of the performance of the Contractor under the Contract shall be carried out at appropriate intervals by concerned department of the Owner.

5.26. SCHEDULE OF ACTIVITIES

(i). The Contractor shall within 30 (thirty) days from the Effective Date, furnish to the Owner a detailed Schedule of Activities ("**Work Breakdown Structure**" or "**WBS**") specifying in detail the various activities which the Contractor would be required to perform and the milestones with respect to each which the Contractor would have to achieve in order to set-up, complete, establish and successfully commission the Unit/ Works in accordance with the Contract.

(ii). Each activity entered in the WBS and each milestone therein shall be priced so as to break-up so far as possible, the Lumpsum Price of services into various priced milestones of achievements and priced activities required to achieve those milestones. The WBS/Schedule of Activities and the said priced break-up of activities therein are intended only to provide a basis for the purpose of calculating on account payments for services and for calculating payments due to the Contractor under clause 7.4(iv)below upon cancellation of Contract, and for no other purpose.

(iii). The prices in Schedule of Activities shall be in conformity with the price(s) quoted by the Contractor for the various activities and the Contractual provisions for on account payments.

Page 832 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(iv). The Owner shall review or cause to be reviewed the prima facie adequacy, sufficiency, validity and/or suitability of the activities listed in the WBS for the Works for which they are intended, and of the prices indicated in the WBS in respect thereof. Such review shall be performed in conjunction with the design, engineering, specification and other technical reviews to be done by the Owner and all provisions applicable thereto shall be applicable to the review of the WBS. Owner shall approve or comment on such schedule of activities submitted by the Contractor within a period of 3 (three) Weeks from the date of submission by Contractor.

(v). The priced Schedule of Activities as approved by the Owner shall constitute the Schedule of Activities envisaged in the Contract Documents. However, no such approval shall in any manner absolve the Contractor of its full responsibility under the Contract to perform within the lump-sum price of services specified in the Price-Schedule, all services and to perform and undertake the Work(s) required to setup, establish and commission the Unit in accordance with the Contract and the specification, complete in all respects, whether or not any particular Work or activity required is included withinthe Schedule of Activities and whether or not the price thereof is included in the price indicated in the Schedule of Activities and whether or not the price thereof is in conformity with the price thereof indicated in the Schedule of Activities.

(vi). The Schedule of Activities shall be subject to amendment in both items and price in so far as necessary consequent upon any amendment in any relevant related technical particulars or consequent upon a Change Order, and upon any amendment, the amended Schedule of Activities as approved by the Owner shall thereafter constitute the Schedule of Activities as envisaged in the Contract Documents, provided that no such amendment shall by itself in any manner oblige the Owner to pay any amount in addition to the Lumpsum Price of services as specified in the Price Schedule or oblige the Owner to pay or bear any tax or duty which it would not have had to pay or bear but for such amendment.

Page 833 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

6. SECTION-VI – INSPECTION, TESTING AND QUALITY ASSURANCE

6.1. QUALITY ASSURANCE

(i). The Contractor shall establish, document and maintain an effective quality assurance programme conforming to ISO9001. Within 21 (twenty one) days of the issue of the Letter of Acceptance by the Owner, a detailed quality assurance plan confirming to the said Specifications to be followed for the execution of the Contract shall be submitted by the Contractor to the Engineer-in-Charge for approval. The quality assurance programme, plans and procedures shall be furnished in the form of a quality assurance manual. this document should cover details of the personnel responsible for the quality assurance plan or procedures to be followed for quality control in respect of design, engineering, procurement, supply, Work(s), fabrication, installation, testing and commissioning. The quality assurance system should indicate organizational approach for quality control and quality assurance of the construction activities, at all stages of Work at the Site as well as at manufacturer's Works and dispatch of materials. The Engineer-In-Charge shall review the quality assurance programme within 3 (three) Weeks of receipt in accordance with clause 6.1(i)

(ii). The Engineer-in-charge shall be entitled, from time to time and at any time to make or cause to be made such addition(s), modification(s) or alterations(s) in the QAP as it considers necessary to improve the QAP (the decision of the Engineer-in-Charge in this behalf shall be final and binding on the Contractor), and the Contractor shall thereafter follow the QAP as added, modified or altered by the Engineer-in-charge.

(iii). The Contractor shall within the Scope of Supply, arrange for and carry out inspection activities in respect of imported equipment/ materials through and approved third party inspection agency. Third party inspection shall be carried out by Third Party Inspection Agency (TPIA) office of the country(ies) from where materials are being procured/ sourced. The third party shall within its Scope of Work, examine the existence, correctness and completeness of all test and other certificates and Reports required to be furnished under the QAP, the applicable codes and specifications and the Contract.

(iv). Payments to be made to the third party inspection agency shall be the responsibility of the Contractor. The responsibility for ensuring inspection/testing as per specifications, approved documents, QAP and plans shall be that of the Contractor. Inspection activities of the third party inspection agency shall be coordinated by the inspection coordinator of the Contractor.

(v). The Contractor shall ensure the following to maintain utmost quality in supply of equipment/materials:

(a) No supply will be accepted unless drawings (wherever required) are approved under Code-1

(b) The third party inspection agency shall carryout inspection based on Code-1 approved drawings and approved QAP.

(c) The inspection release note issued by the third party inspection agency shall clearly stipulate that materials/equipment(s) has/have been inspected as per

Page 834 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

Code-1 approved drawings and approved QAP, and that the certificate and reports referred to in Clause 6.1(iii) which have been examined by the third party Inspection Agency are correct and complete and have been signed by the third party inspection agency in token thereof. Payment shall be released only after receipt of the release note from the third party inspection agency.

(d) No clearance shall be given to the Contractor for erection Works or for installation of the equipment without receipt of the inspection release note as indicated in sub-clause (c) above.

(e) Pre-commissioning and Commissioning of the Plant and equipment and of the Unit shall be undertaken only after complete satisfaction/verification of supplies as per final approved drawings (Code-1) and QAP (Code-1).

(vi). The Contractor has to ensure the deployment of quality Assurance and Quality Control Engineer(s) depending upon the quantum of Work. This QA/QC group shall be fully responsible to carry out the Work as per standards and all code requirements. In case the Engineer-in-charge feels that QA/QC Engineer(s) of the Contractor or any of them are in competent or that the designated Engineer(s) are insufficient, the Contractor shall deploy other experienced Engineer(s) to the satisfaction of Engineer-In-Charge.

(vii). If the Contractor fails to comply with the requirements of the QAP and the above provisions or to follow the instructions of Engineer-in-charge under Clause 6.1(vi), the next payment due to it shall not be certified, or if already certified, shall not be released unless the Contractor complies there with to the satisfaction of Engineer-in-charge.

(viii). If third party inspection is specifically excluded from the Contractor's responsibility under the Contract, the inspection shall be carried out by the Engineer-In-charge or by any other inspection agency nominated by the Owner, and Clauses 6.1(iii), 6.1(iv), 6.1(vi) and 6.1(vii) shall stand accordingly modified.

6.2. INSPECTION AND TESTING OF MATERIALS/EQUIPMENT

(i). All Materials to be supplied by the Contractor within the Scope of Supply shall each be individually inspected, tested and analysed in terms of the Specifications, applicable codes and the relevant practices specified therein or elsewhere in the Contract Document by expression or implication. Inspection, tests and analysis shall be carried out at the place of manufacture, production or fabrication of the materials, at the cost of the Contractor/ manufacturer.

(ii). In each and every instance, the Contractor shall give the Owner and its specified representatives, adequate advance (minimum 15 days) notification of the schedule of inspection or test so that the Owner/its representative may witness the same. The Contractor shall afford the Owner/its authorised representatives, access to any and all parts of manufacturer's facilities or other places where manufacture, production or fabrication is being done, of any material intended for supply within the scope of supply.

(iii). The Owner shall be entitled at all times whether prior to despatch of stores, by itself and/or through inspectors appointed by the Owner to inspect, test and/or analyse and/or to direct the manufacturers to inspect, test and/or analyse, any materials used or proposed to be used in the manufacture, production or fabrication of any material

Page 835 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

to be supplied by the Contractor within the scope of supply. The said inspection, test and analysis as far as required, shall be conducted in the presence of the inspector. The manufacturer shall ensure that the inspecting personnel referred to above are given free access to all the required places and information connected with their Work, besides working facilities to carry out their functions. The said inspection, test and analysis shall be so conducted as not to interfere with the manufacturer's normal production.

(iv). The Engineer-in-Charge shall be entitled at all times, at the risk of the Contractor, to inspect and/or test by itself or through an independent person(s) or agency(ies) appointed by the Owner or Engineer-in-Charge and / or to direct the Contractor to inspect and/or test or to get inspected and/or tested, all materials, equipment, items and components, whatsoever supplied or proposed for supply for incorporation in the Works which will include any inspection during the course of manufacture or fabrication by the Contractor and / or at the Contractor 's or its sub-vendors' Works or otherwise, of such material, equipment, item or component. The inspection and / or tests shall be conducted at the expense of the Contractor and may be directed by the Owner or Engineer-in-charge to be conducted by authorized representatives of the Owner/Engineer-in-charge.

(v). Further, the Owner may, if it so considers necessary for reasons to be recorded in writing, direct the Contractor to conduct such inspection or tests in addition to the inspection/ tests specified in the Contract or the applicable codes, standards and/or practices. The inspection and/or tests, if conducted by the Contractor, shall be conducted at the expense of Contractor and may be directed by the Owner to be conducted by agency(ies) nominated by the Owner. Such tests may include destructive and/or non- destructive tests by ultrasonic, electromagnetic, radiological, visual and other means.

(vi). Where the manufacture or fabrication of any materials intended for incorporation in the Works is being done by any person(s) other than the Contractor, and/or in the premises/workshop of any person other than the Contractor. The Contractor shall provide the Owner/ Engineer-in-charge and/or their representatives/Agents every facility or assistance necessary for carrying out or witnessing, as the case may be, the test(s)/inspection(s).

(vii). The Contractor shall also, on receipt of intimation or any communication of any inspection or tests by the Owner/Engineer-in-Charge or any of their representative(s)/agency (ies) nominated by the Owner or Engineer-in-Charge in this behalf, present itself or its authorized representative at the place of inspection and/or testing to receive any orders or instructions consequent thereto, as shall be necessary.

(viii). The Contractor shall furnish to the Engineer-in-Charge for approval when requested, or as required by the specifications or other Contract Documents, adequate samples of all materials and finishes intended for incorporation in the Works, such samples are to be submitted before the Work is commenced, permitting sufficient time for test(s)/examination(s) thereof by the Owner. All materials furnished and finishes incorporated in the Work shall conform to the approved sample(s) in all respects.

(ix). The Contractor including its Sub-Contractors/suppliers/manufactures shall make available to the Owner and any other individual/agency authorised by the Owner, for

the purpose of inspection, all its records and results in respect of inspection, test and analysis conducted by it as part of their manufacturing and testing operations under the applicable codes and practices.

(x). Should the manufacturers fail to comply with any of the provisions aforesaid relating to inspection, testing and/or analysis, the Owner shall be entitled by itself and/or through inspection or to conduct the inspection, test and/or analysis at the risk and expense of the manufacturer/Contractor in all respects.

(xi). No rejected material, component or sub-assembly shall be used or reused for manufacture, production or fabrication of any material(s) intended for permanent incorporation in the Works.

(xii). Unless otherwise specifically authorised by the Owner in writing, the supplier shall not ship or dispatch for shipment, within the scope of supply, any store(s) which have not been priorly inspected, tested and/or analysed as herein contemplated and in respect of which a certificate of quality has not been issued or signed by the inspectors.

(xiii). If the rejection rates at the Owner's inspection for Defects exceeds 5% (Five percent), the Owner shall be entitled to halt production until the cause thereof is rectified, without any liability to the Owner and without in any manner relieving the Contractor of its full liabilities under the Contract.

(xiv). The Engineer-in-Charge shall be entitled to reject at any time even after delivery to the Job Site any defective material, item or component (including specially manufactured or fabricated items and components) supplied by the Contractor for incorporation in the Works, notwithstanding previous inspection and/or testing thereof by or on behalf of the Owner without rejection and notwithstanding previous approval thereto by or on behalf of the Owner, and upon such rejection, the Contractor shall either perform such Work or improvement thereon or in respect thereof, as shall be necessary to bring the material, equipment, item/component to the requisite standard, or shall, if so required by the Engineer-in-Charge (whose decision in this behalf shall be final), remove the rejected material/item/component from the Job Site within the time specified by the Engineer-in-Charge and replace it at its own cost and expense (without additional remuneration or compensation in respect thereof) with material (s)/item(s)/component(s) approved by the Engineer-in-Charge.

(xv). Should the Contractor commit a breach of its obligations under Clauses 6.2(xi) or Clause 6.2(xii) or Clause 6.2(xiv) hereof, the Contractor shall be deemed to be in breach of contract within the provisions of Clause 7.2(i) below with regard to termination of Contract, and the provisions of the said Clause and associated provisions thereunder shall apply to such breach.

(xvi). Notwithstanding anything contained in Clause 6.2, neither the inspection and/or attendance of Engineer-in-Charge and/or Inspector(s) or Inspecting Agency(ies) at any inspection, tests or trials, nor the Engineer-in-Charge and/or Inspector(s) or Inspecting Agency(ies) failure to notify the Contractor of any non-conformity in any material(s) to be supplied pursuant to the Scope of Supply shall relieve the Contractor from its obligations under the Contract or be deemed to be or construed as a waiver of any objection to or any acceptance of defective Work or any admission that any materials or workmanship are of the standard required for due performance of the Contract.

6.3. INSPECTION AND TESTING OF WORKS

(i). The Contractor shall at all times ensure the highest standards of workmanship relative to the Work, to the satisfaction of the Engineer-in-Charge or any inspector(s) or inspecting agency(ies) nominated by the Owner/Engineer-in-Charge in this behalf. The Engineer-in-Charge /inspector(s)/inspecting agency(ies) shall have the power to inspect the Work in all respects, at any and all times up to completion of the Work as also to test or instruct the Contractor to test the Work or any structure, material or component thereof at the risk and cost of the Contractor.

(ii). The Contractor shall provide all facilities, instruments, material, labour and accommodation required for inspecting and testing the Works (including checking the setting out of the Works) and shall provide the Engineer-in-Charge /inspector(s)/ inspecting agency(ies) all assistance necessary to conduct the tests in accordance with provisions of the Contract.

(iii). The Contractor shall also provide and keep at all times during the progress of the Work and maintenance period, proper means of access to the Works and every part thereof by means of ladders, gangways, etc., and necessary attendants to move and set up the same as directed by the Engineer-in-Charge / inspector(s)/ inspecting agency (ies) for inspection or measurement of the Works.

(iv). The Owner and the Contractor shall each bear the cost of their respective personnel involved in any inspection under this Clause 6.3. The Contractor shall exclusively bear the costs of any marine vessel, third party personnel and/or experts and/or equipment (including specialized equipment) required or employed in or for any inspection to be conducted.

(v). The Contractor shall not proceed with concreting or other Work such as foundations, superstructure or edge preparation of pipes for welding by covering up or otherwise placing beyond the reach of inspection or measurement of any Works before necessary inspection entries are filled in the Site inspection register by the Engineer-in-Charge or the inspector(s) or inspecting agency(ies).

(vi). In the event, the Contractor fails to comply with the provisions set out in Clause 6.3, the Engineer-in-Charge shall in its absolute discretion be entitled to remove / dismantle / uncover, as the case may be, at the risk and cost of the Contractor for carrying out the test and examination of any Works, structure or component thereof installed, erected or put up by the Contractor and to conduct or have conducted the test(s) and / or examination at the risk and cost of the Contractor. For the avoidance of doubt, any replacement, reinstallation or re-erection if required pursuant to such removal /dismantling/ uncovering of the concerned Works, structure, or component, as may be required in the sole discretion of the Engineer-in-Charge shall be carried out at the risk and cost of the Contractor.

(vii). Notwithstanding anything contained in this Clause 6.3, the Contractor shall, at its own cost and initiative, conduct all tests at all relevant times during supply, erection and installation of any Works, structure, material or component as may be required in terms of the Contract Documents or by any codes or specifications referred to therein or approved by the Owner or the Engineer-in-Charge. In the event, the Contract

Documents or codes or specifications do not state or nominate the agency or laboratory where such test shall be conducted, the Contractor shall ensure that same are conducted at the cost of the Contractor through an agency(ies) or laboratory(ies) specified by the Owner or the Engineer-in-Charge.

(viii). In the event upon inspection or testing of the Works, the Engineer-in-Charge is not satisfied with the quality or workmanship of any Work, structure, item or component, the Contractor shall, at its own cost and expense, forthwith re-perform, replace,reinstall or re-erect, as the case may be, such Works, structure, item or component, andno such rejected Works structure, item or component shall be reused with reference tothe Work except with the prior permission of the Engineer-in-Charge. For the avoidanceof doubt, the decision of the Engineer-in-Charge in this regard shall be final and bindingon the Contractor.

(ix). Notwithstanding anything contained in this Clause 6.3, neither the inspection and/or attendance of Engineer-in-Charge and/or Inspector(s) or Inspecting Agency(ies) at any inspection, tests or trials, nor the Engineer-in-Charge and/or Inspector(s) or Inspecting Agency(ies) failure to notify the Contractor of any non-conformity in any particular Work, structure, item or component, shall relieve the Contractor from its obligations under the Contract or be deemed to be or construed as a waiver of any objection to or any acceptance of defective Work or any admission that any materials or workmanship are of the standard required for due performance of the Contract.

(x). In the event, the Contractor fails to re-perform, replace, reinstall and/or re-erect, as the case may be, any Work(s) or structure, or part there of rejected or found defective in terms of Clause 6.3(viii) above within such period as the Owner or Engineer-in-Charge may specify by written notice to the Contractor in this behalf, without prejudice to the rights of the Engineer-in-Charge under Clause 5.20 thereof, the Contractor shall be deemed to be in breach of contract within the provisions of clause 7.2(i) below with regard to termination of the Contract and the provision of the said clause and associated provisions there under shall apply to such breach, and the Owner shall be entitled (without prejudice to any other right or remedy available to the Owner) upon expiry of the period specified in said notice, to demolish and/or remove the rejected/defective Work(s) and/or structure, or part thereof and to re-perform, replace, re-install and/or re-erect, as the case may be, the same by itself or through other agency at the risks and cost of the Contractor in all respects, and to recover the costs incurred by the Owner in this behalf together with a supervision charge of 15% (Fifteen percent) thereon admissible to the Owner, and the Owner shall be entitled (without prejudice to any other mode of recovery) to deduct the same from the Running Account/Final Bill(s) of the Contractor or any monies becoming due to the Contractor from time to time and the decision of the Engineer-in-charge as to the cost incurred by the Owner as aforesaid shall be final and binding upon the Contractor.

6.4. MECHANICAL COMPLETION, COMISSIONING AND POSSESSION OF WORKS

(i). As soon as the Works at Site have been completed in all respects to the satisfaction of the Engineer-in-Charge, and prior to the start-up of the Unit, Final Tests of the different equipment's, sub-systems, and systems comprised in the Works/Unit shall be undertaken by the Contractor at the risks and costs of the Contractor in the presence of the Engineer-in-Charge or its authorised representative. The Owner may at its discretion permit Final Tests on piecemeal in respect of particular part(s) or section(s) or group(s) of the Works.

Page 839 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(ii). As soon as all the final tests have been completed in all respects to the satisfaction of the Engineer-in-Charge, pre-commissioning and start-up of the complete system, plant(s), equipment(s), vessels and machinery, and associated systems or the Unit, as the case may be shall be undertaken by the Contractor at the risk and cost of the Contractor under the overall supervision of the Engineer-in-Charge or its authorised representative and/or of the Process Licensor.

(a) Upon completion of civil Works, erection, aligning and grouting of all mechanical and electrical equipment and piping, hydrostatic and other testing of all storage tanks, vessels, piping etc., all electrical and all utility connections to the equipment, mounting and fixing of all instruments, control systems and connecting them as required, testing and trial runs of all equipment on "no-load" (i.e. When the construction of the Plant has been completed, other than in minor respects which do not prevent Commissioning, all civil engineering is completed, all equipment and machinery are installed and aligned, all piping and instrumentation Work is completed including insulation and painting, all electrical Work is completed, all hydrostatic/ pneumatic testing is done, speed and direction of rotation of all prime movers is checked, relays are set and all scales, meters, measuring devices and recorders are calibrated, all instrumentation jobs are completed in all respect as per requirements, all the loops and interlocks are tested and set as per the requirement), further Pre-commissioning activities shall be taken up by the Contractor before the taking up of Start-up, Commissioning and trial runs of the Plant/Unit, and shall include, without being limited to, all operations such as checking of all systems, subsystems, piping and vessels, flushing with air, water and steam, air-blowing and steam-blowing, system pressure and leak tests, purging with inert gas as required, checking all electrical equipment for earthing/ resistances, operability tests and cold run on all operating equipment, vessels and systems individually and in combination, integration of all control systems with one another and with the main control system, and completion of all operations detailed under the head, "Completion of Construction" in API-700.

(b) Contractor shall carryout detailed checking of the complete Systems/ Facilities/ Work and shall also perform a walkdown (PSSR-Pre-start up safety review) so as to avoid any mistakes and ensure compliance to drawings/standards. Contractor shall also prepare a punch list after walkdown to ensure that facilities constructed are meeting the contractual requirements. It will be strict liability of the Contractor to ensure that all the punch list points including those provided by Owner and/or Licensor and/or Consultant and regulatory bodies like OISD, CCE, TAC, Factory inspector etc. are implemented on field to the satisfaction of Engineer-in-charge prior to closing out the punch points and to achieve Mechanical Completion of the Plant including completion of Pre-commissioning activities.

(c) Upon satisfactory completion of all the items of the punch lists and satisfactory Pre-commissioning of the Plant, the Contractor shall notify Owner in writing that the Plant is mechanically completed.

(iii). Upon satisfactory completion of the Final Tests in respect of all plant, machinery, equipment, sub-systems and systems constituting the Works/Unit and Mechanical

Completion of the Plant to the satisfaction of the Owner, the Engineer-in-Charge shall prepare a Mechanical Completion Certificate which shall certify the date on which Final Tests in respect of various plant, machines, equipment, sub-systems and systems have been successfully completed and the date of Mechanical Completion of the Plant. The date of completion of Pre-commissioning as aforesaid shall be deemed to be the date of Mechanical Completion of the Plant for the purpose of this Contract.

(iv). Following Mechanical Completion of the Plant to the satisfaction of the Owner, the Contractor shall, as soon as feasible, commission the Plant in so far as the Scope of Contract comprises of a Plant, in accordance with the provisions of the Contract.

(v). Once the Plant has been successfully commissioned to the satisfaction of Owner, Engineer-In-Charge shall issue a Commissioning Certificate to Contractor which will set out the date of successful Commissioning of the Plant solely in order to facilitate the Contractor to claim the milestone payment against Commissioning and to fix the Defect Liability Period. The issue of the Commissioning Certificate to Contractor shall not, however relieve the Contractor of any obligations, which Contractor has to perform until issue of the Performance Test Certificate as per the Contract. Subsequent to successful Commissioning of the Plant, and after the operation of the Plant has been stabilized, the Contractor shall undertake Performance Tests for the Plant to establish that the Plant performs according to the contractual requirements. Such Performance Tests will be undertaken by the Contractor at the risks and costs of the Contractor under the overall supervision of the Engineer-in-Charge or its authorised representative and/or of the Process Licensor.

(vi). On successful completion of the activities related to Performance Tests to the satisfaction of the Owner, the Engineer-in-Charge shall issue a separate Performance Certificate ("**Performance Test Certificate**") to the Contractor, which will set out the date of successful completion of the Performance Tests of the Plant.

(a) On completion of all jobs in all respects to the satisfaction of the Owner, the Engineer- in-Charge shall issue a Completion Certificate to the Contractor, which will set out the date of successful Completion of the Scope of Work under the Contract.

(vii). If within the Scope of Work, the Contractor is required to load the Catalyst into the Unit, such loading shall include within its scope the handling and removal of the catalyst from the Owner's godown or warehouse, located within the Refinery, where the Catalyst is stored, its transportation to the job site, opening of packing or containers in which the catalyst is loaded, loading of the catalyst in accordance with the specifications and/or instructions of the Licensor and/or the Engineer-in-Charge, and return of empties to the Owner's designated warehouse. Loading of the catalyst shall be an activity excluded from the scope of Mechanical Completion.

(viii). As and from the date of issue of Performance Test Certificate, the Owner shall be deemed to have taken over the Work(s) as mentioned in the Performance Test Certificate but without prejudice to Contractor's liability under clause 6.5(iv) below. In respect of Works where Commissioning is in the Contractor's scope and Performance Test is not in the Contractor's scope, the Owner shall be deemed to have taken over the Works as and from the date of successful commissioning of the Works and stated in the Commissioning Certificate, but without prejudice to the Contractor's liability under

Clause 6.5(iv) hereof. In respect of Works which are not required to be commissioned by the Contractor, the Owner shall be deemed to have taken over the Works as and from the date of successful completion of the final tests and stated in the Mechanical Completion Certificate, but without prejudice to the Contractor's liability under Clause 6.5(iv) hereof.

(ix). If during Final Tests and/or Pre-commissioning, Start-up, Commissioning and/or Performance Guarantee Tests or at any time prior thereto, any Defect(s) in the design or in any Work performed or structure erected or component installed or in any installation or erection(s) or material(s) incorporated in the Works is/are noticed, the Contractor shall forthwith within the scope of the Work remove and/or demolish the same and re-perform, replace, re-install and re-erect the same and otherwise do and provide whatever is necessary to be done to correct, repair and/or rectify the Defect(s) to the satisfaction of the Engineer-in-Charge, and if the Defect(s) be discovered during Final Tests or commissioning or Performance Guarantee Tests, the Contractor shall thereafter repeat the Final Tests or commissioning or Performance Guarantee Tests or such of them as may be required to be repeated, and so on until successful conclusion of Final Tests, Commissioning of the total system without Defect, and/or successful completion of the Performance Guarantee Tests. Any and all lubricants, consumables and spares required for commissioning the Plant and to undertake the Performance Guarantee Tests shall be provided by the Contractor within the scope of supply.

(a) In the event, the Contractor fails to correct, repair or rectify any Defects as aforesaid, the provision of Clause 6.3(x) above shall mutatis mutandis apply as for Defects under Clause 6.3(viii).

(x). Notwithstanding anything provided in Clause 6.4(viii), Clause 6.4(ix) and Clause 6.4(ix)(a) above, the Owner shall be entitled without prejudice to any other rights of the Owner or liabilities of the Contractor under the foregoing provisions hereof or otherwise under the Contract, including the rights of the Owner under Clause 4.4 hereof and associated clause thereunder and clause 7.2(i) below and associated clauses thereunder.

(a) If by reason of any default on the part of the Contractor a Commissioning Certificate and/or Performance Test Certificate has not been issued in respect of the entire Works within 4 (four) Weeks after the date fixed for completion of the entire Works in the Progress Schedule(s), to take over and use any portion of Works in respect of which Commissioning Certificate and/or Performance Test Certificate has not been issued, with or without affording the Contractor further opportunity for completing the Work for issue of the Commissioning Certificate and/or Performance Test Certificate

(b) At any time during the progress of the Works, notwithstanding that time for the completion of the entire Works or concerned part, portion or section thereof according to the Progress Schedule(s) shall not have expired, to take over and/or use for any purpose the incomplete or partially completed Works/Unit or any part or portion or section thereof, as the case may be , and give the Contractor an opportunity for completing the Work or relative part or portion or section thereof, as the case maybe, within the time for completion permitted there for under the Progress Schedule and if in the opinion of the Contractor, such taking over and/or use shall require an extension of time for completion,

the provision of Clause 4.3 above and associated clauses thereunder relating to extension of time shall apply.

Provided always that takeover, possession or use of the Works/Unit/ Plant or any part or portion or section thereof by the Owner within the provisions of sub-clause (a) and/or sub-clause (b) above shall not be deemed to be an acceptance of Work or relative part or portion or section thereof by the Owner or relieve the Contractor of its full obligations in respect thereof under the Contract.

(xi). The Contractor shall be deemed to have successfully commissioned the Plant contracted for when the following conditions are satisfied:

(a) The Plant and all its components/facilities have been successfully tested after installation at site individually and as a whole and Mechanical Completion Certificate shall have been issued in respect thereof.

(b) The Plant is successfully commissioned by continuous and stabilised operation upto full capacity for a continuous period of not less than 7 (seven) days.

(c) The Engineer-in-Charge shall have issued a Commissioning Certificate in respect of the Plant.

6.5. COMPLETION CERTIFICATE

(i). After the final tests have been successfully completed in respect of all the Works envisaged in the Contract, or after the Plant has been mechanically completed, as the case may be, the Contractor shall clear the Job Site of all scaffolding, wiring, pipes, surplus materials, Contractor's labour, equipment and machinery and shall demolish, dismantle and remove all Contractor's site offices and quarters and other Temporary Works, structure and constructions and other items and things whatsoever brought up on or erected at the job site or on any land allotted to the Contractor by the Owner and not incorporated in the Permanent Works and shall remove all rubbish from the Job Site and the land allotted to the Contractor and shall clear, level and dress the Job Site and said land to the satisfaction of the Engineer-in-Charge and shall put the Owner in undisputed custody and possession of the Job Site and all land allotted by the Owner to the Contractor and unless the Contractor shall have fulfilled the provisions of this Clause, the Works shall not be deemed to have been completed.

(ii). Upon the satisfactory fulfilment by the Contractor of the provisions of Clause 6.5(i) hereof, the Contractor shall be entitled to apply to the Engineer-in-Charge, for a Completion Certificate in respect of the entire Work or Work at any Job Site, as the case may be, upon submission of the following documents:

(a) the technical documents according to which the Work was carried out;

(b) complete set of working drawings showing therein corrections and modifications (if any) made during the course of execution of the Works, signed by the Engineer-in-Charge;

(c) statement of final levels asset for various Works, signed by the Engineer-in-Charge;

(d) Mechanical Completion Certificate issued by the Engineer-in-Charge (if commissioning is not within the Contractor's Scope of Work with respect to which the Mechanical Completion Certificate has been issued) and Commissioning Certificate (if Performance Tests are not within the Contractor's Scope of Work) and a Commissioning Certificate and a Performance Test Certificate (if Performance Tests are within the Contractor's Scope of Work) issued by the Engineer-in-Charge;

(e) confirmation of Engineer-in-Charge of satisfactory fulfilment of the provisions of the Clause 6.5(i) hereof;

(f) item-wise list of surplus Materials including the quantity and estimated value of each surplus item (out of the materials issued by the Owner or brought at site by the Contractor) returned to the Owner's Store or otherwise disposed of, duly signed by the Engineer-in-Charge;

(g) Materials-at-Site accounting for Owner- supplied Materials, signed by the Engineer-in- Charge;

(h) discharge in respect of Owner-supplied equipment and machinery, signed by the Engineer-in-Charge, and

(i) declaration by the Contractor that it has duly cleared any and all of the dues payable by it to its Labour/Piece rate workers (PRWs), Sub-Contractors, Suppliers, Vendors, Income Tax, GST and Customs, Provident fund, ESI and royalties, if any, as applicable to the Scope of Work under the Contract;

(j) Proof of payment in full of the cess payable under the Building and other Construction Workers' Welfare Cess Act, 1996;

(k) copy of FRCC Certificate (Forest Royalty Clearance Certificate);

Also, the Plant/ Work shall not be deemed to be complete and the Contractor shall not be deemed to have been discharged from its obligations under the Contract unless the Supply of all documents, spares, surplus Material, as built drawings etc. as per contractual provisions are submitted and handed over by the Contractor and acceptance of the same by the Owner.

(iii). If the Engineer-in-Charge is satisfied of the completeness in all respects of all documents specified in Clause 6.5(ii) and of proper reconciliation and accounting of all Materials the Engineer-in-Charge shall, within 1 (one) month of receipt of the application for the Completion Certificate, issue a Completion Certificate in respect of the Works for which the Completion Certificate has been applied. If the Contractor cannot produce to the satisfaction of the Engineer-in-Charge the statement of reconciliation or other explanation of issues, utilisation and balance of Materials, the Engineer-in-Charge shall (after taking into account irrecoverable losses, if any, determined to be reasonable by Engineer-in-Charge) debit the Contractor the reasonable cost of such Material plus 15% (Fifteen percent) thereof under the provision of Sub-Clause (i) of Clause 5.14(ii)(a)(ix) above and issue the Completion Certificate subject thereto. The decision of the Engineer-in-Charge as to the acceptability of the Material reconciliation furnished by

the Contractor and as to the irrecoverable losses, if any, permissible shall be final and binding upon the Contractor.

(a) The issue of a Completion Certificate shall be without prejudice to the Owner's rights and the Contractor's liabilities under the Contract, including the Contractor's liability for the Defect Liability Period under Clause 5.20 above nor shall the issue of a Completion Certificate in respect of the Works be construed as a waiver of any right or claim of the Owner against the Contractor in respect of Works or any of them.

(iv). Up to and until issue of the Completion Certificate as provided for herein above in respect of the Works, the Work(s) and all Materials incorporated therein shall be and remain at the risks of the Contractor in all respects, including (but not limited to) accident, lightning, earth- quake, fire, storm, flood, tempest, riot, civil commotion and/or war provided that notwithstanding the Engineer-in-Charge's failure to issue a Completion Certificate under Clause 6.5(iii) hereof, the risk specified above shall be transferred to the Owner within 1 (one) month of the Engineer-in-Charge receiving the Contractor's application for the Completion Certificate if the application and the documents submitted in support thereof satisfy in all respects the requirements of Clause 6.5(ii) and properly reconciled and account for all Materials and a Commissioning Certificate has been issued in respect of the Plant/Works.

(v). Without limiting its obligations and liabilities under Clause 6.5(iv) hereof, the Contractor shall takeout erection insurance and/or other suitable insurance and at all times from the commencement of the Work keep insured for full value the Works in progress and completed Works in the joint names of the Owner and the Contractor against loss or damage from whatsoever causes arising, including the risks specified below, in amanner that the Owner and the Contractor are covered during the period of construction of the Works and are also covered during the Defect Liability Period for loss or damage arising from any cause occurring prior to the commencement of the Defect Liability Period and for any loss or damage occasioned by the Contractor in the course of any operation carried out by it for the purposes of complying with its obligation under clause 5.20 hereof. Such insurance(s) shall be effected with an insurer(s)and in terms approved by the Owner (which approval shall not be unreasonably withheld) and the Contractor shall whenever required produce to the Engineer-in-Charge or its representative, the policy or policies of insurance and the receipt for payment of the current premium(s). Provided that the Owner shall, at the Contractor's cost, insure under the Emergency Risk Insurance Law as applicable in Indiafrom time to time, the Owner's Works covered under this Contract as insurable under the Applicable Law.

The policy(ies) of insurance aforesaid shall stipulate exclusive rights in the Owner to receive all monies due in respect of such policy(ies), and the Owner shall exclusively be entitled to receive all monies payable under said policy(ies). In default by the Contractor to effect or maintain insurance as aforesaid, the Owner shall be entitled (but without obligation to do so) to take out/or pay the premium for any such policy (ies) and deduct the premium(s) and other costs and expenses incurred in this behalf by the Owner from the monies for the time due or payable or becoming due or payable to the Contractor

Provided always that:

(a) notwithstanding anything contained in this Contract, the Contractor shall be and remain solely and exclusively liable to repair, restore or replace, as the case may be, Works (including the materials therein incorporated) damaged or destroyed as a result of any Force Majeure event or other act or omission, notwithstanding the existence or otherwise of any policy(ies) of insurance aforesaid, with the intent that any policy(ies) of insurance aforesaid taken out by the Contractor or by the Owner on default by the Contractor, shall not in any manner absolve the Contractor from its full liability under Clause 6.5(iv) above or otherwise but shall constitute merely an additional security and not a substitution of liability;

(b) it shall be the exclusive responsibility of the Contractor to lodge and pursue any or all claims in respect of the insurance aforesaid;

(c) the Contractor shall, as a condition to the certification of any Running Account Bill, satisfy the Owner/ Engineer-in-Charge of the existence of one or more policy(ies) of insurance covering the Materials as specified herein. The policy(ies) of insurance aforesaid shall cover all insurable risks including but not limited to any loss or damage in handling at storage point, transit from storage point, storage at Job Site and during erection and upto issue of Completion Certificate against theft, pilferage, riot, civil commotion, force majeure (including earth quake, flood, storm, cyclone, tidal wave, lightening and other adverse weather conditions), accidents of kinds, fire, war risks and explosion.

Notwithstanding anything herein provided, the provisions relating to insurance as set out in Clause 10.6 shall also be applicable.

(vi). APPLICATION OF PROCEEDS OF INSURANCE

(a) Proceeds of any policy(ies) of insurance received by the Owner pursuant to Clause 5.14(ii)(a)(vii) or Clause 6.5(v) above shall be utilized at the sole discretion of the Owner either for payment to the Contractor for repair, restoration or replacement, as the case may be, of the relative materials or Works, or to meet the costs of repair, restoration or replacement in the event of the Contractor refusing or failing or neglecting to undertake such repair, restoration and/or replacement, as the case may be, without prejudice to any other right or remedy available to the Owner in respect of such default, failure or neglect.

(b) If the Contractor repairs, restores or replaces, as the case may be, the lost, damaged or destroyed materials or Works affected to the satisfaction of the Owner, the Contractor shall be entitled to the disbursement by the Owner of the full monies received by the Owner under the relative policy(ies) of insurance with respect to such materials or Works repaired, restored or replaced, as the case may be, by the Contractor.

6.6. CONTRACTOR'S GUARANTEES

(i). The guarantees herein set forth are without prejudice and in addition to any other guarantees or liabilities of the Contractor. The Contractor guarantees and undertakes that:

Page 846 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(ii). GENERAL

(a) The Unit designed, supplied and installed and/or erected by the Contractor when operated under the specified operating and local conditions operate to the desired capacity to produce the desired product(s) of desired purity(ies) and quantity(ies) at desired economy(ies). Excluded from the scope of this guarantee are Defects and shortcomings arising wholly out of Defects in design(s) furnished by a Process Licensor other than Contractor.

(b) The materials supplied and incorporated in the Unit including plant and machinery and instruments shall be of good quality and workmanship and shall conform in all respects to the specifications and the provisions of the Contract.

(c) The Work performed pursuant to the Contract including civil and associated Work shall be of good quality and workmanship and shall conform in all respect to the specifications and the provisions of the Contract.

(d) The plant, machinery and systems incorporated in the Unit shall be so designed and arranged that the spares, spare parts and/or suitable replacement parts shall be and remain available at reasonable cost to enable trouble free operation of the Unit for its reasonable life expectancy.

(iii). ENGINEERING GUARANTEE

(a) Since residual process design and detailed engineering (including Hazop and Hazan as specified) is within the Contractor's scope and the Work shall be executed and Unit established based on the engineering performed, it shall be the prime responsibility of the Contractor to carry out such design and engineering in accordance with Good Industry Practice.

(b) In case any error or omission in design or engineering within the Contractor's scope i.e. the residual process design or detailed engineering (including Hazop and Hazan) requires re- engineering which results in any new requirements for equipment/materials, the same shall be supplied and reengineering shall be carried by the Contractor within the scope of relative Work and/or supply and within the contractual period without extra cost to the Owner or entitlement of extension of time to the Contractor.

(c) The Contractor shall guarantee that the system design for the Plant/Unit shall meet and comply with the Owner's requirements and:

(i) the equipment approved and/ or selected

(ii) the Site criteria

(iii) the Engineering specifications, standards and design guides and codes the Front End Engineering Design (FEED) as mentioned in Bidding Document.

(d) The Contractor shall check and satisfy itself the Front End Engineering Data (FEED) furnished by the Consultant as a part of the Bidding Documents for any discrepancy, deficiency and with regard to completeness to meet Contractor's proposed guarantee and in case of any discrepancy, deficiency or incompleteness, Contractor shall inform the Owner/Consultant immediately for further action. The Contractor, if required, shall carry out corrective technical studies and engineering based on action suggested by Owner/Consultant as may be required without any extra cost to Owner.

(iv). WORKMANSHIP GUARANTEE

(a) Workmanship for manufacture and construction shall be carried out in accordance with the requirements of the Contract and the codes and standards and practices therein specified. Any defective Material supplied or defective Works done, shall be made good and shall, if so required by the Owner or the Engineer-in-Charge, be replaced by new Materials within the relative scope of Work and/or supply without any additional cost to Owner.

(b) The Contractor accepts full responsibility for the quality and correctness of all Materials (including plant and equipments and all components/parts) and Works within the Contractor's scope of supply and/or scope of Work including but not limited to:

(i) Selection of Materials;

(ii) Material specifications and metallurgy;

(iii) Work specifications;

(iv) Fabrication/manufacturing workmanship;

(v) Engagement of experienced, reliable and qualified suppliers, engineers and/or sub- Contractors.

(v). PERFORMANCE GUARANTEE

(a) The Contractor is not responsible for the process guarantees of the Process Licensor. However, within and to the extent applicable to the scope of supply and Work, the Contractor shall be responsible for performance guarantees of the Unit in terms of product quality and design and rated capacities, including turndown capacity and facilities/systems incorporated therein as well as for guaranteed consumption of Utilities. This guarantee shall cover the guaranteed mechanical performance for each and every related equipment, their efficiencies and their performance as laid down in the process package including guarantee for power consumption. Equipment which does not perform to the guarantees shall, in consultation with the Owner/ Engineer-in-Charge either be replaced or altered or repaired in parts or components or wholly (including dismantling, transportation, erection, hook-up, commissioning etc.) within the relative scope of supply and/or services at no extra cost to the Owner and without entitlement of extension of time to the Contractor. Although the Contractor is not responsible for process guarantees,

it shall carry all activities in collecting the required data during Performance Tests or other process guarantee runs to identify problems of non-performance, for further analysis and modifications required to meet process performance parameters.

(b) The Contractor shall select the equipment considering the economy of power consumption and minimum effluent or pollution discharge.

(c) All instruments as may be required for the Contractor to perform its obligations under this Contract at no extra cost to the Owner.

(d) The Contractor shall provide a list of laboratory test procedures and frequencies thereof required for validating the Contractor's Performance Guarantees.

(e) Performance tests shall be started when the operation of the Unit is stabilized under design conditions. The Unit shall be operated and controlled in accordance with procedures setup beforehand. One or more performance tests shall be carried out for a maximum of 120 hours under the technical direction of Owner/Licensor and/or their designated representatives after successfully commissioning the Unit in accordance with the procedures and conditions detailed in the Bidding Documents. At the end of the performance tests, an uninterrupted period of 72 hours shall be selected by Owner/ Engineer-in-Charge and average results obtained during that period shall form the basis of comparison between the actual performance and the Guaranteed performance.

(f) If on any testing, any Material or equipment or the Unit does not meet the design, rated or guaranteed performance relative thereto, the Contractor shall forthwith, within the Contractor's scope of Work and at no additional cost to the Owner, undertake such additional tests and/or operations as are necessary to identify the cause of such failure. Such tests and/or operations shall be conducted in conjunction with the Process Licensor, if the Unit as a whole fails to meet the Process Licensor's process guarantees.

(g) If as a result of such tests and/or operations it is determined that the design, rated and/or guaranteed outputs or capacities have not been met because of a Defect in any Material(s) (including plant and equipment) supplied by the Contractor, the Contractor shall forthwith in consultation with the Engineer-in-Charge take steps necessary to cause the Defect to be identified and rectified, either by replacement of the defective Material, plant or equipment or part there of or by repair or replacement thereof. After such repair/replacement is carried out, the guarantee performance tests shall be repeated. The costs for such repeated tests (including charges payable to the Process Licensor or any other agency) shall be borne by the Contractor. The Contractor shall forthwith establish a Time Schedule acceptable to the Engineer-in-Charge for such replacement/rectification bearing in mind the exigencies of the Project requirement. Should the Contractor fail to establish such Time Schedule, the Engineer-in-Charge shall establish the Time Schedule, and the Time Schedule so established shall be binding on the Contractor.

(h) Should the Contractor thereafter fail to adhere to a Time Schedule so established for the replacement/rectification, the Owner may (but without obligation to do so) takeover in whole or part such replacement/rectification at the risk and cost of and as agent of the Contractor. In so doing, the Owner shall be entitled to identify and employ through private negotiations, the quickest available resources of supply and/or Work without resorting to the tender process or any other form of competitive bidding.

(vi). COMMISSIONING

(a) The Contractor shall be responsible to commission the Plant and to prove the Contractor's performance guarantees with respect thereto. The commissioning shall, to the extent necessary, be carried out under the supervision of Licensor, Engineer-in-Charge and with the assistance of the Owner's personnel. The Contractor shall, within its responsibilities for and the scope of Commissioning the Plant, train Owner's personnel at the Site in such number and for such period as the Contractor considers reasonably necessary for Commissioning of the Plant.

(b) The Contractor shall commission the Plant within the time period for Commissioning specified in Special Conditions of Contract, and the mobilisation and/or retention of the Contractor's personnel until completion of Final Testing and Commissioning shall be included within the Lumpsum Price of services. If, however, for any reason not attributable to the Contractor the Commissioning of the Plant cannot be undertaken within 3 (three) months of Mechanical Completion of the Plant, the Contractor may, in consultation with the Owner, demobilise some or all of its personnel brought to or retained at the site for the purpose of Commissioning. The Contractor shall remobilise the required personnel on receipt of notice for Commissioning, and the Owner and the Contractor shall agree upon the reasonable cost to be incurred by the Contractor for re-mobilisation of such personnel, which shall be payable in addition to the price of services specified in the Contract, and this additional amount shall be included within and form part of the Final Bill of the Contractor.

(c) In addition, within the Contractor's responsibilities for Commissioning and within the price of services, the Contractor shall be required to maintain watch and ward of and ensure the safety and integrity of the Plant until successful completion of Commissioning and issue of Commissioning Certificate for the Plant. If Commissioning of the Plant commences later than 3 (three) months of Mechanical Completion of the Unit for any reason not attributable to the Contractor, the Owner and the Contractor shall agree upon the reasonable cost incurred for maintaining watch and ward and preservation and insurance of the Plant beyond the said 3 (three) months period and upto commencement of Commissioning, which shall be payable to the Contractor in addition to the price of services and this additional amount shall be included within and form part of the Final Bill of the Contractor. If the Commissioning of the Plant is delayed beyond 6 (six) months of Mechanical Completion of the Plant, the Owner and the Contractor shall Work out the modalities for the takeover of the Plant by the Owner without prejudice to the Contractor's obligation for and related to and consequent to Commissioning.

Page 850 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(d) As and when the Unit is ready to be commissioned, the Owner shall give the Contractor notice of not less than 10 (ten) days for Commissioning the Unit.

(e) The relevant terms and conditions regarding provision of Utilities, consumables, catalysts, feedstock, raw Material etc. for Pre-commissioning, Commissioning and guarantee test run etc. shall be as per technical section of the Bidding Document.

(f) In the event Commissioning is not conducted within 4 months from Mechanical Completion for the reasons attributable to Owner / Licensor and Force Majeure and/or in the event Performance Test is not conducted within 6 (six) months from Commissioning for the reasons attributable to Owner / Licensor and Force Majeure; the Owner shall(subject to such adjustments as permissible) release to the Contractor, the undisputable balance payable on Commissioning and Performance Tests against the Contractor furnishing an interest free, irrevocable and unconditional bank guarantee acceptable to Owner in the prescribed format enclosed to the Bidding Documents from an Indian bank acceptable to the Owner and recognised as a scheduled commercial bank by the Reserve Bank of India for an amount equivalent to the amount of the payment(s) to be released. The validity of such bank guarantee(s) shall be initially for a period of 6 (six) months and shall be extended for one further period of 6 (six) months. If the commissioning and/or Performance Test cannot be conducted within such extended period for reasons solely attributable to the Owner, the bank guarantee will be substituted by a corporate guarantee of the Contractor in a format acceptable to the Owner. If however, the Unit cannot be commissioned within the said period for reason(s) attributable to the Contractor or if commissioning and/or the Performance Test conducted indicates that the Unit does not perform to the contractual specifications and requirements, then the bank guarantee shall even after the extension aforesaid continue to be extended upto and until successful Commissioning and Performance Tests of the Unit. In either event, the Owner will be entitled to encash such bank guarantee if the bank guarantee is not extended or substituted by an acceptable corporate guarantee, as the case may be, at least 14 (fourteen) days prior to the date of expiry of such bank guarantee(s).

(vii). GUARANTEE PERFORMANCE TESTS

(a) For the purpose to demonstrate that the Unit meets Contractor's contractual guarantees, one or more performance tests shall be carried out by the Contractor under the technical direction of the Process Licensor, the Contractor and the Engineer-in-Charge and/or their designated representatives after commissioning the Unit in accordance with the stipulated and/or agreed procedures and conditions.

(b) The Performance Tests shall be carried out in accordance with a detailed technical programme to be drawn up by Engineer-in-Charge and the Contractor in consultation with Owner prior to the commencement of the performance tests.

(c) Within five days after completion of a performance test, all relevant operating and production figures having any bearing on the Contractor's guarantees or in

Page 851 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

connection therewith and actually achieved during the performance test conducted shall be recorded in a protocol to be signed by authorised representatives of Owner and the Contractor.

(d) The Contractor's guarantees shall be deemed to have been met once all guarantees have been established during one or more performance tests carried out in respect of the Unit.

Page 852 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

7. SECTION VII – SUSPENSION OF WORKS AND TERMINATION

7.1. SUSPENSION OF WORK AND SUPPLIES

(i). The Engineer-in-Charge or the Owner may at any time, at their sole discretion depending on the prevailing situation, by notice in writing to the Contractor, temporarily suspend the Work or Supply or any part thereof for such period(s) as the Engineer-in-Charge/ Owner shall deem necessary. Upon receipt of such notice, the Contractor shall forthwith temporarily suspend the Work(s) or Supply (ies) or such part thereof until it has received a written order from the Engineer-in-Charge to proceed with the Work suspended or any part thereof.

(ii). The Contractor shall, during such period of such suspension, at its own cost within the scope of the relative Work, properly protect and secure the Works and Materials to the extent necessary and carry out the instructions given in that behalf by the Engineer-in-Charge.

(iii). If the suspension is due to Force Majeure or by reason(s) of default or failure on the part of the Contractor or is for the purpose of ensuring safety of the Work(s) or any part thereof or is necessary for the proper execution of the Work(s) or is for reason(s) of weather affecting the safety or quality of the Work(s) or Materials (the reasons for the suspension stated by the Engineer-in-Charge/ Owner in any notice of suspension as aforesaid, inclusive as to existence or default or failure on the part of the Contractor, if so stated in the notice, shall be final and binding upon the Contractor), the Contractor shall not be entitled to claim compensation for any loss or damage sustained by the Contractor by virtue of any suspension as aforesaid notwithstanding that consequent upon such suspension the machinery, equipment and/or labour of the Contractor or any part thereof shall be or become or be rendered idle and notwithstanding that the Contractor shall be liable to pay salary, wages or hire charges or bear other charges and expenses thereof.

(iv).

(a) If a suspension under Clause 7.1(i) affecting the Work(s) occurs for any reason(s) other than specified in Clause 7.1(iii), the Contractor may at any time after the commencement of the suspension, give written notice to the Engineer-in-Charge (with a copy to the Owner), of its intention to claim "Standby Allowance" for the continuance of the suspension thereafter, and shall upon communication of such notice cause to be jointly prepared with the Engineer-in-Charge a list of all Contractor's equipment and personnel and permanent labour on Contractor's payroll rendered idle directly by such suspension, and shall thereafter so long as the order of suspension remains in force, once in every 24 (twenty four) hours, cause a like statement to be jointly compiled with the Engineer-in-Charge.

(b) In this event, effective 2 (two) days after communication of the said notice by the Contractor upto communication of an order of the Engineer-in-Charge or Owner removing the relative suspension, the Contractor shall be entitled to a "Standby Allowance" as hereunder provided for the Contractor's equipment, personnel and labour, actually and directly rendered idle by the suspension:

(i) Standby Allowance for equipment actually and directly rendered idle by the suspension shall be calculated for each day of consequent idleness in accordance with the provisions of Sub-Clause (iii) below;

(ii) Standby allowance for personnel and labour actually and directly rendered idle by the suspension shall be calculated for each day of consequent idleness in accordance with the provisions of Sub-Clause (iv) below;

(iii) "Day" shall mean each 24 (twenty-four) hours' period commencing from midnight and terminating at following midnight;

(iv) Standby Allowance shall be subject to the ceiling of Standby Allowance for each day calculated in accordance with the following formula:
Per day Ceiling = 15 % of (LP ÷ N), Where LP = Lumpsum Price

where, N = Number of days from the date of Letter of Acceptance upto the date of Mechanical Completion of the Unit/ Works indicated in the Time Schedule.

(c) For calculating Standby Allowance for equipment actually and directly rendered idle by the suspension, the list of the equipment referred to in Clause 7.1(iv)(a) shall be submitted by the Contractor on a day-to-day basis to the Owner after obtaining the comments (if any) and signature of the Engineer-in-Charge thereon. Per day stand-by allowance for such equipment shall be calculated on the basis of the per day idle cost of each equipment rendered idle worked out on an amortization of the cost of the equipment over 5000 (Five thousand) idle days. The cost of equipment shall be determined on the basis of the actual cost of the purchase, for which the Contractor shall furnish the Owner satisfactory proof of the cost of purchase, failing which the cost shall be determined on the basis of the manufacturer's price list of the equipment (if this be not available, then of like equipment) prevailing at the time of purchase as established by the Contractor to the satisfaction of the Engineer-in-Charge. If any equipment is more than 5000 (Five thousand) days old, the cost of equipment shall be deemed to be nil and no Standby Allowance shall be applicable with respect thereto.

(d) For calculating the Standby Allowance for personnel and labour actually and directly rendered idle by the suspension, the list of personnel and labour referred to in Clause 7.1(iv)(a) shall be submitted by the Contractor to the Owner on daily basis after obtaining the comments (if any) and signature of the Engineer-in-Charge thereon. For determining the Standby Allowance, the Contractor shall furnish to the Owner such proof as may be reasonably required for determining the salary / wages payable to such personnel and/or labour subject to ceiling of rates issued by regional labour authority. If the emoluments payable are on monthly basis, the daily rate shall be worked out by amortizing the monthly emoluments over 30 (Thirty) idle days.

(e) If any dispute arises as to whether any particular equipment/personal/labour was or was not actually and directly rendered idle by virtue of the suspension, or personnel/labour concerned was or was not on the permanent pay roll of the Contractor or is employed in a claimed capacity or not, the decision of the Engineer-in-Charge shall be final and binding upon the Contractor.

(f) Standby Allowance provided above shall be the sole right and remedy of the Contractor for any suspension and the Contractor shall not be entitled to any compensation for loss or damage sustained by the Contractor by virtue of suspension as aforesaid or for any additional costs, charges or expenses incurred or liable to be incurred by the Contractor resultant thereupon.

(v). Unless the suspension is by reason of default or failure on the part of the Contractor (and the reasons for the suspension stated by the Engineer–in-Charge in any notice of suspension as aforesaid inclusive as to the existence of default or failure on the part of the Contractor if so stated in the notice, shall be final and binding upon the Contractor), if in the opinion of the Contractor such suspension shall necessitate any extension in the time of completion, the provisions of related Clauses in respect of extension of time shall apply.

(vi). In the event that the suspension continues for a period of 120 (one hundred twenty) days or more, the Owner and the Contractor shall forthwith review the situation with a view to take suitable remedies, including termination of the Contract. If the Parties are unable to agree upon a suitable remedy, either Party may forthwith terminate the Contract by issuing a termination notice in writing to the other Party , provided that such notice by the Contractor shall be operative only if the Engineer-in-Charge/ Owner does not lift the suspension within 4 (four) Weeks of receipt of the Contractor's notice in this behalf, and the Contractor's notice shall so specify.

(vii). In the event of such termination being upon a suspension consequent to a default or failure by the Contractor, the Contractor shall not be entitled to any damage, compensation, loss of profit or other compensation whatsoever in addition to payment for the completed Supplies made and completed Works done in accordance with the terms of the Contract in accordance with the provisions of sub-Clauses (c) and (d) of Clause 7.4(iv) (Cancellation of Contract) hereof.

(viii). Except for a suspension by written order of the Engineer-in-Charge under Clause 7.1.1 hereof, the Contractor shall not suspend the Work for any cause and any such suspension, if occur shall be likely to be attended by consequences under Clause 7.2(i)(a) (viii) hereof.

(ix). Notwithstanding anything provided in Clause 7.4 and/or Clause 7.1 and related Clauses thereunder, upon a cancellation of the Contract under the provisions of Clause 7.4(i) below or termination of the Contract under provisions of Clause 7.1(vi) above, the provisions of Clauses 7.2(vi) to 7.2(x) below consequent upon termination of Contract shall apply. Should the termination be one to which the provisions of Clause 7.1(vii)above apply, then the provision of Clauses 7.2(iv), 7.2(xi), 7.2(xii), 7.2(xiii), 7.2(xiv), 7.2(xv) and 7.2(xvi) consequent upon termination of Contract shall also mutatis mutandis apply.

(x). It is hereby clarified that on no account shall Standby Allowance be payable to the Contractor on the ground that:

(a) The Job Site/Work Front was (in whole or part) not timely provided to the Contractor in accordance with the Front Release Programme or otherwise;

(b) Any other front required for progressing further with the Work is not timely made available to the Contractor in whole or part; or

(c) Any approval or disapproval required to be given by the Engineer-in-Charge or the Owner is delayed, or the supply of any Material or utility required to be supplied by the Owner is delayed or interrupted.

7.2. TERMINATION

(i). Notwithstanding anything elsewhere herein provided and in addition to any other right or remedy of the Owner under the Contract or otherwise (including the right of the Owner to discount by way of price adjustment under the provisions of Contract), the Owner shall be entitled to terminate the Contract by written notice at any time during the subsistence of the Contract on or after occurrence of any of the following events/contingencies namely:

(a) Breach or failure by the Contractor of any of the obligations of the Contractor under the Contract:

(i) failure to start the Work within 12 (twelve) Weeks of the date of issue of the Letter of Acceptanceby the Owner, notwithstanding the Owner having made available to the Contractor the Work front / Job Site/ Free Issue Material necessary for the commencement of Work;

(ii) failure to commence Work at Site within 3 (three) Weeks of the time prescribed in this behalf in the Progress Schedule or to commence supply of any Material within 3 (three) Weeks of the time prescribed in this behalf in the Delivery Schedule;

(iii) failure to carry out or carry on the Works or any of items to meet the Progress Schedule resulting in a delay of 4 (four) Weeks or more in the actual performance of the Work, or failure to complete any supplies to meet the Delivery Schedule resulting in a delay of 4 (four) Weeks or more in the scheduled deliveries of Materials;

(iv) failure to complete Mobilization within the 3 (three) Weeks of the time prescribed for Mobilization;

(v) material breach of its obligations under the Contract;

(vi) failure to provide at each Job Site, within 3 (three) Weeks of being required to do so by the Engineer-in-Charge, sufficient labour, Material, equipment, machinery, Temporary Work and/or facilities required for the proper and/or due execution of the Work or any part thereof;

(vii) abandonment or repudiation of the Contract or suspension of the execution of the Works during the subsistence of any Dispute under the Contract;

(viii) substantial suspension of the Works or any part thereof for a period of 2 (two) Weeks or more without the authority of the Engineer-in-Charge;

Page 856 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(ix) failure to adhere to the Specifications and/or Variations in terms of the Contract;

(x) failure to execute the Works or any of them in accordance with the Contract or disobedience of any order or instruction of the Engineer-in-Charge or negligence or lack of expertise in the performance of the Work, or failure to supply Materials of quality conforming to the requirements of the Contract;

(xi) failure of the Contractor to achieve the Mechanical Completion or Completion on or before 10 (ten) Weeks after the Time for Mechanical Completion or Completion of the Works as per Time Schedule and upon such delay, the Contract Price is reduced to the maximum extent specified in the Contract, yet the delay in respect of which the reduction was made continues to subsist;

(xii) occurrence of an Insolvency Event in relation to the Contractor;

(xiii) failure to replace or remedy the Defects in accordance with the provisions of the Contract;

(xiv) Contractor gives any warranty or makes any representation under the Contract which is found to be false or misleading;

(xv) failure to furnish or renew the bank guarantee submitted towards the CPS as per the provisions of Contract;

(xvi) failure to obtain and maintain insurance in accordance with its obligations under the Contract;

(xvii) default under any Applicable Law;

(xviii) distress, execution, or other legal process being levied on or upon any of the Contractor's goods and/or assets involved in or relative to the performance of the Work or supply;

(xix) death of the Contractor (if an individual);

(xx) If the Contractor or any person employed by it shall make or offer for any purpose connected with the Contract, any gift, gratuity, royalty, commission, gratification or other inducement (whether money or in any other form) to any employee or agent of Consultant or Owner;

(xxi) change in Control of the Contractor in contravention of Clause 10.3.2;

(xxii) assignment of this Contract by the Contractor in violation of its terms; or

(xxiii) failure by the Contractor to make any payment under the Contract when due and payable.

Page 857 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(ii). If the Contractor fails to remedy or rectify the default stated in the notice of intention to terminate issued by NRL under Clause 7.2(i) above within 30 (thirty) days of issue of such notice, NRL shall be entitled to forthwith terminate the Contract or any notified portion of the Works by issuing a termination notice and expel the Contractor from the Site (but without thereby releasing the Contractor from any of its obligations or liabilities under the Contract, or affecting the rights and powers conferred on NRL under the Contract up to the date of termination). However, in case of events set out in Clause 7.2(i)(a)(xi), (xii), (xix), (xxi) and (xxii), NRL shall be entitled to immediately terminate the Contract without giving any notice whatsoever to the Contractor.

(iii). The decision of the Head – Projects, Numaligarh Refinery, as to whether any of the events or contingencies mentioned in Clause 7.2(i)(a) above entitling the Owner to terminate the Contract has occurred or not shall be final and binding upon the Contractor.

(iv). The termination notice issued under Clause 7.2(ii) shall set forth, in addition to statement of the reason or reasons for terminating the Contract, the time(s) and place(s) for conducting a survey and inspection/measurement of the Work performed and Materials supplied under the Contract upto the date of termination for the purpose of determining the final amount(s) due to the Contractor therefor. The reasons for the termination stated in the termination notice issued under Clause 7.2(ii) shall be final and binding upon the Contractor.
Upon such termination of the Contract due to Contractor's default, NRL may encash and appropriate the whole or such portion of the CPS as may be required towards the sum payable by the Contractor under this Contract and Damages payable by the Contractor in accordance with the provisions of this Contract.

(v). Forthwith upon receipt of such termination notice, the Contractor shall at its own risks and costs within the scope of relative Work, do and perform to the satisfaction of the Engineer-in-Charge all and whatsoever is necessary, in the opinion of the Engineer-in-Charge (which shall be final and binding upon the Contractor) to secure and protect all complete and incomplete Works performed by the Contractor upto termination, and should it fail to do so, the Owner shall be entitled by itself or through an independent contractor(s) or partly by itself and partly through an independent contractor(s), to do and perform at the risks and costs of the Contractor all such Work(s) not done by the Contractor, and the provisions of Clause 7.2(ix) therefore shall mutatis mutandis apply thereto.

(vi). For the purpose of measurements, the provisions of Clause 8 related to Measurement of Work shall apply. The decision of the Engineer-in-Charge as to whether or not any Works have or supply has been completed for the purpose of measurement shall be final and binding upon the Contractor. Incomplete items or Works shall be measured and paid for only on the basis of Materials (if any) supplied by the Contractor, and the decision of the Engineer-in-Charge as to the quantity of material involved in or relative to any incomplete Works shall be final and binding upon the Contractor.

(vii). Work done and/or supplies made by the Contractor qualifying for payment under Clause 7.2(v) above shall be paid for in respect of Work done on the basis of on account payment due thereon based on Schedule of Activities, and Materials supplied on the basis of on account payment due thereon on the basis of Bill of Materials and the provisions related to "On Account Payment" shall mutatis mutandis apply and

accounting done and bill prepared by the Contractor on the basis thereof shall be the Final Bill and no other amount(s) shall be due to the Contractor in respect thereof, subject to the provisions of "Claims by the Contractor" and associated clauses thereunder with regard to the notified claim(s) of the Contractor included in the Final Bill.

(viii). Within 4 (four) Weeks of completion of the inspection/measurements, the Contractor shall clear the Job Site(s) made available by the Owner to the Contractor of all surplus Materials, Contractor's labour, equipment and machinery and shall demolish, dismantle and remove such Temporary Works, structure and construction and other items and things brought upon or erected at the Job Site(s) and not incorporated in the Permanent Works and shall remove all rubbish from the Job Site(s) and shall clear, dress and restore the Job Site(s) to the satisfaction of the Engineer-in-Charge and shall put the Owner in undisputed custody and possession thereof and the entire Works.

(ix). In the event, the Contractor fails to comply with the provisions of Clause 7.2(vi) above in the manner and within the time specified therein, the Owner shall have the right at the risk and costs of the Contractor in all respects to clear the Job Site(s) of all surplus materials, Contractor's labour, equipment and machinery and other Materials and things and/or demolish/dismantle and remove any Temporary Works, structures and/or construction and other items and things brought upon or erected at the Job Site(s) and to remove all rubbish from the Job Site(s) and the land allotted to the Contractor and clear, dress and restore the said land to the satisfaction of the Engineer-in-Charge and take undisputed possession and custody thereof and of the Works and Contractor's stores thereon and dispose of and/or otherwise deal with any and all equipment and machinery etc., stores and other items and things aforesaid and recoveries of any demolition/dismantling as the Owner shall in its absolute discretion deem fit, and the Contractor shall forthwith on demand pay the Owner the entire costs/expenses of the Owner relative to the above together with 15% (Fifteen percent) thereof to cover the Owner's supervision, with right in the Owner (without prejudice to any other mode or recovery) to recover the same from the proceeds of any sale or disposal as aforesaid or from any monies whatsoever of the Contractor held by the Owner or dues of the Contractor and the Contractor hereby irrevocably nominates, constitutes and appoints the Owner (with right to the Owner to delegate any and all of its rights in terms hereof to such of its officer(s) and/or other person(s) as it shall deem fit) for and on behalf of and as attorney of the Contractor to do, commit and/or sign all acts, deeds, matters and things as shall or may be necessary to be done, committed and/or signed by the Contractor to put in to effect the provisions of this Clause with full right to enter into arrangements with third parties for or relative to the storage, sale and/or other disposal of any goods, equipment and machinery and other items and things and to enter in to or upon any of the Contractor's premises and to break open if necessary any locks, bolts, fasteners, bonds or other devices restricting entry there to and to do all other acts, deeds, matters and things as shall or may be necessary to give full effect to the provision of this Clause.

PROVIDED ALWAYS THAT:

(a) The Owner shall be entitled, without prejudice to the foregoing and in addition thereto, upon the Contractor failing to comply with the provisions of Clause 7.2(vi) above after removing/demolishing/ dismantling from the Job Site any of the Contractor's goods, Temporary Works and other items and things, by

written notice to the Contractor, to require the Contractor to take delivery of, lift and/or clear the same within 7 (seven) days (or such other period as may be specified in said notice) of date of said notice failing which the Owner shall abandon the same at the risks and costs of the Contractor, and should the Contractor fail to take delivery of, lift and/or clear the same within the period in this behalf specified in the said notice, the Owner shall be entitled at any time thereafter to abandon the same at the risks and costs of the Contractor, where upon (without prejudice to any other rights of the Owner) the Owner shall stand absolutely discharged and absolved in respect of all and any Material, equipment, machinery and other item and things whatsoever abandoned as aforesaid.

(b) Notwithstanding anything to the contrary herein provided, nothing herein stated shall constitute the Owner as a trustee or bailee of any of the Contractor's Material, equipment, machinery or other items or things removed, cleared, demolished, dismantled or abandoned as aforesaid, nor shall the Owner be bound in law or fact by any duty of care in respect thereof, with the intent that all actions, dealings and disposals within the provisions of this clause shall be exclusively at the risk and liability of the Contractor (including relative to any loss or damage) and the Owner shall not be howsoever responsible, accountable or liable in respect thereof.

(x). If for any cause (including but not limited to resistance put up by the Contractor and/or its servants or agents or any court order consequent upon a suit or proceedings filed by the Contractor), the Owner is unable to fully take over possession of the entire Works within 7 (Seven) days from the date of completion of the measurements as contemplated above, the Owner shall, in addition to all discounts, compensations and/or damages recoverable from the Contractor in terms hereof (including Owner's entitlements under Clause 7.2(xii)) or otherwise, be entitled to discount from the Contractor a Price adjustment in the amount equivalent to 1% (one percent) of the Lumpsum Price for each Week or part thereof that the said taking over possession of any Works is delayed beyond the period of 7 (seven) days specified above, subject to a maximum of 5% (five percent) of the Lumpsum Price.

(xi). Notwithstanding anything provided in Clause 7.2(vi) hereof, the Owner shall have the right at any time prior to the removal of the same from the Job Site, to take possession of such of the Contractor's goods or equipment at any and all Job Sites as the Owner shall deem fit, and the Contractor shall be entitled to compensation for any such goods or equipment taken over at cost thereof to the Contractor or depreciated value thereof in the case of equipment, whichever shall be less, such cost or value not to include the cost of transport, carriage or handling or storage, but to include the cost of freight to India on imported goods. The cost of goods and/or depreciated value of equipment taken over as determined by the Engineer-in-Charge shall be final and binding upon the Contractor.

(xii). Upon termination of the Contract, the Owner shall be entitled at the risk and expenses of the Contractor in all respects to either engage one or more contractors to complete the Work and/or supplies and/or to redesign, reperform and/or redo and/or to alter, modify and/or replace the Materials supplied by the Contractor and/or supply other Materials or substitutes to the extent necessary to setup, install, erect, establish and operate the Unit and tools and spares in accordance with the Contract and/or to

complete the Works in accordance with the Contract, notwithstanding that the contractor(s) so engaged shall adopt design and/or processes or methods or Materials different from those proposed or projected and/or adopted by the Contractor for any purpose. Contractor's liability under clause 7.2(xii) shall be limited to 100% (One hundred percent) of the Lumpsum Price.

(xiii). In addition to rights under Clauses 7.2(xi) and 7.2(xii), the Owner shall, upon termination of the Contract have an option to take over from the Contractor, in whole or part, any subsisting order or Sub-Contract entered into by the Contractor in or relative to performance of the Contractor's obligations under the Contract, for which purpose the provisions here of shall operate as an assignment by the Contractor to Owner of the orders and Sub-Contract opted to be taken over by the Owner, with right in the Owner as attorney for and on behalf of and in the name of the Contractor to sign, execute and/or deliver any document, notice or other communication as may be required under the law applicable to the relative contractor order to complete the assignment there of in favour of the Owner, and the provisions hereof shall constitute appropriate appointment by the Contractor in favour of the Owner in this behalf, with right in the Owner to act in this behalf through any of its directors or officers.

(xiv). No amount shall be due and payable to the Contractor upon or in the event of termination of the Contract unless and until the entirety of the Works as contemplated in the Scope of Services and the entirety of the supplies as contemplated in the Scope of Supplies shall have been completed in all respects and all payments finally due on any account to the Owner and/or other contractor(s) in respect of the balance Works and Supplies have been finally settled and the Owner has been discharged from all liabilities in respect thereof.

(xv). If upon the satisfaction of the Clause 7.2(xii) and 7.2(xiii) above, there shall remain in the hands of the Owner any excess/balance after all accounting and adjustment of all dues from the Contractor to the Owner, the Owner shall forthwith pay over such excess/balance to the Contractor and in the event of the CPS and other dues of the Contractor in the hands of the Owner being insufficient to meet the dues ofthe Owner as aforesaid, the Contractor shall forthwith on demand by the Owner pay the Owner the shortfall. For calculating the excess/balance aforesaid in the hands of the Owner any price discount or adjustment due to the Owner from any other contractor or any equivalent or similar provisions in the Contract in this behalf betweenthe Owner and the other contractor shall not be reckoned.

(xvi). Upon termination of this Contract due to Contractor's default, the Owner shall have a right to issue a fresh tender in relation to completion of the remaining Works and the Contractor shall not be entitled to participate in such tender

7.3. CHANGE ORDER

(i). ALTERATIONS IN DESIGNS, PLANS, DRAWINGS, SPECIFICATIONS, ORDERS AND INSTRUCTIONS

7.3.1.1. In addition and without prejudice to the provisions of Clauses 5.6 and 5.7 and associated clauses thereunder, if the Engineer-in-Charge is of opinion that any plan, drawings, design or specification or order or instruction relative thereto within the Contractor's Scope of Work or Supply is in any manner erroneous or

is otherwise required to be modified, altered, amended or improved to conform to the Contract requirements, whether or not the same has or have been previously approved by or on behalf of the Owner, the Engineer-in-Charge may by written notice to the Contractor at any time prior to or in the course of the execution of the Works or any part thereof modify or amend the relevant plan, drawing, design, specification, order and/or any instruction or any of them by addition, omission, substitution or otherwise whatsoever, and the Contractor shall thereupon either convince the Engineer-in-Charge of the unnecessity in the whole or part of the amendment(s) or modification(s) or shall implement the same and shall cause the plan, drawing, design, specification, order or instruction as the case may be to be accordingly amended and the Contractor shall thereafter carry out the Works or Supply or the related Work or Supply, as the case may be, in accordance with such altered specification, order, instruction, plan, drawing and/or design, as the case may be, on the same terms and conditions in all respects without entitlement to any additional remuneration or price.

(a) In addition to and without prejudice to Clause 7.3.1.1 hereof, the Engineer-in-Charge shall have the power by written notice to the Contractor at any time prior to the or in the course of the execution of the relative Works or supply or any other part thereof, to alter or amend or modify any other requirement. If and so far as the alteration, amendment and/or modification requires any consequential amendment in any plan(s), drawing(s), design(s) or specification(s) within the Contractor's Scope of Work and/or Supply, the Contractor shall make such alternations, amendment(s) or modification(s) as the case may be.

(b) If such alteration, amendment, modification or improvement under Clause 7.3.1.1 or 7.3.1.1 (a) shall, in the opinion of the Contractor, necessitate an extension in the time for completion, the provisions of Clause 4.3 above and related clauses with regard to the extension of time shall apply.

7.3.1.2. If any alteration, amendment or modification under Clauses 7.3.1.1 shall, in the opinion of the Owner/Consultant, result in a reduction in the Scope of Work or specifications of the Works or Supply covered by the Lumpsum Price so as to render unreasonable the Lumpsum Price, or if in the opinion of the Contractor, the alteration, amendment or modification shall result in an increase in the scope of Work or specifications of the Work or Supply covered by the Lumpsum Price so as to render unreasonable the Lumpsum Price, the Owner or the Contractor, as the case may be, shall serve written notice thereof to the other, with a copy to the Engineer-in-Charge and the Owner's PMC, and the provisions of Clause 7.3.3 and associated provisions thereunder applicable to a Change Order initiated by the Owner or Contractor, as the case may be, shall mutatis mutandis apply. Such notice shall constitute and shall comply with the requirements of a Change Order Proposal under Clause 7.3.3.1 (if initiated by the Owner) or Clause 7.3.3.2 (if initiated by the Contractor).

7.3.1.3. Pending finalisation of a change order pursuant to a notice/change order proposal given under the provisions of Clause 7.3.1.2 hereof, the Contractor

Page 862 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

shall continue and be bound to continue and perform the Work(s) and/or make the Supply(ies) to completion in all respects according to the Contract (unless the Contract or Works be determined by the Owner) and the Contractor shall continue to be liable and bound in all respects under the Contract.

(ii). ALTERATION IN THE SCOPE OF WORK OR SUPPLY

7.3.2.1. The Owner may at any time(s), before or after the commencement of the Work or Supply, by notice in writing issued to the Contractor, alter the Scope of Work or Supply, by increasing or reducing the quantities relative to any Work(s) or Supply(ies) or by increasing or reducing the Work(s) required to be done or supplied with respect thereto or by omitting therefrom any specific job(s) or portion(s) or by substituting any existing Work(s) or operations with other Works and/or operations, or by requiring the Contractor to perform any extra Works and upon receipt of such notice the Contractor shall execute the Work(s) and/or make Supplies as required within the altered Scope of Work and/or Supply.

7.3.2.2. If any alteration in the Scope of Work and/or Supply shall in the opinion of the Contractor, necessitate any extension in time for completion, the provisions of Clause 4.3 above and related Clauses with regard to the extension of time shall apply.

7.3.2.3. If an alteration under clause 7.3.2.1 shall, in the opinion of the Owner, result in a reduction in the Scope of Work or Supply covered by the Lumpsum Price so as to render unreasonable the Lumpsum Price, or if in the opinion of the Contractor, the alteration, amendment or modification shall result in an increase in the Scope of Work or Supply covered by the Lumpsum Price so as to render unreasonable the Lumpsum Price, the Owner or the Contractor as the case may be, may initiate a Change Order Proposal by serving written notice thereof to the other, with a copy to the Engineer-in-Charge and the Consultant, and the provisions of Clause 7.3.3 and associated provisions thereunder applicable to a Change Order initiated by the Owner or Contractor, as the case may be, shall mutatis mutandis apply. Such notice shall constitute and shall comply with the requirements of a Change Order Proposal under clause 7.3.3.1 (if initiated by the Owner) or Clause 7.3.3.2 (if initiated by the Contractor).

7.3.2.4. Pending finalization of a Change Order pursuant to a notice/Change Order Proposal given under the provisions of Clause 7.3.2.1 hereof, the Contractor shall continue and be bound to continue and perform the Work(s) and/or make the Supply(ies) to completion in all respects according to the Contract (unless the Contract or Works be determined by the Owner) and the Contractor shall continue to be liable and bound in all respects under the Contract.

(iii). CHANGE ORDER

7.3.3.1. If initiated by the Owner, the Change Order Proposal shall specify the reduction in the Lumpsum Price proposed by the Owner by virtue of the change(s) referred to in the notice and shall set forth the basis for the calculation thereof.

Page 863 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

7.3.3.2. A Change Order Proposal may be initiated by the Contractor only within 21 (twenty one) days from the date of issue of orders or instructions relative to any Works for which the Contractor claims the additional payment or compensation. The Change Order Proposal made by the Contractor shall set out the reasons for the proposal and the basis on which the increase in the Lumpsum Price is proposed to be calculated and shall give particulars of the order or instruction from which it arises.

(a) If the Contractor fails to initiate a Change Order Proposal within the time and in the manner specified in Clause 7.3.3.2, the Owner shall not be liable for or in respect of a claim or Change Order Proposal subsequently or otherwise made or initiated by the Contractor in respect of such orders or instructions, and the Contractor hereby waives and relinquishes any and all rights in respect of any such claim or Proposal subsequently or otherwise made or initiated by the Contractor.

(b) if Change in Law adversely impacts the performance of the Contract during the execution of Contract, Contractor shall also have the right to raise variations, which would entitle Contractor to submit change orders.

7.3.3.3. The Consultant shall promptly consider a Change Order Proposal submitted by the Contractor in compliance with Clause 7.3.3.2 and shall submit its recommendations to the Owner within 2 (two) Weeks of receipt of the Change Order Proposal.

(a) The Owner shall within 2 (two) Weeks thereafter examine the Proposal and the recommendations of the Consultant with respect thereto and convey in writing to the Contractor its in principle approval or disapproval of the Change Order Proposal.

(b) If the Change Order Proposal is made by the Owner or if the Owner conveys its approval in principle to the Change Order Proposal made by the Contractor, the Contractor shall within 2 (two) Weeks of receiving the Change Order Proposal or Owner's approval in principle, as the case may be, submit to the Owner, the Engineer-in-Charge and the Consultant in writing its detailed engineering analysis and costing of the change by way of reduction or increase, as the case may be, in the Lumpsum Price.

(c) The Consultant shall review the detailed engineering and costing of the change proposed by the Contractor and submit to the Owner and the Contractor its comments thereon within three (3) Weeks of the receipt thereof.

(d) Within 3 (three) Weeks of receiving its Consultant's comments, if the Owner is able to agree with the Contractor on the costing of the change, the Owner shall issue a Change Order incorporating the cost impact of the change by increase or reduction, as the case may be, in the Lumpsum Price. In order to achieve such agreement, the Owner

may call the Contractor for negotiations. Change Order(s), if any, shall be placed once every 6 (six) months from the date of issue of the Letter of Acceptance by the Owner.

7.3.3.4. If the Owner has not given its in principle approval to a Change Order Proposal initiated by the Contractor in accordance with the provisions of Clause 7.3.3.2, or if the Owner and the Contractor are unable to agree on the costing of the Change Order Proposal as envisaged in Clause 7.3.3.3 (d), the Change Order Proposal made by the Contractor shall be deemed to be a claim of the Contractor under Clause 8.9(i) to which the provisions of Clause 8.9 and associated provisions with regard to the Contractor's claims shall mutatis mutandis apply.

7.3.3.5. Provided always that the provisions with respect to a Change Order or a Change Order Proposal shall not be applicable if:

(i) the change of supply or services or Work is required by the Owner or Engineer-in- Charge before approval of detailed design or engineering to meet the requirements of the Contract.

(ii) the change of supply or services or Work is necessary at any time for the Contractor to comply with the requirements of the Contract or the Contractor's responsibilities under the Contract,

(iii) the additional supply or services or Works are required because of any delay or deficiency attributable to the Contractor,

(iv) the additional Work/ services and/or Materials are required to make good the Contractor's Warranties and/or Guarantees as set forth in the Contract.

(v) the change relates to the repair, rectification or re-performance of any of the defective Work(s) or Materials within the Contractor's scope or supply or services or Work.

7.3.3.6. Unless otherwise agreed between the Contractor and the Owner, the price implications of a Change Order Proposal for addition to or subtraction from the Lumpsum Price shall be calculated on the following basis:

(A)

(i) For Materials covered under the Contractor's scope of supply (including equipment) incorporated in Work(s) not being Civil and Structural Works covered by (B) below, at cost of such Materials involved in the Work(s) to which the Change Order Proposal relates, as witnessed by the Supplier's relative invoices;

(ii) For Works and services, other than Civil and Structural Works covered by (B) below, at the cost of labour and consumables and utilities involved in the Works to which the Change Order Proposal relates and the cost of equipment involved in the execution of such Work, the cost

Page 865 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

of the equipment to be worked out by amortization in the manner provide in Clause 7.3.3.7.

(iii) 6 % (six percent) of (i) and (ii) above to cover design and other engineering and overall co-ordination costs.

(iv) 15% (fifteen percent) of the total of (i), (ii) and (iii) above to cover all other costs, overheads and profit.

(B)

(i) For civil and structural Works involved in the Works to which the Change Order Proposal relates, on basis of the CPWD rates then prevailing for the location of the Works or, in the absence of the existence of CPWD rates for the location, at the applicable State PWD rates, which cover costs, overheads and profit;

(ii) 6% (six percent) of (i) above to cover design and other engineering and overall co-ordination costs.

7.3.3.7. Unless otherwise agreed, for the purposes of calculating the increase or reduction in the Lumpsum Price consequent upon a Change Order Proposal with respect to any Works other than Civil and Structural Work(s) covered by Clause 7.3.3.6 (B), as and from the date of the initiation of a Change Order Proposal, the Contractor shall on each day prepare and submit to the Owner, a statement of time worked by all labour employed in the Work/services to which the Change Order Proposal relates and showing the description and quality and invoiced costs of all Contractor supplied Materials (including equipment) incorporated in the Works and the cost of Materials and utilities and equipment utilized for the Work to which the Change Order Proposal relates. Such statement shall be submitted by the Contractor on a daily basis to the Owner after obtaining the comments (if any) and signature of the Engineer-in- Charge thereon. At the end of each month, the Contractor shall deliver to the Owner for approval a price statement of the cost of labour, Materials, utilities and equipment used in this behalf. The cost of mechanical equipment utilized for the Work shall be worked out on a capital amortization of 2000 (two thousand) working days. Notwithstanding any dispute as to the cost allocation, the Statement shall be signed by the Engineer-in-Charge with a Note of dissent as a record of the views of the Engineer-in-Charge thereon

7.3.3.8. Unless otherwise agreed, the amount calculated under Clause 7.3.3.6 shall solely determine the rights of the Owner or the Contractor, as the case may be, pursuant to a Change Order Proposal in respect of which the Owner is entitled to a reduction in the Lumpsum Price or the Contractor is entitled to an increase in the Lumpsum Price.

7.3.3.9. It is hereby specifically clarified as follows:

(i) Nothing provided herein shall in any manner permit the Contractor to disobey any order(s) or instruction(s) of the Engineer-in-Charge or Owner or other person or authority competent to issue such order(s)

or instruction(s) or to await the outcome of the process set forth herein for claiming or determining the cost implications or implementing such order(s) or instruction(s).

(ii) The Contractor shall within the Scope of Work and Services be bound to promptly and timely implement such order(s) or instruction(s).

(iii) The time taken in implementing the process herein set forth shall in no circumstances constitute a ground for extension of time under Clause 4.3 or otherwise.

(iv) Any delay or inability by the Consultant to consider and/or submit its recommendations on a Change Order Proposal in accordance with Clause 7.3.3.3 or to review and/or submit its comments in accordance with Clause 7.3.3.3(c), or by the Owner to examine the Change Order Proposal or recommendations of the Consultant, or convey its approval or disapproval to the Change Order Proposal in accordance with Clause 7.3.3.3(a) or to convey its agreement or to issue a Change Order under Clause 7.3.3.3(d) shall in no circumstances constitute a ground for extension of time under Clause 4.3 or otherwise.

7.4. CANCELLATION OF CONTRACT

(i). The Owner shall be entitled at any time at its discretion to cancel the Contract in whole or part in accordance with Clause 7.4, if in the opinion of the Owner the cessation of the Work becomes necessary owing to any cause whatsoever other than the default of the Contractor, and a notice in writing from the Owner to the Contractor of such cancellation and the reason(s) therefore shall be conclusive proof of such cancellation and of the reason(s) thereof. Upon cancellation of the Contract the Engineer-in-Charge may require the Contractor:

(a) to perform, to complete or to any other intermediary stage of completion to the satisfaction of the Engineer-in-Charge, any Work(s) already commenced by the Contractor; and

(b) to take steps as are considered necessary by the Engineer-in-Charge for properly protecting and securing the Works performed by the Contractor, to the satisfaction of the Engineer-in-Charge.

And the Contractor shall act accordingly and the same shall be deemed to be included within the Contractor's Scope of Work.

(ii). Upon receipt of notice as specified in Clause 7.4(i) above, the Contractor shall, unless such notice otherwise requires:

(a) immediately discontinue Work and/or Supply from the date and to the extent specified in the notice;

(b) not place any further orders or Sub-Contracts for Materials, Services or facilities other than as may be necessary or required for completing or performing such

portion of the Work(s) or Supplies which the Contractor is required to complete or perform;

(c) promptly make every reasonable effort to obtain cancellation or fulfilment, as the case may be, at the option of the Engineer-in-Charge / Owner of all orders and Sub-Contracts to the extent they relate to the performance of the Work(s) or Supplies cancelled;

(d) assist the Engineer-in-Charge / Owner, as specifically requested in writing by the Engineer-in-Charge / Owner, in the maintenance, protection and disposition of property/Works acquired by the Owner pursuant to the Contract;

(iii). Upon cancellation of the Contract, the Owner shall take over from the Contractor, the approved surplus Materials supplied by the Contractor for permanent incorporation in the Works and lying at the Site on the date of issue of notice issued under Clause 7.4(i) above, and the decision of the Engineer-in-Charge as to the approved Materials lying at the Site on date of the notice issued under Clause 7.4(i) above and the quantities thereof shall be final and binding on the Contractor.

(iv). Upon cancellation of the Contract, the Contractor agrees to waive any claim for damages, including loss of anticipated profits on account thereof, and as the sole right and remedy of the Contractor against the Owner resultant upon such cancellation, the Contractor agrees to accept from the Owner the following, namely:

(a) cost of settling and paying claims for cancellation or completion of pending orders and/or Sub-Contracts as provided for in sub-clause(c) of Clause 7.4(ii) hereof;

(b) cost of protecting, securing and/or maintaining the Works pursuant to the provisions of sub-clause (b) of Clause 7.4(i) above and/or sub clause (d) of Clause 7.4(ii);

(c) payment for the Supplies actually made on the basis of the Bill of Materials;

(d) payment for the Work actually performed by the Contractor, calculated on the basis of the relative milestone achieved as derived from the Payment Schedule specified in the Special Conditions of Contract;

(e) cost of Materials taken over by the Owner pursuant to the provisions of Clause 7.4(iii) hereof;

(f) allowance, if any due, as determined by the Engineer-in-Charge (whose decision shall be final) to cover the cost of Contractor's actual Mobilization and de-mobilization at the Site for the Work to the extent uncovered by payments under items (a) to (d) above.

Provided that the Contractor shall not be entitled to any compensation in addition to the payments specifically provided for above, and the Contractor hereby specifically waives any and all contrary rights and claims whatsoever.

(v). Upon cancellation of the Contract, the Contractor shall, as soon as is reasonablyfeasible, prepare an account of all amounts due to it from the Owner pursuant to this Clause 7.4(iv) above.

Page 869 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

8. SECTION VIII – MEASUREMENTS, BILLING AND PAYMENTS

8.1. MEASUREMENTS

(i). All provisions herein after referred to in Clauses 8.2 in respect of measurement shall mutatis mutandis apply to all inspections required to be made in order to qualify the Contractor for any payment(s) under the Contract and any reference in the said clauses to measurements shall, for the purpose of this clause, be deemed to be a reference to certifying inspections and any reference therein to the measurement book shall, for the purpose of this clause, be deemed to be a reference to the certifying inspection book.

8.2. MODE OF MEASUREMENT

(i). All measurements shall be in the metric system, and except where expressly indicated to the contrary in the Schedule of Rates or other Contract Documents, allmeasurements shall be taken in accordance with the procedures set forth in theSchedule of Rates, Specifications and other Contract Documents, notwithstanding any provision(s) in the relative standard method of measurement or any other general or local custom to the contrary.

(ii). In the event of the mode of measurement being not provided for by the Contract Documents in respect of any item of the Work, such item of Work shall be measured in accordance with the Indian Standard Specification No.1200 (latest edition) and such other Indian Standard Specifications as may be applicable, and in the event of such item not being covered by the said Indian Standard Specifications, shall be measured in accordance with the method of measurement in this behalf determined by the Engineer-in-Charge, whose decision shall be final and binding upon the Contractor.

(iii). All measurements shall be taken jointly by the Engineer-in-Charge or its representative on the one hand and the Contractor's Representative on the other hand and the Contractor's Representative shall be bound to present itself or its authorized representative whenever so required by the Engineer-in-Charge and shall remain present throughout the time required for joint measurements.

(iv). If the Contractor's Representative absents itself for any reason whatsoever on any date appointed for joint measurements, the joint measurements shall be taken by the Engineer-in-Charge in the absence of the Contractor and such measurements signed by the Engineer-in-Charge, shall be final and binding upon the Contractor.

(v). Measurements shall be signed and dated on each page by the Contractor's Representative and Engineer-in-Charge. If the Contractor objects to any of the measurements recorded, including the mode of measurement, such objection shall be noted in the Measurement Book against the item objected to and such note shall be signed by the Contractor's Representative and the Engineer-in-Charge. In the absence of any noted objection as aforesaid, the Contractor shall be deemed to have accepted the relative measurements as entered in the Measurement Book/Sheets and shall be barred from raising any objection in respect of any measurements recorded in the Measurement Book. Final measurement shall be done based on the final installed quantity.

(vi). The Owner and the Contractor shall each bear the costs of their respective personnel involved in any measurement. The Contractor shall exclusively bear costs of any marine vessel, third party personnel and / or experts and/or equipment (including specialized equipment) required or employed in or for any measurements to be conducted.

8.3. FINAL BILL

(i). On the basis of the Lumpsum Price provided in the Contract, the Contractor shall prepare a final bill ("**Final Bill**")in the prescribed form with reference to the total supplies covered by the scope of supplies and shall prepare a separate Final Bill with reference to the total services covered by the scope of services. Such Bill shall be prepared by applying the price of Materials specified in the Price Schedule in respect of supplies broken up with respect to the indigenous Materials and with respect to imported Materials (including plant, parts and components) in accordance with the break-up of the Price of Materials given in the Price Schedule and the various formats thereunder, and by applying the price of services specified in the Price Schedule in respect of Works/services broken up with respect to the various heads of services/Works in accordance with the break-up of the Price of services given in the Price Schedule and the various formats thereunder. Additions claimed to the Lumpsum Price or reductions therefrom resultant upon any Change Order(s) shall be separately indicated in the Final Bill with reference to the relative Change Orders(s).

(ii). The Final Bill shall, in addition to the payment entitlements arrived at according to the provisions of Clause 8.3(i) hereof and associated provisions therein, include in a separate statement annexed thereto the any outstanding claims of the Contractor as provided for in Clause 8.4(i) below.

(iii). The Final Bill drawn in accordance with the provisions hereof shall be submitted to the Engineer-in-charge for certification in quintuplicate (or in such other number of copies as may be prescribed), accompanied by the Completion Certificate relating to the Works. After certification of the Engineer-in-Charge, the Final Bill shall be submitted in quadruplicate (or in such other number of copies as the Owner may prescribe) accompanied by the Completion Certificate to the Owner for payment.

(iv). All monies payable under the Contract for Works to be performed and Materials to be supplied upto and including successful completion and final tests and commissioning of the system and performance tests shall become due and payable to the Contractor as per terms of payment detailed in Special Conditions of Contract. The Final Bill shall be prepared in accordance with the provisions of Clause 8.3(i) above and associated provisions thereunder accompanied by the Completion Certificate in respect of the Works.

(v). Payment of the amount(s) due on the certified Final Bill to the extent admitted by the Owner shall be made within 60 (sixty) days from the date of its certification by the Engineer-in-charge.

(vi). The payment to the Contractor on the Final Bill shall be subject to deduction of "on-account" payments and other amount due from Contractor to Owner, if any, as well as income tax as provided under section 194-C of the Income Tax Act and such other taxes and deductions as provided for under any law, rule or regulation having the force of law

Page 871 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

for the time being applicable (including any hold ups directed or necessitated by Court Orders or Orders of any Tribunal or other statutory authority).

8.4. CLAIMS IN FINAL BILL

(i). Subject to Clause 8.9 and provided that the Contractor has complied with the conditions as stated in Clause 8.9, the Owner may authorize the Engineer-in-charge and/or any other person(s) to commence a dialogue with the Contractor for arriving at a settlement of any outstanding claims of the Contractor annexed to the Final Bill as provided in Clause 8.3(iv) hereof.

(ii). If a settlement is negotiated with the Contractor in respect of such claims and such settlement is approved by the Owner, the Contractor shall submit a supplementary Final Bill ("**Supplementary Final Bill**") to the Owner drawn in terms of the said settlement, and the provisions of Clause 8.3(v) and associated clauses there under shall mutatis mutandis apply to such Supplementary Final Bill.

(iii). Payment of the amount due on the Supplementary Final Bill to the extent admitted by the Owner shall be made within 60 (sixty) days from the date of its certification by the Engineer-in-Charge.

8.5. SCHEDULE OF PRICES

(i). The amount payable determined due to the Contractor under the provision of Clause 8.3(iv) above shall constitute the entirety of the dues payable and entitlement of the Contractor in respect of the Work(s) under the Contract, and no further or other payment whatsoever shall be or become due or payable to the Contractor under the Contract.

(ii). Without prejudice to the generality of the provisions of Clause 8.5(i) above, the Schedule of Prices and/or Lumpsum Price shall be deemed to include and cover:

(a) all costs, expenses, outgoings and liabilities of every nature and description whatsoever and all risks whatsoever (foreseen or unforeseen, including Force Majeure) to be taken or which may occur in or relative to the execution, completion, testing, commissioning and/or handing over the Works to the Owner and/or in or relative to acquisition, loading, unloading, transportation, storing, working upon, using, converting, fabricating, erecting any item, equipment, Material or component in or relative to the Works and the Contractor shall be deemed to have known the nature, scope, magnitude and the extent of the Works and items, Materials, utilities, consumables, equipment, and components and Work, labour and services required for the proper and complete execution of the Works though the Contract Documents may not fully and precisely set out, describe or specify them; and the generality hereof shall not be deemed to be in any manner limited, restricted or abridged because in certain cases, the Contract Documents or any of them shall or may and/or in other cases, they shall or may not expressly state that the Contractor shall do or perform any particular Work, labour or service or because in certain cases, the Contract Documents state a particular Work, operation, supply, labour or service shall be performed/made by the Contractor at its own cost or without additional payment, compensation or charge or without entitlement of

claim against the Owner or words to similar effect, and in other cases, they do not do so or because in certain cases it is stated that the same are included in or covered by the Schedule of Prices and in other cases, it is not so stated;

(b) cost of all Construction Equipment, supply of water and power, construction of temporary roads and access, Temporary Works and facilities, pumps, wiring, pipes, scaffolding, shuttering, and other Materials, supervision, labour, insurances, fuel, stores, spares, supplies, appliances and other Materials, items, articles and things whatsoever (foreseen or unforeseen) by expression or implication to be supplied, provided or arranged by the Contractor in or relative to or in connection with the performance and/or execution of Works and any related or incidental Works or operations by expression or implication involved therein or incidental thereto, complete in every aspect in accordance with Contract Documents, and the plan(s), drawing(s), design(s), order(s) and/or instruction(s).

(c) cost of mobilisation including but not limited to mobilisation of vehicles, movements, machinery, equipment, gear, tools, tackle, consumables and other items and goods and personnel necessary for or to perform the Work contemplated under the Contract, preparation and erection of Work yards and other Workplaces and facilities necessary for or to perform the Works contemplated under the Contract and/or to supply the Material included within the scope of supplies including all Work, labour, inputs, goods, equipment, and other items and things whatsoever necessary for the performance of theWorks, dismantling and/or removal of the same and restoration of the site, lifting the Materials and transporting them to Contractor's stock piles/Work yard, job sites and loading, stacking and/or storing the same

(d) cost and risk of royalties, licences, permits, permission and other fees, duties, penalties, levies and damages whatsoever payable for or in respect of any protected or patented goods, Materials, equipment or processes employed in or relative to the Works and of all rents, royalties, licences, permits, permission and any other fee, duty, penalty, levy, loss or damage payable on the excavation, removal or transportation of any Material or acquisition or use of any right of way or other rights, licences, permits, privileges or usages required for or relative to the performance of the Works;

(e) cost of all taxes payable in India under this Contract such as all Customs and import duties, GST, Income Tax and Sales Tax on sale or purchase or turnover or on Works Contract or otherwise and other direct and indirect taxes, quay and port dues or charges and all other duties, taxes, fees, charges, levies, octroi and/or cesses whatsoever imposed by the Central Government or State Government or Municipal or Local Bodies and other Authorities whatsoever payable on any Materials and/or Works imported, exported, transported, supplied or performed (including Materials incorporate in the Works or brought to site for the performance of the Work) without any entitlement to the Contractor for any exemption, remission, refund or reduction thereof.

(f) cost of all indemnities to the Owner under the Contract and insurance premia on insurance required in terms of the Contract Documents under any law, rule or regulation, or otherwise taken out by the Contractor and the cost of all risks

whatsoever (foreseen or unforeseen) including but not limited to risks of delay, or extension of time or reduction or increase in the Work or scope of Work and/or cancellation of Contract and/or accidents, strike, civil commotion, war, labour trouble, third party breach, fire, lightning, inclement weather, storm, tempest, flood, earthquake and other acts of God, Government regulation or imposition or restriction, dislocation of road, rail, sea, air and other transport, access or facilities, flooding of site and/or access roads or approaches thereto, suspension of Work, sabotage and other cause whatsoever.

(g) cost of all Material supplied and/or intended for incorporation in the Works supplied within the Scope of Work delivered to the job site and stacked as instructed by the Engineer-in-Charge including (but not limited to) loading, transportation and unloading thereof, waste or Materials and returns and disposal of waste and/ or empties; and

(h) all supervision charges, establishment overheads, finance charges and other costs and expenses of and charges to the Contractor, and the Contractor's profit of and relative to the Work.

(i) cost of all inspections, tests and certificates relative thereto including third party tests and/or inspections where necessary, and of items, instruments, plant and/or tools and appliances required to conduct such inspection and tests.

(j) cost of all escalations (foreseen and unforeseen) including but not limited to increase in Government taxes and duties, labour costs and Material costs and other inputs whatsoever, except for new, altered or increased taxes elsewhere specifically provided for in Special Conditions of Contract or other Contract document(s).

(k) cost of all deductions, reductions, discounts, adjustments and withholdings whatsoever under or in connection with the Contract.

(iii). The rates stated in the Schedule of Prices and/or Lumpsum Price shall not be subject to escalation or increase on any account whatsoever.

(iv). Notwithstanding any provision to the contrary in these conditions, the Engineer-in-Charge may at its absolute discretion agree to accept as complete any incomplete Works or items of Work performed or supply made by the Contractor at variance with the specifications, subject and upon the terms and conditions of this clause. Upon such acceptance in writing by the Engineer-in-Charge, such Works/Materials shall be deemed to have been accepted as complete (but without prejudice to any right(s) of the Owner or obligation(s) of the Contractor relative thereto under the Contract) subject to the terms and conditions of this clause. The conditions of such acceptance shall be that the Contractor shall be entitled to reduced remuneration therefor only as determined by the Engineer-in-Charge in accordance with the provisions of Clauses 7.3.1.2 hereof, and the provisions of the said clause shall in all respects mutatis mutandis apply to such Work and/or supply, as the case may be, and for the determination of the reduced remuneration to the Contractor in respect thereof, provided always that the remuneration therefor shall on no account exceed the

Lumpsum Price or remuneration therefor payable under the Price Schedule in respect of the relative completed Works or supply

8.6. ON ACCOUNT PAYMENTS AND ADVANCES

Without prejudice to the provision of Clause 8.7 hereof, the Owner may at its discretion by way of assistance to the Contractor, make 'on account' payments to the Contractor, during the progress of the Work on the basis of Running Account Bills as hereinafter more specifically mentioned.

8.7. ON-ACCOUNT PAYMENT FOR LUMPSUM CONTRACT

(i). The provisions of this Clause 8.7 and associated Clauses there under shall apply only to a Contract in which the Schedule of Rates specifies a Lumpsum Price payable for the whole or any part of the Work(s) or activities covered by the Contract. If only part(s) of the Work(s) or activities under the Contract are the subject of a lump sum price then the provisions of this clause shall apply only to such part.

(ii). The approved Bill of Materials shall form the basis for the calculation of “on account” payments with respect to supplies of Materials. It is understood, however, that the Bill of Materials or approval thereof by the Owner shall not in any way relieve the Contractor of its full responsibility to supply to the Owner within the scope of supply, any and all Materials whatsoever required for the performance of the Work within the scope of Work, or otherwise howsoever confine the responsibility of the Contractor within the scope of supply to the supply of Materials indicated in the Bill of Materials, nor shall it otherwise be assumed or be deemed or construed as an acceptance by the Owner of the adequacy or sufficiency of the Materials listed in the Bill of Materials to meet the quantitative and/or qualitative requirements of the Materials required to be supplied by the Contractor under the scope of supply or otherwise in any manner operate to bind the Owner or to limit the liability of the Contractor, such Bill(s) of Materials being designed only to provide a basis for making “on account” payments to the Contractor for Materials supplied, with a view that the Owner shall make “on account” payments to the Contractor for the various Materials supplied on the basis thereof in the manner and at the time in this behalf provided for in the contract

(iii). The approved Schedule of Activities shall form the basis for the calculation of on account payments with respect to services/Works performed by the Contractor. It is however understood that the Schedule of Activities or approval thereof by the Owner shall not in any way relieve the Contractor of its full responsibility to perform within the scope of services/Works whatsoever is required for the performance of the Work covered by the scope of Work or otherwise however confine the responsibility of the Contractor to the performance of the services indicated in the Schedule of Activities, nor shall otherwise be assumed or be deemed or construed as an acceptance by the Owner of the adequacy or sufficiency of the Work/activities listed in the Schedule of Activities to meet the quantitative and/or qualitative requirements of services required to be performed or Work required to be done by the Contractor under the scope of services or otherwise in any manner operate to bind the Owner or to limit the liability of the Contractor, such Schedule of Activities being designed primarily to provide a basis for making On Account payments to the Contractor for Works/services performed, with a view that the Owner shall make “On Account” payments to the Contractor for the

Work/services performed on basis thereof in the manner and at the time in this behalf provided for in this Contract

(iv). For the purposes of making "on account" payments for the Work performed, monthly or otherwise as the Engineer-in-Charge may specify in this behalf, the Contractor shall make a quantitative assessment of the Work performed by the Contractor as listed in the Schedule of Activities during the preceding month or other specified period and shall submit a Running Account Bill (in the form prescribed by the Owner) in quadruplicate to the Engineer-in-Charge for the Works performed during the said month/period with detailed measurement thereof, the said Running Account Bill(s)to be drawn by applying the rates applicable under the Schedule of Activities to the applicable items, which shall be subject to certification by the Engineer-in-Charge specified for the purpose. The Engineer-in-Charge shall thereafter have a summary verification undertaken of the Work and quantities entered in the Running Account Bills and shall certify the Running Account Bills for payments on basis of such verification.

(a) For the purpose of making "On Account" payment for Materials supplied within the scope of supply other than payments made in advance monthly or otherwise as the Engineer-in-Charge may specify in this behalf, the Contractor shall make a quantitative list of Material supplied by the Contractor within the scope of supplies at the job site and of the "On Account" payment made in respect thereof prior thereto, and of the "On Account" payment(s) becoming due in respect thereof during the preceding month or other specified period as the case may be supported by the Certificate of Verification and Good Condition given by the Engineer-in-Charge in order to qualify for the relative on account payment claimed as due. The Contractor shall submit such assessment in the form of a Running Account Bill prepared in the format prescribed or approved by the Owner in this behalf in quadruplicate to the Engineer-in-Charge. The Running Account Bill(s) shall be drawn by applying applicable parts of the price(s) for relative Materials as indicated in the Bill(s) of Materials for the applicable item(s) and shall be subject to certification by the Engineer-in-Charge. The Engineer-in-Charge shall thereafter have a summary verification undertaken of the Materials and quantities entered in the Running Account Bill(s) and of the amount claimed and shall certify the Running Account Bill(s) for payment on the basis of such verification.

(v). The amount certified for payment by the Engineer-in-Charge on any Running Account Bill within the provisions for "on account" payments in the Contract documents shall be conclusive for the determination of any "on account" payments and no claim shall be entertained by the Owner contrary thereto or in contradiction thereof.

(vi). In any certificate for on account payment, the Engineer-in-Charge shall be authorised to adjust in whole or part, any previous amount certified by error.

(vii). All "on account" payments shall be subject to deduction of previous payments on account and of all claims of the Owner, adjustments and/or deductions provided for in the Contract or agreed to between the parties, tax deductions and any other deductions required to be made under any law, rule or regulation for the time being in force.

(viii). All on account payments shall be regarded merely as advance payments against the amount which will become due to the Contractor in terms of the Contract, and any such

payments shall be without prejudice to the full rights of the Owner under the Contract and to the liabilities of the Contractor there under, and specifically shall not be regarded as an acceptance or completion of any Work(s) or the acceptance of any Materials paid for in terms of any Running Account Bill or otherwise, notwithstanding any verification or certification by the Engineer-in-Charge in respect thereof.

(ix). Except as elsewhere herein to the contrary provided, the Schedule of Activities or Bill of Materials or other criterion applied by the Contractor in respect of any Work or supply in its Running Accounts Bill(s) or acceptance thereof by the Engineer-in-Charge in verifying the bill in respect of such Work or supply or criterion applied shall not be deemed to be binding upon the Owner as determining the completeness, acceptance or price payable for relative Work or supply.

(x). Unless or until an extension of time has been granted by the Engineer-in-charge under Clause 4.3 hereof, On Account payments made under Running Account Bills raised by the Contractor for the Works executed after the expiry of the date of Mechanical Completion of the Works under the Approved Progress schedule, shall be subject to provisional withholding of an amount towards adjustment by way of discount in the price calculated as per provisions of Clause 4.4 hereof. The amount so withheld shall be adjusted towards the Price Adjustment (if any) finally determined after Mechanical Completion of the Works, without prejudice to the Owner's right to recover from the Contractor any shortfall between the Price Adjustment finally determined and the amount provisionally withheld. Any excess amount provisionally withheld in excess of Price Adjustment finally determined shall upon such determination be paid to the Contractor. As an alternative, the Contractor shall have an option to provide an interest free, irrevocable and unconditional bank guarantee from any Indian bank acceptable to the Owner and recognised as scheduled commercial bank by Reserve Bank of India in a format acceptable to the Owner for a sum equal to 5% (Five percent) of the Contract Price which shall be available for recovery of the Price Adjustment for slippage in completion finally determined after completion of the Works/Unit. This bank guarantee shall be in addition to the CPS and any other guarantee to be provided by the Contractor and shall be valid for a period of not less than 12 (twelve) months fromthe date of Mechanical Completion of the Works.

(xi). All undisputed Payments will be made by the Owner against Running Account (R.A.) Bills certified by the Engineer-in-Charge within 30 days from the date of receipt of complete and correct R.A. Bill from the Contractor by Engineer-in-Charge.

(xii). Nothing provided in the foregoing clauses hereof shall in any manner be deemed to confer any rights or entitlement on the Contractor to receive on account payments or Advance payments of any kind whatsoever, nor shall any failure or delay by the Owner to make any advance or on account payment(s) as herein envisaged or otherwise afford the Contractor a ground or basis for extension of time for completion or otherwise relieve the Contractor from any of its/his liabilities under the Contract, it being clearly understood that these on account payments or advance payments are only by way of assistance to the Contractor.

Notwithstanding anything elsewhere provided in the Contract documents, all advances made by the Owner to the Contractor shall forthwith become repayable to the Owner in the event of the contract being terminated or cancelled for any cause.

8.8. MODE OF PAYMENT

(i). All payment(s) by the Owner under or in terms of the Contract shall be made by RTGS / bank transfer to the designated account of the Contractor notified in this behalf by the Contractor to the Owner. For this purpose, the Contractor shall furnish to the Owner such documents and information as required by the Owner to effect the bank transfer.

(ii). All payments by Owner shall be deemed to have been fully discharged once all acts necessary to initiate the RTGS / bank transfer have been completed within the time specified for such payment. Any delays within the international or domestic banking system in the transfer of such payments to Contractor 's account as aforesaid shall not give rise to any claim. If funds are not received in the account designated by Contractor, Owner will furnish upon Contractor's written request, documentary substantiation that all acts necessary to initiate the transfer of such funds have been taken by the Owner's bank(s). All costs associated with such RTGS / bank transfer and incurred in India shall be for Owner's account, and all other costs shall be for Contractor's account.

8.9. CLAIMS

(i). Should the Contractor consider that it is entitled to any extra payment or compensation in respect of the Work over and above the amounts due in terms of the Contract or should Contractor dispute the validity of any deductions made, Contractor shall forthwith give notice in writing of its claim in this behalf to the Engineer- in-Charge and to the Owner within 10 (ten) days from the date of the issue of orders or instructions relative to which the Contractor claims such additional payment or compensation, or of the happening of, any other event upon which the Consultant bases such claim, and further notice within 21 (twenty one) days from the date of event which shall give full particulars of the nature of such claim, grounds on which it is based, and the amount claimed. Contractor's right to raise a claim and the Owner's possible liability in respect of any claim raised by Contractor shall arise if and only if Contractor shall have given notice of such claim to the Owner and the Owner's Representative in the manner and within the time and giving the particulars aforesaid, and Contractor shall be deemed to have waived any or all claims and all its rights in respect of any claim not notified to the Owner and the Owner's Representative in writing in the manner and within the time and giving the particulars aforesaid.

(ii). The Owner and/ or Engineer- in-Charge shall be under no obligation to reply to any notice of claim given or claim made by Contractor within the provisions aforesaid or otherwise, or to otherwise reject the same, and no such omission or failure shall be deemed to be an admission by the Owner of the validity of such claim or waiver by the Owner of any of its rights in respect thereof.

(iii). Any or all claims of the Contractor notified in accordance with the provision of Clause 8.9(i) above as shall remain /persist at the time of preparation of the Final Bill by the Contractor shall be separately included in the Final Bill prepared by the Contractor in the form of a Statement of Claims attached thereto, giving particulars of the nature of such claim, grounds on which it is based, and the amount claimed, and shall be supported by copy(ies) of the notice(s) sent in respect thereof to the Engineer-in-Charge and the Owner under Clause 8.9(i) hereof. In so far as such claim shall in any Material particular be at variance with the claim notified by the Contractor within the provisions of Clause 8.9(i) hereof, it shall be deemed to be a claim different from the notified claim

with consequence in respect thereof indicated in Clause 8.9(i) hereof, and with consequence in respect of the notified claim as indicated in Clause 8.9(iv) hereof.

(iv). Any and all notified claims not specifically reflected and included in the Final Bill in accordance with the provisions of Clause 8.9(iii) shall be deemed to have been waived by Contractor with the intent that Contractor shall have no right to raise or include in the Final Bill any claim(s) other than a notified claim conforming in all respects to the provisions of the said section.

(v). No claim(s) shall on any account be made by the Contractor after the Final Bill, with the intent that the Final Bill prepared by the Contractor shall reflect any and all claims whatsoever of the Contractor against the Owner arising out of or in connection with the Contractor any supply made or Work performed by the Contractor thereunder or in relation thereto, and notwithstanding any enabling provision in any law or Contract and notwithstanding any claim in quantum meruit that the Contractor could have with respect thereto, the Contractor hereby waives and relinquishes any and all such claims not included in the Final Bill and absolves and discharges the Owner from and against the same, even if in not including the same as aforesaid, the Contractor shall have acted under a mistake of law or off act, or shall claim to have acted under economic compulsion or necessity.

(vi). Notwithstanding the existence of any claim by Contractor in terms hereof or otherwise, Contractor shall continue and be bound to continue and perform the Works and supplies to Completion in all respects according to the Contract unless the Contract be priority determined in terms hereof.

(vii). Unless incorporated in a Change Order, signed by the Parties, the payment of any sum on account to Contractor during the performance of the any Work or the making of any supply in respect of which a claim has been notified by Contractor in terms of clause 8.9(i) below or the making or negotiation of any interim arrangements by Owner in respect of the performance of such Work or item of Work or the making of any supply or item of supply by the Contractor shall not be deemed to be an acceptance of the related claim by the Owner, or any part or portion thereof, with the intent that any such payment or arrangement shall constitute merely a facility or assistance to the Contractor, and not an obligation upon the Owner.

(viii). If required by the Owner, the Engineer-in-Charge shall be authorised to require the Contractor to furnish, and the Contractor shall, upon the request of the Engineer- in-Charge/Owner, furnish all invoices, vouchers and accounting records as may be deemed necessary by the Engineer-in-Charge/Owner for the purpose of verifying any Contractor's claim.

8.10. PAYMENT OF CONTRACTOR'S BILL

(i). No payment shall be made for Work till the whole of the Work shall have been completed and a certificate of completion given unless otherwise specified in the Special Conditions of Contracts. Owner at its discretion may include the payment terms such as monthly payment in the Special Contract Conditions.

(ii). The Contractor shall on submitting the Bill, be entitled to receive Payment as per the payment terms after the approval of by Engineer-in-Charge, whose certificate of such

Page 879 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

approval and passing of the sum so payable shall be final and conclusive against payment due to the Contractor. This payment will be made after making necessary deductions as stipulated elsewhere in the Contract or any moneys due to the Owner, etc.

(iii). The final Bill shall be presented by the Contractor along with 'No Claim Certificate' in a format acceptable to the Owner or such other documents as directed by the Owner. All payments shall be made in Indian Currency unless otherwise specified in the Contract.

8.11. TAXES, DUTIES, LEVIES ETC.

(i). Except as otherwise specifically provided in the Contract, the Contractor shall be liable and responsible for the payment of all taxes, duties, levies and charges imposed on the Contractor, its Sub-Contractors and those imposed on the Contractor's Equipment, Materials, Supplies and Services to be used in the performance of the Contract or furnished under the Contract.

(ii). The Award of the Contract is on 'Works Contract' basis. Notwithstanding Clause 8.11(i) above, the Owner shall bear and pay/reimburse to the Contractor, GST applicable on the Contract. However, the taxes, duties and levies as may be applicable on the Materials and/or services used for Works Contract shall be to the Contractor's account and no separate claim in this regard will be entertained by the Owner.

(iii). It shall be incumbent upon the Contractor to obtain a registration certificate under the GST, and other law(s) relating to levy of tax, duty, cess etc. and necessary evidence to this effect shall be furnished by the Contractor to the Owner.

(iv). The Owner shall be entitled to make necessary tax deductions at source as per the prevalent laws. The Contractor shall be required to submit the PAN details to the Engineer-in-Charge before the submission of the first bill/invoice under the Contract.

(v). The Contractor shall itself be informed of all the Applicable Laws, notifications, rules, circulars and other communications of the State or Central or other authorities with regard to levy of any tax, duty, cess, levy or fee etc., which in any manner may impinge upon it in performance of any obligations/responsibilities under or arising out of the Contract.

(vi). The quoted prices shall be deemed to inclusive of all the taxes and duties except GST, which shall be quoted separately. Further prices, taxes, duties including GST on any transaction between Contractor and their Sub-Contractor/sub-supplier shall be included in the total Lumpsum Price.

(vii). The Contractor shall be required to issue tax invoice in accordance with the Applicable Laws pertaining to GST and/or rules thereunder, as amended from time to time. In the event that the Contractor fail to provide the invoice in the form and manner prescribed under the Applicable Laws pertaining to GST read with GST invoicing rules thereunder, Owner shall not be liable to make any payment on account of GST against such invoice.

(viii). GST shall be reimbursed at actual against receipt of tax invoice and proof of payment of GST to Government of India (or auto-population of input tax credit on GSTIN portal).In case of non-receipt of tax invoice and/or non-payment of GST by the Contractor (or

non-auto-population of input tax credit on GSTIN portal), Owner shall withhold the payment of GST.

(ix). The Contractor shall take steps, viz uploading invoice in GSTR 1, payment of the tax liability on the said invoices and filing of returns etc. and comply with all the requirements of Applicable Laws including GST laws for the time being in force to enable NRL to avail tax credit/s including input tax credit. Also, in case of imports, Contractor shall provide import documents and invoice fulfilling the requirement of Customs Act and Rules. Contractor will be fully responsible for complying with the Customs provisions to enable Owner to take Input Tax Credit. In case of any loss or non-availability of input tax credit by NRL due to non-compliance of applicable GST laws in force, on the part of the Contractor, an amount equivalent to any tax liability accruing to NRL and/or to the extent of any loss accrued to NRL due to the non-availability of input tax credit or any liability accrued to NRL shall either stand cancelled or deducted from the payment due to the Contractor or shall be reimbursed by the Contractor as the case may be till such default is either rectified or made good by the Contractor and NRL is satisfied that it is in a position to claim valid input tax credit within the time-lines as per Applicable Laws.

(x). Any cost, liability, dues, penalty, fees, interest as the case may be which accrues to the Owner at any point of time on account of non-compliance of Applicable Laws pertaining to taxation or rules or regulations thereof or otherwise due to default on the part of the Contractor shall be borne by the Contractor. An amount equivalent to such cost, liability, dues, penalty, fees, and interest as the case may be shall be reimbursed by the Contractor within 30 (thirty) days from the date of notice issued by Owner in relation to such reimbursement. Any GST as may be applicable on such recovery of amount shall also be borne by the Contractor.

(xi). Notwithstanding anything contained anywhere in the Bidding Documents, in the event that the input tax credit of the GST charged by the Contractor is denied by the tax authorities to NRL due to reasons attributable to the Contractor, NRL shall be entitled to recover such amount from the Contractor by way of adjustment from the next invoice or from CPS. In addition to the amount of GST, NRL shall also be entitled to recover interest at the rate of 12% (twelve percent) per annum and penalty,in case any penalties are imposed by the tax authorities on NRL.

(xii). TDS under GST, if applicable, shall be made from Contractor's bill at applicable rate and a certificate as per rules for tax so deducted shall be provided to the Contractor.

(xiii). The Contractor will be under obligation for charging correct rate of tax as prescribed under the respective tax laws. Further, the Contractor shall avail and pass on benefits of all exemptions/concessions available under tax laws.

(xiv). No variation on account of taxes and duties, statutory or otherwise, shall be payable by NRL to the Contractor except for GST. However, any statutory variation for GST after the last date of submission of Price Bid in accordance with Bidding Documents but before the contractual date of completion/delivery of Work (including Time Extension provided as per clause 4.3), any increase/decrease occurs in the applicable rate of GST pursuant to this Contract, the variation in such GST shall be to the Owner's account and shall be adjusted (increase/ decrease) to/ from the vendor's invoices based on the documentary evidence.

Page 881 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(xv). Any new taxes, duties, cess, levies notified or imposed pursuant to this Contract after the last date of submission of Price Bid in accordance with Bidding Documents but before the contractual date of completion/delivery of Work (including extended delivery/completion period) shall be to the account of the Owner.

(xvi). Any increase in GST or introduction of any new taxes, duties, cess, levies pursuant to this Contract after contractual date of completion/delivery of Work (including Time Extension provided as per clause 4.3) shall be to Contractor's account. However, any decrease in the rate of GST shall be passed on to Owner.

(xvii). GST payable under reverse charge, if any, shall not be paid to the Contractor but will be directly deposited by NRL to the Government of India.

(xviii). In case of Price adjustment for delay in completion as per Contract, appropriate Debit Note/Credit Note shall be issued by Owner/Contractor as per GST laws.

(xix). There will be no Materials under the Scope of Contract which will be directly consigned to Owner, unless otherwise specifically mentioned elsewhere in the Bidding Documents. The Owner will not issue / provide road permits / e-way bill to the Contractor except in respect of Material directly purchased by the Owner.

(xx). It shall be the duty of the Contractor to duly observe and perform all laws, rules, regulations, orders and formalities applicable to, GST and Customs Duty, etc. on the import, manufacture, sale and/or Supply of any Material to the Owner and performance of the Works under the Contract. The Contractor shall keep the Owner indemnified from and against any and all claims, demands, prosecutions, actions, proceedings, penalties, damages, demurrages and/or other levies whatsoever made or levied by any Court, Tribunal or the Customs or other Government Authorities with respect to any alleged breach, evasion or infraction of such duties, taxes, charges or levies or any breach or infraction of any Applicable Laws, rules, regulations, orders or formalities concerning the same and from the consequence thereof.

8.12. OVERPAYMENTS AND UNDERPAYMENTS

(i). Wherever any claim for the payment of a sum of money to the Owner arises out of or under this Contract against the Contractor, the Contractor upon demand by the Owner or by the Engineer-in-Charge on behalf of the Owner, with explanation of the reasons for such a sum/ claim becoming due, shall forthwith pay the same to the Owner. If the Contractor fails to do so within twenty-one (21) days of such a claim, then the same may be deducted by the Owner from any sum then due or which at any time thereafter may become due to the Contractor under this Contract or from any other sum due to the Contractor from the Owner which may be available with the Owner or from its CPS.

(ii). The Owner reserves the right to carry out post payment audit and technical examination of the final bill including all supporting vouchers, abstracts, etc. The Owner further reserves the right to enforce and recover any overpayment when detected, notwithstanding the fact that the amount of the Final Bill may include any item which is under dispute between the parties and referred to for settlement under Clause 11.8

entitled 'Settlement of Disputes' and notwithstanding the fact that the amount of the Final Bill figures in the arbitration decision/award.

(iii). If as a result of such audit and technical examination, any overpayment is discovered in respect of any Work done by the Contractor or alleged to have been done by it under the Contract, it shall be recovered by the Owner from the Contractor by any or all of the methods prescribed above. Similarly, if any underpayment is discovered by the Owner, the amount shall be duly paid to the Contractor by the Owner forthwith.

8.13. TIME LIMIT FOR SUBMISSION AND PAYMENT OF FINAL BILL AND WAIVER OF RIGHTS OF ALL CLAIMS

The Final Bill shall be submitted by the Contractor within three (3) months of Final Completion of the Works unless otherwise a longer period is agreed to between the Engineer-in-Charge and the Contractor. No further claims shall be made by the Contractor after submission of the Final Bill and these shall be deemed to have been waived and extinguished.

8.14. DISCHARGE OF OWNER'S LIABILITY

(i). The acceptance by the Contractor of any amount paid by the Owner to Contractor in respect of the Final Bill of the Contractor in settlement of all said dues to the Contractor under the Final Bill shall, without prejudice to the claims of the Contractor included in the Final Bill in accordance with the provisions of clause 8.10(iii) above, be deemed to be in full and final satisfaction of all such dues to the Contractor notwithstanding any qualifying remarks, protest or condition imposed or purported to be imposed by the Contractor relative to the acceptance of such payment, with the intent that upon acceptance by the Contractor of any payment made as aforesaid, the contract (including the arbitration clause) shall stand discharged and extinguished insofar as relates to and/or concerns the entitlements of the Contractor under the Contract except for the Contractor's right, if any, to receive payment in respect of its notified claims included in its Final Bill and the right to receive payment of the unadjusted balance of the CPS in accordance with the provisions of Clause 8.14(iii) below on successful completion of the Defect Liability Period. But nothing herein statedshall affect the Contractor's undischarged liabilities and obligations under the Contract.

(ii). The acceptance by the Contractor of any amount paid by the Owner to the Contractor in respect of the notified claims of the Contractor included in the Final Bill, in settlement of the claims of the Contractor, shall be deemed to be in full and final settlement of all claims of the Contractor notwithstanding any qualifying remarks, protest or condition imposed or purported to be imposed by the Contractor relative to the acceptance of such payment made as aforesaid with the intent that upon acceptance by the Contractor of any payment made as aforesaid, the Contract shall stand discharged and extinguished insofar as relates to and/or concerns the claims of the Contractor except for the Contractor's rights to receive payments of the unadjusted balance, if any, of the CPS in accordance with clause 8.14(iii) below on successful completion of the Defect Liability Period. But nothing herein stated shall affect the Contractor's undischarged liabilities and obligations under the Contract.

(iii). Notwithstanding anything provided in Clause 8.14(i) and/or Clause 8.14(ii) below, the Contractor shall be and remain liable for Defects in terms of Clause 5.20 and associated clause thereunder and for any indemnity to the Owner in terms of Clause 8.15(ii) and

Page 883 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

shall be and remain entitled to receive the unadjusted balance of the CPS remaining in the hands of the Owner in terms of Clause 8.15(iv) hereof and associated clauses thereunder.

8.15. FINAL CERTIFICATE

(i). Forthwith on the Contractor's application made after the expiry of the Defect Liability Period provided for in Clause 5.20 above and associated clauses thereunder and satisfaction of all liabilities of the Contractor in respect thereof, the Engineer-in-Charge shall issue a Final Certificate to the Contractor certifying that the Contractor has performed its obligations in respect of the Defect Liability Period in accordance with the provisions of the Contract and associated clauses thereunder, and until issue of such Final Certificate, the Contractor shall be deemed not to have performed such liabilities notwithstanding issue of the Completion Certificate or payment of the Final Bill by the Owner.

(ii). Upon submission of application for grant of the Final Certificate, the Contractor shall be deemed to have:

(a) warranted that it had been fully paid and satisfied all claims for or arising out of the Work, labour, Materials, supplies and equipment used in or connected with the Contract and all other liabilities whatsoever touching or affecting the Contract, or its performance, including in relation to sub-contractors and suppliers, and

(b) undertaken to indemnify and keep indemnified the Owner/Consultant from and against all claims, demands, debts, liens, obligations and liabilities whatsoever arising therefrom or relating thereto.

(iii). Upon issue of the Final Certificate, the Contractor shall be deemed to have released, acquitted and discharged the Owner from and against all claims (known or unknown), liens, demands or causes of action of any kind whatsoever arising out of or relating to the Contract.

(iv). Forthwith on application made by the Contractor in this behalf accompanied by the Final Certificate, or within 12 (twelve) Weeks of the Owner passing the Contractor's Final Bill, whichever shall be later, the Owner shall cancel and return to the Contractor all previous bank guarantees remaining unutilised in the hands of the Owner, and upon such cancellation and return, the Owner shall stand discharged of all obligations/liabilities under the Contract provided that the cancellation and return of CPS shall be subject to the Contractor replacing such CPS witha bank guarantee from any Indian bank acceptable to the Owner and recognised as scheduled commercial bank by Reserve Bank of India in a format acceptable to the Owner covering 5% (five percent) of the value (as determined by the Owner) ofequipment/Works/Materials replaced or repaired during the Defect Liability Period forthe unexpired term of defect liability in respect thereof plus a 12 (twelve) months claimperiod.

(v). No release/payment of any unadjusted balance of the CPS by the Owner to the Contractor as aforesaid or otherwise shall be deemed or treated as a waiver of any right(s) or claim(s) of the Owner or shall stop or prevent the Owner from thereafter

making or enforcing any claim or any rights against the Contractor with the intent that the claims of the Owner, against the Contractor shall continue to survive and shall not get extinguished notwithstanding the issue of Final Certificate and/or the release of CPS to the Contractor.

Page 885 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

9. SECTION IX – SAFETY RULES AND REGULATIONS

The Contractor shall comply and ensure that all its Sub-Contractors comply with the provisions related to safety rules and regulations set out in this GCC in performing its obligations under the Contract.

Page 886 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

10. SECTION X – MISCELLANEOUS

10.1. LIMITATION OF LIABILITY

(i). Unless otherwise stated in the main SCC, the aggregate liability of the Contractor to Owner under the Contract shall not exceed the total Contract Price, except that this Clause shall not limit the liability of the Contractor for following:

i. any liability pursuant to Contractor's breach of any Applicable Law;

ii. any loss resulting from fraud, intentional or wilful misconduct or illegal or unlawful acts, or gross negligence or omissions of the Contractor or its Affiliates or any Sub-contractor or any supplier or any of its or their respective officers, directors, employees, servants or agents or any other person acting on behalf of the Contractor; or

iii. any liability to rectify, repair, restore or replace any Materials and/or Works or deficiencies therein in terms of the Contract; or

iv. In the event of any claim or loss or damage arising out of infringement of Intellectual Property; or

v. For any damage to any third party, including death or injury of any third party caused by the Contractor or any person or firm acting on behalf of the Contractor in executing the Works; or

vi. Any liability pursuant to the Contractor's indemnity obligations under the Contract; or

vii. Contractor's liability for Price adjustment for utility consumption beyond the Guaranteed Values set out in the Bidding Documents.

Provided always that such limitation shall exclude any amounts recovered under any policy(ies) of insurance taken out and/or maintained by the Contractor pursuant to the provisions of the Contract.

(ii). Neither Party shall be liable to the other Party for any kind of indirect or consequential loss or damage including, loss of use, loss of profit, loss of any contract, loss of production or business interruption which is connected with any claim arising under the Contract.

10.2. LIENS

(i). If at any time, there should be evidence of any lien or claim for which the Owner might have become liable and which is chargeable to or liability of the Contractor, the Owner shall have the right to retain out of any payment then due or thereafter to become due an amount sufficient to completely indemnify the Owner against such lien or claim and if such lien or claim be valid the Owner may pay and discharge the same and deduct the amount so paid from any money which may be or may become due and payable to the Contractor. If any lien or claim remains unsettled after all payments are made, the Contractor shall refund or pay to the Owner all moneys that the Owner may be

Page 887 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

compelled to pay discharging such lien or claim including all costs and reasonable expenses.

(ii). The Owner shall have general lien over all tools, equipment, machinery and Materials etc. belonging to the Contractor and used for the purpose of performing its obligations under this Contract for any amount due from the Contractor to the Owner on any account. The Owner shall have a general lien, over any amount payable to the Contractor on any account whether presently due or not, for any amount due from the Contractor to the Owner on any account whatsoever including under any previous jobs/contracts and Owner shall have full right for adjustments/ appropriation of such amounts without notice to the Contractor.

(iii). The final payment shall not become due until the Contractor delivers to the Engineer-In-Charge a complete release or waiver of all lien arising or which may arise out of its agreement or receipt in full certification by the Contractor in a form approved by the Engineer-In-Charge that all invoices for labour, Materials, Services have been paid in lien thereof and if required by the Engineer-In-Charge in any case an affidavit that so far as the Contractor has knowledge or information the releases and receipts include allthe labour and Material for which a lien could be filled.

(iv). The Owner may deduct/set-off any sums which are receivable by the Owner, from the Contractor from any amount payable to the Contractor, under this Contract and/or any other contract entered into between the Owner and the Contractor whether for Works mentioned herein or for any other purpose, without double counting. Nothing in this Clause 10.2 shall affect the rights of the Owner to recover from the Contractor, the whole of the unpaid amount or any balance that remains receivable after any such deduction / set-off.

(v). Contractor will indemnify and hold the Owner harmless, for a period of 2 (two) years after the issue of final Certificate, from all liens and other encumbrances against the Owner on account of debts or claims alleged to be due from the Contractor or its Sub-Contractor to any person including subdue from the Contractor or its sub-Contractor to any person including sub or litigation in connection therewith. Contractor shall defend or contest at its own expense any fresh claim or litigation brought against the Owner or the Contractor by any persons including its Sub-Contractor, till its satisfactory settlement even after the expiry of two years from the date of issue of final Certificate.

10.3. CHANGES IN CONSTITUTION

(i) Where the Contractor is a partnership firm, prior approval, in writing, of the Owner shall be obtained before any change is made in the constitution of the firm. Where the Contractor is an individual or a Hindu undivided family business concern, such approval as aforesaid, shall likewise be obtained before such Contractor enters into any partnership firm with other parties, where under the reconstituted firm would have the right to carry out the Works hereby undertaken by the Contractor. In either case if prior approval as aforesaid is not obtained, the Contract shall be deemed to have been assigned in contravention of Clause 5.13 above and the same action may be taken, and the same consequence shall ensue as provided in the said clause.

(ii) In the event, the Contractor is a company existing under the Companies Act, 2013 or equivalent laws of a foreign country (as the case maybe), any change in Control of the

Contractor shall be subject to prior approval of the Owner. For the avoidance of doubt, such consent shall not be unreasonably withheld.

10.4. EMPLOYEES OF THE OWNER NOT INDIVIDUALLY LIABLE

No Director, or Official or employee of the Owner shall be in any way personally bound or liable to the Contractor for the acts or obligations of the Owner under the Contract or personally answerable for any default or omission in the observance or performance or performance of any of the acts, matters or things which are herein contained.

10.5. OWNER NOT BOUND BY PERSONAL REPRESENTATION

The Schedule of Rates or the Contract Price as accepted by Owner shall be firm unless otherwise agreed in writing between Owner and Contractor. The Contractor shall not be entitled to any increase in the rate(s) mentioned in the Schedule of Prices or any other payment, right, benefit or claim whatsoever by reason of any representation, explanation or statement or alleged representation, promise or guarantees given or alleged to have been given to it by any person by the Engineer-in-Charge, PMC or any other agent or consultant of the Owner, nor shall any director, officer or other employees or the Engineer-in-Charge, PMC or agent or consultant of the Owner be personally liable for or in respect of any representation, explanation, statement or assurance or understanding given or alleged to have been given by it to the Contractor or any other person relative to the contract, nor shall the Owner be responsible in respect thereof unless amendment to the Contract is formally executed to give effect to such revision in the Schedule of Rates or the Contract Price.

10.6. INDEMNIFICATION AND INSURANCE

10.6.1 The Contractor shall at all times indemnify and keep indemnified the Owner and its officers, servants, agents from and against all third party claims whatsoever (including but not limited to property loss and damage, personal accident, injury or death of/or to property or person of any Sub-Contractor and/or the servants/agents of the Contractor or any Sub-Contractor(s) and/or the Owner) arising out of any act or omission of the Contractor. The Contractor shall at its own cost and initiative at all times upto the successful conclusion of the Defect Liability Period specified in Clause 5.20.1 above take out and maintain all insurable liabilities under this Clause 10.6.1, including but not limited to third party insurance and liabilities under the Motor Vehicles Act, Worker's Compensation Act, Fatal Accidents Act, Personal Injuries Insurance Act, Emergency Risk Insurance Act and/or other Applicable Laws from time to time in force in India with Insurance Company(ies) approved by the Owner, and such policy(ies) shall be of not lesser limit then the limits hereunder specified with reference to the matters hereunder specified, namely

a) Workmen's Compensation Insurance to the limit to which compensation may be payable under the Applicable Laws.

b) Third party insurance for body injury and property damage to the limit as per Applicable Laws but not less than INR 10,00,000/- (Indian Rupees Ten Lakh only) in each accident at each job site and to a limit of not less than INR 1,00,00,000/- (Indian Rupees One Crore only) for all accidents at all Job Sites. Provided that the limits specified above shall operate only as a specification of minimum

Page 889 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

limits for insurance purposes, but shall not in any manner limit the Contractor's liability in terms of this clause or otherwise to the limit(s) specified.

10.6.1.1 Should the Contractor fail to take out and/or keep afoot insurance as provided for in the foregoing clause the Owner shall be entitled (but without obligation to do so) to take out and/or keep afoot such insurance at the cost and expense of the Contractor, and without prejudice to any other rights or remedies of the Owner in this behalf, to deduct the sum(s) incurred therefore from any amounts howsoever becoming payable to the Contractor.

10.6.2 In addition, the Contractor shall protect, defend, indemnify and hold the Owner and its officers, servants, agents harmless from and against:

(a) any and all losses arising directly or indirectly from or incurred by reason of the acts or omissions of the Contractor, its Affiliates, Sub-Contractors or Suppliers or any of the irrespective officers, directors, employees, servants or agents in the performance of Contractor's obligations under this Contract, whether or not resulting from any Defect in or condition of the premises on which the Works are or are to be performed, or any equipment thereon or any Materials furnished by Owner, including any losses arising from or in respect of or in consequence of any illness, accident or injury to any employees, directors, servants or agents of the Contractor, its Affiliates, Sub-Contractors or suppliers;

(b) any and all losses, arising directly or indirectly from or incurred by reason of claims or sanctions or penalties imposed by any Government Authorities or others for any actual or asserted failure by the Contractor or its Affiliates, Sub-Contractors or suppliers or any of their respective officers, directors, employees, servants or agents to comply with any Applicable Law or applicable consent(s), sanction(s) and/or authorization(s) or with any rules or regulations applicable to it or them or to obtain or maintain any such consent, sanction or authorization. Any and all losses, arising directly or indirectly from or incurred by reason of any failure of Contractor or any Sub-Contractor or supplier (i) to pay any taxes relating to income or any other taxes required to be paid by such person (ii) to pay any amounts in respect of taxes which are to be paid by such person in connection with the performance of its obligations relating to this Contract or (iii) to file tax returns as required by Applicable Laws or comply with reporting or filing requirements under Applicable Law relating to taxes or (iv) arising directly or indirectly from or incurred by reason of any misrepresentation by or on behalf of such person to any competent authority in respect of taxes (nothing in this Clause 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 bonafide and made in good faith); and

(c) any and all losses arising directly or indirectly from or incurred by reason of hazardous Materials introduced to the Job Site or Works or any other location by the Contractor, its Affiliates, Sub-Contractors or suppliers or its or their agents in or in connection with the performance of the Contract.

10.6.3 Effect of Insurance:

Page 890 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

The obligations of the Contractor to indemnify and hold harmless the Owner shall not be limited or reduced by any insurance provided under the Contract, provided always that the proceeds of any such insurance in the first instance be applied to meet the obligations of the Contractor under the relative indemnity(ies).

10.7. ACCIDENTS AND DAMAGE

(i). The Contractor shall take due precaution to avoid damages to any pipelines, railway lines, roads, canals, cables, culverts, bridges, drains, sewer, telegraph and telephone lines, water mains, dykes, poles, pillars, fences, wires, supports and embankments and other underground or over ground Works, structural or other constructions whatsoever and shall at its own cost and initiative forthwith restore and repair any damage thereto to the satisfaction of Owner and/or the person or relevant Government Authority relative to the line, pipe or other Works, construction of installation as the case may be.

(ii). The Contractor shall be responsible, at its own cost in and relative to performance of the Work(s) and the Contract, to observe and to ensure observance by its Sub-Contractor's agents and servants, of the provisions of the safety code set out in the Contract and all fire, safety and security instructions and regulations as may be prescribed by the Owner, Government Authority authorised to issue such instructions or regulations, from time to time and such other precautions and measures as may be required in compliance with Applicable Law and Applicable Permits. The Contract shall and further shall ensure that its Sub-Contractors employ/deploy all equipment necessary to protect all Works, Materials, properties, structures, equipment, installations, communications and facilities from damage, loss or other hazard whatsoever (including fire, collision or explosion) and shall during construction and other operations, minimise the disturbance and inconvenience to the Owner, shipping, transportation, the public and the adjoining land to the Site and property of the Owner and occupiers, and crops, trees and vegetation.

(iii). The Contractor shall indemnify, defend and keep indemnified the Owner from any and all Losses which the Owner may suffer due to this Contract or become liable to pay, as the case may be, by virtue of any loss, alteration, displacement, disturbance or destruction or accident to any vessel, Works, Material, property, structure, equipment, installation, communication and facility and land and property of the Owner and occupiers and crops, trees and vegetation as aforesaid, with the intent that the Contractor shall be exclusively responsible for any accident, loss, damage, alteration, displacement, disturbance or destruction as aforesaid directly or indirectly from any breach by the Contractor of its obligations aforesaid or upon any operation, act or omission of the Contractor, its Sub-Contractor(s) or its or their agent(s) or servant(s).

10.8. PATENT INDEMNIFICATION

(i). The Contractor undertakes that all equipment, machinery, instruments and Materials used or supplied by the Contractor or methods or processes practiced or employed by the Contractor in the Works shall not be covered by any third-party patent, design or other rights, with the intent that the Owner shall be entitled to the unfettered use of and right to the same and any subsequent Works in which the same are incorporated without any third party right, claim or entitlement.

Page 891 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

With respect to any Sub-Contract entered into by Contractor pursuant to the provisions of the relevant clause thereof, the Contractor shall obtain from the Sub-Contractor an undertaking to provide the Owner with the same patent protection that Contractor is required to provide under the provisions of this clause.

(ii). If any equipment, machinery, instruments and/or Materials, used or supplied by the Contractor, or methods or processes practiced or employed by the Contractor in the performance of this Contract or resultant Works, is/are covered by a patent, design or other rights under which the Contractor, is not licensed, the Contractor shall before supplying or installing or using or employing or practicing the same obtain such license(s) and pay such royalty(ies) and license fees as may be necessary in connection with the performance of this Contract. In the event that the Contractor fails to pay such royalty or obtain such license, the Contractor shall defend at its own expense, any suit for infringement of patent, design or other right which is brought against the Contractor and/or the Owner as a result of the failure, and shall pay any damages and costs awarded in such suit and shall keep the Owner indemnified from and against all other consequences thereof, including (but not limited to) the costs incurred by the Owner relative to such proceedings and in obtaining legal advice or opinion(s) relative to such proceedings, and shall perform all remedial and consequent Works as shall be necessary, and the provision of Clause 10.8(iii) below shall mutatis mutandis apply.

(iii). Elimination of infringement:

In the event, the Contractor acquires any knowledge or information of any patent, design or information or other right in respect of which a claim for infringement of patent, design or other right could be brought involving any equipment, machinery, instrument or Materials used or supplied by the Contractor or methods or processes practiced or employed by the Contractor in the performance of the contractual Works, the Contractor shall forthwith notify the Owner in respect thereof and shall, at its own cost and initiative take such steps as shall be necessary to procure the relative rights or licenses, or compound the relative claims, and/or shall at its own cost and initiative re-design, re- fabricate, re-supply, re-place and/or install, as the case may by alternative systems and Works necessary to avoid such patent, design or other rights within the Contractor's Scope of Work and within the time for completion in this behalf prescribed in the Contract Documents, without entitlement to any additional remuneration in respect thereof. The Contractor shall indemnify, hold harmless and keep indemnified the Owner from and against all losses in this regard, except in case of any infringement or claim relating to the patent, design information or other right arising out of Work done or performed or Materials supplied strictly in accordance with the process design provided by the Process Licensor within the exclusive scope of the Process Licensor.

10.9. CONFIDENTIALITY

(i). Contractor's Confidential Information

It is not the Owner's desire to be afforded access to Contractor's or any Sub Contractor's confidential information. It is therefore agreed that unless specifically agreed, any information which the Contractor, Sub Contractors, or its suppliers provide to the Owner and/or Consultant shall not be subject to any obligation of confidence, notwithstanding any notices or declaration on drawing, proposals, graphs, tables, specifications and the like to the contrary and the Owner shall not be liable for any use

or disclosure of any such information. The Contractor also agrees that unless specifically agreed between the Owner and the Contractor, the Contractor will not disclose to the Owner any information which is subject to an obligation of confidence by the Contractor or, any Sub Contractor to any third person.

(ii). Contractor's Obligation to Maintain Confidentiality

The Contractor and its employees, agents and Sub-Contractors and employees and agents of the Sub-Contractors shall treat as strictly confidential and shall take all steps necessary to ensure confidential handling of all maps, Plans, charts, designs, Drawings, photographs, data, reports, tests, Specifications, methods and other information developed or acquired by the Contractor from or by means of the Tender Documents or any facility extended to the Contractor pursuant thereto or the award or performance of the Contract or any of them or otherwise disclosed or made available to the Contractor or any aforesaid persons. Without prejudice to the generality of the foregoing, the Contractor, its Sub-Contractor(s) and their respective employees and agents shall not report, disclose or reproduce the same in any book, article, speech or other publications, provided always that, the Owner may, upon application by the Contractor to the Owner in this behalf, permit report, disclosure or reproduction of the same in any book, article, speech or the publications if it is satisfied that this would not involve the disclosure of any classified or other proprietary information or such disclosure would not be in the interest of public or security.

Application for such consent shall be submitted to the Owner in writing outlining the intended use of the relative material and shall be submitted to the Owner at least one month prior to the expected use accompanied by the text of the relative publication in which it is sought to be used. Photographs should be accompanied by their caption. An application shall not be understood to have been permitted unless expressly permitted in writing by the Owner. The provisions of this Clause shall survive the termination of this Contract.

(iii). All drawings, blue prints, tracings, reproducible, models, plans, specification and copies thereof, furnished by the Owner as well as drawings, tracings, reproducible, plans specifications, design, calculations etc. prepared by the Contractor for the purpose of execution of Works covered in or connected with this contract shall be the property of Owner and shall not be used for any other Work but are to be delivered to the Owner at the Completion of the Contract.

(iv). *Ownership of Designs and Drawings:* All designs, drawings, specifications, data, computer printouts, programs and files, documents, reports, studies, manuals, programs, analyses and all other items including copies and originals thereof, produced by Contractor or Sub-Contractors in the performance of the Work, shall become and remain the property of Owner, and Contractor shall deliver the same (properly sorted and indexed), to Owner in accordance with the provisions of this Contract and in any event before issue of Completion Certificate or earlier termination of this Contract. The provisions of this Clause 10.9 shall survive any termination of this Contract.

10.10. MATERIALS OBTAINED FROM DISMANTLING

Any Material obtained by the Contractor consequent upon dismantling of any building, structure or construction whatsoever at the Job Site other than any building, structure or construction

Page 893 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

dismantled by the Contractor pursuant to the Contractor's liabilities for Defects as elsewhere herein provided, shall be the exclusive property of the Owner. Dismantled Materials to be properly stored or transported to designated location as per the instructions of Engineer-in-charge.

10.11. ARTICLES OF VALUE FOUND

All gold, silver and other minerals of any description and all precious stones, coin, treasure, relics, antiquities, natural wealth and other similar things which shall be found in under or upon Site, shall be the property of Owner and Contractor shall duly preserve the same to the satisfaction of the Engineer-in-Charge and shall from time to time deliver the same to such person or persons indicated by Owner.

10.12. NON-WAIVER OF DEFAULT

The failure of either Party to enforce, in any one or more instances at any time or for any period of time, the performance of any of the terms, covenants or conditions of this Contract, shall not be construed to be a waiver or a relinquishment of any right or claim granted or arising hereunder or of the future performance of any such term, covenant, or condition, and such failure shall in no way affect the validity of this Contract or the rights and obligations of the Parties hereto. The Parties acknowledge that a waiver of any term or provision hereof may only be given by a written instrument executed by each Party hereto.

10.13. SEVERABILITY

In the event that any of the provisions of this Contract are construed as being null and void by court of competent jurisdiction, Parties shall mutually agree upon a reasonable adjustment in such provisions of this Contract with a view towards effecting the purpose of such provisions and the remaining provisions shall be regarded as being in full force and effect.

10.14. PUBLICITY

(i). No publicity releases (including news releases and advertising) relating to this Contract and the Work / Services/ Supply shall be issued by Contractor without the prior written approval of Owner. Any inquiry which Contractor may receive from news media concerning this Contract shall be referred to the Owner for coordination prior to response.

(ii). Any paper, article, publication, or announcement of advances generated in connection with the Services during the period of performance of the Contract or in the future, shall require Owner's prior written approval.

10.15. EXCLUSION OF THE GOVT. OF INDIA'S LIABILITY

(i). It is expressly understood and agreed by and between the Contractor and the Owner that the Owner will enter into this Contract solely on its own behalf and not on behalf of any other person or entity. In particular it is expressly understood and agreed that the Government of India is not party to this Contract and will have no liabilities, obligation or right whatsoever hereunder. It is expressly understood and agreed that the Owner is an independent legal entity with power and authority to enter into this Contract solely on its own behalf under the Applicable Laws of India and general

principles of contract law. The Contractor expressly agrees, acknowledges and undertakes that the Owner is not an agent, representative or delegate of the Government of India and that of the Government of India is not and shall not be liable for any act, omission, commission breach or other wrong arising out of this Contract.

(ii). Contractor hereby expressly waives, releases and forgoes any and any actions or claims, including cross claims, impleader claims or counter claims, against the Government of India arising out of this Contract and covenants not to sue the Government of India for any manner of claim, cause of action or thing whatsoever arising out of or under this Contract.

10.16. DEVELOPMENT OF MSE

The Contractor is encouraged to promote micro and small enterprises (MSE) by considering MSE sub-suppliers/ Sub-Contractors to the extent possible under the Contract. The Contractor shall provide periodic report to the Owner on purchase of Material / services from MSE vendors.

10.17. MISCELLANEOUS:

(i). COMPLIANCE OF GOVERNMENT SOCIAL SECURITY SCHEMES:

(a) The Contractor shall ensure that the workers employed by the Contractor, directly or indirectly, through the Sub-Contractors, or by an agent on its behalf to do any skilled, semiskilled. or unskilled manual, supervisory, technical or clerical Work are covered under Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) and Pradhan Mantri Suraksha Bima Yojana (PMSBY) insurance schemes of the Government of India.

(b) The Contractor shall take necessary measures in facilitating enrolment of its labour / personnel deployed by it for this Contract under the PMSBY and PMJJBY through the participating banks. The cost of insurance premium amount for enrolment / renewal under both the schemes shall be borne by the Contractor. The Contractor shall submit the following documentary proofs to the Owner in this regard:

(i) proof of annual enrolment and renewal in respect of the Contractor's Personnel its labour/personnel towards PSMBY and PMJJBY.

(ii) proof of payment to labour/personnel saving account with respect to the Contractor's Personnel.

(ii). RENTS AND ROYALTIES

(a) Unless otherwise specified, the Contractor shall pay all tonnage and other royalties, rents and other payments or compensation (if any) for getting stone, sand, gravel, clay, bricks or other Materials required for the Works or any Temporary Works and the price quoted shall be deemed to be inclusive of such payment.

(b) The Contract Price shall include the royalty on different applicable items as per the prevailing State Government rates.

(iii). UTLISATION OF LOCAL RESOURCES

(a) The Contractor shall ascertain the availability of local Sub-Contractor's and skilled/unskilled manpower and engage them as its Sub-Contractor to the extent possible for performance of the Works.

(b) The Contractor shall not recruit personnel of any category from among those who are already employed by the other agencies / other contractors working at the Site but shall make maximum use of local labour available for performingits obligations under this Contract.

(iv). OBSERVANCE OF ENVIRONMENTAL REGULATIONS AND ENVIRONMENTAL PROTECTION.

(a) The Contractor shall ensure that its servants and agents and Sub-Contractors and their servants and agents shall duly comply with all environmental laws, rules and regulations and the conditions of any permit, permission, consent and/or no-objection granted in this behalf by any authority with respect to or concerning the Work, and shall independently so organise and conduct its operations and cause its sub-contractors to so organise and conduct their operations as not to cause any hazard or pollution to health, life, property or environment including (but not limited to) discharge of any noxious substance or effluent into the atmosphere or into the earth or into any drain, canal, stream, river, pond, lake or other water body.

(b) The Contractor shall indemnify and keep indemnified the Owner from and against the breach, non-observance, infraction or dereliction of any of the provisions of Clause 10.17(iv)(a) above, and against any and all claims, actions or proceedings, prosecutions and liabilities, and losses and damages, and costs (including legal costs), charges and expenses whatsoever suffered or incurred or instituted against the Owner as the case maybe.

(v). STATUTORY APPROVALS

(a) Unless otherwise specified, it shall be the Contractor's sole responsibility to obtain all Applicable Permits (including statutory approvals) (except for environment clearance) required under with respect to performance of its obligations under this Contract and/or the contractual Work (as defined in Contractor's scope under Technical Scope of Work). The application on behalf of the Owner for submission to relevant Government Authorities along with copies of required certificates complete in all respects shall be prepared and submitted by the Contractor well ahead of time so that the actual construction/ Commissioning of the Works is not delayed for want of the approval/inspection by the concerned Government Authorities. The Contractor shall arrange for the inspection of the Works by the Government Authorities and will undertake necessary coordination and liaison required and shall not been titled to any extension of time for any delay in obtaining such Applicable Permits.

(b) Any deficiency(ies) as pointed out by any Government Authority shall be rectified by the Contractor within the scope of relative supply and/or Work at

its sole cost and expense without any recourse to the Owner. The inspection and acceptance of the Works by such Government Authorities shall, however, not absolve the Contractor from any of its responsibilities under this Contract.

(c) statutory approval of Oil Industry Safety Director (OISD) is also required to be taken by the Contractor and any deficiency(ies) as pointed out by internal, third party and OISD audit team shall be rectified by the Contractor within the scope of relative supply and/or Work at its sole cost and expense without any recourse to the Owner.

(d) No extension of time shall be granted for meeting the requirement and/or obtaining Applicable Permits applicable for executing Works under this Contract.

(e) Statutory fees paid, if any, for all such inspections by Government Authorities and Applicable Permits shall be deemed to be included in the quoted prices of the Contractor in its Bid, if not specified otherwise.

(vi). Conflicts of Interest; Commission Payments:

The Contractor represents and agrees that it has not paid any commission, fee, or other compensation, incentive, bribe or gratification for procuring this Contract and that no person or entity 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 payments to bona fide employees of Contractor or bonafide commercial agencies maintained by Contractor in connection with Contractor's business. Contractor further represents that neither it nor any of its Affiliates nor any of its Sub-Contractors nor any of their Affiliates nor any of their respective officers, directors, employees, Consultants or agents have made, received, provided or offered any such commission, fee or compensation. Contractor agrees that neither it nor any such other entity or person shall make, receive, provide or offer, any gift, entertainment, payment or other consideration for the purpose of influencing the procurement of any contract or otherwise for the purpose of influencing any individual or organization to any course of conduct in any way relating to or affecting this Contract or any other contract contemplated within the Scope of Work, except for incentive payments by Contractor to Sub-Contractors in connection with the performance of the Work. Breach of the foregoing warranties agreements shall constitute a material breach of this Contract and shall give Owner the immediate right to terminate this Contract pursuant to Clause 7.2 hereof**.**

(vii). Miscellaneous

(a) Independent Contractor: Contractor is an independent Contractor under this Contract and shall have complete charge of all personnel performing any Work under this Contract. 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. Contractor shall not be deemed an agent of Owner for any purpose pursuant to this Contract.

(b) As per the guidelines issued by Central Vigilance Commission, the Contractor shall maintain the hindrance register for each functional area of the Site during the subsistence of the Contract in accordance with the Applicable Law.

(viii). Assignment

(a) Except as herein after provided the Contract shall not be assigned by either Party without the prior written consent of the other Party, except that it may be assigned without such consent to a person, firm or company acquiring all or substantially all the business and assets of such Party. No assignment of this Contract shall be valid until and unless the obligations of the assignor shall have been assumed by the assignee, except this Contract may be assigned by Contractor to any Affiliate acceptable to the Owner (which acceptance shall be issued in writing prior to such assignment) as competent and capable to perform the Work assigned.

(b) All assignments shall be in terms so as not to prejudice the confidentiality obligations of the Parties.

(ix). Entire Contract

This Contract and all other Tender Documents together constitute a completed and exclusive statement of the terms of the agreement between the Parties on the subject hereof and the Parties declare that in entering this Contract they do not rely upon any previous representation, whether express or implied and whether written or oral, or any inducement, understanding or agreement of any kind not included within this Contract and all prior negotiations, representation, contract and/ or agreements and understandings with respect to subject matter of this Contract are hereby abrogated and withdrawn.

(x). Language

All communications and correspondence in the performance of this Contract shall be in the English language.

(xi). Metric System:

Except as otherwise may be provided in this Contract, 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 Sub-Contractors' documents to be expressed in the metric system.

(xii). Relationship

(a) No provision of this Contract shall be deemed to constitute a partnership or joint venture between the Parties.

(b) No provision of this Contract shall constitute either Party as the legal representative or agent of the other, nor shall either Party have the right or

authority to assume, create or incur any liability or any obligation of any kind, express or implied, against, or in the name of, or on behalf of the other Party.

(c) No person employed by either Party for the performance of its obligations under the Contract shall be deemed to be an employee of the other Party. Each Party shall be responsible for the payment of all salaries, employment benefits, etc. with respect to all persons who are engaged by it for the performance of any obligations under the Contract and such person shall not be entitled to any salary benefit or any other claim whatsoever from or against the other Party. Each Party shall indemnify the other against any such claims made by any such person to or against the other Party.

(xiii). Survival

The provisions of Clause 4.4 (PRICE ADJUSTMENT FOR DELAY IN COMPLETION), Clause 5.20 (DEFECTS LIABILITY), Clause 6.6 (CONTRACTOR'S GUARANTEES); Clause 8.11 (TAXES, DUTIES, LEVIES ETC), Clause 10.6 (INDEMNIFICATION), Clause 10.8 (PATENT INDEMNIFICATION), Clause 10.9 (CONFIDENTIALITY), Clause 10.15 (PUBLICITY), Clause 10.17(xii) (RELATIONSHIP) Clause 10.17(xiii) (SURVIVAL) and Clause 11.8 (SETTLEMENT OF DISPUTES), shall survive termination of the Contract.

(xiv). Set-off: Notwithstanding any other provision hereof relating to rights of set off or deduction, Owner may, but shall not be under any obligation, at any time to set off any and all sums due from Owner to Contractor against sums claimed by Owner from Contractor hereunder. Contractor may not at any time set off sums payable by it to Owner under this Contract.

(xv). No Engineer of Gazetted rank or other Gazetted Officer, employed in Engineering or administrative duties in Engineering Department of the State/Central Government or of the OWNER/Consultant of owner is allowed to Work as a Contractor for a period of two (2) years after his retirement or resignation from Government Service or from the employment of the OWNER/Consultant of owner without the previous permission of the OWNER/Consultant. The CONTRACT, if awarded, is liable to be cancelled if eitherthe Contractor or any of his employees is found at any time to be such a person, who had not obtained the permission of the State/Central Government or of the OWNER/Consultant as aforesaid before submission of Tender, or engagement in the CONTRACTOR'S service as the case may be.

Page 899 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

11. SECTION XI – LABOUR LAWS, OTHER REGULATIONS AND ARBITRATION

11.1. LABOUR LAWS

(i). The Contractor shall not engage any labour/ workman/ personnel below the age of eighteen (18) years for due performance of this Contract.

(ii). The Contractor shall not pay its labour/ workman / personnel engaged for execution of Works less than what is provided as per Owner's declared rate for un-skilled, semi-skilled and skilled manpower.

(iii). The Contractor shall pay equal wages for men and women in accordance with labour related Applicable Laws.

(iv). The Contractor shall pay the required deposit under the Contract Labour (Regulation and Abolition) Act, 1970 appropriate to the number of workmen to be employed by it and through Sub-Contractor and get itself registered under the Contract Labour (Regulation and Abolition) Act, 1970. The Contractor shall furnish copy of the certificate or registration granted under the Contract Labour (Regulation and Abolition) Act, 1970 to the Owner before commencement of Work. The Contractor will have to submit daily a list of its employees, who will be entering the Owner's premises for the Workawarded. The Contractor shall also keep its wage register available at all times as closeto the Work site as possible and produce the same for inspection whenever required bythe Owner. If the Owner so desires, a deposit may be taken from the Contractor to be refunded only after the Owner is satisfied that all the workmen employed by the Contractor have been fully paid for the period of Work.

If the Contractor is covered under the Contractor Labour (Regulation and Abolition) Act, it shall obtain a license from a licensing authority (i.e. office of the labour commissioner) by the payment of necessary prescribed fee and the deposit, if any, before starting the Work under the Contract.

(v). Contractor's labour (including Sub-Contractors' labour) shall have no privity with Owner or any owner-employee / master-servant relationship with the Owner. In no event, the Owner shall be considered as principal employer of any labour/ personnel of the Contractor for whom the principal owner for purpose of Contract Labour (Abolition and Regulation) Act be the Contractor.

(vi). The Contractor shall employ labour in sufficient numbers directly or through its Sub-Contractors to maintain the required rate for progress and of quality for due performance of this Contract.

(vii). The Contractor shall furnish the following details to the satisfaction of the Engineer-In-Charge: (a) monthly details of the accident that occurred at the Site showing the circumstances under which such accident occurred and the extent of damage and injury caused by them; and (b) monthly details of the number of female workers who have been allowed benefits in accordance with the Maternity Benefit Act 1961 and the amount paid to them.

(viii). The Contractor shall comply with the provisions of the applicable labour laws including Code of Wages, 2019, Employers' Liability Act, 1938, Workmen's Compensation Act,

1923, Industrial Disputes Act, 1947, the Maternity Benefit Act, 1961, Contract Labour (Regulation and Abolition) Act, 1970 and Employment of Children Act, 1938 in performing Works under this Contract. The Contractor shall indemnify the Owner against all Losses that the Owner may suffer in relation to non-compliance of the applicable labour laws by the Contractor.

(ix). The Engineer-In-Charge shall on a report having been made by an inspecting officer as defined in Contract Labour (Regulation and Abolition) Act, 1970 have the power to deduct from the money due to the Contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfilment of the conditions the Contract for benefit of workers non-payment of wages or of deductions made from its or their wages which are no justified by the terms of the Contract or non-observance of the said regulations.

(x). The Engineer-In-Charge shall on a report having been made by an inspecting officer as defined in Contract Labour (Regulation and Abolition) Act 1970 have the power to deduct from the money due to the Contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfilment of the conditions of the Contract for benefit of workers, non-payment of wages or of deductions made from wages which are not justified by the terms of the Contract or non-observance of the Contract Labour (Regulation and Abolition) Act 1970.

11.2. IMPLEMENTATION OF APPRENTICES ACT / PROVIDENT FUND ACT

(i). Contractor shall comply with the provisions of the Apprentices Act, 1961 in performing all Works under this Contract. Contractor shall also be liable for any pecuniary liability arising on account of any violation by it of the provision of the Apprentices Act, 1961.

(ii). The Contractor shall fulfil the following requirements:

(a) strictly comply with the provisions of the Employees' Provident Fund and Miscellaneous Provisions Act, 1952;

(b) obtain provident fund registration number from Regional Provident Fund Commissioner (RPFC) and submit the details to the Owner; and

(c) promptly deposit deduction towards provident fund of the eligible contract employees plus the employers' contribution to the RPFC. The Contractor must submit to the Owner a certificate that the provident fund amounts have been paid and shall furnish challan/receipt for the payments made every month. If the certificate and the challan / receipt referred to above are not furnished, the Owner shall deduct 16% (sixteen percent) of the amount of the Contractor's bill and retain it Contractor until production of the certificate and chalan / receipt.

11.3. EMPLOYEES PROVIDENT FUND ACT AND SCHEME

(i). The Contractor agree to cover all the employees engaged by it or through Sub-Contractor under the Employees' Provident Fund Scheme, 1952 and shall submit necessary records to the Owner in proof of compliance.

Page 901 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

(ii). Contractor further agrees to defend, indemnify and hold Owner harmless from any liability or penalty which may be imposed by the Government Authorities by reason of any asserted violation by Contractor or its Sub-Contractor of the provisions of the Employees' Provident Fund and Miscellaneous Provisions Act, 1952 and the schemes thereunder.

11.4. CONTRACTOR TO INDEMNIFY OWNER

(i). The Contractor shall indemnify, hold harmless and keep indemnified the Owner and every member, officer and employees of Owner, also the Engineer-in-Charge and its staff against all actions, proceedings, claims, demands, costs and expenses whatsoever arising out of or in connection with this Contract and all actions, proceedings, claims, demands, costs and expenses which may be made against Owner for or in respect of or arising out of any failure by Contractor in the performance of its obligations under the Contract Document. Owner shall not be liable for or in respect of any demand or compensation payable by law in respect of or in consequence of any accident, death, or injury to any workmen or other person in the employment of Contractor or its Sub-Contractor and Contractor shall indemnify and keep indemnified Owner against all such damages and compensations and against all claims, damages, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

(ii). PAYMENT OF CLAIMS AND DAMAGES

In the event, the Owner pays any amount to the workmen/ personnel engaged by the Contractor and such amount shall be forthwith recovered by way of deduction / set off from the amounts due and payable to the Contractor under this Contract without any demur or protest from the Contractor in this regard.

In every case in which by virtue of the provisions of section 12, sub-section (1) of Workmen's Compensation Act, 1923 or other Applicable Law, the Owner is obliged to pay any compensation to any personnel engaged by the Contractor in execution of Works, the Owner shall forthwith recover from Contractor such paid amounts and without prejudice to the rights of Owner under section 12, sub-section (2) of the Workmen's Compensation Act, 1923. The Owner shall be at liberty to recover such amount or any part thereof by deducting it from the CPS or from any sum due to Contractor whether under this Contract or otherwise as per its sole discretion. For the avoidance of doubt, the Owner shall not be bound to contest any claim made under section 12, sub-section (1) of the said Act, except on written request of Contractor and upon submission of all costs with the Owner as security for which Ownermight become liable in consequence of contesting such claim as determined by the Owner.

(iii). EMPLOYMENT LIABILITY

The Contractor shall be solely and exclusively responsible for employing persons for the execution of Work. All employees engaged by the Contractor shall be on its/their payroll and paid by it / them. All disputes or differences between the Contractor and its/ employees shall be settled by the Contractor. Owner has absolutely no liability whatsoever concerning the employees of the Contractor. The Contractor shall indemnify Owner against any and all Loss arising out of or in the course of its/their employees. The Contractor shall make regular and full payment of wages without giving

Page 902 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

any complaint by any employee of the Contractor or its sub-Contractor regarding non-payment of wages /salaries or other dues. Owner reserves the rights to make such payments directly, to such employees or sub-Contractor of the Contractor and recover the amount in full from the bills of the Contractor, and Contractor shall not claim any compensation or reimbursement thereof. The Contractor shall comply with the Applicable Laws with respect to payment of wages of its employees and also of employees of its Sub-Contractor.

The Contractor shall advise in writing to all its employees and the employees of Sub-Contractor as follows: It is fully understood that your appointment and /or deployment is only in connection with the Contractor and it does not give you any right of claim for employment by the Owner.

11.5. HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS

(i). In respect of all labour directly or indirectly employed in Work for the performance Contractor's part of this Contract, Contractor shall comply with and shall ensure that its sub-contractors comply with all Applicable Laws, Applicable Permits and the rules and regulations issued by the Government Authorities from time to time during subsistence of this Contract including guidelines/regulations framed by the Owner from time to time for the protection of health and sanitary arrangements for all workers and.

(ii). The Contractor shall provide in the labour colony all amenities such as electricity, water and other sanitary and health arrangements in accordance with the Applicable Law and Applicable Permits. The Contractor shall also provide necessary surface transportation to the place of Work and back to the colony for their personnel accommodated in the labour colony.

11.6. CONTRACTOR TO PAY WAGES DIRECT TO ITS LABOURERS

The Contractor shall effect the payment of wages to its labourers directly without the intervention of any intermediary as per the requirements of the Applicable Laws and no amount by way of commission or otherwise shall be deducted or recovered from the wages of the workmen employed the Contractor pursuant to this Contract. In this regard, the Contractor agrees to comply with the minimum wage category wise as per the prevailing rate notified by NRL, if any.

11.7. MEDICAL FITNESS

The Contractor shall employ only medically fit personnel of age limit upto 65 years. The Contractor shall ensure that all its workers including supervisors are medically examined before deployment at the Site.

11.8. SETTLEMENT OF DISPUTES

(i). FOR THE SETTLEMENT OF DISPUTES WITH THE PRIVATE PARTIES

(a) Any disputes, difference or controversy of whatsoever nature howsoever arising under or out of or in relation to the Contract (including its interpretation) between the Parties, and so notified in writing by either Party to the other Party

("**Dispute**") shall, in the first instance, be attempted to be resolved amicably in the following manner:

(i). at the first instance by the Engineer-In-Charge/ Purchase Officer;

(ii). at the second instance by the Chief Executive of NRL (Presently Managing Director) or authorized representatives of Chief Executive of NRL.

(b) If a Dispute is not resolved within 30 (thirty) days after written notice of a Dispute by one Party to the other Party, then the provisions of Clause 11.8(ii) shall apply.

(ii). ARBITRATION

(a) Any Dispute which is not resolved amicably, as provided in Clause 11.8(i), shall be finally decided by reference to arbitration by an arbitral tribunal in accordance with this Clause 11.8(ii). The arbitration proceedings shall be conducted in accordance with the Arbitration and Conciliation Act, 1996. The venue and seat of such arbitration shall be Guwahati, Assam and the language of arbitration proceedings shall be English.

(b) There shall be an arbitral tribunal comprising 3 (three) arbitrators, of whom each Party shall select 1 (one), and the third arbitrator shall be appointed by the two arbitrators so selected, and in the event of disagreement between the two arbitrators, the appointment shall be made in accordance with the Arbitration and Conciliation Act, 1996.

(c) The arbitral tribunal shall make a reasoned award ("**Award**"). Any Award made in any arbitration held pursuant to this Clause 11.8(ii) shall be final and binding on the Parties from the date it is made, and the Contractor and NRL agree and undertake to carry out such Award without delay.

(d) The Contractor and NRL agree that an Award may be enforced against the Contractor and/or NRL, as the case may be, and their respective assets wherever situated.

(e) The Contract and the rights and obligations of the Parties shall remain in full force and effect, pending the Award in any arbitration proceedings hereunder.

(iii). ADJUDICATION BY A TRIBUNAL

In the event of constitution of a statutory tribunal or other forum with powers to adjudicate upon Disputes between the Contractor and NRL, all Disputes arising after such constitution shall, instead of reference to arbitration under Clause 11.8 be adjudicated upon by such tribunal or other forum in accordance with Applicable Laws.

(iv). JURISDICTION

Regardless of the place of contracting, place of performance or otherwise, this Contract shall be governed, construed and interpreted by the laws of India. The courts of

Page 904 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

Guwahati, Assam shall have exclusive jurisdiction in all matters arising out of or in connection with this Contract.

(v). Notwithstanding the existence of any Dispute or arbitration in terms hereof or otherwise, the Contractor shall continue and be bound to continue and perform the Works to Completion in all respects according to the Contract (unless the Contract or Works be determined by the Owner) and the Contractor shall remain liable and bound in all respects under the Contract.

11.9. FOREIGN BIDDERS:

It is mandatory for the foreign bidder to furnish the documents for the compliance to requirement of PAN No, Tax Residency Certificate and Form No.10F (applicable for foreign bidder in case of services in India is required as per scope of bidding document) as per Income Tax Act in case his receipts are subject to tax deduction at source in India:

(a) PAN No.

PAN as per the Indian Income Tax requirements shall be submitted, failing which the Supplier/Contractor/Consultant 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 supplier/contractor/consultant.

(b) Tax Residency Certificate (TRC)

TRC containing prescribed particulars as per the Annexure 5 from the Government of foreign country in order to claim the benefits of DTAA as per the Indian Income Tax requirements shall be submitted, failing which the relief under DTAA will not be available and consequently the actual rate of withholding tax will be applicable and deducted from the payment made to supplier/ contractor/consultant (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.

(c) Form 10F

In additional to TRC, in order to claim the benefits of DTAA, bidder shall also submit additional information in form no. 10F as per Annexure 6. Form 10F has to be signed & verified by the assessee himself.

The above shall be furnished before release of any payment or within one month of the release of Order, whichever is earlier. In case of failure to submit the above information, any additional tax liability on Owner, will be deducted from the payment due to the contractor.

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SPECIAL CONDITIONS OF CONTRACT (SCC)

(PACKAGE TENDER)

FOR

PPU PROJECT

PART-B

CONTENTS

1.0 PREAMBLE TO SCHEDULE OF RATE & PRICE 3
2.0 CONTRACT AND BID PRICE COMPARISON 3
3.0 TAXES AND DUTIES 3
4.0 ON ACCOUNT PAYMENT 8
6.0 LAND, POWER, WATER AND OTHER FACILITIES 11
6.0 MARINE-CUM-ERECTION INSURANCE 12
7.0 FOREST ROYALTY 12

ANNEXURES:

Annexure B- I	Payment Terms
Annexure B- II	Marine Cum Erection Insurance
Annexure B- III	The Assam Gazette

1.0 PREAMBLE TO SCHEDULE OF RATE & PRICE

Refer Preamble to SOP attached with Schedule of price

2.0 CONTRACT AND BID PRICE COMPARISON

Price basis w.r.t inclusion/exclusion of taxes

1. The quoted price(s) shall be inclusive of all the taxes and duties **except** GST (i.e. IGST or CGST and SGST/UTGST applicable in case of interstate supply or intra state supply respectively) and GST compensation cess, (if applicable) leviable on sale of finished goods/services.
2. Prices shall be furnished strictly in the appropriate Schedule of Price Format(s) enclosed with the Bidding Document.
3. Prices quoted by the bidder, shall remain firm and fixed until completion of the contract and would not be subject to any variation, except as otherwise specifically provided in the enquiry document(s).
4. All necessary registrations, if required, for carrying out the site activities shall be done by the bidder and costs towards the same shall be included in quoted prices.
5. Prices of Post Warranty Annual Maintenance Contract (PWAMC), if applicable shall be exclusive of GST.

3.0 TAX CLAUSES

3.1 Goods and Services Tax

a) The Contractor will be liable to register with the respective tax authorities and to submit self-attested copy of such registration certificates and the contractor will be responsible for procurement of goods/services in its own registration (GSTN).

b) Contractor shall be required to issue tax invoice in the form and manner prescribed under GST Act read with Rules thereunder including E- Invoicing provisions so that input tax credit under GST can be availed by Owner. In the event that the contractor fails to provide the Tax Invoice/ E-Invoice in the form and manner prescribed under the GST act read with GST invoicing rules thereunder, Owner shall not be liable to make any payment on account of GST against such invoice.

c) In case supplier/contractor is not subject to E-Invoicing provisions under the GST Laws as amended from time to time, then a declaration to this effect shall be furnished by the supplier/contractor along with the Invoice.

d) GST shall be paid to contractor against receipt of Tax Invoice/E-Invoice and on auto-population of input tax credit on GSTN portal. In case of non-receipt of Tax Invoice/E-Invoice and/or non-auto-population of input tax credit on GSTN portal, Owner shall withhold the payment of GST.

e) The contractor shall always comply with the requirements of applicable laws and provide necessary documents as prescribed under the rules and regulations, as applicable from time to time. In particular, if any tax credit, refund or any other benefit Is denied/delayed to Owner or any interest/penalty is charged to Owner due to any non-compliance/ delayed compliance by the supplier/contractor under the GST Law (including but not limited to failure to upload the details of the sale on GSTN portal, failure to pay GST to the government or due to non-furnishing or furnishing of incorrect or incomplete documents, non-filing of GST return by the

supplier/contractor), the supplier/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. Owner shall be entitled to recover such amount from the supplier/contractor by way of adjustment from the next invoice, encashment of BG or by way of any other means either of same project or any other project of the Owner.

f) In case of any Advance including Mobilization/ Secured/ Other Advance is granted to contractor as per the provisions of Contract, then the contractor shall issue a Receipt Voucher / GST Invoice in the form and manner prescribed under GST Act read with Rules thereunder including e-invoicing provisions.

g) In case of any Price Variation as per the provisions of Contract, the supplier/contractor shall issue an Invoice in the form and manner prescribed under the GST Act read with Rules thereunder including e-invoicing provisions.

h) GST payable under reverse charge for specified services/goods under GST Act read with Rules thereunder, if any, shall not be paid to the contractor but will be directly deposited by Owner to the appropriate Government Tax Authority. If the same has already been reimbursed / paid to the supplier/contractor for any reason whatsoever, then Owner shall be entitled to deduct/set off /recover such amount against any amounts paid/payable by Owner to supplier/contractor.

i) Where Owner has the obligation to discharge GST liability under reverse charge mechanism and Owner has paid or is liable to pay GST to the government on which interest/penalty becomes payable as per GST law for any reason which is not attributable to Owner or Input Tax Credit w.r.t. such payment is not available to Owner for any reason which is not attributable to Owner, then Owner shall be entitled to deduct/set off /recover such amount against any amounts paid/payable by Owner to contractor/supplier.

j) TDS under GST, if applicable shall be deducted from contractor bills at applicable rates and a certificate as per rules for tax so deducted shall be provided to contractor.

k) The contractor will be under obligation for charging correct rate of tax as prescribed under the respective tax laws. Further the contractor shall avail and pass on benefits of all exemptions/concessions available under applicable tax laws.

l) In case bidder is covered under composition scheme under GST law, then bidder shall quote the price inclusive of GST. Further, such bidder should mention "Covered under GST Composition Scheme" in column for GST of relevant price schedule(s). In case subsequently such bidder gets covered under regular GST regime, the prices including GST under regular GST regime shall not exceed the prices quoted by the bidder under composition scheme.

m) Bidder will be required to quote applicable tax rate (along with applicable HSN/SAC Code) as per provisions of GST Laws for all the line items forming part of the enquiry. Any higher rate of tax actually invoiced in excess of quoted rate of tax (except in compliance with provisions of Statutory Variation clauses) shall be adjusted in basic price.

n) In case of delay in execution of contract, contractor shall be liable to raise invoices for reduced value as per Price Reduction Schedule (PRS) provision of the bidding document. In case the contractor raises invoices for full value, then contractor shall issue Credit Note, in the form and manner prescribed under relevant GST Act read with Rules thereunder, towards applicable PRS amount with applicable GST thereon.

In case contractor fails to submit invoices with reduced value or does not issue Credit Note as mentioned above, Owner shall release payment to the contractor after giving

effect to the PRS clause with corresponding reduction in taxes from invoice(s) of contractor.

In case any financial implication arises on Owner due to issuance of invoice without reduction in prices or non-issuance of Credit Note by contractor, the same shall be to the account of contractor. Owner shall be entitled to recover the amount of such financial implication paid or becoming payable by Owner together with penalty and interest thereon, if any.

o) E-way bills shall be issued directly by supplier/contractor in all cases except in cases of direct imports by Owner where E-way bill shall be issued by Owner.

p) In case of applicability of any recovery as per provisions of the contract, Owner shall raise Invoice on contractor after charging GST at applicable rates as per prevailing provisions of GST Laws.

3.2 IMPORT DUTIES

a) Imported supplies by Indian suppliers as built in import content where Contractors will become consignee of the goods or by filling Bill of Entry for Home consumption:

i. Custom duties, Social Welfare Surcharge, IGST, GST Compensation Cess, etc. as applicable in India on the imported materials shall be included in the quoted prices by the bidder (considering the input tax credit of IGST, GST Compensation Cess on imported material) and supplier/contractor shall be responsible for the timely payment of the custom duties to the relevant government authority. All harbor dues/ pilotage fees, port fees, wharfage, unloading costs, demurrage charges etc. incurred in India in respect of any imported goods shall be to contractor's account.

ii. Bidder to indicate, in relevant price schedule, CIF value of built-in import content and applicable merit rate of custom duty, Social Welfare Surcharge on custom duty (considering the input tax credit of IGST, GST Compensation Cess on imported material) included in quoted price, in the price schedule.

iii. In case merit rate of custom duty is applicable and bids are invited on the basis of same, however at a later stage concessional rate of custom duty becomes applicable, concessional certificate shall be issued towards import of material against the advance request letter submitted by the domestic bidder and the differential custom duties between concessional rate and quoted merit rate of custom duty by supplier/contractor shall be passed on to the Owner or it shall be recovered by the Owner from the contractor's invoice.

iv. The supplier/contractor shall be responsible for and shall exercise due diligence in properly classifying the goods and materials, undertaking the payment of custom duties, and/or otherwise complying with all applicable laws w.r.t. import of the goods and materials.

v. If bidder does not furnish built in CIF value and rates of custom duty, in that case bidder shall not be entitled to claim any variation in the custom duties even if bidder has quoted their prices considering custom duties.

vi. If custom duty rate actually paid on import of materials and components is found to be lower than the quoted rate of custom duty, then benefit of the same shall be passed on to the Owner.

vii. If bidder has considered Import Duty other than Merit rate of Import Duty then statutory variation on the Import Duty shall be payable extra on the Merit rate of Import Duty or the rate of Import Duty considered by the bidder, whichever is

lower.

viii. In case, no import is made for execution of the order, clauses related to Imports will not be applicable.

b) General points:

i. In case Owner is exposed to any penal action, interest /penalties by the custom authorities for incorrect declaration and / or valuation of the goods or material by the contractor, or otherwise on account of any breach of applicable laws in the course of the import of the goods and material by contractor, the contractor shall indemnify and hold harmless the Owner for any and all costs, expenses or losses suffered or incurred by Owner in this regard.

ii. If bidder intends to source import of goods from a country with which India has Free Trade Agreement (FTA) or Comprehensive Economic Partnership Agreement (CEPA) or any such multi-lateral / bi-lateral Agreement or Treaty with India or under Generalized System of Preference (GSP); or under any other notification (allowing lower rate of custom duty), then the bidder is advised to ascertain and confirm its applicability along with supporting documents in the bid and ensure that conditions of such agreement/treaty etc. are strictly complied with.

iii. The bidder shall be liable to provide all documentation to ensure availment of the exemption/waiver. In case the bidder defaults on this due to any reason, whatsoever, he shall be liable to bear the incremental custom duty applicable if any.

iv. Any additional custom duty applicability on account of any change in the notification (allowing lower rate of custom duty)/ CEPA/ FTA/ multi-lateral/ bi-lateral trade agreement shall be to bidder's account.

v. Documentation to be furnished for availing the exemption/waiver of custom duty shall be specifically listed in the letter of credit also as a prerequisite for release of payment against shipping documents and this documentation shall necessarily form a part of shipping documents.

vi. Owner will not bear any liability towards payment of Safeguard Duty, Anti-Dumping Duty, Protective Duty and applicable IGST including GST Cess on same or Countervailing Duty on subsidized articles or any other such duties of Customs imposed by Government under Customs Tariff Act, 1975.

3.3 INCOME TAX

a) Indian resident supervisors/ contractors

Prices for supply and services of Indian contractors shall be inclusive of income tax.

Tax shall be deducted at source (TDS) by Owner on all sums due to contractor in accordance with the provisions of Indian Income Tax act read with rules thereunder as in force at the relevant point of time.

Owner shall issue a Tax Deduction Certificate to the contractor evidencing the tax deducted or withheld and deposited by Owner on payments made to the contractor to enable the contractor to claim the credit of Tax deducted by Owner.

b) <u>INCOME TAX (General Points):-</u>

i) The contractor shall also be responsible for ensuring compliance with all applicable provisions of the Direct Tax Laws of India including, but not limited to, the filing of

relevant Tax Returns and shall promptly provide all information required by the Owner for discharging any of its responsibilities/liabilities under such laws in relation to or arising out of the Contract. For the lapses/failure, if any, on the part of the contractor and consequential penal action taken by the Income Tax department, Owner shall not take any responsibility whether financial or otherwise and shall be indemnified by the contractor.

ii) The Indian Income Tax Act and Rules made thereunder contains provisions permitting deduction of tax at source (TDS) at lesser rate if the supplier/contractor is able to justify to the Income Tax Authorities such lesser rate of deduction. However, a deduction once made has to be deposited by the Owner with the Income Tax Authorities in India and will not be adjustable by the Owner. It is therefore in the interest of the contractor that prior to release of any payment due to the contractor under the Contract that the contractor obtains from the relevant Income Tax Authorities in India, a certificate specifying the rate of deduction/withholding of Income tax at source, failing which, payment to the contractor shall be made by the Owner after withholding/deduction at the rate as may be applicable to the supplier/contractor as per provisions of Income Tax Act, 1961.

iii) TDS on interest recovered on Mobilization/Other Advance will be deposited by the contractor and same would be reimbursed by the Owner against submission of Form-16A (TDS certificate).

3.4 INVOICING METHODOLOGY W.R.T. TAXATION

Contractor shall bring material at project site in their own name and they themselves shall be consignee. As per provisions of contract between Owner and contractor, Invoice/E-Invoice shall be raised by contractor to Owner after charging GST.

3.5 APPLICABILITY OF TAX CREDIT

Contractor is required to pass on 100% GST Input Tax Credit (ITC) to NRL.

An amount equivalent to the extent of eligible Input Tax Credit (ITC) available to NRL on each invoice shall be released only upon re-flection of corresponding invoice and Input Tax Credit details in GSTR2B report relating to NRL in GST portal. In other words, GST component eligible for Input Tax Credit, of any invoice shall be withheld till such time same is reflected in GSTR-2B.

3.6 **TAX IMPLICATION WHERE FABRICATION YARD IS OUTSIDE THE REFINERY PREMISES, WHEREVER APPLICABLE**

Since Contractors shall bring material at project site in their own name and raise invoice to Owner (as per payment milestone achieved) after charging GST, location of fabrication yard whether inside or outside refinery premises will not attract any additional liability.

3.7 **TAX IMPLICATION WHERE OWNER WILL ISSUE FREE ISSUE MATERIAL (FIM) TO CONTRACTORS/SUPPLIERS**

Where Owner issues FIM's to contractors, material will be released against delivery challan and such FIM shall be received back in factory premises as per provision of GST.

3.8 STATUTORY VARIATION

No variation on account of taxes and duties, statutory or otherwise, shall be payable to Contractor except for the following:

1. GST: If after the due date of submission of last price bid and up to the contractual

delivery/completion period (*), any increase/decrease occurs in the applicable rate of GST, the variation in such GST shall be to Owner's account and shall be adjusted (increase / decrease) to / from the Supplier's/Contractor's invoices based on the documentary evidence.

Any increase in GST after the contractual delivery/completion period (*) shall be to Supplier's/Contractor's account. However, any decrease in the rate of GST shall be passed on to Owner.

For calculating Statutory Variations ceiling amount as declared by the Bidder in price schedule shall only be considered.

2. Basic Custom Duty (BCD) & Social Welfare Surcharge (SWS): If after the due date of submission of last price bid and up to the 2/3rd of contractual delivery/completion period (*), any increase/decrease occurs in the applicable rate of BCD & SWS on materials imported, the variation in such BCD & SWS shall be to Owner's account and shall be adjusted (increase/decrease) to/from the Contractor's invoices based on the documentary evidence.

   Any increase in rate of BCD & SWS on materials imported after the 2/3rd of the contractual delivery/completion period (*) shall be to Contractor's account. However, any decrease in the rate of BCS & SWS on materials imported shall be passed on to Owner.

   For calculating Statutory Variations in BCD/SWS, ceiling amount of CIF Value and rate of custom duty as declared by the Bidder in relevant price schedule shall only be considered.

   Note: Indian contractor to consider input tax credit of IGST and GST Compensation Cess if any (in case of import of raw Materials / components) in their quoted prices. Hence, Statutory variations on same in case of imported materials from outside India in Contractor's name (i.e., for Indian Bidders) shall be to Contractor account.

3. Any new output taxes, duties, cess, levies notified or imposed after the due date of submission of last price bid but up to the contractual date of delivery/completion (*) shall be to Owner's account. These shall be reimbursed against documentary evidence. However, in case of delay attributable to contractor, any new output taxes, duties, cess, levies notified or imposed after Time for Completion, defined as above, shall be to Contractor's account.

(*) Contractual delivery/ completion period shall include extended contractual delivery/ completion period for the reasons attributable to Owner or due to Force Majeure condition.

3.9 TAX INDEMNITY:

Any omission/ errors of interpretation of applicability of taxes, duties, cesses and levies, whatsoever named, howsoever named, as are payable to any government, local or statutory authority in India or in any country other than India by the contractor shall be to contractor's account.

If any fine/ penalty/ any other levy is required to be met by the Owner arising out of any non-compliance/ fault/ fraud/ willful suppression/ misstatement of facts/ information/ documents, whatsoever, of any applicable laws of India or any country other than India by the supplier/contractor/their personnel/sub-contractors/agencies, the same shall be recovered from any amount payable to the supplier/contractor under this contract or under any other contract of the Owner.

If any tax is paid / required to be paid by supplier/contractor in pursuance of any demand of any law enforcement agency/Tax Authority on account of non-

compliance/fault/fraud/willful suppression/misstatement of facts/information/documents, whatsoever, of any applicable laws of India or any country other than India by the supplier/contractor/their personnel/sub-contractors/agencies, the same shall be to supplier's/contractor's account only.

3.10 **GENERAL**

- Prices, taxes, duties including GST on any transaction between Supplier/Contractor and their Sub-Contractor/sub-supplier shall be included in the Quoted Price.
- Taxes, duties and levies as may be applicable on the input materials and/or services used for Contract shall be to the Supplier's/Contractor's account and no separate claim in this regard will be entertained by the Owner.
- The Supplier/Contractor shall itself be informed of all the applicable laws, notifications, rules, circulars and other communications of the State or Central or other authorities with regard to levy of any tax, duty, cess, levy or fee etc., which in any manner may impinge upon it in performance of any obligations/ responsibilities under or arising out of the Contract.
- NRL shall be entitled to make necessary tax deductions at source as per the prevalent laws.

3.11 **Compliances for availing Export Promotion of Capital Goods (EPCG) benefit**

NRL may avail EPCG (Export Promotion of Capital Goods) benefits under Foreign Trade Policy (FTP) Chapter-5 in respect of import supplies as well as domestic supplies are available for the subject supply. The import supplies include direct import by the owner or inbuild in the domestic order.

In the event that NRL choses to avail benefits under the EPCG scheme or any other applicable Government scheme that results in a reduced rate of import duty compared to the merit rate, the bidder shall ensure that the corresponding financial benefit is passed on to NRL.

3.12 BUILDING AND OTHER CONSTRUCTION WORKER'S WELFARE CESS

Contractor shall assess and inform NRL for BOCW Cess at the applicable rate under the Act and such amount shall be directly paid by NRL to relevant statutory authority. The Contractor shall be responsible to submit periodic and final Assessment Return of the Cess to the Assessing Officer as per provisions of the Act. Bidder/ Contractor shall not consider BOCW Cess while quoting their prices.

4.0 ON ACCOUNT PAYMENTS AND INVOICE

4.1 Subject to the other provisions of the Contract documents, on account payments shall be made as per Payment Term enclosed as **Annexure B-I**. Contractor may raise digitally signed Invoice, which will be acceptable to NRL for payment purpose.

4.2 An amount equivalent to the extent of eligible Input Tax Credit (ITC) available to NRL on each invoice shall be released only upon reflection of corresponding invoice and Input Tax Credit details in GSTR2B report relating to NRL in GST portal. In other words, GST component eligible for Input Tax Credit, of any invoice shall be withheld till such time same is reflected in GSTR-2B.

4.3 Govt. has reduced the aggregate turnover for applicability of E-invoices to Rs.5 Crores from 1st August 2023 onwards. In view of this, all concerns are requested to raise only E-invoice to NRL with all requisite details like IRN, QR code etc.. Non complied invoices shall not be accepted for further processing after the effective date.

4.4 Preference for Digital Invoices:

While processing invoices in LIV Cell, preference shall be given for processing invoices which are digitally signed and are provided to Bill-desk / LIV-desk over email in original (i.e., not scanned copy of digitally signed invoice). Invoices with Class 1 and Class 2 digital signature shall be acceptable and shall be given preference over other manually signed hardcopy of invoices for processing payments. This is to ensure faster and more efficient processing of invoices and is step for achieving complete digitalization in NRL.

Digital signature Certificates are legally valid in India under Information Technology Act 2000.

5.0 LAND, POWER, WATER AND OTHER FACILITIES

Clause No. 5.23 of Annexure-XXVIII of SCC partially modified to following extent:

5.1 CONSTRUCTION WATER

The following provisions shall be read in conjunction with the provisions of Clause 2.3 of the General Conditions of Contract (GCC). The following provisions shall supersede the relevant portion of GCC provisions to the extent of repugnance and variance, if any:

i) Contractor to make his own arrangement for construction water by installation of borewell including necessary distribution of the same without any extra charges to Owner. It is presumed that Underground water is suitable for all construction works, however contractor is required to ascertain the quality of water by getting it tested In Reputed laboratory. Any statutory requirements/ documentation etc. to this effect shall be met by the Contractor.

ii) Non-availability of construction water due to any reason shall not entitle the Contractor for any claim against Owner on account of cost and time implications.

iii) The CONTRACTOR shall, at his own cost and initiative provide suitable pumping installations and piping for the transportation of water to and distribution at the Contractor's place or work.

iv) Such installations, pipes and other equipment shall be laid out/installed by the Contractor only with the prior approval of the Engineer-in-Charge so as not to interfere with the layout and progress of the other construction work at the site and access to or about the job site.

v) The owner at his discretion may endeavour to provide construction water to the contractor at the owner's source of supply at one point, provided the contractor make his own arrangement for piping network and arrangement from source of supply & distribution pipe network and shall have the prior approval of the Engineer-In-Charge, so as not to interfere with the layout and progress of the other construction works. However, the owner doesn't guarantee the supply of water and this does not relieve the contractor of his responsibility in making his own arrangement and for the timely completion of the various works as stipulated.

vi) The Contractor shall forth with on completion of the work or earlier determination of the Contract or during the execution of the work(s), if so required by the Engineer-in-Charge, on grounds of hindrance or obstruction caused thereby or other cause whatsoever at his/its own cost and initiative remove or re-route, as the case may be, any installation, pipes and/or other equipment put up or erected by the Contractor for the transportation and/or distribution of water, and fill any trenches, ditches or other excavations done by the Contractor for the purpose thereof and restore the site to the same condition in which it was prior to the installation.

vii) The Contractor shall use the water judiciously during the execution. In case of wastage, spillage or misuse of water found by Owner /EIL, the Contractor shall be fined Rs. 5000/- per incident.

viii) Owner will provide the drinking water to the Contractor free of charge at one designated

point inside the Refinery Complex. The water will be judiciously used and shall not be wasted. In case of wastage, spillage or misuse of water found by Owner / EIL, the Contractor shall be fined Rs. 5000/- per incident.

5.2 CONSTRUCTION POWER

The following provisions shall be read in conjunction with the provisions of Clause 2.4 and its Sub clauses of the General Conditions of Contract (GCC). The following provisions shall supersede the relevant portion of GCC provisions to the extent of repugnance and variance, if any:

i) Subject to availability, construction power shall be provided by the Owner inside the Refinery complex from the nearest load centre on free of cost basis.

ii) However, non-availability of construction power due to delay in commissioning of Owner's construction power system or due to any other reasons shall not entitle the Contractor for any claim on Owner on account of time and cost implications. Contractor shall make his own back-up arrangement for continuous power supply.

iii) The Contractor shall mandatorily install a calibrated power meter at the take off point which will be jointly read every month for calculation of the monthly power consumption. ~~charges~~. All costs towards the supply and installation of energy meter and feeders will be to the Contractor's account.

iv) At the time of applying for construction power the Contractor shall furnish the name plate rating of each equipment along with test certificates for which power is required, to arrive at the category of feeder allocation as stated above. Contractor to note that the quantity of power allocated to the Contractor will be dependent on the availability.

v) The construction power shall be made available to the Contractor which might have upstream grid/captive disturbance, and no time extension or compensation shall be payable on this account. **Therefore, the contractor at his own cost will maintain stand by power requirements through Acoustic DG Sets of suitable capacity.**

vi) The Contractor shall make his own arrangements for supply and laying of cable and making necessary distributions, terminations, feeder pillars, earthing within their Battery Limits etc. All necessary safety precautions as per the normal safety practices and as directed by the Engineer-in-Charge shall be followed by the Contractor.

vii) Construction Power shall not be supplied outside the battery limit of the Project by the Owner.

viii) Electrical power is the mainstay of any construction activity and it requires utmost care in its utilization to avoid accidents as electrical shock, fire incidents or electric short circuits exposure of electrical installation to adverse environmental conditions increase the risk of such accidents. Hence contractor to take extra precautions for such installations to ensure safety of personal and equipment.

ix) The distribution boards shall be provided with protection gears such as ELCB, MCCB,

RCCB & MCB's.

5.3 LAND

No land shall be provided for accommodation purposes to the Contractor, or the purposes of any Contractor's personnel.

The following provisions shall be read in conjunction with the provisions of Clause 2.5 of the relevant portion of General Conditions of Contract (GCC). The following provisions shall supersede the GCC provisions to the extent of repugnance and variance, if any:

i) The Land required for setting up the facilities like Batching Plant, Labour Hutments, Worker accommodation etc. shall be arranged by Contractor at his own cost outside the Refinery Premises. All the infrastructure arrangements in connection with these facilities including Water, Power, Security Arrangements etc. shall be in the scope of Contractor without any extra cost to Owner.

ii) The Land required for setting up the temporary Warehouse/Storage Areas shall be provided by owner free of cost within the Refinery Premises or at designated locations within 25 KM radius from refinery site. All the infrastructure arrangements in connection with these facilities including Water, Power, Surveillance system (CCTV etc.) etc. shall be in the scope of Contractor without any extra cost to Owner.

iii) The Land required for setting up the temporary Site office & Fabrication yard shall be provided by owner within Refinery Premises. All the infrastructure arrangements in connection with these facilities shall be in the scope of Contractor without any extra cost to Owner. Any surveillance system (Ilike CCTV etc.) etc. w.r.t. the contractor's storage / site as per their requirement (if any) shall be in their (Contractor) scope only.

Contractor shall mobilize readymade container office only with suitable drinking water facility and sanitary arrangement.

iv) If any land provided by the Owner to the Contractor within the provisions here of shall be strictly on a license basis, and shall not create any right, title or interest whatsoever in the Contractor therein or in respect thereto.

v) The Owner shall not permit any land at site to be used for residential purposes, nor shall the Owner otherwise provide or arrange any land for temporary accommodation of the Contractor's personnel or labour. The Contractor shall at its own cost and initiative arrange land for residential accommodation for its staff and workers and the price of services shall be deemed to include the same.

vi) On completion of the WORK undertaken by the CONTRACTOR, he shall remove all temporary Works erected by him and have the SITE cleaned as directed by Engineer-in-Charge. If the CONTRACTOR shall fail to comply with these requirements the Engineer-in-Charge may at the expenses of the CONTRACTOR remove such surplus and rubbish materials and dispose of the same as he deems fit and get the SITE cleared as aforesaid and the CONTRACTOR shall forthwith pay the amount of all expenses so incurred and shall have no claims in respect of any such surplus material disposed of as aforesaid. But OWNER reserves the right to ask the CONTRACTOR any time during the pendency of the CONTRACT to vacate the land by giving seven (7) days' notice on security reasons or on national interest or otherwise. If the contractor fails to clear/vacate the site and clean the debris the same shall be done by the Engineer-in- charge engaging any agency and

the cost incurred for doing so shall be recovered from the contractor from his bill/SD or any other works.

Note:

Any assistance which the Owner renders to the Contractor in terms hereof or otherwise relative to the work by provision of any facility, water, power, transportation, tools, construction and / or testing equipment, and machinery, provision of land for quarries or borrow areas or for Contractor's office, godowns, workshops or accommodations or provisions of right of way, access road(s) and / or railway siding facilities, or other facility, for or in the performance or testing of the Work shall be, without any attendant obligation upon the Owner or liability on the Owner for any failure, omission, delay or refusal in providing or continuing to provide the same, and shall not for any cause afford a basis or defence to the Contractor for the performance of any of his obligations under the Contract, nor a ground for extension of time for completion or other claim whatsoever.

6 MARINE-CUM-ERECTION INSURANCE

Marine cum Erection Insurance shall be in NRL's scope.

NRL is in the process of obtaining Comprehensive Project Insurance Policy for PPU Project. The same shall be shared once the policy is received.

7 FOREST ROYALTY

The department of Mines and Minerals, Govt. of Assam had published "Assam Minor Minerals Concession (Amendment) Rules 2021" in the Official Gazette No 475 dated 11th October 2021. The same is attached as Annexure B- III to SCC. This new notification includes the "Third Schedule" where rates of royalty in terms of percentage of project cost (excluding taxes as GST, IT etc.) for various nature of civil works is given. The bidders to take into consideration the Forest Royalty payment terms during bidding. The Project cost shall be derived and approved at the time of submission of billing/price schedule based on the clause A.1, Table of Clause A.2 (for calculation of project cost) and Clause C of the General Notification (Annexure to SCC-Part B) on 'Methodology for Forest Royalty payment against consumption of Minor Minerals' dated 13.11.25.

The department of Mines and Minerals, Govt. of Assam had published "Assam Minor Minerals Concession (Amendment) Rules 2021" in the Official Gazette No 475 dated 11th October 2021. The same is attached as Annexure III to SCC Part B. This new notification includes the "Third Schedule" where rates of royalty in terms of percentage of project cost (excluding taxes as GST, IT etc.) for various nature of civil works is given. The bidders to take into consideration the Forest Royalty payment terms during bidding. The Project cost shall be derived and approved at the time of submission of billing/price schedule based on the clause A.1, Table of Clause A.2 (for calculation of project cost) and Clause C of the General Notification (Annexure to SCC-Part B) on 'Methodology for Forest Royalty payment against consumption of Minor Minerals' dated 13.11.25.

For this job, the applicable royalty shall be 2.00 **% (plus prevailing applicable taxes)** in line with Clause 5 of the prevailing State Government Notification (Assam Gazette) dated 11.10.2021.

Contractor's Obligations
The Contractor shall:

- Create Project ID in the designated Government portal.
- **Along with the bid, an undertaking by the bidder on their company letterhead, issued by the authorized signatory, to be submitted citing that if the bidder, post**

award of contract, fails to submit proof of Forest Royalty deposition within 03 months from date of withholding the amount against RA bill, then Owner/Consultant will directly deposit the withheld amount to the Govt. exchequer for which no claim from bidder shall be entertained.

- Define Project / Sub-project / Work and obtain necessary approvals from Forest Authorities.
- Deposit Forest Royalty as per applicable rates.
- Proof of Forest Royalty deposition shall be submitted along with Running Account (RA) Bills.
- Payments shall be subject to verification by Engineer-in-Charge (EIC).
- In case of non-submission of proof, the equivalent amount shall be withheld from RA bills.
- If the Contractor fails to deposit the royalty within 03 months, the Owner shall deposit the same directly, and no claim shall be entertained thereafter.

The above percentages are subject to revision in line with any subsequent Government circulars/notifications issued during the execution period of the contract.

PAYMENT TERMS

[ANNEXURE–B - I TO SPECIAL CONDITIONS OF CONTRACT]

Annexure – I

	Payment Terms
1.0	**For Services**
1.1.0	**DESIGN & ENGINEERING SERVICES (Break-up of 100% of Engg. Fee)**
1.1.1	35% (Thirty five percent) after completion of 30% 3D Model review, on pro-rata basis on submission of approved for construction drawings ,P&IDs, other deliverable as per approved DCI and their approval under Code-2 (commented as noted) against the Contractor's certified Running Account Bill(s). Note: For the purpose of release of above payment towards civil / piling drawings, same shall be approved in Code 1 (approved with no comments - Final)
1.1.2	40% (Forty percent) after completion of 60% 3D Model review, on pro-rata basis on submission of all approved for construction drawings P&IDs, Other deliverable as per approved DCI and their approval under Code-1 (i.e. approved with no comments-Final) against the Contractor's certified Running Account Bill(s).
1.1.3	10% (Ten percent) on completion of 90% 3D Model review.
1.1.4	05% (Five percent) on submission of the followings on pro-rata basis: a) All certificates and documents pertaining to the equipment comprised in Plant/ Works; b) Operating and Instructions Manuals with respect to the Plant/ Unit; c) Electronic files for all documents; d) Finalized 3-D model against the Contractor's certified Running Account Bill(s).
1.1.5	05% (Five percent) on submission of As-Built drawings for the Plant / Unit along with its electronic files against the CONTRACTOR's certified Running Account Bill(s).
1.1.6	02% (Two percent) on successful Commissioning of the Unit/ Plant / Works against the CONTRACTOR's certified Running Account Bill(s).
1.1.7	01% (One percent) on issue of Performance Test Certificate against the CONTRACTOR's certified Running Account Bill(s).
1.1.8	02% (Two percent) on completion of all jobs against the CONTRACTOR's certified Final Bill alongwith tax deposit and returned filed as per GST rules.
2.0	**SUPPLIES**
2.1.0	**For Supplies (Excluding cost of Mandatory Spares and Cement, Reinforcement Steel, Insulation, Painting Etc.)**
	(Break-up of 100% of Supply Fee as per SP-2) **Excluding GST**
2.1.1	10% (Ten percent) of total supply value as per SP-2 of Price Part of the tender (excluding cost of Mandatory Spares and cost of construction materials like Cement, Reinforcement Steel etc.) on placement of Purchase Order for major critical tagged items (as per list of major tagged equipment attached to Tender Document) on pro-rata basis. This payment shall be released after submission of Bank Guarantee for equivalent value. This bank guarantee shall be valid up to the Contractual Date of Completion plus three months. However, this Bank Guarantee shall be released after receipt of all materials at Site and issue of certificate of verification and good condition in

	Payment Terms
	respect thereof in accordance with General Conditions of Contract. The value of advance Bank Guarantee will be allowed to be reduced on the written request of the CONTRACTOR in not more than 04 (four) occasions during the execution of the Contract and on recommendation and certification of Engineer-in-Charge for receipt and acceptance of materials in good condition at Site and on adjustment of advance by Owner's Finance department
2.1.2	**AGAINST PROOF OF SHIPMENT / DESPATCH OF MATERIALS** 60% (Sixty percent) of the DDP price excluding GST of imported materials / indigenous materials as indicated in the Bill of Materials. Stage payment against "Proof of dispatch of Materials" shall be released (on pro-rata basis) on submission of documents.
2.1.3	**On Issue of Certificate of Verification and Good Condition at Site, against Contractor's Certified Running Account Bill(s) :** 20% (Twenty percent) of DDP price excluding GST of imported / indigenous materials as indicated in the Bill of Materials on submission of: Verification of Third-Party Inspection certificate as per QAP approved by OWNER/PMCalong with Test Certificate; a) Documents as per GST law to avail ITC by Owner; b) Certificate of Verification and Good Condition in respect of relevant materials issued in accordance with General Conditions of Contract after receipt of materials at Site
2.1.4	5% (Five percent) of DDP price excluding GST of imported material / indigenous materials as indicated in the Bill of Materials and on issue of Mechanical Completion Certificate against CONTRACTOR's certified running Accounts Bill(s)
2.1.5	2% (Two percent) of the DDP price excluding GST of imported materials / indigenous material as indicated in the Bill of Materials on successful commissioning of the Unit/Plant / Works against the CONTRACTOR's certified Running Account Bill(s)
2.1.6	1% (One percent) of the DDP price excluding GST of the imported materials / indigenous materials as indicated in the Bill of Materials on issue of Performance Test Certificate against the CONTRACTOR's certified Running Account Bill(s)
2.1.7	2% (Two percent) of the DDP price excluding GST of the imported materials / indigenous materials as indicated in the Bill of Materials on completion of all jobs against the CONTRACTOR's certified Final Bill alongwith tax deposit and returned filed as per GST rules.
2.2.0	**FOR MANDATORY SPARES**
	(Break-up of 100% of Mandatory Spares Cost) - Excluding GST
2.2.1	60% (Sixty percent) of DDP price excluding GST of imported / indigenous material as indicated in the Bill of Materials against CONTRACTOR's certified running Accounts Bill(s) against dispatch
2.2.2	30% (Thirty percent) of DDP price excluding GST of imported / indigenous material as indicated in the Bill of Materials on receipt of material at Site and acceptance thereof, against Contractor's Certified Running Account Bill(s)

	Payment Terms
2.2.3	5% (Five percent) of DDP price excluding GST of imported / indigenous materials as indicated in the Bill(s) of Materials on providing Gate Passes and after carrying out all activities to facilitate capitalization of Mandatory Spares through entering its receipt in OWNER's ERP System, against Contractor's Certified Running Account Bill(s)
2.2.4	3% (Three percent) of the DDP price excluding GST of the imported materials / indigenous materials as indicated in the Bill(s) of Materials on issue of Commissioning and Performance Test Certificate against the CONTRACTOR's certified running Accounts Bill(s)
2.2.5	2% (Two percent) of the DDP price excluding GST of the imported materials / indigenous materials as indicated in the Bill of Materials on completion of all jobs against the CONTRACTOR's certified Final Bill alongwith tax deposit and returned filed as per GST rules.
2.3.0	**FOR SUPPLIES OF MATERIALS LIKE CEMENT, REINFORCEMENT STEEL, INSULATION, PAINTING ETC**
	(Break-up of 100% of above materials cost) – Excluding GST
2.3.1	90% (Ninety percent) of the supply value of indigenous material as indicated in the Bill(s) of Materials against receipt of material at Site and acceptance thereof against CONTRACTOR's certified Running Account Bill(s)
2.3.2	5% (Five percent) of the supply value of indigenous material as indicated in the Bill(s) of Materials on issue of Mechanical Completion Certificate against CONTRACTOR's certified Running Account Bill(s)
2.3.3	2% (Two percent) of the supply value of indigenous material as indicated in the Bill(s) of Materials on successful Commissioning of the Unit/Plant / Works against CONTRACTOR's certified Running Account Bill(s)
2.3.4	1% (One percent) of the supply value of indigenous material as indicated in the Bill(s) of Materials on issue of Performance Test Certificate against CONTRACTOR's certified Running Account Bill(s)
2.3.5	2% (Two percent) of the supply value of indigenous material as indicated in the Bill(s) of Materials on completion of all jobs against the CONTRACTOR's certified Final Bill alongwith tax deposit and returned filed as per GST rules.
	Note: 1) Wherever percentage payment ("ON ACCOUNT PAYMENTS" above) is applicable against the receipt of Materials/Items (Imported or Indigenous) at Site, payment shall be made as per the payment terms mentioned above on receipt of Materials/Items within Owner's premises and acceptance thereof. However, in case of those Materials/Items (Imported/Indigenous) which are stored/kept at Contractor's Stores/Lay-down area/Fabrication Yard which is outside the Owner's premises, percentage payment against receipt of such materials/items shall be made to the Contractor on submission of Bank Guarantee (in the Format to be approved by the Owner and from a Bank acceptable to Owner) of equivalent amount. This Bank Guarantee shall be over and above any other Bank Guarantee(s) specified in "ON ACCOUNT PAYMENTS" above. Such Bank Guarantee(s) shall be released only on receipt of the concerned Materials/Items within Owner's premises and acceptance thereof by the Engineer-in-Charge. Also, other stipulations/provisions of the "ON ACCOUNT PAYMENTS" above shall be fulfilled by the Contractor in this regard. The maximum amount that can be released under these provisions is limited to 20%

	Payment Terms
	of Contract Value. 2) DDP as per Incoterms 2020 is - "Delivered Duty Paid" means that the seller delivers the goods when the goods are placed at the disposal of the buyer, cleared for import on the arriving means of transport ready for unloading at the named place of destination. The seller bears all the costs and risks involved in bringing the goods to the place of destination and has an obligation to clear the goods not only for export but also for import, to pay any duty for both export and import and to carry out all customs formalities.
3.0	**INSTALLATION AND COMMISSIONING SERVICES ETC. (Break-up of 100% of Const. Fee) Excluding GST**
3.1.0	**For Civil Works**
3.1.1	20% (Twenty 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).
3.1.2	70% (Seventy 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.
3.1.3	5% (Five percent) on issue of Mechanical Completion Certificate against the CONTRACTOR's certified Running Account Bill(s).
3.1.4	2% (Two percent) on successful Commissioning of the Unit/Plant / works against the CONTRACTOR's certified Running Account Bill(s).
3.1.5	1% (One percent) on issue of Performance Test Certificate against the CONTRACTOR's certified Running Account Bill(s).
3.1.6	2% (Two percent) on completion of all jobs against the CONTRACTOR's certified Final Bill alongwith tax deposit and returned filed as per GST rules.
3.2.0	**(A) FOR STRUCTURAL WORK**
3.2.1	10% (Ten percent) on finalization of quantity, plan and submission of fabrication drawings against the CONTRACTOR's certified Running Account Bill(s).
3.2.2	50% (Fifty percent) against fabrication of materials on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
3.2.3	30% (Thirty percent) on erection, alignment, grouting and painting etc. on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
3.2.4	5% (Five percent) on issue of Mechanical Completion Certificate against the CONTRACTOR's certified Running Account Bill(s).
3.2.5	2% (Two percent) on successful Commissioning of the Unit/Plant against the CONTRACTOR's certified Running Account Bill(s).
3.2.6	1% (One percent) on issue of Performance Test Certificate against the CONTRACTOR's certified Running Account Bill(s).
3.2.7	2% (Two percent) on completion of all jobs against the CONTRACTOR's certified Final Bill alongwith tax deposit and returned filed as per GST rules.

	Payment Terms
3.3.0	**FOR MECHANICAL WORK**
3.3.1	**PIPING**
I	40% (Forty percent) on completion of pre-fabrication including NDT as applicable, on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
Ii	40% (Forty percent) on completion of erection and welding including NDT as applicable, on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
Iii	10% (Ten 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 against the CONTRACTOR's certified Running Account Bill(s).
V	2% (Two percent) on successful Commissioning of the Unit/ Plant / Works against the CONTRACTOR's certified Running Account Bill(s).
vi	1% (One percent) on issue of Performance Test Certificate against the CONTRACTOR's certified Running Account Bill(s).
vii	2% (Two percent) on completion of all jobs against the CONTRACTOR's certified Final Bill alongwith tax deposit and returned filed as per GST rules.
3.3.2	**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 against the CONTRACTOR's certified Running Account Bill(s).
iii	2% (Two percent) on successful Commissioning of the Unit/Plant / Works against the CONTRACTOR's certified Running Account Bill(s).
iv	1% (One percent) on issue of Performance Test Certificate against the CONTRACTOR's certified Running Account Bill(s).
v	2% (Two percent) on completion of all jobs against the CONTRACTOR's certified Final Bill alongwith tax deposit and returned filed as per GST rules.
3.3.3	**PAINTING**
i	15% (Fifteen percent) on pro-rata basis on surface preparation & primer application against the CONTRACTOR's certified Running Account Bill(s).
ii	75% (Seventy Five 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 against the CONTRACTOR's certified Running Account Bill(s).
iv	2% (Two percent) on successful Commissioning of the Unit/Plant / works against the CONTRACTOR's certified Running Account Bill(s).
v	1% (One percent) on issue of Performance Test Certificate against the CONTRACTOR's certified Running Account Bill(s).

	Payment Terms
vi	2% (Two percent) on completion of all jobs against the CONTRACTOR's certified Final Bill alongwith tax deposit and returned filed as per GST rules.
3.3.4	**EQUIPMENT**
i	50% (Fifty percent) on completion of erection, on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
ii	40% (Forty 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 against the CONTRACTOR's certified Running Account Bill(s).
iv	2% (Two percent) on successful Commissioning of the Unit/Plant / works against the CONTRACTOR's certified Running Account Bill(s).
v	1% (One percent) on issue of Performance Test Certificate against the CONTRACTOR's certified Running Account Bill(s).
vi	2% (Two percent) on completion of all jobs against the CONTRACTOR's certified Final Bill alongwith tax deposit and returned filed as per GST rules.
3.3.5	**TANKS**
i	45% (Forty Five percent) on completion of pre-fabrication and erection on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
ii	40% (Forty percent) on completion of welding, NDT, grouting etc. on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
iii	5% (Five percent) on completion of hydrostatic testing against the CONTRACTOR's certified Running Account Bill(s).
iv	5% (Five percent) on issue of Mechanical Completion Certificate against the CONTRACTOR's certified Running Account Bill(s).
v	2% (Two percent) on successful Commissioning of the Unit/Plant / Works against the CONTRACTOR's certified Running Account Bill(s).
vi	1% (One percent) on issue of Performance Test Certificate against the CONTRACTOR's certified Running Account Bill(s).
vii	2% (Two percent) on completion of all jobs against the CONTRACTOR's certified Final Bill alongwith tax deposit and returned filed as per GST rules.
3.4.0	**ELECTRICAL & PLANT COMMUNICATION WORKS**
3.4.1	50% (Fifty percent) on erection / installation etc. on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
3.4.2	40% (Forty percent) on testing loops and system on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
3.4.3	5% (Five percent) on issue of Mechanical Completion Certificate against the CONTRACTOR's certified Running Account Bill(s).
3.4.4	2% (Two percent) on successful Commissioning of the Unit/ Plant / Works against the CONTRACTOR's certified Running Account Bill(s).
3.4.5	1% (One percent) on issue of Performance Test Certificate against the CONTRACTOR's certified Running Account Bill(s).

	Payment Terms
3.4.6	2% (Two percent) on completion of all jobs against the CONTRACTOR's certified Final Bill alongwith tax deposit and returned filed as per GST rules.
	Note: For the purpose of payment of second milestone of 40%, "testing loops and system" shall mean "continuity & erection protocol" in respect of electrical cables, earthing strips and cable trays.
3.5.0	**INSTRUMENTATION**
3.5.1	50% (Fifty percent) on erection / installation etc. on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
3.5.2	40% (Forty percent) on testing loops and system on pro-rata basis against the CONTRACTOR's certified Running Account Bill(s).
3.5.3	5% (Five percent) on issue of Mechanical Completion Certificate against the CONTRACTOR's certified Running Account Bill(s).
3.5.4	2% (Two percent) on successful Commissioning of the Unit/Plant / Works against the CONTRACTOR's certified Running Account Bill(s).
3.5.5	1% (One percent) on issue of Performance Test Certificate against the CONTRACTOR's certified Running Account Bill(s).
3.5.6	2% (Two percent) on completion of all jobs against the CONTRACTOR's certified Final Bill alongwith tax deposit and returned filed as per GST rules.
	Note: For the purpose of payment of second milestone of 40%, "testing loops and system" shall mean "continuity & erection protocol" in respect of Field Instruments.
4.0	**COMMISSIONING** 100% (Hundred percent) on successful Commissioning of the Unit/Plant.
5.0	**PERFORMANCE GUARANTEE TEST RUN (PGTR)** 100% (Hundred percent) on issue of Performance Test Certificate
-	Note: All payments other than the Mobilization Advance shall be released only after submission of preliminary planning and monitoring documents and Progress Schedule.

Further break up of payment schedule, if necessary, shall be recommended/approved by Engineer-in-charge.

*****

MARINE CUM ERECTION INSURANCE

[ANNEXURE-B- II TO SPECIAL CONDITIONS OF CONTRACT]

THE ASSAM GAZETTE

[ANNEXURE-B- III TO SPECIAL CONDITIONS OF CONTRACT]

পঞ্জীভুক্ত নম্বৰ - ৭৬৮ /৯৭ Registered No.-768/97

অসম ৰাজপত্ৰ

सत्यमेव जयते

THE ASSAM GAZETTE

অসাধাৰণ

EXTRAORDINARY

প্ৰাপ্ত কৰ্ত্তৃত্বৰ দ্বাৰা প্ৰকাশিত

PUBLISHED BY THE AUTHORITY

নং 475 দিশপুৰ, সোমবাৰ, 11 অক্টোবৰ, 2021, 19 আহিন, 1943 (শক)

No. 475 Dispur, Monday, 11th October, 2021, 19th Asvina, 1943 (S. E.)

GOVERNMENT OF ASSAM
ORDERS BY THE GOVERNOR
MINES & MINERALS DEPARTMENT

NOTIFICATION

The 7th October, 2021

No.PEM.130/2021/40.- In exercise of the powers conferred by the sub-section (1) of section 15 and section 23C of the Mines and Minerals (Development and Regulation) Act, 1957 (Central Act 67 of 1957), the Governor of Assam is hereby pleased to make the following rules further to amend the Assam Minor Mineral Concession Rules, 2013, hereinafter referred to as the principal Rules, in the manner hereinafter appearing, namely: -

Short title and commencement

1. (1) These rules may be called the Assam Minor Mineral Concession (Amendment) Rules, 2021.

(2) They shall come into force on the date of their publication in the Official Gazette.

Amendment of rule 5

2. In the principal Rules, in Rule 5, for the existing the sub-rule (3), the following shall be substituted, namely: -

" (3) (i) - The minor minerals, when shall be used or consumed by Government Departments, the rates of Royalties shall be paid as per the rates prescribed in the Third Schedule appended to these rules and other Ancillary Charges as shall be notified by Government, shall be deducted by the Government Departments through the Treasury in proportionate rate to the percentage of the total cost of project excluding taxes as GST, IT etc..

The minor minerals, when shall be used or consumed by Government Agencies the rates of Royalties shall be deducted as per the rates prescribed in the Third Schedule appended to these rules and other Ancillary Charges as shall be notified by Government, at the time of payment of bills of contractors or suppliers in proportionate rate to the percentage of the total

cost of project excluding taxes as GST, IT etc. and thereafter shall deposit in the appropriate Head of Account or Bank Account as shall be notified by Government for the said purpose..

(ii) The minor minerals, when shall be used or consumed by Central Government Departments or any of their Agencies, the rates of Royalties shall be paid as per the rates prescribed in the Third Schedule appended to these rules and other Ancillary Charges as shall be notified by Government. Such Departments or Agencies shall ensure that prescribed Royalties and ancillary charges have been paid by the Contractors/Suppliers/Agencies before making final payment against their bills.

(iii) Urban local bodies shall collect Royalty as prescribed in the Third Schedule in 4 (four) equal instalments. The first instalment shall be collected at the time of granting of building construction permission, the next two instalments during construction and the final instalment on completion of the construction works. The Royalties as collected by the Urban Local Bodies shall be deposited the Head of Account or Bank account as shall be notified by the Government.

In rural areas, the existing procedure of making payments of Royalties shall continue.

(iv)The rates as appended in the Third Schedule and process as prescribed above shall be applicable to fresh tenders only. "

Amendment of rule 8

3. In the principal Rules, in rule 8, in sub-rule (6), in between the punctuation mark and figure "(6)" and the word "The lessee" the punctuation mark and figure "(i)" shall be inserted and thereafter at the end of clause (i) the following new clauses shall be inserted, namely: -

" **(ii)** - The minor minerals, when shall be used or consumed by Government Departments, the rates of Royalties shall be paid as per the rates prescribed in the Third Schedule appended to these rules and other Ancillary Charges as shall be notified by Government, shall be deducted by the Government Departments through the Treasury in proportionate rate to the percentage of the total cost of project excluding taxes as GST, IT etc.

The minor minerals, when shall be used or consumed by Government Agencies the rates of Royalties shall be deducted as per the rates prescribed in the Third Schedule appended to these rules and other Ancillary Charges as shall be notified by Government, at the time of payment of bills of contractors or suppliers in proportionate rate to the percentage of the total cost of project excluding taxes as GST, IT etc. and thereafter shall deposit in the appropriate Head of Account or Bank Account as shall be notified by Government for the said purpose.

(iii) The minor minerals, when shall be used or consumed by Central Government Departments or any of their Agencies, the rates of Royalties shall be paid as per the rates prescribed in the Third Schedule appended to these rules and other Ancillary Charges as shall be notified by Government. Such Departments

or Agencies shall ensure that prescribed Royalties and ancillary charges have been paid by the Contractors/Suppliers/Agencies before making final payment against their bills.

(iv) Urban local bodies shall collect Royalty as prescribed in the Third Schedule in 4 (four) equal instalments. The first instalment shall be collected at the time of granting of building construction permission, the next two instalments during construction and the final instalment on completion of the construction works. The Royalties as collected by the Urban Local Bodies shall be deposited the Head of Account or Bank account as shall be notified by the Government.

In rural areas, the existing procedure of making payments of Royalties shall continue.

(v)The rates as appended in the Third Schedule and process as prescribed above shall be applicable to fresh tenders only. "

Amendment of rule 27

4. In the principal Rules, in rule 27, in sub-rule (4), in between the punctuation mark and figure "(4)" and the word "The Royalty", the punctuation mark and figure "(i)" shall be inserted and thereafter at the end of clause (i) the following new clauses shall be inserted, namely: -

" (ii) Ordinary Earth/Clay, when shall be used or consumed by Government Departments, the rates of Royalties shall be paid as per the rates prescribed in the Third Schedule appended to these rules and other Ancillary Charges as shall be notified by Government, shall be deducted by the Government Departments through the Treasury in proportionate rate to the percentage of the total cost of project excluding taxes as GST, IT etc..

The minor minerals, when shall be used or consumed by Government Agencies the rates of Royalties shall be deducted as per the rates prescribed in the Third Schedule appended to these rules and other Ancillary Charges as shall be notified by Government, at the time of payment of bills of contractors or suppliers in proportionate rate to the percentage of the total cost of project excluding taxes as GST, IT etc. and thereafter shall deposit in the appropriate Head of Account or Bank Account as shall be notified by Government for the said purpose.

(iii) The minor minerals, when shall be used or consumed by Central Government Departments or any of their Agencies, the rates of Royalties shall be paid as per the rates prescribed in the Third Schedule appended to these rules and other Ancillary Charges as shall be notified by Government. Such Departments or Agencies shall ensure that prescribed Royalties and ancillary charges have been paid by the Contractors/Suppliers/Agencies before making final payment against their bills.

(IV) Urban local bodies shall collect Royalty as prescribed in the Third schedule in 4 (four) equal instalments. The first instalment shall be collected at the time of granting of building

construction permission, the next two instalments during construction and the final instalment on completion of the construction works. The Royalties as collected by the Urban Local Bodies shall be deposited in the Head of Account or Bank account as shall be notified by the Government.

In rural areas, the existing procedure of making payments of Royalties shall continue.

(v)The rates as appended in the Third Schedule and process as prescribed above shall be applicable to fresh tenders only."

5. In the principal Rules, after the Second Schedule, the following new Schedule shall be inserted , namely: -

"THIRD SCHEDULE

Appropriate amount of Royalty to be deducted by Government user agencies

(See Rule 5(3), 8(6) and 27(4))

Sl. No.	Work	Appropriate amount of Royalty of Minor Mineral as percentage of Project Cost excluding taxes as GST, IT etc.
I	RCC Building/RCC Work	2.00 %
II.	Assam Type Building (Single floor)	1.00 %
III	Assam Type Building (Ground floor + 1 or more)	2.00%
IV	RCC Bridge Work	2.00 %
V	DBM & BC Work	2.00 %
VI	Road Improvement / Re-construction Work	3.00 %
VII	New Road Construction Work with Bituminous Work	6.00 %
VIII	New Road Construction Work with ICBP	3.00 %
IX	Earth Work/ Ordinary Clay	9.00%
X	Earth Work along with Geobag Protection Work	3.50 %
XI	Earth Work along with Boulder Protection Work	5.50 %
XII	River Protection Work with Boulder	4.00%
XIII	River Protection Work with Geobag	1.50 %
XIV	River Protection Work with Boulder and Geobag	2.00 %
XV	Head work/Brick work of Irrigation projects	4.00%
XVI	Pradhan Mantri Awas Yojana (PMAY)	1.00%

"

KRISHNA KUMAR DWIVEDI,
Principal Secretary to the Government of Assam,
Mines and Minerals Department.

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Page 933 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

Ref: NRL/PROJ/FR/2025/01 Date: 13.11.2025

NUMALIGARH REFINERY LIMITED

GENERAL NOTIFICATION

Sub : Methodology for Forest Royalty payment against consumption of Minor Minerals as per Third Schedule Notification of 'Assam Minor Minerals Concession (Amendment) Rules 2021' for NREP and other Major & Mega Projects

The Committee of Functional Directors of NRL in its meeting held on 13-11-2025 has approved the methodology for Forest Royalty payment for NREP and other Major and Mega Projects of NRL. ***Salient features of the note are reproduced below for needful adherence by all stakeholders:***

A. Methodology for treatment / deposition of Forest Royalty as per Third Schedule

A.1. For Future Tenders

i. The Name of the job/contract shall be aligned with the 'Work' nomenclature as indicated in para 5 of the AMMCR 2021 for convenience in interpretation amongst all stakeholders viz. NRL, Consultant (EIC), Forest Dept., Govt. of Assam.

ii. Based on the 'Work' as defined, the applicable Forest Royalty percentage would be mentioned in the SCC of the respective tender at the tendering stage and entire published notification to this effect to be made part of the tender document.

iii. The SOR shall be segregated into broad **Heads** such as Civil Construction, Architecture and Interior Decoration, Furniture, Structural Steel, Electrical, HVAC, Mechanical, Instrumentation, Hiring of manpower/equipment etc.

Accordingly, Project Cost calculation on tendered SOR quantities against applicable **Heads** will be indicated in the tender. (Indicative Project Cost will facilitate the bidders to quote considering Forest Royalty to be payable by them). For any extra/substituted items that may crop up during execution, the applicability of Forest Royalty would be included in the Amendment, the percentage to be considered being the same as applicable to the original Civil Construction jobs.

iv. After the award of the contract (placement of LOA/SAP PO) and before submission of 1st RA bill/entire bill in case of single bill or EPC/Package/LSTK contracts, the contractor has to shall submit proof of creation of Project ID in Govt. Portal (https://assamforestonline.in/amtr_tpa_con_register.php).

v. Along with the bid, an Undertaking from the contractor would be obtained citing that if the contractor fails to submit proof of Forest Royalty deposition within 03 months from date of withholding the amount against their RA bill, then NRL will directly deposit the withheld amount to the Govt. exchequer for which no claim from contractor shall be entertained at a later date.

A.2. For Ongoing Contracts

EIC shall decide the applicable Forest Royalty percentage based on the nature of job and its alignment to 'Work' defined in Third Schedule and same shall be considered in calculation of the 'Project Cost'. If initial Project Cost has already been uploaded in the portal, necessary changes shall be made as per calculation of the same as mentioned in para below.

Calculation of Project Cost (For ongoing and future Contracts)

Project Cost shall henceforth be defined as *'**sum of amount of the Civil Construction items in the SOR** for ongoing Contracts'* and *'sum of SOR items considered under **Civil Construction Head** for future Contracts'*. For EPC/Package/LSTK Contracts, Project Cost shall be as per approved Billing Breakup.

For ongoing projects, the SOR items to be considered/not considered for calculation of Project Cost is as below:

SOR items to be considered for Civil nature of Jobs for calculation of Project Cost as per AMMCR, 2021	*SOR Items **NOT** to be considered for calculation of Project Cost*
Reinforcement steel other than consumed in any Industrial/ Process/ Technical 'structures & buildings'.	Reinforcement steel consumed in any Industrial/ Process/ Technical 'structures & buildings'.
Roofing sheet other than consumed in any Industrial/ Process/ Technical 'structures & buildings'.	Roofing sheet consumed in any Industrial/ Process/ Technical 'structures & buildings'. Structural steel, foundation bolts, Shuttering for concreting works.
Earthwork involving excavation outside NRL premises, backfilling using Borrowed earth, sand, murrum, GSB, WBM, WMM, gravel, soling etc. and transportation of excavated earth outside NRL premises.	Earthwork involving excavation, backfilling, transportation within NRL premises including RoU acquired for pipelines and other jobs. Area grading without involvement of brought out materials.
Concreting works, Precast culverts/ manholes/ elements etc. casted inside NRL premises.	RCC hume pipes, precast culverts/manholes etc. casted outside NRL premises.
Road works/ Interconnecting Paver Block	Service items of men, equipment and machineries. Jungle cutting, drain cleaning, housekeeping, etc.
Brick/stone masonry work, plastering	Finishing work items like paint, putty, primer, wall finishing, waterproofing, tile work, granite/marble works including Interior Decoration/ Architectural works. Plumbing and Sanitary items and Furniture.
Wooden door/windows/frames.	UPVC/Steel door/windows/frames, fire door, aluminium works, glass items, false floor, false ceiling
Similar items as above available in Mechanical, Electrical, Instrumentation etc. contracts.	Electrical, Instrumentation, Mechanical, piping items.

N.B

Project Cost calculated based on SOR quantities is to be treated as initial Project Cost. However, 75% of the Project Cost shall be considered for uploading in online portal for creation of 'Project' and making initial and interim online payments. This is in line with present practice.

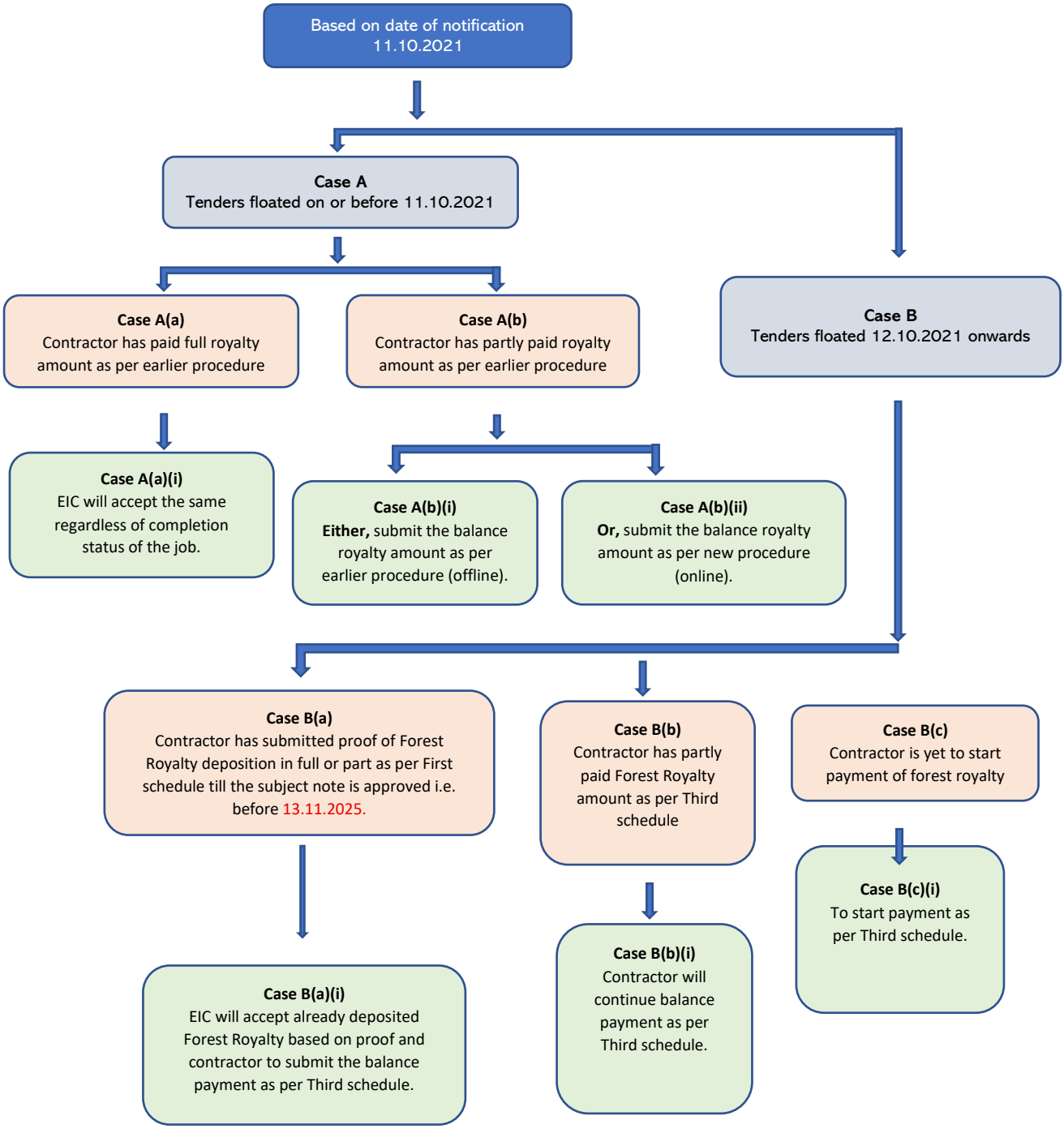
Final project cost will be calculated based on final executed items and their quantities. The final executed project cost is to include relevant SOR items as well as extra/substituted items which falls under the above tabulated items.

For EPC/Package/LSTK contracts, the Project cost shall be derived and approved at the time of submission of billing/price schedule. For ongoing jobs, Project cost shall be finalized based on already approved billing schedule.

Jobs executed under 'Deposit work' through Govt. Departments shall be treated as certified by concerned Govt. Dept.

At the time of Forest Royalty deposition, Contractor will request EIC to create 'Sub Project' under already created 'Project'. Thereafter, Contractor will create 'Work' under the added 'Sub Project'. The 'Work' will be verified by the DFO Office of respective Division and subsequent link will be generated for payment.

B. <u>Flow Chart for ongoing jobs</u>



Note: The case B(a) is acceptable to avoid duplicity of Forest Royalty payments by contractor.

C. Exceptions

The aforesaid process of arriving at Project cost and depositing Forest Royalty in Assam Govt. online portal is applicable for the jobs being executed by NRL in state of Assam only. However, exceptions are indicated below:

1. If the Minor Minerals are being sourced from forest areas under any Autonomous councils/Govt. bodies/Govt. Dept. in the state of Assam or materials sourced from other states where implementation of online deposition of royalty through Govt. portal is due/under process or Assam's Third Schedule Notification is not applicable, contractor may submit either - 'proof of Forest Royalty deposition through offline mode based on approved Project Cost' or 'Genuineness certificate (FRGC)' issued by concerned dept. **In both the cases, Forest Royalty amount paid is to be mentioned clearly.**

2. Ready Mix Concrete/Hot Mix Bitumen/WMM materials purchased from batching plants of external agencies (Not owned by the executing contractor), proof of royalty deposition by the batching plant shall be considered if proper traceability of documents can be established among the contractor, batching plant owner and Govt. dept. EIC will verify non-repetition of same proof of such royalty deposition in different contracts.

D. General Note

1. It is being planned to digitalize documentation process related to Forest Royalty deposition in online portal of NRL like Aarohan for systematic record keeping enabling establishing compliance at a future date. The same will be notified separately for compliance by concerned EICs.

2. **The above procedure is applicable with effective from the date of issuance of this circular (i.e. 13.11.2025). Any confusion/clarification regarding interpretation of the above procedures is to be brought to Head (Project Civil & Petchem) through concerned EIC.**

On behalf of Project Department, Numaligarh

Madhuchanda Adhikari
Head (Project Civil & Petchem)

EPCM SERVICES FOR 360 KTPA PPU AT NRL

BID DOCUMENT

FOR

COOLING TOWER PACKAGE

(TENDER DOCUMENT NO.: C050-1U68-81-45-PB-T-8010)

PROJECT : **SETTING UPOF POLYPROPYLYNE UNIT AT NUMALIGARH, ASSAM.**

CLIENT : **M/s NUMALIGARH REFINERY LIMITED (NRL)**

CONSULTANT : **M/s ENGINEERS INDIA LTD.**

JOB NO. : **C050**

Rev. No	Date	Purpose	Prepared by	Checked by	Approved by
A	30.07.2025	ISSUED FOR BIDS.	RR	KS	DP

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INDEX

1. Project Procedures
2. Contents of the Project procedures

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1.0 PROJECT PROCEDURES

Within fifteen (15) days of the award of work i.e. during kick-off meeting, CONTRACTOR shall submit all project procedures for OWNER/CONSULTANT comments/approval. OWNER/CONSULTANT will respond with comments, if any within ten (10) working days. CONTRACTOR shall revise and re-issue the Project Procedures for approval within seven (7) working days and after approval, the same shall be put into effect.

2.0 Contents of the Project procedures

The Project Procedures shall include, but not be limited to, the following items:

- Execution Methodology to meet the schedule.
- CONTRACTOR'S Organization Chart and resumes of key personnel and deployment plan.
- Communication procedure. Documentation control procedure
- Schedule and other documents as mentioned under section "Project Planning, Scheduling and Control System"
- Quality Assurance Manual and QA Plan
- Proposed sub-contracting plan
- Meetings Procedure
- Reporting procedure including samples of: -
  - Daily reports (during construction phase)
  - Weekly Report
  - Monthly Report
- Engineering Document Review Procedure
- Procurement and subcontracting procedure including examples of:-
  - Un-priced Purchase order
  - Inspection, Expediting Monitoring Procedure
  - Packing, Marking procedure
  - Shipping procedure
  - Warehousing & storage procedure
- Layout drawings of Site offices, sub-contractor offices, warehouses and open storage areas at worksite.
- Construction coordination Procedure
- Construction/Erection procedure
- Pre-Commissioning and commissioning Procedure
- Quality Control and inspection plan
- QA Audit Schedule

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- HSE manual
- Statutory/Regulatory Authority Approvals
- Invoicing Procedure including examples of:
- Invoice Register
  - Invoice
  - Change Order
  - Deviation Permit

3.0 SUNBCONTRACTORS

The names and addresses of approved sub-contractors shall be included in the Project Procedures upon approval by OWNER/ CONSULTANT.

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PROJECT : **SETTING UPOF POLYPROPYLYNE UNIT AT NUMALIGARH, ASSAM.**

CLIENT : **M/s NUMALIGARH REFINERY LIMITED (NRL)**

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INDEX

1. Organization
2. Contractor organization

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1. CONTRACTOR's ORGANIZATION

CONTRACTOR shall prepare and submit the document for approval.

CONTRACTOR shall provide detailed structure of its project team, the personnel for each function (i.e. process, mechanical, electrical etc.), showing the positions, names and locations, which it intends for the execution of the work. The structure of the team could vary in its terms of numbers/field of expertise/location of work for different phases of the work. An organization chart of the overall project structure shall be provided wherein Home Office and Site Office organizations shall be indicated. Organization chart shall indicate names, key personnel/show their line of responsibility & reporting positions such as (Project Manager, Engineering Manager, Construction Manager, Planning Manager, Engineering discipline engineers, QA/QC Manager, HSE manager, Procurement, Inspection/Expediting, Start-up/commissioning team).

CVs of all key personnel shown in the organization chart shall be provided to OWNER/ CONSULTANT.

CONTRACTOR'S Organization Chart shall be updated as and when there are changes in CONTRACTOR's personnel. Any changes in such personnel shall be notified in writing to OWNER/ CONSULTANT for approval prior to the change.

CONTRACTOR shall upon effective date, or in no event later than 5 calendar days after effective date, appoint a representative who shall have full authority to act on behalf of CONTRACTOR in receiving instructions and in the administration of the contract. CONTRACTOR shall also identify the construction manager, HSE manager, Quality manager and Risk manager within 21 days of award of contract and

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communicate the details to OWNER/CONSULTANT with full details and CVs.

CONTRACTOR shall notify OWNER/ CONSULTANT in writing, of any proposed change of CONTRACTOR's REPRESENTATIVE ten days prior to the effective date of such proposed changes. Such proposed change shall be subject to approval by OWNER/ CONSULTANT.

CONTRACTOR shall, upon OWNER / CONSULTANT request, furnish all information concerning CONTRACTOR, his sub-contractors and their representative assigned personnel and agents as may be required for submission to any applicable government/statutory agency/authority or regulatory body.

CONTRACTOR shall take cognizance of observations & comments of OWNER/ CONSULTANT about the adequacy or composition of the proposed organization for the project and take suitable action to address the concerns within 7 days of such observations.

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PROJECT : **SETTING UPOF POLYPROPYLYNE UNIT AT NUMALIGARH, ASSAM.**

CLIENT : **M/s NUMALIGARH REFINERY LIMITED (NRL)**

CONSULTANT : **M/s ENGINEERS INDIA LTD.**

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INDEX

1. Communication
2. Types of correspondences

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1.0 COMMUNICATION

This communication procedure shall be applied for all communication between OWNER/CONSULTANT and CONTRACTOR. The procedure outlined below is indicative and will be finalized during the KOM with the selected Contractor.

Correspondence requirement

This procedure is prepared for the general system of correspondence among related parties involved in execution of the PP Unit of NRL Numaligarh.

Correspondence on technical matters like clarification on technical specifications, drawing/documents reviewed etc. shall be between CONSULTANT (HO) and CONTRACTOR with copies to OWNER (HO & SITE)

All correspondence on contractual/commercial related issues shall be between OWNER & CONTRACTOR and copy to CONSULTANT (H.O.)

Correspondence on construction related matters shall be between CONSULTANT (SITE) AND CONTRACTOR with copies to CONSULTANT (HO), OWNER (HO & SITE).

2.0 Type of correspondence

Correspondence may be classified as follows:

2.1 Letter

A letter will be issued to other party to represent party's intention of proposal, approval, acceptance, objection, conditioning or other commitments. The contents entered into the form of the official letter shall be deemed as definite decision or intention, which may affect or correspond to the contractual situation.

Priority letter message shall be sent by facsimile first and followed by Postal Confirmation Copy in parallel. Each letter shall be limited to one subject in principle.

2.2 E-mail communications

E-mail address of all responsible persons authorized to œrrespond for this project should be available with all the parties for effective and fastest mode of communication.

2.3 Transmittals

Discipline wise Documents/drawings shall be sent with a transmittal, listing all the documents covered under the transmittal in duplicate. The list of document shall include document title, document number, revision number, number of sheets, type of document, purpose such as for Review / information etc. Documents pertaining to two different

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disciplines shall not be clubbed in single Transmittal.

Acknowledgement copy of the transmittal shall be signed by addressee and returned to the originator as an acknowledgement of receipt of documents. Preferably one hard copy and one soft copy of transmittal will be provided.

CONTRACTOR shall submit a 'Drawing/ Document Index' to OWNER / CONSULTANT at the beginning of Project (as envisaged in the technical Part of the Tender). The index shall list all the Documents to be submitted to OWNER/ CONSULTANT for Approval/ Review / Information with Document / Drawing No. and anticipated date of submission of each document, the same shall be incorporated by OWNER/ CONSULTANT in their Vendor Print Control System. Subsequently, all documentation shall be controlled through OWNER/ CONSULTANT Vendor Print Control system.

2.4 Minutes of Meeting

Minutes of meeting shall be issued for confirmation of discussion made in all official meetings. Draft of Minutes of meetings between OWNER/ CONSULTANT and CONTRACTOR shall be prepared by CONTRACTOR within 2 days of the meeting for review of OWNER/ CONSULTANT and shall issue the MOM 2 days thereafter for signature of all parties involved. Project Manager of each party is responsible for distribution of the minutes of the meeting internally

2.5 Letter heading & numbering system

All correspondence shall be issued under a specific subject heading which shall have contract number and title as follows

Package No./Title: -XX / _____

Project No / Job No: (C050)

All correspondence shall bear a unique identification reference number to maintain a uniform system for the entire project with CONTRACTORS, which is made up as follows:

(1) (2) (3) (4)

/ EL-CL / Job No. / L / ---

Abbreviation under the numbers explained as below

1. From - To (see note B)
2. Job No.
3. Type of correspondence (See note A)
4. Serial number of the message

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NOTE- A

L	LETTER
DT	DOCUMENT TRANSMITTAL
E	E-MAIL

NOTE- B

OD	OWNER DELHI OFFICE
OL	OWNER HEAD OFFICE
EL	CONSULTANT HEAD OFFICE
ES	CONSULTANT SITE OFFICE
CL	CONTRACTOR HEAD OFFICE
CS	CONTRACTOR SITE OFFICE

FOR CONTRACTOR:

All letters from CONTRACTOR'S office shall follow and use the prefixes as given above with their own numbering system.

Copies of all the communications between two parties shall be marked to all the other parties listed above.

2.6 Documents register

CONTRACTOR shall keep an up to date register of correspondences received from the other party in order to check that all documentation has been properly received. The register should also cross reference incoming replies in order that an open items listing of unanswered correspondence can be developed and jointly reviewed and confirmed on fortnightly basis.

2.7 Relations with Authorities, Certifying Agencies, etc.

All contacts with the Authorities, Certifying Agencies, etc. shall be organized and managed by the CONTRACTOR on behalf of OWNER. In case CONSULTANT /OWNER presence is required in the meetings, the CONTRACTOR shall schedule meetings after prior consent of the CONSULTANT / OWNER. CONTRACTOR shall give written notice to PMC/OWNER at least two weeks in advance of the required meeting date. Minutes shall be prepared and distributed according to CONSULTANT /OWNER'S instruction.

All draft press release, information handouts and photographs for publication relating to the contract shall be submitted for review and approval of PMC/OWNER prior to release.

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2.8 Communication with OWNER's other contractors

Communication with OWNER's other contractors shall be via CONSULTANT. OWNER/ CONSULTANT may choose to hold worksite coordination meetings either regularly or irregularly to discuss any points requiring cooperation. CONTRACTOR will be required to host such meetings.

The requirements detailed above are complimentary to the obligations of the contractor for scheduling and coordination of all interfaces.

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PROJECT : **SETTING UPOF POLYPROPYLYNE UNIT AT NUMALIGARH, ASSAM.**

CLIENT : **M/s NUMALIGARH REFINERY LIMITED (NRL)**

CONSULTANT : **M/s ENGINEERS INDIA LTD.**

JOB NO. : **C050**

Rev. No	Date	Purpose	Prepared by	Checked by	Approved by
A	31.07.2025	ISSUED FOR BIDS.	RR	KS	DP

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INDEX

1.0 Meetings

1.1 Kick of Meeting

1.2 Weekly Meeting

1.3 Monthly Meeting

1.4 Special meeting

1.5 Other meeting

2.0 Minutes of Meeting (MOM)

3.0 Alternate Location of Meetings

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1.0 Meetings

1.1 Kick of Meeting

Within Fifteen (15) days of the EFFECTIVE DATE, a kick-off meeting will be held between OWNER, CONSULTANT and CONTRACTOR at a venue by OWNER. The meeting will cover following aspects:

a) Contract execution methodology / philosophy, in the line with Project requirement as mentioned in Package/Tender.

b) CONTRACTOR'S understanding of his Scope, Project Design basis and responsibility c) Site / Meteorological Data

d) Review of Statutory and Interface requirements. e) Engineering Design Basis

f) Review of Work Breakdown Structure (WBS)

g) Review of Level – 1 Contract Master Schedule

h) Review of Progress Measurement Methodology and Weightages at various levels of WBS and Progress Reporting Philosophy

i) Finalization of 3 months Front End Schedule (also known 90 days Global Schedule) Project Coordination Procedures, Documentation Procedure, Engineering Coordination procedure Organization Chart (both Home Office and Site)

j) Document Listing and Submission Schedule k) Invoicing Procedure

l) Import Clearance Procedure

m) Supplier list and sub contractor List

n) Methodology of Review of Drawings/Documents by OWNER/CONSULTANT

o) QA/QC Plans

p) Methodology of supplier shop inspection and expediting Methodology of Transportation and handling including Oversized

q) Over Dimensional Consignment (ODC)

r) Construction Methodology and Schemes etc.

1.2 Weekly Meeting

OWNER/CONSULTANT may hold weekly progress review meetings at the work site and during the initial phase of the work at CONSULTANT Home office or CONTRACTOR'S engineering or any other work center, with CONTRACTOR in order to evaluate progress, identify problems and discuss other matters relevant to the work and to review CONTRACTOR'S weekly report.

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1.3 Monthly Meeting

OWNER / CONSULTANT shall hold monthly meetings with CONTRACTOR to review and evaluate the overall status and progress of the work and other matters relating to the work and to review CONTRACTOR'S monthly report.

Regular attendees shall be as agreed between OWNER / CONSULTANT and CONTRACTOR. In addition, the CONTRACTOR shall upon request provide appropriate representation covering the relevant agenda items of the meeting.

The agenda for the monthly meeting as far as possible shall be settled by mutual agreement within five (5) working days before the meeting. Indicative agenda items for the meeting are as below:

a) Action taken report on previous month meeting
b) Presentation on HSE
c) Presentation by Contractor on Project status and major problems Monthly program vs progress status / statistics (Physical and Financial) Major hold ups / slippage
d) Completion outlook
e) Area of concern and critical issues
f) Recovery action plan
g) Status of Long lead / critical items
h) Safety statistics

1.4 Special meeting

OWNER / CONSULTANT or CONTRACTOR may from time to time request a meeting to be held in order to discuss a matter of an urgent nature and which cannot be left until the weekly or monthly meeting, covering a specific matter, requiring a dedicated meeting.

In such circumstances, the party requesting the meeting shall contact the other party and agree upon the agenda, attendees and timing of such meeting.

1.5 Other meetings

1.5.1 Pre-award meetings

CONTRACTOR shall hold a Pre-Award Meeting with the selected Supplier or sub-contractor (for major / critical equipment and package items) prior to CONTRACTOR'S award of a purchase order or sub-contract to ensure conformance to all OWNER

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technical and commercial requirements. OWNER and/or CONSULTANT may participate in these meetings. The followings shall be discussed:

- Contract requirements to ensure Supplier's understanding of its responsibilities;
- Code requirements;
- OWNER's special requirements; Independent third party inspection agency
- Sub-ordered materials and / or workmanship. Extent of in- house fabrication vs. sub-contracting and the need for OWNER/CONSULTANT review;
- Project schedule;
- Supplier quality control program check; inspection hold points;

1.5.2 Pre -inspection meeting

CONTRACTOR shall hold a Pre -Inspection Meeting with each Supplier prior to commencement of fabrication to discuss the items including:

- Supplier's proposals for WPS and PQR (including reference to pre - heat and post weld heat treatment requirements and impact values as may be applicable); Welder's Performance Records for validity;
- Special weld procedure requirements, where applicable; Requirements for production test plates, where applicable; Inspection Schedule;
- Supplier quality control program check; inspection hold points;
- Dimensional tolerances; Witness tests;

1.5.3 CONTRACTOR -Supplier or sub -contractor meetings

CONTRACTOR shall hold regular meetings with each Supplier or sub-contractor in accordance with the agreed procedures.

1.5.4 Mechanical completion / commissioning meetings

Brief daily meeting shall be held during the mechanical completion and commissioning period with an agenda covering:

- Work in progress for the past 24 hours;
- Scheduled progress for the next 24 hours plus next seven days outlook schedule;
- Review of resources; Safety, work permits; and Technical queries or problems

1.5.5 OWNER/ CONSULTANT Attendance

CONTRACTOR shall give a minimum of seven (7) days prior notice for all meetings identified above to OWNER/CONSULTANT except for the weekly meetings, for which 2 days advance notice shall be given.

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OWNER/CONSULTANT shall have the right, at it's own discretion, to attend any such meeting.

1.5.6 Management Meetings

Senior management meetings may take place between OWNER / CONSULTANT senior management and CONTRACTOR senior management as agreed between the parties. As a minimum CONTRACTOR should arrange such senior management meetings quarterly (once in three months). The purpose of such review meetings will be to monitor project status, highlight problem areas and obtain CONTRACTOR and OWNER / CONSULTANT commitment to implement any necessary actions in order to maintain the agreed schedule. The venue of such meetings will be at OWNER/ CONSULTANT Head office or CONTRACTOR Home office location during engineering phase and at the work site during Construction phase unless specified otherwise.

1.5.7 HSE Meetings

OWNER/CONSULTANT and CONTRACTOR shall have weekly / Monthly meetings on HSE matters. CONTRACTOR shall also conduct HSE meeting with his sub contractors.

1.5.8 Discipline Meetings

OWNER/CONSULTANT and Contractor shall have weekly meetings with various disciplines such as QA/QC; Civil, Electrical, etc.

2 Minutes of meeting (MOM)

CONTRACTOR shall prepare the minutes of all meetings between OWNER/CONSULTANT and CONTRACTOR.

The minutes of meeting shall include:

- Date and venue of meeting
- List of persons present, indicating Organizations represented
- Objective of meeting
- Record Note of discussions
- Record of actions agreed, with name of party responsible for execution of each action and the date for completion of the action, indicated in a separate action column (only parties attending the meeting shall be specifically mentioned).
- Action Taken Report (ATR) on previous meetings. Date of issue
- Distribution

For ease of reference, minutes of meetings shall be divided into paragraphs with sub-headings indicating the various topics discussed. CONTRACTOR shall submit the MOM

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for all meetings to OWNER / CONSULTANT for review and approval prior to formal issue.

The MOM shall be prepared and distributed to the participants and other designated parties, within two (2) working days for all meetings except for the daily meetings, for which MOM will be issued at the end of the meeting.

Minute s of meetings between OWNER/CONSULTANT and CONTRACTOR shall be numbered consecutively.

3 Alternate location of meetings

Any meeting may be convened at any other place, e.g. OWNER / CONSULTANT offices, sub-contractor's offices, government offices etc. according to the requirement of the OWNER/CONSULTANT should it believe this to be useful to the progress of the contract.

NOTE: This section should be read in conjunction with provisions of Project Planning, Scheduling, Monitoring & Control System stipulated elsewhere and forming part of this TENDER.

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Rev. No	Date	Purpose	Prepared by	Checked by	Approved by
A	31.07.2025	ISSUED FOR BIDS.	RR	KS	DP

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INDEX

1. Purpose
2. Scope
3. Address of parties and their representatives
4. Communication and general correspondence
5. Project coordination meetings
6. Drawing/documents submission to owner/PMC.

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1.0 PURPOSE

1.1. This procedure has been prepared with the objective of defining systematic and orderly administrative relationship among the related parties.

1.2. This procedure stipulates execution of administrative relationship amongst the various parties.

1.3. This procedure may be modified by mutual agreement among the parties concerned to cater to changed requirements or for the convenience of the various parties.

2.0 SCOPE

This document contains the detailed procedure for the following:

- Address of parties involved
- Communications and general correspondence
- Coordination meetings
- Deliverables and approvals
- Documentation

3.0 ADDRESS OF PARTIES AND THEIR REPRESENTATIVES

Address of parties and their representatives involved with the PROJECT are to be as follows:

3.1 **OWNER:**

Head Office:

Numaligarh Refinery Limited
122A, G.S. Road
Christianbasti
Guwahati-781005

Site Office:

M/s NUMALIGARH REFINERY LIMITED (NRL)
Dist.: Golaghat,
Assam,
India PIN- 785699

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CONSULTANT:
Head Office Address:

Engineers India Ltd.
Sector-16, Gurugram
Haryana-122001

Site Office Address:

SHALL BE PROVIDED LATER

3.3 **CONTRACTOR:**

1. Home Office Address	TO BE FILLED BY
Representative's Name	CONTRACTOR
& Designation	
E-mail	
Telephone No.	
2. Site Office Address	TO BE FILLED BY
Representative's Name	CONTRACTOR
& Designation	
E-mail	
Telephone No.	

4.0 COMMUNICATION AND GENERAL CORRESPONDENCE

i) Project Manager of CONSULTANT is the sole contact with OWNER as well with CONTRACTOR for all activities of the Project. Therefore, all correspondence between CONSULTANT / OWNER and CONSULTANT / CONTRACTOR shall be directly done with/by Project Manager or by his authorized representative. Copies of the relevant correspondence shall be appropriately marked to the concerned parties as applicable.

ii) For signing the communications, Project Manager would authorize the Project Coordinator to sign the letters. Project Manager would authorize the Project Coordinator to sign the letters. Project Manager will correspond for important issues on contract, schedules etc as deemed necessary.

iii) CONTRACTOR shall submit for OWNER/ CONSULTANT review/approval, in kick off meeting, a procedure for coordination and communication between the CONTRACTOR and the OWNER/ CONSULTANT to ensure a proper flow of information. Such a procedure shall define:

- Project organization
- Communication:

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- Abbreviations
- OWNER/ CONSULTANT and CONTRACTOR representatives
- OWNER/ CONSULTANT and CONTRACTOR addresses
- Correspondence with others
- Transmittal notes
- Means of transmission
- Document distribution chart identifying nature of documents, originators and addresses, number of copies required.

- Tracking, scheduling and management of documents methodology.

  The CONTRACTOR will inform OWNER/ CONSULTANT about the system or software proposed for document management. However, the system should be such so as to be compatible with OWNER/ CONSULTANT system for smooth flow of communication.

5.0 PROJECT COORDINATION MEETINGS

CONSULTANT or OWNER may take lead to organize the Project Coordination and/or Progress Review meetings with CONTRACTOR for the purpose of the smooth project execution on daily basis, weekly basis, monthly basis and quarterly basis. Agenda, place and time of the meetings shall be communicated in advance and agreed to between the parties. Details of meetings are referred in the other section in the BID Document.

6.0 DRAWING/DOCUMENTS SUBMISSION TO OWNER/PMC

CONTRACTOR shall prepare and submit Drawings/Documents for either approval or review or information of OWNER/ CONSULTANT. The details are as outlined in the BID Document elsewhere.

CONTRACTOR shall submit a 'Drawing/ Document Index' to OWNER/ CONSULTANT at the beginning of Project. The index shall list all the Documents to be submitted to OWNER/ PMC for Approval/ Review / Information with Document / Drawing No. and anticipated date of submission of each document. The same shall be incorporated by OWNER/ CONSULTANT in their Vendor Print Control System. Subsequently, all documentation shall be controlled through OWNER/ CONSULTANT Vendor Print Control system.

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PROJECT	:	**SETTING UPOF POLYPROPYLYNE UNIT AT NUMALIGARH, ASSAM.**
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JOB NO.	:	**C050**

Rev. No	Date	Purpose	Prepared by	Checked by	Approved by
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1.0 PROCUREMENT

1.1 GENERAL

1.1.1 The costs of all equipment, bulk materials and services as well as all packing costs, insurance, import and export permits, shipping and transportation costs, handling costs, port charges, duties and taxes imposed on locally available and or locally assembled equipment and material import licenses, permits, customs clearances and costs of all kinds associated with the procurement of equipment, materials and services shall be the responsibility of CONTRACTOR.

1.1.2 Within twenty one (21) days following effective date, CONTRACTOR shall submit his proposed Procurement schedule relating to the bidding, evaluation, purchasing, expediting, inspection and transport of materials and equipment to be incorporated in the work and covering but not limited to, the activities described herein for approval and incorporation in the Project Procedure.

1.1.3 CONTRACTOR shall follow its regular purchasing practices and procedures except as the requirement of the contract, including this section, require modification to such practices and procedures.

Procurement Plan – CONTRACTOR shall prepare and submit to OWNER/CONSULTANT a Procurement Plan which outlines organization, methodologies and procedure to be implemented by CONTRACTOR for carrying out all procurement and related activities required by the contract. The plan shall include a sample of each standard form to be used for such activities.

1.1.4 CONTRACTOR shall prepare and issue a Procurement and Material status Report on weekly/ fortnightly basis, incorporating critical data and information from each detailed purchasing report. The exact format and content of this summary report shall be subject to approval.

1.1.5 OWNER/CONSULTANT reserves the right, on a case by case basis and upon notice to CONTRACTOR, to deviate the review procedure specified herein.

1.1.6 OWNER/CONSULTANT reserves the right to attend any CONTRACTOR meetings with CONTRACTOR'S/Sub contractor's or vendors. CONTRACTOR shall give OWNER/CONSULTANT sufficient notice to allow OWNER/ CONSULTANT to attend such meeting. Upon OWNER's request at any stage of design, fabrication or installation, CONTRACTOR shall organise and attend meetings with sub contractors or vendors.

1.1.7 Within one month of the effective date, CONTRACTOR shall produce a list of items to be imported with their estimated value. Each month, or at any other time OWNER/CONSULTANT requires, this list shall be updated with latest quantities and estimated actual or forecast costs.

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1.2 PURCHASE ORDERS

1.2.1 General

CONTRACTOR will take prior approval of Critical MR/PR from OWNER/CONSULTANT/LICENSOR.

All Purchase Orders shall be strictly administered in accordance with the CONTRACT and the Project Procedures. The Purchase Order format shall be submitted for approval.

Purchase orders shall include, when appropriate, a statement that the Material concerned is subject to the requirement of applicable law or statutory regulation and shall include the relevant procedure to be followed by the vendor.

Purchase Orders shall include, when appropriate, a statement that the Material concerned is subject to inspection by CONTRACTOR, Third Party and OWNER/CONSULTANT and that CONTRACTOR and OWNER/ CONSULTANT shall have access to the vendor's works during all stage of manufacturing and testing.

CONTRACTOR shall give close consideration to the need for standardisation to restrict the number of types and sizes of items in the complex in order to simplify maintenance and reduce spare requirements.

CONTRACTOR shall specify the same oil and grease for all equipment lubrication to the extent possible.

CONTRACTOR shall ensure that all required documentation for final importation of Materials and Work to the facilities is prepared and submitted to OWNER/CONSULTANT or the appropriate authority in a timely manner prior to the intended date of importation.

Purchase Orders shall include, when appropriate, a statement that vendors shall ensure the availability of spare parts in accordance with the provision of Technical specification/Contract.

CONTRACTOR shall ensure that vendors furnish for review and for final documentation, all drawings, bills of materials, manuals, certificates and other information necessary to define the equipment and the performance of the equipment as required by contract.

This information shall be incorporated, where relevant, in the equipment dossiers, and the current status of receipt of such information shall be given in the Materials Status Reports.

Report immediately to OWNER/CONSULTANT all change, which will affect material quality and recommend any necessary corrective actions to be taken.

Ensure that vendors/sub contractors are aware of procedure and rules regarding taxes and duties applicable for goods/equipment supplied/WORK executed and furnish proper documentation to OWENR to

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enable them to avail benefit of MODVAT and other tax/duties benefit.

The purchase order placed by CONTRACTOR shall include, but not limited to the following:

- Project name and location
- Identification of PLL as OWNER
- OWNER approved specifications, drawings, data sheets, etc (Purchase specification)
- Quality Programme requirements
- Vendor data submittal requirements
- Terms and conditions of purchase
- Inspection Requirement including Third Party & OWNER /CONSULTANT
- Tagging, packing and shipping instruction
- Storage Instruction
- Agreed delivery date
- Warranty/guarantee terms
- Guarantee period required
- Provision for training
- Reference to QA requirements, Indicative Quality Plan
- After sales services location
- Name of manufacture(s) etc.

In addition, the purchase order shall include requirement for vendor to provide

- Production/delivery schedule
- Spare Parts interchangeability report(SPIR) FORM
- Equipment record cards/Data Folder – Item wise
- Operating/maintenance manuals
- Spares list with unit rates

1.3 REQUISITIONS AND REQUESTS FOR QUOTATIONS

1.3.1 CONTRACTOR and its sub contractors shall prepare all requisitions and requests for Quotation for all equipment, materials and subcontracts in accordance with the project specifications and procurement schedule.

Specific categories of equipment, material and subcontract Requisitions and Requests for Quotation shall be issued to OWNER/CONSULTANT for review by OWNER / CONSULTANT / LICENSOR as specified in the contract document.

1.3.2 Requisitions and Requests for Quotation shall cover requirements for items including

- Scope of work, including transportation and installation, and training for OWNER's personnel.
- Rates for services, such as Commissioning services, vendor/manufacturer representative services, priced

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recommendations for two years operation and maintenance spare parts.

- Equipment and ancillary system particular specifications, data sheets and drawings, battery limits of the supply.
- Design basis, environmental conditions and applicable general specifications.
- Delivery schedule and milestones, including shop tests;
- Schedules, sub-orders, fabrication, shop testing, packing, transportation, and delivery to CONTRACTOR;
- Vendor Documentation Requirement Schedule as per requirements of the CONTRACT, including

- List and address of sub vendors
- Final documents
- Calculations
- Logic diagrams, one line diagrams, P&ID's
- Quality Assurance/Quality Control/Inspections
- Welding procedures and welder qualification records
- Test procedures and reports
- NDT test procedures and reports
- List of equipment to be certified
- All applicable certificates
- Long term preservation procedures
- Handling, transportation and installation and instructions
- Mechanical completion, commissioning and start-up procedures
- Operating and maintenance instructions
- Spare parts requirements
- Spare part recommendations for commissioning and start up and two years operation and maintenance
- Special tools and handling device requirements
- Deviation permit duly approved by owner/Owner Representative
- Vendor installation, Commissioning and start-up assistance and training requirements
- Purchase order or subcontract contractual terms and conditions

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- Equipment lifetime spares pricing and availability undertaking requirement

1.4 OWNER/CONSULTANT REVIEW OF PURCHASE ORDER

CONTRACTOR shall forward Purchase Order together with attached documentation, without pricing details, to OWNER/CONSULTANT for information.

All subsequent changes to purchase order particularly Purchase Requisition following review of the original, shall be subject to prior approval. Where requisitions specify a particular make or brand of equipment to be used followed by the statement "or purchaser approved equal", any such "equal" proposed by the suppliers shall be submitted for owner's Approval.

In the case of complex Purchase Orders with several amendments, a consolidated amendment, canceling and replacing the original Purchase Order and its various amendments, shall be prepared by CONTRACTOR.

1.5 LIST OF VENDORS

1.5.1 List of approved vendors and other stipulation on vendor list is included elsewhere in bidding document. Contractor is required to strictly adhere to these requirements.

1.5.2 OWNER may, at its discretion, delete or add any vendor or subcontractor from the list of approved vendors and subcontractors at any time during the performance of the work.

1.5.3 Bid Evaluation and vendor or subcontractor selection.

CONTRACTOR shall perform its bid evaluations as follows:

After receipt of bids, CONTRACTOR shall review and check the bids for conformity with technical, contractual terms and conditions and Project requirements. CONTRACTOR shall then prepare its Unpriced preliminary bid evaluation summary of all technical, contractual and Project requirements indicating CONTRACTOR's recommended short list of bidders with reasons for such recommendation and submit the same to OWNER / PMC / LICENSOR for review as per contract.

CONTRACTOR shall then carry out its complete Priced evaluations of the short list bidders.

1.6 PURCHASE ORDER CONTROL REGISTER

CONTRACTOR shall establish and maintain a Purchase Order Control Register. This Register shall include all Purchase orders issued for all items of material and equipment to be incorporated in the work. CONTRACTOR shall be capable of generating reports from the Register for Indian and imported items separately.

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The Purchase Order Control Register shall show for each Purchase Order and for each item the following information.

- Purchase order number
- Material Requisition/Purchase Requisition number
- Date of invitation of Bid
- Date of Bid Receipt
- Bid Opening Date
- Date of unpriced final bid evaluation to OWNER
- Date of Purchase Order.
- Date of Order Confirmation
- Name/Address of vendor
- Brief Description of materials and equipment purchased, together with specific identification reference
- Ex shop delivery date
- Expected delivery at worksite
- Shipping details
- Latest purchase order amendment No.
- Expediting details
- Status of Purchase order
- Inspection Status

This Register shall be updated and issued monthly in hard copy, together with two (2) monthly updated diskette copies of the Register to OWNER/ CONSULTANT.

1.7 INSPECTION AND MONITORING

Inspection and monitoring requirement alongwith inspection methodology shall be as detailed in bidding document.

1.8. TRANSPORT

CONTRACTOR shall organise and co-ordinate the transport of all materials and equipment and maintain records of latest status.

Prior to transportation to worksite of any and all parts or components of the facilities, by sea, special means or any other mode of transportation, CONTRACTOR shall obtain all necessary approvals from marine or insurance surveyors or any other statutory body with respect to the means and procedures to be used during packing, weighing, load out, sea fastening, transportation, off-loading and the like.

Regardless of such approvals, CONTRACTOR shall be solely responsible for the adequacy of preparation for the packing, weighing, load out, sea fastening, transportation, offloading and the like to any and all parts of components of the facilities to worksite in accordance with the requirements of the agreement.

At all stages of the work, CONTRACTOR shall ensure the proper identification of all bulk material equipment and supplies CONTRACTOR shall provide OWNER with all applicable certificates and documentation upon delivery of such items at worksite.

Bulk material equipment and supplies shall be properly packed and secured

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so as to satisfactorily reach their destination.

Packing cases, boxes, tins, wrappings and other packaging materials supplied by CONTRACTOR shall be non returnable.

CONTRACTOR shall on a timely basis despatch and deliver any and all bulk material equipment and supplies to the locations required for the performance of the work and maintenance of the contract master schedule.

CONTRACTOR shall be responsible for the selection of the means of transportation of all bulk material equipment and supplies.

CONTRACTOR shall arrange and carry out its responsibility and supervision of the transportation of all bulk material equipment and supplies from the point of fabrication to worksite

CONTRACTOR undertakes to properly store and maintain any and all bulk material equipment and supplies in accordance with the agreement and the best professional practices and shall protect such bulk material equipment and supplies against weather hazards, water, humidity, sand, fire, theft, vandalism and the like.

CONTRACTOR shall at all times use every means to prevent any damage or loss whatsoever to bulk material equipment and supplies

All purchase items shall be properly boxed and shipped to worksite to meet the Project Schedule. CONTRACTOR shall expedite all forwarding of bulk material equipment and supplies

CONTRACTOR shall be responsible for organising and co-ordinating packing, marking and transportation of equipment and materials to the worksite such work shall include.

- ❖ Preparing of packing, marking, shipping and documentation specifications.
- ❖ Inspecting of packing, marking, loading and Off loading
- ❖ Developing plans and procedures for freight forwarding, handling and customs clearance of equipment and materials to ensure that all materials arrives at the worksite on time.
- ❖ Organising and securing the acceptance of the marine transport conditions of heavy equipment by a marine surveyor
- ❖ Organising and ensuring of off loading and ground transportation of equipment and material to the worksite
- ❖ Preparing maintaining and issuing a monthly shipping progress report and monthly shipping forecast in a format reviewed by OWNER
- ❖ Arranging for the importation of all materials and equipment, for receiving and off loading at worksite, and for obtaining all necessary licenses, insurance certificates and any other required documents and
- ❖ Arranging for the use of harbour facilities in India for the off loading of all required equipment and materials

CONTRACTOR shall provide all shipping documents including for Modvat requirement which OWNER may require related to CONTRACTOR's shipments.

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CONTRACTOR shall be responsible for all customs handling and payment of customs dues and port dues and shall maintain a register of customs entry references for the material received at site.

1.9 RECEIVING, INSPECTION AND STORAGE OF MATERIALS AT SITE

CONTRACTOR shall be responsible for receiving, handling, storage and safekeeping of all materials and equipment required for performance of the work.

CONTRACTOR's procedures shall include provisions for storage and protection of material and equipment, including detailed drawings of warehouses and open storage areas

CONTRACTOR shall comply with vendor's recommendations regarding storage and protection of items.

CONTRACTOR shall comply with statutory regulations for storage of any material covered under Explosives Rules

CONTRACTOR field supervision staff shall supervise and coordinate material arrival at site, inspect it to check the compliance with the purchase orders and related specifications classify, store, maintain and finally release them to the sub contractors at the proper time of installation.

Field Warehousing procedure foresees the following duties and functions:

a) Receive the materials which arrive at jobsite and issue the "Daily Material Receipt report".

b) Check adherence in quantity and in characteristics of each item

c) with the indications specified in the relative packing list or bill.

d) Control that no damage has occurred during transportation.

e) After inspection, store materials arrived in a good conditions and in accordance with the purchase order issuing the "Jobsite Receipt Report".

f) Periodically control materials, parts, components and equipment to be installed, in order to guarantee proper maintenance during storage, and to minimize the risk of damage during withdrawal and handling.

This shall include :

- procedures for segregation of items which are not in conformance with requirements in order to prevent their inadvertent use or installation until non-conformance is resolved (i.e. repaired, rejected, etc.) ;
- instructions for appropriate preservation to avoid damage, deterioration or loss;
- quality control approval for withdrawal and handling methods for particular equipment and materials

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g) Prepare and keep up to date a complete file of "Record Card" for materials received or delivered to sub contractors.

h) Deliver to sub contractors the materials to be erected upon presentation of the "Delivery Voucher" signed by CONTRACTOR's supervisors.

i) Issue the "Irregular Material Supply Report" for those materials which might arrive not in accordance with the purchase order and/or damaged. In case of damaged material, the damage will be declared to the carrier which will be requested to sign the "Irregular Material Supply Report" that will constitute a qualified proof for the attribution of the responsibilities and for application with the insurance Company. The same procedure will be followed for non compliance on quantities delivered (in excess or missing).

j) Issue final reports on surplus material status existing in the warehouse at the end of works.
In accordance with the criteria outlined above, CONTRACTOR to prepare & finalise forms to be used in performing the field warehousing activity.

- Daily Material Receipt Report
- Jobsite Receipt Report
- Irregular Material supply Report
- Record Card
- Delivery Voucher.

Final forms and detailed Procedures shall be agreed upon between the OWNER and the CONTRACTOR before the starting of the field construction activities.

1.10 LOCATION OF MATERIALS AND EQUIPMENT

CONTRACTOR shall maintain records of movement of all materials and equipment.

1.11 IMPORTED MATERIALS AND EQUIPMENT

CONTRACTOR shall ensure compliance with documentation procedures, regulations and maintenance of records in accordance with Indian Tax Excise, Customs and Import Laws. CONTRACTOR is required to establish and maintain a proper system equipped with personnel having expertise in tax, excise, customs and import regulations.

CONTRACTOR shall be responsible for obtaining the complete detailed importation procedures from appropriate Customs Authorities and for clearing Customs for the importation, exportation and re-exportation of any CONTRACTOR items and construction equipment.

CONTRACTOR shall request customs inspection with sufficient advance notice to ensure no disruption in the contract master schedule. CONTRACTOR shall assist customs authorities in such inspection and

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shall transmit any necessary documentation to Customs Authorities.

As necessary, CONTRACTOR shall ensure co-ordination and shall work with Customs Authorities and any vendor or sub contractors in order to implement the importation procedures in the most efficient manner.

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PROJECT : **SETTING UPOF POLYPROPYLYNE UNIT AT NUMALIGARH, ASSAM.**

CLIENT : **M/s NUMALIGARH REFINERY LIMITED (NRL)**

CONSULTANT : **M/s ENGINEERS INDIA LTD.**

JOB NO. : **C050**

Rev. No	Date	Purpose	Prepared by	Checked by	Approved by
A	31.07.2025	ISSUED FOR BIDS.	RR	KS	DP

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INDEX

1 INFORMATION REQUIRED WITH BID

2 BILLING SCHEDULE

3 MASTER CASH FLOW SCHEDULE

4 CHANGE ORDER/DEVIATION PERMIT

5 PROJECT COST CONTROL AND MONITORING

6 COST STATUS

7 CHANGE ORDER/DEVIATION PERMIT

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1. INFORMATION REQUIRED WITH BID

Based on the defined scope of work as detailed out in various sections of this tender/Bidding documents, CONTRACTOR shall furnish technical information on equipment, bulk material and site work for the defined package using the formats attached as **Annexure-1** to this document. The information sought in this section is purely meant for reviewing the understanding of the Bidder's assessment with respect to defined scope of works at the time of bidding stage, however the quantum of work as indicated shall in no way be considered from a contractual obligation. In any case it shall be the exclusive responsibility of the EPCC.

CONTRACTOR to ensure that all the equipment, material, hardware etc. as required for completion and successful commissioning of the plant is included in their scope and shall be supplied by the CONTRACTOR without any time and cost implication.

2. BILLING SCHEDULE

CONTRACTOR shall furnish Billing Schedule within one month of award of Contract for OWNER/CONSULTANT approval.

3. MASTER CASH FLOW SCHEDULE

CONTRACTOR shall submit a Master Cash Flow Schedule within a month of award of the Contract. The cash flow projections from zero date shall be made on the basis of Billing Schedule. CONTRACTOR shall use separate sheets for Rupee and Foreign Currency components. Thereafter, breakup of projection for each cost head as per billing schedule shall be furnished on quarterly basis.

4. CHANGE ORDER / DEVIATION PERMIT

For Change Order/Deviation Permit, CONTRACTOR shall prepare and submit necessary supporting documents containing reason for change/deviation, estimated cost along with rate analysis and quotation/documentary support, sketches and drawings and impact on schedule for OWNER/CONSULTANT approval.

CONTRACTOR will maintain Change Order and Deviation Permit registers that will list all the change orders/deviation permits and indicate their approval, cancellation or rejection status.

5. PROJECT COST CONTROL AND MONITORING

Project Cost Control and Monitoring activities shall be performed by OWNER/CONSULTANT during execution of the contract. CONTRACTOR shall include a chapter of Cost Control in the

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Monthly Progress Report and shall highlight the Cost status, Change Order, Deviation Permit and Cash Flow status. The contents of each of section are as follows.

A) **COST STATUS**

Cost status of the Contract shall be projected suitably in a tabular form with a break-up of costs under the heads of original contract value, approved change orders, approved deviation permits, pending change orders, pending deviation permits, invoice to-date and payment to-date.

B) **CHANGE ORDER/DEVIATION PERMIT**

CONTRACTOR shall furnish the status of all change orders/deviation permit in the monthly report.

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ANNEXURE-1

(Assesment of Quantum of Work Formats)

Table 1.1

Job No. C050
Tender No C050-1U68-81-45-PB-T-8010

(COOLING TOWER PACKAGE PP PROJECT-NRL)

FRP Cooling Tower and PVC Film-

SL NO	ITEM DESCRIPTION	DETAIL	UNIT	QTY REQURED	ANY OTHER INFORMATION	REMARKS
1	FRP cooling tower	Qty	No			
		Volume	m3			Total quantity for total Cells to be provided
		Height	m			
2	PVC Film fill	Type				
		Volume	m3			Total quantity for total Cells to be provided

Format no. 5-2742-1130-Table 1.10 Rev.2 /16.10.2020

Table 1.2

Job No. C050
Tender No C050-1U68-81-45-PB-T-8010

PIPING WORK- As applicable

(COOLING TOWER PACKAGE PP PROJECT-NRL)

SL NO	WORK DESCRIPTION	TOTAL INCH MTR		TOTAL WEIGHT OF PIPING MT	TOTAL NO OF VALVES		ANY OTHER INFORMATION	REMARKS
		AG	UG		HAND / GEAR	MOV		
A	CS PIPING							
1	UP TO 2"							
2	3" TO 6"							
3	8" TO 12"							
4	14" AND ABOVE							
B	AS PIPING							
1	UP TO 2"							
2	3" TO 6"							
3	8" TO 12"							
4	14" AND ABOVE							
C	SS PIPING							
1	UP TO 2"							
2	3" TO 6"							
3	8" TO 12"							
4	14" AND ABOVE							

Format no. 5-2742-1130-Table 1.9 Rev.2 /16.10.2020

Table 1.3

Job No. C050
Tender No C050-1U68-81-45-PB-T-8010

ELECTRICAL - As applicable

(COOLING TOWER PACKAGE PP PROJECT-NRL)

SL NO	ITEM DESCRIPTION	DETAIL	UNIT	QTY REQURED	ANY OTHER INFORMATION	REMARKS
A	**CABLES**					
	MV Cables	No. of Core, Size, MOC of Conductor, Insulation Matl.	MTR			
	Control Cables	No. of Core, Size, MOC of Conductor, Insulation Matl.	MTR			
	Fire Alarm and Communication Cables	No. of Core, Size, MOC of Conductor, Insulation Matl.	MTR			
	Cable Trays	Length,size &type	MTR			
B	**AREA LIGHTING**					
	LIGHTING POLE	Height, Type & No. of Fixtures	No.			
	FLOOD LIGHT MAST	Height, Type & No. of Fixtures	No.			
	FLP EQUIPMENT FIXTURES	Type of Fixtures	No.			
	EQUIPMENT LIGHTING	Type of Fixtures	No.			
C	**EARTHING & LIGHTNING PROTECTION SYSTEM**	Earth Electrodes	No.			
		G.I. Strip - Size	M			
D	**PLANT COMMUNICATION SYSTEM**	System Details	No.			
E	**FIRE DETECTION & ALARM SYSTEM**	System Details	No.			

Table 1.4

Job No. C050
Tender No C050-1U68-81-45-PB-T-8010

(COOLING TOWER PACKAGE PP PROJECT-NRL)

INSTRUMENTATION - As applicable

SL NO	ITEM DESCRIPTION	TYPE	DETAIL	UNIT	QTY REQURED	REMARKS
A	**INSTRUMENTS**					
1	CONTROL VALVES	GLOBE/BALL/BUTTERFLY/PLUG	SIZE,MOC,ACTUATOR TYPE & ACCESSORIES	NOS		
2	SELF ACTUATED PRESSURE CONTROL VALVE		SIZE , RATINGS , MOC & TYPE	NOS		
3	FIELD INSTRUMENTS	DIRECT/DIAPH.SEALED	RANGE,MOC & ACCESSORIES	NOS		
4	FLOW INSTRUMENTS	ULTRASONIC/ MAGNETIC/ORIFICE	RANGE,MOC & ACCESSORIES	NOS		
5	LEVEL INSTRUMENTS		RANGE,MOC & ACCESSORIES	NOS		
6	LEL/FIRE DETECTION SYSTEMS		RANGE,MOC & ACCESSORIES	NOS		
7	CORROSION TRANSMITTER		4-20mA, SMART HART, TWO- WIRE, INTRINSICALLY SAFE, ZONE-1, IIA/IIB, WITH WEATHERPROOF ENCOSURE, POLYURETHANE, BODY (MEASUREING UNIT), SS 316L ELEMENT,1/2" NPT ENTRY	NOS		
8	SAFETY VALVES		Size , RATINGS , MOC & TYPE	NOS		
9	GAS DETECTORS			NOS		
10	VIBRATION TRANSMITTER			NOS		
11	PRESSURE & TEMPERATURE GAUGES			NOS		
12	ANALYSERS		TYPE , SHELTER	NOS		
13	DCS/PLC/ BASED INSTS.		NO OF COUNTS	NOS		
B	**CABLES**					
	Control, Signal , Alarm	FIRE SAFE / WITHOUT FIRE SAFE	SIZE & SPECIFICATIONS	MTR		
C	**ERECTION MATERIALS**					
1	JN. BOXES		SIZE & SPECIFICATIONS	NOS		
2	CABLE DUCTS		SIZE & SPECIFICATIONS	m		
3	CABLE TRAYS		SIZE & SPECIFICATIONS	m		
4	MULTIPLE CABLE TRANSIT BLOCK		SIZE & SPECIFICATIONS	NOS		

Table 1.5

Job No. C050
Tender No C050-1U68-81-45-PB-T-8010

CIVIL & STRL WORKS -As applicable

(COOLING TOWER PACKAGE PP PROJECT-NRL)

SL NO	WORK DESCRIPTION	TYPE	DETAIL	UNIT	QTY REQUIRED	REMARKS
1	**PILING**		Dia	mm		As Applicable
			Type	Driven/bored cast in situ/other		
			Grade of concrete			
			Qty	Nos.		
			Length	M		
			RCC	m3		
			HYD Bars	MT		
2	**STRUCTURAL STEEL**		GRADE (E-250/E-350)			
			QTY	MT		
3	**TOR STEEL (Excluding Building , Piling and pavement)**		QTY	MT		
4	**Earthwork in Excavation**		QTY	M3		
5	**CONCRETING INCLUDING UG WORKS (for Drains, Catch Basin, Manholes & Clean Outs, trenches, pipe sleepers etc.), SUMPS BUT EXCLUDING PILING, PAVEMENT AND BUILDINGS**					
5A	**RCC for Drains, Catch Basin, Manholes & Clean Outs, trenches, pipe sleepers etc.**		GRADE			
			QTY	M3		
5B	**PCC for Drains, Catch Basin, Manholes & Clean Outs, trenches, pipe sleepers etc.**		GRADE			
			QTY	M3		
6	**Drain Grating**		GRADE			
			QTY	MT		
7	**BUILDINGS**		NO. OF FLOORS	Nos.		
			AREA	Sq. m		
			TYPE			
8	**AREA PAVEMENT AND WALKWAY**		Area	M2		
			Type			
			Garde of concrete			
			HYD	Grade and MT		
9	**FIRE FIGHTING SYSTEM**					
9.1	**Fixed Fire fighting System (Like fire hydrants, Long range Monitors etc.)**		SYSTEM DETAILS	NO.		
9.2	**Mobile Fire fighting System**		SYSTEM DETAILS	NO.		
9.3	**Clean Agent System**		Risk Volume	m3		
10	**UG PIPING**		MOC , Size and type	INCH-meter		
11	**EOT CRANE /HOT CRANE (as applicable)**					

Table 1.6

Job No. C050
Tender No C050-1U68-81-45-PB-T-8010

OPERATION AND MAINTAINENCE - As applicable

(COOLING TOWER PACKAGE PP PROJECT-NRL)

SL NO	WORK DESCRIPTION	DETAIL	UNIT	QTY REQURED	REMARKS
1	CATALYSTS & CHEMICALS				
1.1	All kind of Chemical dosing (initial filling/dosing and 6 months filling/dosing)	. Specs / Grade/Qty	Kg		
1.2	Oil & Lubricants (Initial filling and 6 months filling)	. Specs / Grade/Qty			
1.3	Operation and Maintenance (Initial operation and maintenance upto completion, Operation and maintenance upto 6 months from date of completion)	. Specs / Grade/Qty	Kg		
1.4	Manpower Requirement		Manmonths		

Format no. 5-2742-1130-Table 1.13 Rev.2 /16.10.2020

Table 1.7

Job No. C050

Tender No C050-1U68-81-45-PB-T-8010

PUMPS

(COOLING TOWER PACKAGE PP PROJECT-NRL)

SL NO	EQUPT. NO	DESCRIPTION	TYPE OF PUMP	NO OF STAGES	MOC		CAPACITY CUM / HR	HEAD MTR	SAEL PLAN	DRIVER DETAIL		REMARKS
					CASING	IMPELLER / PLUNGER				TYPE	RATING IN KW	

Format no. 5-2742-1130-Table 1.1 Rev.2 /16.10.2020

Table 1.8

Job No. C050
Tender No C050-1U68-81-45-PB-T-8010

PAINTING & INSULATION - As applicable

(COOLING TOWER PACKAGE PP PROJECT-NRL)

SL NO	WORK DESCRIPTION	DETAIL	UNIT	QTY REQURED	REMARKS
1	**PAINTING**				
	- Painting Area				
	Equipment	Surface Area	M2		
	Piping	Dia & Length	In / M		
2	**INSULATION**				
	- Insulation Area				
	Equipment	. Surface Area	M2		
	Piping	. Dia & Length	In / M		

Format no. 5-2742-1130-Table 1.13 Rev.2 /16.10.2020

PROJECT : **SETTING UPOF POLYPROPYLYNE UNIT AT NUMALIGARH, ASSAM.**

CLIENT : **M/s NUMALIGARH REFINERY LIMITED (NRL)**

CONSULTANT : **M/s ENGINEERS INDIA LTD.**

JOB NO. : **C050**

Rev. No	Date	Purpose	Prepared by	Checked by	Approved by
A	31.07.2025	ISSUED FOR BIDS.	RR	KS	DP

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INDEX

1 General

2 Requirement For Contract Closing

3 Documentation

4 Time Frame For Contract Closure

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1.0 GENERAL

a. CONTRACTOR after completing the works in all respects as specified elsewhere in the BID document is required to complete the following activities but not limited to the same for closing of the contract.

b. Payment against CONTRACTOR'S Final Bill shall be released upon the satisfactory completion of activities pertaining to closing of the contract.

2.0 REQUIREMENT FOR CONTRACT CLOSING

The CONTRACTOR shall be required to submit the following documents but not limited to the same on completion of work along with the final bill:

a. Certificate for successful completion of Commissioning and Performance test. b. Certificate of submission of certified As-built documents
c. Reconciliation of Free Issue Material, if any.
d. Site clearing as per Contract.
e. Handing over of spares and surplus materials after reconciliation, codification & Acceptance.
f. Supply and acceptance of special tools and tackles.
g. Submission of Operating/Maintenance Manuals.
h. Submission of any balance documents to the OWNER for claiming Tax Benefits, as applicable.
i. Requisite approvals from Statutory Authorities and Government bodies.
j. No dues certificate from Statutory Authorities and Government bodies. k. Settlement of all extra claims with OWNER/CONSULTANT, if any.
l. No claims certificate.
m. Contractor Demobilization checklist as per **Attachment-I.**
n. Completion of Contract closeout checklist as per clause 2.1
o. Detailed contract closeout report.
p. Any other documents to be submitted as specified elsewhere in the contract.
q. No liability certificate: Self–certification from the CONTRACTOR that no payment is balance to their sub-contractors and suppliers on account of service rendered / Materials supplied by them or provide list of balance payments due indicating reason for non-payment/time frame for payment.

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3.0 DOCUMENTATION

Documents as specified under clause no. 2.0 are to be submitted to OWNER / CONSULTANT along with the final bill.

4.0 TIME FRAME FOR CONTRACT CLOSURE

The CONTRACTOR shall be required to submit all the documents as per the schedule agreed with OWNER/CONSULTANT. CONTRACTOR shall take care of the following while preparing the schedule:

- Documents related to statutory authorities (like IBR, CCOE etc.) approvals and QC.
- Documents shall be submitted at least one month before Mechanical completion.
- Mark-up of P&IDs and Instrument Hook up Diagrams shall be submitted at the time of Mechanical Completion.
- Other documents for such activities, which are completed before Mechanical Completion, shall be submitted within one month of Mechanical Completion.
- Balance documents such as Mechanical Completion certificate, Performance Guarantee Test certificate, As Built documents, No Claims certificate, etc. excluding Final Completion certificate are to be submitted within one month after completion of the Performance Guarantee Test.

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ATTACHMENT–I: CONTRACTOR DE-MOBILIZATION CHECKLIST

DATE_____

PROJECT OWNER
CONSULTANT
NAME OF CONTRACTOR
CONTRACT NO.

DESCRIPTION OF ACTIVITY	SIGNATURES WITH COMPLETION DATE		
	CONTRACTOR	CONSULTANT	OWNER
Free Issue Material reconciliation Removal of temporary facilities –site office, temporary water/ Power etc.			
Clearance of site viz. debris, construction material, tools & tackles, equipment, etc.			
Reconciliation of entry passes for men/materials			

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PROCEDURE FOR SMART INTEGRATED ENGG & DIGITAL HANDOVER

PROJECT : EPCM SERVICES (Part-A) FOR 360KTPA PPU at NRL

OWNER : M/s NUMALIGARH REFINERY LIMITED

CONSULTANT : M/s ENGINEERS INDIA LTD

JOB NO. : C050

Client Document Number : EL-1P39A-PE-PRC-0001

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A	24/07/2025	ISSUED FOR ENGINEERING	MS	SKJ	SV

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GENERAL

This chapter details the requirements pertaining to various drawings, documents and 3D model to be generated at various stages during the course of execution of the project by the Bidder(contractor/vendor/supplier) for activities associated with Smart Integrated engineering and digital handover. These stipulations are supplementary to following specifications (enclosed elsewhere in the contract):

S. No.	Spec. No.	Specification detail
1.	6-78-0001	Specification for quality management system requirements from bidders
2.	6-78-0002	Specification for documentation requirements from contractors
3.	6-78-0003	Specification for documentation requirements from suppliers

The Bidder shall recognize that efficient handling of drawings and documents to be prepared by him under the contract is the key to the timely completion of the plant.

The Bidder shall ensure that all drawings and documents to be submitted by him to the OWNER/CONSULTANT shall be of professional quality and conforming to the contractual requirements.

The Bidder shall submit the drawings through the defined document management system for the project for review by OWNER /CONSULTANT, and shall maintain a record of drawings submitted till date at all times. Access to document management system shall be provided by client/consultant to the successful bidder.

Compliance of this chapter on drawings and documents is mandatory and is non-negotiable.

A pre-defined document numbering and tag numbering specification provided in document no NR-0ZZZZ-GE-SPE-0001 & NR-0ZZZZ-GE-SPE-0002 respectively, specified elsewhere in the contract document is to be followed for the project which shall be adopted and implemented by bidder for defining tags and numbering documents generated for this project. The same shall be used for uploading of document in owner/consultant document management system. Relevant Annexures and details shall be provided to successful bidder (as applicable).

Computer aided design and drafting shall only be used. Standard, approved and well-established PC based computer programs/software packages, available in market shall only be used by the Bidder and its sub-vendors etc.

All documents, before forwarding to OWNER /CONSULTANT shall be vetted in detail by Bidder. Documents received without vetting will be returned without review. Also, any in accuracies/mistakes found will not only be rectified by the BIDDER but the BIDDER shall remain liable for bearing charges towards efforts spent by OWNER/CONSULTANT for discussing the same. Delay owing to these shall be to the account of BIDDER.

Review of the drawings/documents by OWNER/CONSULTANT would be only limited to the review of compatibility with basic designs and concepts. The review by the OWNER/CONSULTANT shall not be construed by the BIDDER as limiting any of his responsibilities and liabilities for mistakes and deviations from the requirements, specified under these specifications and drawings.

All drawings, datasheets, specification & model etc. shall be generated by the use of authoring tools specified elsewhere in the contract document. The digital handover shall be in soft native files along with associated database.

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BIDDER shall furnish 3D modeling (with complete details with respect to equipment, Piping, Civil, Structure, Electrical & Instrumentation in line with scope of work for 3D modeling) of plant with dynamic walk-through facility to check any interference, requirement of safety, operation and maintenance for getting approval from OWNER/CONSULTANT with input data. Associated data base files along with library shall also be furnished at 30%, 60% and 90% model reviews.

Each deliverables submitted drawing submitted by the BIDDER shall be clearly marked with the name of the Owner, Project name, the unit designation, drawing title, the specification title & number, drawing number, revision No. and date. If standard catalogue pages are submitted the applicable items shall be indicated there in. All titles, notings, markings and writings on the drawings shall be in English. The template shall be approved by the consultant/client. All deliverables and documents shall be prepared on the approved template provided by consultant/client.

All the Engineering design and specifications shall be normally prepared in MKS system excepting for Civil/Structural wherein, the SI system is in vogue based on applicable design codes. Upon receiving comments on Drawings/Documents, the BIDDER shall provide compliance report/comment resolution sheet, separately on each of the comments, document-wise, along with the subsequent submission. Comments given by OWNER/CONSULTANT shall be discussed, if required, and finalized within the agreed schedule.

The schedule of submission of Drawings/Documents shall be in accordance with project plans only. The detailed list under different category, document-wise, shall be prepared by BIDDER for review/records of OWNER/CONSULTANT.

The BIDDER shall maintain up-to-date record of drawings & document status and make regular issue of drawing/documents index **discipline wise, on monthly basis, with copies to OWNER /CONSULTANT Site &, H.O.** indicating schedule date of submission, submission date of various revisions and date of review with code of review/ approval.

2. Category of Documents and Cycle Time

The handling of documents by OWNER/CONSULTANT /BIDDER shall be as follows:

2.1 OWNER /CONSULTANT's Review/Records

A detailed document list clearly identifying review/records category against each document shall be developed. Following may please be noted for all the documents engineered by the BIDDER:

a) Review

BIDDER can proceed if OWNER/CONSULTANT's comments are not received within 10 working days of its receipt by OWNER /CONSULTANT. However, if major deviation to contract specification for any design deficiency is detected in the course of review after stipulated period, it shall be the responsibility of the Bidder to see that such deviations and deficiencies are corrected to ensure compliance to contract without any cost and time implication to Owner.

b) Records

BIDDER shall submit documents for OWNER/CONSULTANT's information and proceed with the work. OWNER/CONSULTANT comments, If any, which relates any cost and/or time implication to the owner due to inadequacies/inaccuracies may be brought to the attention of BIDDER at any stage for incorporation without any cost or time impact to owner.

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The documents falling under review category shall in general, except for drawings requiring multi-disciplinary review, be returned with comments within 10 working days.
Documents submitted without meeting pre-requisite requirements will be returned without review.

However, documents like equipment layout etc. where multi-disciplinary activity is involved, the BIDDER, after submission for OWNER/CONSULTANT's review, shall visit OWNER/CONSULTANT for discussion for expeditious review of documents.

In absence of visit of BIDDER'S engineering team at OWNER/CONSULTANT office, review time shall be 15 working days. The information category document will be retained for records only. It is BIDDER'S responsibility to correct the deviation, if any, to the stipulation in the bid document, without any cost or time implication to Owner.

2.2 BIDDER'S Review

BIDDER shall furnish compliance statement to OWNER /CONSULTANT's comments while submitting the next revision within 10 days from the date of release of drawings and documents by OWNER/CONSULTANT.

2.3 Control and Monitoring of documents review and submission

Drawing schedule shall indicate the following :

- Schedule/Actual submission date to owner
- Category of submission
- Receipt of comments from Owner
- Category of return status from Owner
- Issue date for Construction

This updated schedule shall be issued on fortnightly/monthly basis, as agreed, and compared with Owner's log.

Detailed listing of documents (discipline wise) which are scheduled to be submitted or re-submitted incorporating OWNER/CONSULTANT's comments shall be provided by BIDDER in the weekly meetings. Bidder shall ensure that drawings /documents are submitted as per the agreed schedule only. Bunching of documents/out of sequence submissions and consequential delay of documents and its review thereof shall be exclusively attributable to BIDDER.

2.4 Pre-Requisites from Bidder

2.4.1 At the kick-off meeting, the BIDDER must submit discipline wise list of documents and drawings index.

2.4.2 The Drawing Index (discipline wise) shall include description of drawings/ documents, category of drawings, scheduled date of submission, actual date of submission, review code received with dates. This shall be updated fortnightly/monthly, as agreed by BIDDER and copies issued to OWNER /CONSULTANT site and H.O. as well as Owner. Drawings submitted before finalization of drawing index shall be rejected.

2.4.3 BIDDER shall separately submit list of drawings/documents involving multi- disciplinary reviews, considering the OWNER /CONSULTANT departmental activities (furnished in the contract) during the kick off meeting itself. They are also highlighted in the discipline- wise document list.

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2.4.4 Critical and typical drawings/documents having impact on schedule and quality should only be identified for such timely reviews in Document Control Index. This shall be adopted after receipt of drawings/documents indexes from the BIDDER at the kick-off meeting with mutual understanding of the BIDDER/concerned specialist/Owner.

2.4.5 Any deviation on Record category drawings/documents and on review category drawings observed later or in execution at site during site visit/technical review by OWNER/CONSULTANT shall be taken seriously. Bidder shall rectify the same at his own cost and time.

2.4.6 BIDDER shall plan submission progressively so that no bunching takes place in any discipline.

2.4.7 Review period shall be reckoned from the "Date of Receipt" of documents/drawings at OWNER /CONSULTANT to the "Date of Receiving" the reviewed documents by the BIDDER from OWNER /CONSULTANT office. BIDDER shall monitor submission and receipt.

2.4.8 Documents/drawings received prior to holiday/week end shall be accounted as received on the following working day and the review period committed shall include only working days.

2.4.9 Quality of drawings/documents is the essence for a timely review. If major comments/deviations to the contract document are noticed, the drawing shall be returned in Code-3.

2.4.10 Sequence of submission of drawings is essential for proper review of documents and timely completion of the project and the same is to be adhered to. In case sequence is not maintained, the documents submitted shall not be reviewed by OWNER/CONSULTANT and the responsibility of timely execution of the plant shall remain with BIDDER.

2.4.11 Piping/Instrument & other engineering drawings/documents shall be issued only after the corresponding P&IDs& Process documents coming under review category are first reviewed by the concerned department in code-2 as a minimum.

2.4.12 In principle. BIDDER is not expected to revise drawings/documents already reviewed in Code-1.

a) If it is of utmost necessity to revise or add some minor details in Code-1 drawings, BIDDER shall highlight such revisions by marking "CLOUD" and providing appropriate revision nos. to such additions/alterations. BIDDER is also needed to provide a "BLOCK" in the drawing indicating reasons of such changes and to insert another "Review Block". OWNER /CONSULTANT shall put relevant code for such revisions only. Code marking given by OWNER /CONSULTANT on such revisions shall not change the category of drawing.

b) Any major change in Code-1 drawing shall call for preparation of new drawing.

2.4.13 Based on the confidence gained on BIDDER'S quality of drawings/documents already submitted, "Review Category" drawings could be retained as Information/Records and vice versa at the discretion of OWNER/CONSULTANT. This however, does not change the category of drawings.

2.4.14 Once a document is already reviewed in Code-2, subsequent submission due to non-incorporation of comments shall not be accounted for any contractual commitment of review period from OWNER /CONSULTANT. BIDDER is expected to comply with OWNER /CONSULTANT's comments in the next revision after Code-2 and is required to submit a compliance report accordingly

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2.4.15 Deviation permit, submitted for seeking deviation in vendor document management system, shall be separately identified and shall not be considered as a document for timely approval/review.

2.4.16 When OWNER/CONSULTANT deploys engineers at the BIDDER'S work center following shall be satisfied:

- Review is limited to identified long delivery/schedule critical items only.
- Readiness of documents/drawings shall be ensured by the BIDDER.
- Presence of lead engineers of all disciplines of the BIDDER.

2.4.17 If OWNER/CONSULTANT highlights any necessary rectifications required in the construction at the time of Technical Review/Audit, construction executed based on record category drawings not complying with Bid requirement, BIDDER shall rectify without any impact of time and cost to Owner.

2.4.18 BIDDER shall submit designs drawings for review only after the corresponding GA/Equipment datasheets etc. have been coordinated in his office and reviewed by OWNER/CONSULTANT engineers at least in Code-2. Such OWNER/CONSULTANT reviewed drawings shall be furnished along with drawings/designs for timely review.

2.4.19 BIDDER shall open an engineering office in India for speedy document submission and to help faster review of the drawings & documents.

2.5 Approved for Construction Drawings

Drawings reviewed under Code1 & Code2 required for execution at site shall be decided by BIDDER and copies need to be sent to OWNER /CONSULTANT (RCM), BIDDER'S RCM and NRL PPU (site).

- "**Approved for Construction**" stamped/sticker drawings shall be issued by BIDDER for execution.

- "**Approved for Construction"** stamped/sticker shall be done separately on the reviewed print and not on the Title block.

-Without changing Revision **Number**, BIDDER to arrange adequate number of prints of documents and drawings to BIDDER'S RCM, OWNER/CONSULTANT RCM and NRL PPU (site) with transmittal.

- Copies of only reviewed or final documents like design calculations, design basis etc. shall be sent to OWNER /CONSULTANT site for records.

- Copy of such transmittal shall be sent to OWNER /CONSULTANT (HO) & BPREP (HO) for records.

2.6 Critical Drawing/documents shall be reviewed by Licensor during the course of Project execution; list of Licensor mandatory review document is enclosed elsewhere in the contract.

2.7 Mandatory compliance to the smart engineering activities at Bidder's end

2.7.1 Plant Breakdown Structure (PBS) supplied by EIL is to be adhered. The SEED file and Plant Breakdown Structure (PBS) shall be provided by consultant to the successful bidder which

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shall be utilized by the bidder for their smart integrated engineering activities without any deviation.
For any deviation in this regard prior approval need to be taken by Bidder from EIL.

2.7.2 For residual engineering (process), work share to be followed. In case any new symbol is required, same shall be obtained from/ authorized by EIL.

2.7.3 All P&IDs need to be smartly developed. All the constituents of P&ID need to be intelligently mapped with database/database driven. There shall not be any graphics/symbols/texts in the smart P&IDs. There shall not be any dummy graphics/symbols/texts in main body of the P&ID.

2.7.4 3D Modeling for Piping, Equipment, Instruments & Electrical need to be database driven. Dummy graphics need to be avoided. Quality check & data connectivity shall be ensured at Bidder's end before submitting the data files/documents/3D Model to the Consultant.

2.7.5 All the applicable deliverables shall be extracted from 3D model without any manual rework done thereafter. This is to maintain the consistency between 3D model and extracted deliverables.

2.7.6 Deliverables from 3D model shall be extracted only on conforming the alignment of interfaces with client model and clash free design.

2.8 Digital handover of Engineering Information

Smart Integrated engineering shall be utilized to carry out engineering activities. Intelligent Systems shall be used for the management of P&ID, Equipment layout, 3D Model, Piping, Electrical and Instrumentation design & deliverables including P&IDs, Reports, MTO, procurement etc.

The data in each such intelligent system, including the 3D Model and Intelligent P&ID's to be submitted by the Bidder in a predefined Software version/format, as tabulated below. The same shall be submitted by the respective LSTK vendor/equipment suppliers strictly without any deviation.

Software versions/Format Requirements

The definition is in general terms containing (native (N), image (I), portable document format (D)) the formats in which Bidder shall provide electronic versions of Documents. Acceptable applications for each format type are listed in the table below.

Sl.	Applications	Documents /Software	Format
1	Project Scheduling	Primavera latest version	Primavera P6 XER files
2	3D Design	Smart Plant 3D version 13.1 MS SQL Enterprise / Standard 2019 Windows Server 2019 / 2022 along with Reference project for Catalogues, Standards, customization develop for the job etc. A multi-discipline 3D model comprised of many components, which facilitate clash free design, produce 2D drawings from the 3D master, performs MTOs etc. 3D Model shall	S3D Data Model, Periodic Catalog and Model Database Backups in MSSQL format

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		comply with 3D Model Specification.	
3	P&ID	Smart Plant P&ID version 11 With MS SQL data base 2019. Windows Server 2019 / 2022	All the project required Reference Data also need to be provided. Periodic Backup to be provided using MSSQL
4	Electrical System Configuration	Electrical Design- Smart Plant Electrical v10 MS SQL 2019 & Windows Server 2019 or later Electrical Analysis – ETAP	Periodic Database backups for Smart Electrical in MSSQL format.
5	Instrumentation	Smart Plant Instrumentation v13.1. MS SQL 2019 and Windows Server 2019.	Periodic Database backups for Smart Instrumentation in MSSQL format
6	Datasheets & Line list	Output in searchable/hotspot able PDF/ Excel	
7	Piping Stress Analysis	CAESAR II Version 14	Report files of the calculations and isometrics of high stress lines.
8	Structural Detailing	TEKLA	
9	Structural Analysis and design	Staadpro V8i & Staad Foundation advance V8i	
11	All Text Data	Microsoft Excels/Microsoft Words /OCR readable PDF/AutoCAD 2018	

Approval for initiation of modelling activities will be provided once the above-mentioned capabilities is fulfilled and successfully demonstrated to Consultant/Client. Also, when bidder is delivering the 3D model at any stage of the project, they have to convert all the files/database etc. to S3D format meeting above stated requirement. Validation and correctness of converted model shall be ensured by bidder before submitting the model to consultant/client.

No model review shall be done without submission of 3D model file/database in S3D format and subsequent acceptance by consultant/client.

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TECHNICAL DOCUMENTATION FRONT SHEET

Total pages: 15

NUMALIGARH REFINERY LIMITED

NRL EXPANSION PROJECT
TECHNICAL DOCUMENT NUMBERING SPECIFICATION

Rev	Date	Reason for Issue	Prepared	Checked	Approved	Prepared	Review	Review
P4	24/12/2021	Approved for Projects use				MKB	RG	GKB
P3	29/07/2021	Approved for Projects use				MKB	RG	GKB
P2	12/05/2021	Approved for Projects use				MKB	RG	GKB
P1	02/04/2021	Approved for Projects use				MKB	RG	GKB
A6	24/09/2020	New document type added				MKB	RG	GKB
A5	15/09/2020	New revision code added				MKB	RG	GKB
A4	30/06/2020	Fluid code revised				MKB	RG	GKB
A3	30/04/2020	Assets code revised				MKB	RG	GKB
A2	22/02/2020	Revised for new facility				MKB	RG	GKB
A1	11/09/19	Issued For Information				MKB	RG	GKB
			Disc. Eng.	Disc. Lead	Contr. Rep	Disc. Eng.	Proj. Eng	Com.Rep. Dept. Head

NRL

Contract Number

Disk Ref.

Category	Code	Description
Facility Area Code	0Z	Common Document
Document Type	SPE	Specification
System Number	00	General
Life Cycle	01	

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Originator/ Contractor	Asset Code	Disc	Document Type	Sequence Number	Revision
NR	0ZZZZ	GE	SPE	0001	P4

TECHNICAL DOCUMENT NUMBERING SPECIFICATION

Index

1. GENERAL
- 1.1 Purpose……3
- 1.2 Implementation and Responsibility……3
- 1.3 Coordination of Amendments……3
- 1.4 Using the Document……3
- 1.5 Document number format diagrams……3
- 1.6 Electronic document management……3
- 1.7 Document number uniqueness……4

2. DOCUMENT & DRAWING NUMBERING
- 2.1 Document & Drawing Numbering Format ……4
- 2.2 Multidiscipline Design Documents/Drawings……4

3. CODES
- 3.1 Contractor/Originator Codes……4
- 3.2 Asset code……5
  - 3.2.1 Facility Code ……5
  - 3.2.2 Area Codes……6
  - 3.2.3 Unit Code……6
  - 3.2.4 Project Code……6
- 3.3 Discipline Codes ……6
- 3.4 Document Types ……8
- 3.5 Sequence Number……12
- 3.6 Sheet Number ……12
- 3.7 Life Cycle Code……12

4. DOCUMENT REVISION
- 4.1 Revision Codes……13

5. EXAMPLES OF NON-STANDARD NUMBERING
- 5.1 Piping isometric numbering format (example) ……13

Page 1003 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

1.0 GENERAL

1.1 Purpose

The purpose of this document is to provide a standardized numbering system for NRL technical documentation.
Historical numbering system used by NRL will continue to be used for already operating facilities and any modification/revamp related to those facilities.

This document shall be applied to documentation generated for NRL starting from Expansion Project onwards.

1.2 Implementation and Responsibility

The contents of this specification shall be adhered to by NRL, Licensors, Any Contractors/Sub-Contractors and Vendors performing work for NRL. NRL Document Management Team shall be responsible for the implementation of and compliance to this document, ensuring input and communicating changes.

1.3 Coordination of Amendments

Amendments to this specification will be controlled by the document owner named on the front sheet.

The owner shall ensure that appropriate review and update processes are established to ensure that the various stakeholders are consulted and informed of changes to the Technical Document Numbering System. The owner shall assess changes to determine the extent of consultation, however as a guide, if a variation to the document numbering structure (including length of component parts) is proposed, NRL DMT and/or TA review is required. Addition of extra contractor codes or other components does not require NRL DMT/TA review.

The owner may delegate this responsibility to others if appropriate.

1.4 Using the Document

Section 1 provides instructions and guidelines as to how to manage document numbering across NRL Expansion Facilities.

Section 2 gives the basic format for the document numbering philosophy for Engineering and Vendor documents/drawings that shall apply throughout the NRL Expansion Facilities.

Section 3 provides the various codes that form the components of the document number. Please note that some codes, for example asset codes, also apply to equipment and therefore also appear in the Engineering Numbering Specification (NR-0ZZZZ-GE-SPE-0002). In order to avert the risk of differences between the Engineering Numbering Specification (ENS) and the Technical Documentation Numbering Specification (TDNS) the master coding for such codes shall be preserved within the TNDS.

Section 4 provides guidance on document revision numbering.

Section 5 provides examples of non-standard numbering.

1.5 Document number format diagrams

The diagrams in this document use the letter “A” to refer to alphanumeric characters (i.e. 0 to 9, or A to Z). The letter “N” is used to denote numeric characters only (i.e. 0 to 9). () denote provision optional additional character (if require).

1.6 Electronic document management

Where a document number is used in transmittals, document registers, electronic document management systems and other linked database systems where the document is referenced, strict rules need to be established for handling padding characters such as hyphens to ensure successful transfer and/or retrieval of information from such systems.

1.7 Document number uniqueness

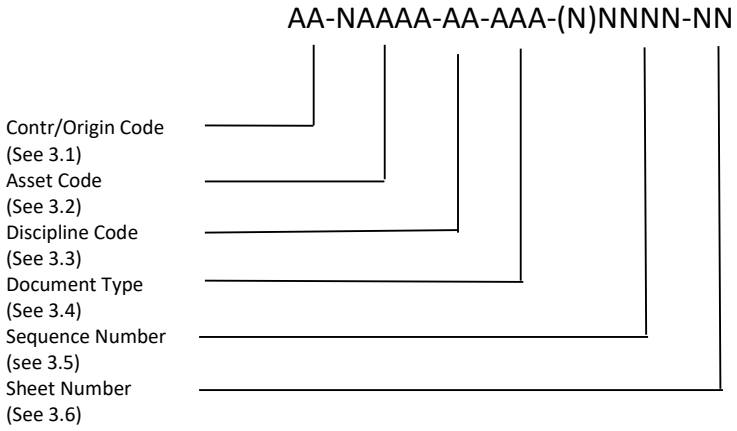
Application of the coding rules described in this document ensures uniqueness of document numbers that are shown on the front sheet and on each page of documents. When transmitted as an electronic file, the filename shall include the revision code.

2. DOCUMENT & DRAWING NUMBERING

This section describes how to number and document and what are the various character used for numbering a document.

2.1 ENGINEERING Document & Drawing Numbering Format

All Technical Documents & Drawings shall be numbered according to the following format:

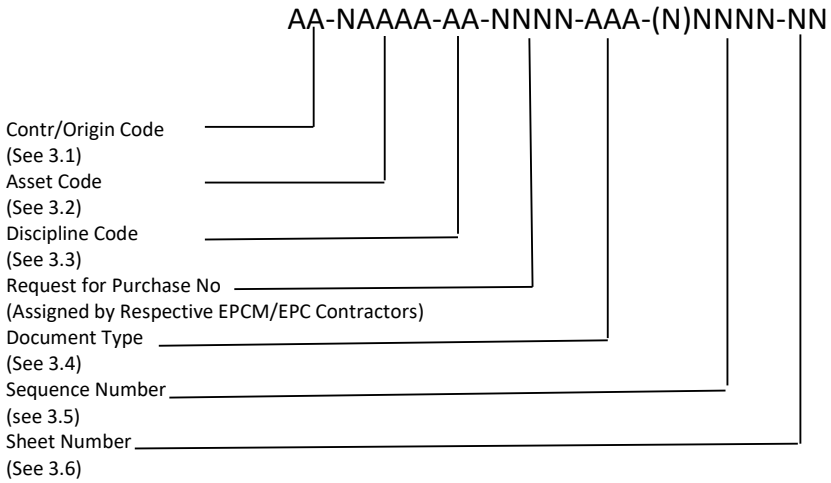


Examples for Engineering Document & Drawing Numbering

- Technical Document Numbering Specification : NR-0ZZZZ-GE-SPE-0001
- Reciprocating Pumps RFQ : TP-1U59A-ME-RFQ-0001
- Area Plot Plan MS Plant: TK-1P22A-PI-PPL-0001.01

2.2 VENDOR Document & Drawing Numbering Format

All Technical Documents & Drawings shall be numbered according to the following format:



Examples for Vendor Document Numbering

- Reciprocating Pumps RFP : TP-1U59A-ME-RFP-0001

Vendor Drawings/Documents issued for the above RFP

- TP-1U59A-ME-0001-PRC-0001 : Painting Procedure For Reciprocating Pumps
- TP-1U59A-ME-0001-PRC-0002 : Hydrotest Procedure For Reciprocating Pumps
- TP-1U59A-ME-0001-LST-0001 : List of Documents For Reciprocating Pumps
- TP-1U59A-ME-0001-GAS-0001.01 : General Arrangement Drawing for Reciprocating Pumps PA-1212 (Sheet 1)
- TP-1U59A-ME-0001-GAS-0001.02: General Arrangement Drawing for Reciprocating Pumps PA-1212 (Sheet 2)
- TP-1U59A-ME-0001-GAS-0002_01 : General Arrangement Drawing for Reciprocating Pumps PA-1213

- Centrifugal Pumps RFP :TP-1U59A-ME-RFP-0002

Vendor Drawings/Documents issued for the above RFP

- TP-1U59A-ME-0002-PRC-0001 : Painting Procedure For Centrifugal Pumps
- TP-1U59A-ME-0002-PRC-0002 : Hydrotest Procedure For Centrifugal Pumps
- TP-1U59A-ME-0002-LST-0001_ : List of Documents For Centrifugal Pumps
- TP-1U59A-ME-0002-GAS-0001.01 : General Arrangement Drawing For Centrifugal Pumps PA-1712 (Sheet 1)
- TP-1U59A-ME-0002-GAS-0001.02 : General Arrangement Drawing For Centrifugal Pumps PA-1712 (Sheet 2)
- TP-1U59A-ME-0002-GAS-0002 : General Arrangement Drawing For Centrifugal Pumps PA-1803

2.3 Multidiscipline Design Documents/Drawings

Where a Document/Drawing covers two or more disciplines or document types, then the principal Discipline/Document Type Code shall be included in the Document/ Drawing Number.

3. CODES

This section covers to list out different codes used while numbering a document.

3.1 Contractor/Originator Codes

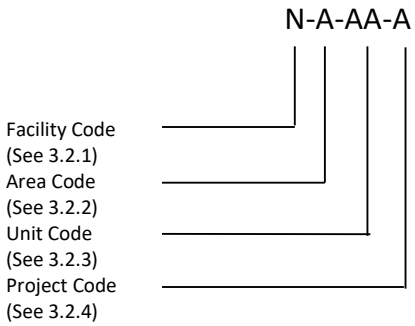
Each Contractor shall have a unique two-character code as listed below. This list will be expanded and revised for issue as new contracts are placed.

Code	Contractor/Originator Name
AX	AXENS
CV	CHEVRON (CLG)
DP	DUPONT
EL	EIL
GA	GARO
HG	HEXAGON
HT	HALDER TOPSOE (HTAS)
HW	HONEYWELL
KT	KINETIC TECHNOLOGIES
LU	LUMMUS
IP	IIP
IT	IOTL
MM	MOTT MCDONALD
MK	McKENZIE
NR	NRL
PP	PAHARPUR
PD	PDIL
PT	PLANTECH
SH	SHELL

Code	Contractor/Originator Name
SL	SNC LAVALENE
TP	TECHNIP
TK	THYSENKRUPP
TX	THERMAX
TY	TOYO
UP	UOP
VC	VCS QUALITY SERVICES PVT. LTD.

3.2 Asset code

The Asset Code is a five-character code consisting of the following:



Asset code for common facility such as common plot plan within a unit would be paired with the main unit. Eg. MS Block is consisting of 3 units (NHT, CCR & ISOM), therefore asset code of NHT (main unit) would be used for all common documents.

3.2.1 Facility Code

This code indicates storage, processing, transporting, and marketing facilities of Numaligarh Refinery.

1 Character Facility Code	Description
0	Common Facility
1	Numaligarh Refinery & Marketing Terminal
2	Crude Oil Pipeline From IOCL Paradip To NRL COT At Paradip
3	Paradip Crude Oil Terminal
4	Paradip Numaligarh Crude Pipeline
5	Numaligarh Siliguri Product Pipeline
6	Siliguri Marketing Terminal
7	NRL LPG Facilities At Dabidubi

3.2.2 Area Codes

This code indicates different functional area under one facility.

1 Character Area Code	Description
G	General
P	Process

Page 1007 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

1 Character Area Code	Description
U	Utility
S	Offsite
C	Construction
Z	Non Specific

3.2.3 Unit Code

Unit code is listed in ANNEXURE-13 of NR-0ZZZZ-GE-SPE-0002 (Engineering Tag numbering procedure).
This code indicates different units under a functional area. Non-specific unit code shall be denoted as "ZZ".

3.2.4 Project Code

Project code shall be allocated against respective project as per table below:

Project Code	Project Name
Z	Applicable to all projects
A	Numaligarh Refinery Expansion Project (NREP)
B, C, D etc..	To be allocated for future Project

3.3 Discipline Codes

The two-character discipline codes for the engineering disciplines are as listed below together with additional codes for non-engineering groups.

Code	Discipline
AR	Architectural
CG	Commissioning
CM	Construction
CN	Conditional Monitoring
CT	Subsea Connectors
CS	Control Systems (Elec/Inst/Tele)
CV	Civil
DC	Document Control
DG	Decommissioning
DI	Diving
DR	Drilling
EL	Electrical
EN	Engineering
EV	Environmental
FC	Foundations
FL	Flowlines
GE	General
GJ	GSH subsea
GS	Geo-Science
HS	Health, Safety and Environment

Page 1008 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

Code	Discipline
HV	HVAC
HP	Plumbing
IC	Instrumentation
MA	Marine
ME	Mechanical
MS	Manifolds
AC	Accounts Payable
CC	Cost Control
CL	Contracts Management
ES	Estimating
FA	Finance & Administration
IF	Information Management
IM	Integrity Management
IP	Inspection
IS	PRISM Information Systems
IT	Information Technology
LG	Logistics/Transportation
MM	Materials Management
MP	Procurement
MT	Materials Engineering
NA	Naval architecture
OI	Installation
OP	Operations
PC	Project Control
PE	Project Engineering
PF	Performance
PI	Piping
PL	Pipelines
PM	Project Management
PN	Preservation
PQ	Procurement and Supply Chain Management
PR	Process
PS	Planning
PT	Project Services
PU	Purchasing
QA	Quality Assurance
RE	Reservoir
RL	Reliability Engineering
RS	Resource
SA	Process Safety
SC	Security
SE	Sub Sea Execution
SF	Structural Floater
SJ	Structural Jackets
SL	Common to Structural Jackets and Structural Topsides
SM	Structural Template

Page 1009 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

Code	Discipline
SR	Geo-Technical/Geo-Physical surveys
SS	Subsea
ST	Structural Topsides
SU	Subsea Survey
SV	Sub-Surface
TA	Turnaround
TE	Telecommunications
TS	Trees
TW	Temporary works
UR	Intervention System and Tools (ROT)
WC	Weight Control
WE	Well Engineering

3.4 Document Types

The table below lists all document three letter codes acceptable for use.

Code	Document Type
ACE	Agreed Comments and Exceptions
ALL	Area Lighting Layout
ALS	Alignment Sheet
ANS	Analysis
APD	Area Protection Drawing
BDD	Buildings drawings
BLD	Block Diagram
BLP	Building Lighting and Power Layout
BOD	Basis of Design
BOM	Bill of Material
BOQ	Bill of Quantities
CAB	Cable Schedule
CAL	Calculation
CCN	Construction Change Notice
CCR	Concession Requests
CED	Cause and Effect Diagram
CEN	Cause and Effect Change Notice
CHS	Chemical Summary
CHT	Chart
CNN	Control Narrative
COD	Concrete drawings
COF	Contract/Agreement Call-Off
CRD	Crossing Drawing
CRL	Cable Rack Layout
CRT	Certificate
CSD	Construction Standard
DAA	Data
DAT	Data Sheet
DCN	Design Change Notice
DEP	Decision Paper
DFD	Ducting Flow Diagram
DFM	Define Financial Memorandum
DFS	Duct Fabrication Drawing
DID	Ducting and Instrumentation Diagram
DNP	Design Proposal

Page 1010 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

DOS	Dossier
DQF	Data Query Form
DSB	Design Brief
DSP	Decision Support Package
DTL	Detail Drawing
DTS	Special Piping Items Datasheet
DVR	Deviation Request
ECR	Engineering Change Request
EFM	Execute Financial Memorandum
EFS	Effluent Summary
ELD	Earthing Layout Drawing
ELL	Electrical Load List/Schedule
EPC	Engine Performance Curves
EPD	Earth Test Point Drawing
EQL	Equipment Layout Drawing
ERP	Emergency Response Plan
ETD	Electrical Termination Diagram
ETP	Engineering Technical Practice
EVP	Bid Evaluation Plan
FGD	Fire and Gas Detector Layout
FLD	Functional Logic Diagram
FLE	Firefighting/Life Saving/Escape Route
FPG	Fire Protection General Arrangement
FRM	Form
FSL	Fire Siren Layout
FTR	Functional and Technical Requirements
FZC	Fire Zone Evaluations Chart
GAS	General Arrangements
GLN	Guidelines
HAD	Hazardous Area Drawing
HCA	High Consequence
HMB	Heat and Material Balance
HTR	Heat Tracing Route
HUP	Hook-up
HWW	How We Work
IDX	Index
ILD	Instrument Layout Drawing
IND	Installation Diagram
INS	Instruction
INT	Interface
ISO	Isometric
ITD	Interlock Description
ITP	Inspection Test Plan
KEY	Key Plan
LOM	Location Map
LOP	Loop Diagram
LPL	Lightning Protection Layout
LSP	Small Lighting and Power layout
LST	List
MAN	Manual
MAT	Matrix
MEM	Engineering Memorandum
MMR	Material Movement Request
MOC	Management of Change
MOD	Model
MOM	Minutes of Meeting
MOS	Method Statement
MSG	Material Selection Guide

Page 1011 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

MTO	Material Take Off
MTP	Maintenance training plan
NIT	Notice Inviting Tender
NOD	Nodal Diagram
OCL	Overall Cable Layout Drawing
OED	Overall Earthing Layout Drawing
OGM	Operating Guide Manual
OMM	Operation & Maintenance Manual
PCN	Project Change Notice
PCP	Project Coordination and Communication Procedure
PEP	Project Execution Plan
PFD	Process Flow Diagram
PHI	Philosophy
PID	Piping and Instrumentation Diagram
PKD	Piperack drawings
PLC	Policy
PLD	Piling drawings
PLN	Plan
PMS	Piping Material Specification
POR	Purchase Order
POU	Purchase Order Update (KCAD use only)
PPC	Pipeline crossing (Operations only)
PPL	Plot Plan
PQR	Purchase Order Quality Requirements
PRC	Procedure
PRD	Process Description
PRM	Process Map
PRS	Preparedness Response Scheme
PSD	Pipe Support Detail
PSL	Pipe Support Location Drawing
PUN	PID Change notice
QCP	Quality Control Plan
RAR	Roles and Responsibilities
RCF	Root Cause Failure Analysis
REC	Record
REG	Register
REP	Reports
REQ	MR for IFI – Firefighting & Safety Equipment
RFP	Purchase Requisition/ Request for Purchase
RFQ	Material Requisition/ Request for Quotation
RLS	Relief Load Summary
RSK	Risk Assessment
RTA	Recommendation to Award
RTM	Route Maps - Single pipeline route strip on mapping/imaginary
RTO	Route Overview - Large Scale Drawings of whole countries or districts
SCD	System Completion Dossier
SCH	Schedule
SCI	Electrical Schematic/ Interconnection Diagram
SCM	Schematic Diagram
SDD	Standards
SDM	Shutdown Matrix
SDR	Supplier Document Requirement Listing
SEQ	Site Engineering Query
SFB	Structural Beam Penetration
SFD	Structural Fabrication Drawing
SFP	Structural Deck Plate Penetration
SFT	Sea Fastening Drawing

SGD	Safeguarding Diagram
SGN	Safety Guidance Note
SHM	Scheme
SIN	Site Instruction
SIS	Site Survey
SKE	Sketch
SLA	Service Level Agreement
SLD	Single Line Diagram
SOG	System Operating Guidelines
SOM	Statutory Operations Manual
SOR	Statement of Requirements
SOS	Scope of Supply
SOW	Scope of Work
SPA	Structural Primary Arrangement
SPD	Structural Primary Detail
SPE	Specification
SPN	Supplier Package Change Notice
SPS	Pipelines - Special Section Drawings - Any special Area/section/seismic design drawings
SRD	Structural Reaction Diagram
SSA	Structural Secondary Arrangement
SSD	Structural Secondary Detail
SSL	Safety Sign Layout
STD	Standard Detail Drawing
STG	Strategy
STM	Pipelines - Strip Maps - Multiple Pipeline route strips o mapping/imaginary
STP	Site Technical Practice
STQ	Site Technical Query
STU	Studies
SUD	Structural drawing
TBT	Tool Box Talk
TCL	Telephone Cable Layout
TCN	Technical Change Note
TEM	Template
TEN	Technical Note
TEQ	Technical Engineering Query
TEV	Technical Bid Evaluation
TLD	Telecomms Layout
TOP	Topographical Plan
TOR	Terms of Reference
TPM	Topographic Map
TYP	Typical Pipelines Drawing
UFD	Utility Flow Diagram
UGD	Underground drawings
UTS	Utility Summary
VFD	Vendor Final Documentation
VNL	Vendor List
VOR	Variation order
WID	Wiring Diagram
WPK	Work Pack
WSE	Written Schemes of Examination
WSV	Written Scheme of Self-Verification

3.5 Sequence Number

The four-digit (with optional additional one) document Sequence Number shall restart from 0001 for each different combination of Contractor Code, Area Code, Discipline and Document Type. NRL Document Management Team shall be responsible for assigning the document Sequence Number.

In case of allocation of system number based sequence numbers, the first two digits (with optional additional one) of four-digit Sequence Number shall be selected from the system number list. The last two digit of the sequence number shall be from 00 to 99.

Service Code & System number list is mentioned in ANNEXURE-1 of NR-0ZZZZ-GE-SPE-0002 (Engineering Tag numbering procedure).

3.6 Sheet Number

The two-character sheet number is mandatory for drawings. Sheet Numbers shall be indicated in a separate box following the Sequence Number for all drawings. The Sheet Number makes the drawing unique and allows it to be issued, tracked and revised separately.

For drawings and documents containing multiple datasheets, sheet numbering shall be from 01 to 99. If sheet numbers are not required then the sheet number shall be omitted for documents, and but display as 00 for drawings.
For drawing, use sheet number as '.NN'. (dotNN)
For document, use sheet number as '-NN'. (dashNN)

3.7 Life Cycle Code

The Statement of Requirements for Engineering Information Handover to Operations describes in detail below which document types are required for operations and the level of as-building required for each document type.

Life Cycle Code	As Build Required	Description
00	Yes	Documents that are required to operate the asset and that must be maintained by operations through the assets life cycle.
01	No	Documents that are required to operate the asset and that must be maintained by operations through the assets life cycle.
02	No	Documents that are not required to operate the asset on a daily basis and do not need to be maintained by operations through the asset life cycle.

Life cycle code is applicable to document only.

4. DOCUMENT REVISION

Document number shall be accompanied by applicable revision codes. For any update new revision of document shall be issued.

4.1 Revision Codes- Engineering Drawings and Documents by MPMC/EPCM CONSULTANTS & EPC CONTRACTORS

A 2-alpha-numeric Revision Code shall be assigned to a document to distinguish multiple issues of a document. The current Revision code shall be indicated on the front sheet of the document or the drawing title block in a box following the unique document number, and also in the revision history table.

The Revision Codes shall be as follows:

A1, A2, A3, etc.	Preliminary/Review Issues
B1, B2, B3, etc.	Approved for Enquiry (Applicable for the items before completion of BEDP)
D1, D2, D3, etc.	Approved for Design, Enquiry
C1, C2, C3, etc.	Approved for Construction/Purchase
N1, N2, N3, etc.	Issued For Information

P1, P2, P3, etc.	Approved for Projects use
R1, R2, R3, etc.	Redline issue for construction/completions information transfer for as-building engineering documents.
S1, S2, S3, etc.	As-built supplier documents
Z1, Z2, Z3, etc.	As-built engineering and Supplier documents
X	Document superseded/voided at any stage

4.2 Revision Codes- Vendor Drawings and Documents

Two digit -numeric Revision Code shall be assigned to a document to distinguish multiple issues of a document. The current Revision code shall be indicated on the front sheet of the document or the drawing title block in a box following the unique document number, and also in the revision history table.

The Revision Codes Shall be as 00, 01,02……. (only Two digits allowed)

Issue Status for the vendor drawing shall be as follows and this status cannot be fixed to one particular revision. The Party who is going to submit the document shall decide to use any one of the below issue status to specify the purpose of issue.
This issue status details about the document transmission category between Vendor and Contractor/Consultant.

- Issued For Review
-Issued For Approval
- Issued For Information
- Approved for Manufacturing
- Final As-built
- Issued for Cancellation/Void

The Consultant/Contractor, after reviewing and approving the vendor drawings and documents, shall submit the same to OWNER/MPMC in the below category as applicable through the IEDDMS system with appropriate stamps.
This details about the document transmission category between Contractor/Consultant and MPMC/OWMER.

- Review
- Approval
- Information

5. EXAMPLES OF NON-STANDARD NUMBERING

Standard document numbering format described in this document might not be always applied for easy of identifying and where the document is linked to a particular tagged item. For those reference number of parent item shall be made available in the document number itself. There cannot be a general rule for this approach but standard practice shall be followed on case to case basis.

5.1 Piping isometric numbering format (example)

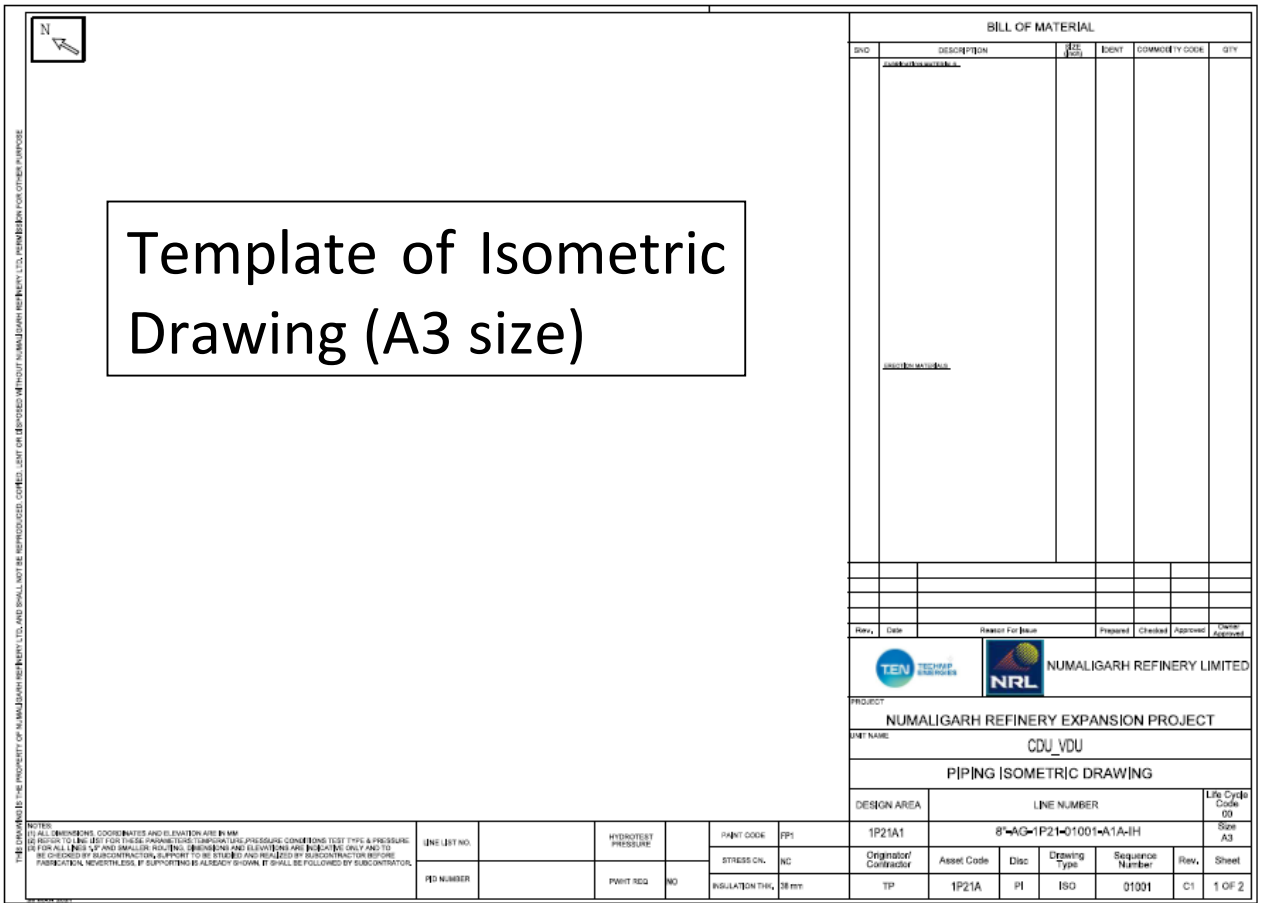
Piping Isometric shall follow same format of document numbering except the below:

- Sequence number which shall be same as the Line number (System number and sequence number - 5 digits) of the parent line as mentioned in the PID.
- Design area used in 3D tool to be added after the Sequence number.
  Suffix (A, B, etc.) for the Line number can be added when required for 3D modelling. E.g.: When a line travels from Design Area A1 to R1 and then returns to A1, the line number shall be 5 digits as in PID in Design Area A1 and R1 and suffix to be added to Line number when it re-enters Design Area A1.
  Example of Isometrics number in CDU_VDU_ATU unit:

  TP-1P21A-PI-ISO-01001-1P21A1-C1
  TP-1P21A-PI-ISO-01001-1P21R1-C1
  TP-1P21A-PI-ISO-01001A-1P21A1-C1

  TP-1P34A-PI-ISO-02001-1P21A3-C1

- Supports to be tagged as per the Support standards and no separate numbering is required for the supports.


Template of Isometric Drawing (A3 size)
BILL OF MATERIAL
NUMALIGARH REFINERY LIMITED
NUMALIGARH REFINERY EXPANSION PROJECT
CDU_VDU
PIPING ISOMETRIC DRAWING
1P21A1
8"-AG-1P21-01001-A1A-IH
1P21A
01001
1 OF 2

TECHNICAL DOCUMENTATION FRONT SHEET

NUMALIGARH REFINERY LIMITED

Total pages: 29

NRL EXPANSION PROJECT
ENGINEERING TAG NUMBERING SPECIFICATION

P1	05/04/2021	Approved for Projects use				MKB	RG	GKB
A4	20/10/2020	Instrument tagging philosophy revised				MKB	RG	GKB
A3	02/07/2020	Fluid code, Instrument tagging philosophy revised				MKB	RG	GKB
A2	30/04/2020	Assets code revised				MKB	RG	GKB
A1	22/02/2020	Issued For Information				MKB	RG	GKB
Rev	**Date**	**Reason for Issue**	Prepared	Checked	Approved	Prepared	Review	Review
			Disc. Eng.	Disc. Lead	Contr. Rep	Disc. Eng.	Proj. Eng	Com.Rep. Dept. Head
			Contract Number			**NRL** Disk Ref.		

	Category	**Code**	**Description**
	Facility Area Code	0Z	Common Document
	Document Type	SPE	Specification
	System Number	00	General
	Life Cycle	01	

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Originator/ Contractor	Asset Code	Disc	Document Type	Sequence Number	Revision
NR	**0ZZZZ**	**GE**	**SPE**	**0002**	**P1**

Table of Contents

Page No

1. GENERAL 4

1.1 PURPOSE 4
1.2 ABBREVIATIONS,DEFINITIONS AND REFERENCE 4
1.2.1 Abbreviations 4
1.2.2 Definitions 4
1.2.3 Reference 4

2. ENGINEERING EQUIPMENT NUMBERING 5

2.1 TAG UNIQUENESS 5
2.2 TAG FORMAT DIAGRAMS 5
2.2.1 Asset Code 5
2.2.2 Service Code & System number 6
2.2.3 Sequence Number 6
2.2.4 Suffix 6
2.3 ENGINEERING EQUIPMENT TAG NUMBERING 6
2.3.1 Equipment Number 7

3. TAG ENGINEERING NUMBERING FORMAT 7

3.1 MECHANICAL EQUIPMENT TAG NUMBER 7
3.1.1 Mechanical Equipment Tag Identifier Codes 7
3.2 SAFETY EQUIPMENT TAG NUMBER 7
3.2.1 Safety Equipment Tag Identifier Codes 7
3.3 HVAC EQUIPMENT TAG NUMBER 8
3.3.1 HVAC EquipmentTag Identifier Codes 8
3.3.2 HVAC Suffix 8
3.4 LIFTING EQUIPMENT TAG NUMBER 8
3.4.1 Lifting Equipment Tag Identifier Codes 8
3.5 ARCHITECTURAL /CIVIL /STRUCTURAL /BUILDING EQUIPMENT TAG NUMBER 8
3.5.1 Architectural /Civil /Structural /Building Equipment Tag Identifier Codes 8
3.6 PIPING EQUIPMENT (PIPING SPECIAL ITEMS) TAG NUMBER 9
3.6.1 Piping Equipment Tag Identifier Codes 9
3.7 PIPING VALVE TAG NUMBER 9
3.7.1 Piping Valve Tag Identifier Codes 9
3.8 ELECTRICAL EQUIPMENT TAG NUMBER 9
3.8.1 Electrical Equipment Tag Identifier Codes 10
3.9 LIGHTING AND SMALL POWER DISTRUBITION EQUIPMENT TAG NUMBER 13
3.9.1 Circuit number 14
3.10 SWITCHBOARD CUBICLE NUMBERING 14
3.11 INSTRUMENT TAG NUMBER AND TAG IDENTIFIER CODES 15
3.12 FIRE AND GAS FIELD DEVICES 17
3.12.1 Fire and Gas Field Devices Tag Identifier Codes 17
3.12.2 Fire Zone Identifier 18
3.12.3 Sequence number 18
3.12.4 Fire and Gas Field Devices Suffix 18
3.12.5 Fire and Gas Loop Number 18
3.13 COMMUNICATIONS EQUIPMENT TAG NUMBER 18
3.13.1 Communications Equipment Tag Identifier Codes 18
3.14 COMMUNICATIONS FIELD DEVICE TAG NUMBER 18
3.14.1 Communications Field Device Tag Identifier codes 19
3.14.2 Communications Field Device Sequence Number 19
3.14.3 Communications Field Device Suffix 19
3.15 JUNCTION BOX NUMBERING 19
3.16 INSTRUMENT, FIRE & GAS AND COMMUNICATIONS EQUIPMENT JUNCTION BOX TAG NUMBER 20
3.16.1 Instrument, Fire & Gas and Communications Equipment Junction Box Identifier Codes 20
3.17 CATHODIC PROTECTION JUNCTION BOX TAG NUMBER 20
3.18 INSTRUMENTS AND COMMUNICATIONS FIELD DEVICES JUNCTION BOX TAG NUMBER 21
3.18.1 Instruments and Communications Field Devices Junction Box Identifier codes 21
3.18.2 Instruments and Communications Field Devices Junction Box Number 21
3.18.3 Instruments and Communications Field Devices Junction Box Suffix 21
3.19 FIRE AND GAS FIELD DEVICES JUNCTION BOXES 21
3.19.1 Fire and Gas Field Devices Junction Box Equipment Codes 22
3.19.2 Fire and Gas Field Device Junction Box Number 22

3.19.3 Fire and Gas Field Device Junction Box Suffix 22

4. CABLE ENGINEERING NUMBERING FORMAT 22

4.1 CABLE DUTY CODE 23
4.2 DIRECT ELECTRICAL HEATING CABLE NUMBER 23
4.3 HEAT TRACING TAPE CABLE NUMBER 24
4.3.1 Junction Box Number 24
4.4 EARTHING CABLE EXAMPLES 24

5. LINES ENGINEERING NUMBERING FORMAT 26

5.1 LINE NOMINAL SIZE 26
5.2 LINE SERVICE CODES 26
5.3 LINE SEQUENCE NUMBER 26
5.4 LINE PIPE MATERIAL CLASS 26
5.5 LINE INSULATION CODES 26

6. DESIGN AREA NUMBERING FORMAT 27

7. GRID NUMBERING FORMAT 27

8 REFERENCE DOCUMENTS: LIST OF ANNEXURES 29

List of Figures

Figure 1 Engineering Equipment Tag Numbering Format 6
Figure 2 HVAC Equipment Tag Numbering Format 8
Figure 3 Piping Valves Numbering Format 9
Figure 4 Electrical Equipment Tag Number inside substation numbering format 10
Figure 5 Electrical Equipment Tag Number outside substation numbering format 10
Figure 6 Associated Electrical items for Electrical/Process Equipment Numbering Format 13
Figure 7 Lighting and small power distribution tag number format 14
Figure 8 Switchboard Cubicle Equipment Numbering Format 14
Figure 9 Fire and Gas Field Devices Engineering Numbering Format 17
Figure 10 Communications Field Devices Engineering Numbering Format 19
Figure 11 Heat tracing junction box tag number 19
Figure 12 Heat tracing junction box tag number 20
Figure 13 Instrument/Fire&Gas/Communications Equipment Junction Boxes Engineering Numbering Format 20
Figure 14 Cathodic protection Junction box numbering format 21
Figure 15 Instrument and Telecom Devices Junction Boxes Engineering Numbering Format 21
Figure 16 Fire and Gas Field Devices Junction Boxes Engineering Numbering Format 22
Figure 17 Cable tag numbering format 23
Figure 18 Direct Electrical Heating Cables Engineering Numbering Format 24
Figure 19 Heat Tracing Tape Engineering Numbering Format 24
Figure 20 Radial Earth Connections 25
Figure 21 Ring / Looped Earth Connections 25
Figure 22 Lines Engineering Numbering Format 26

Page 1019 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

1. GENERAL

1.1 PURPOSE

This document details the tag numbering structure to be used when assigning project tag numbers to items of equipment and materials for Numaligarh Refinery Limited.This document also details line and cable numbering.

All vendor equipment requiring purchaser interface will be given a unique project tag number in accordance with this numbering system.

Each project shall develop work instructions for use of numbering systems and codes defined in this specification to assign unique “project tag numbers” to items in documents, drawings, databases and physical equipment labels for development of a specific facility(s).

1.2 ABBREVIATIONS,DEFINITIONS AND REFERENCE

1.2.1 Abbreviations

Abbreviation/ Acronym	Description
NRL	Numaligarh Refinery Limited
NREP	Numaligarh Refinery Expansion Project
NRPT	Numaligarh Refinery Paradeep Terminal
PNPL	Paradeep Numaligarh Crude Pipeline
NSPL	NumaligarhSiliguri Product Pipeline
SMT	Siliguri Marketing Terminal
CTDB	Central Tag Database
DCS	Distributed Control System
PIM	Project Information Manager
P&ID	Piping & Instrument Diagram
TDNS	Technical Document Numbering Specification

1.2.2 Definitions

Term	Meaning
Tag Number	Tag Number is a unique functional identifier of an asset item or software in the Facility.

1.2.3 Reference

Document Number	Document Title
NR-0ZZZZ-GE-SPE-0001	Technical Document Numbering Specification

Page 1020 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

2. ENGINEERING EQUIPMENT NUMBERING

All equipment, instruments, cables and lines shall be uniquely tagged in accordance to this specification.

All new tags shall be unique for NREP,NRPT, PNPL,NSPL and SMT.

All issued tags shall be physically labelled in full on the equipment, instruments, cables and lines and should be visible from ground or operating platform.

All equipment Certified for use in Hazardous/non-Hazardousareas shall be allocated a Project Tag Number. This includes equipment within Sub- Contractor and / or Supplier packages.Theexception to this rule is Cable glands which are hazardous area certified but are not allocated unique tag numbers.

2.1 TAG UNIQUENESS

Tag number as a whole should be unique across each asset. Asset code makes tag unique and should be used as a part of the tag number all the times.

2.2 TAG FORMAT DIAGRAMS

Tag number consists of different parts some of which are standard across all tag diagrams and described in the sections below.

Tag diagrams contain the following characters

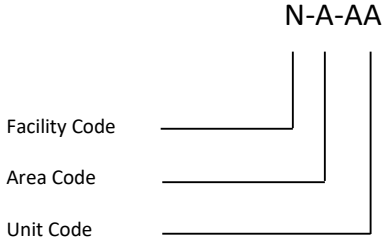
“A” – alpha numeric character(i.e. 0 to 9, or A to Z)
“N” – numeric character(i.e. 0 to 9)
“()“ - brackets denote an optional value or maximum number of characters allowed. Brackets shall not be included in the Tag Number

Hyphen symbol shown in the tag diagrams i.e. “-“ shall be used in the Tag Number. Spaces shown in the tag diagrams shall not be used in the Tag Number.

2.2.1 Asset Code

Asset code consist of Facility code, Area code, and Unit code. Asset codes are defined in Technical Document Numbering Specification NR-0ZZZZ-GE-SPE-0001. Project code is not considered for Tag Numbering. Modifications to asset codes must be controlled by revision cycle of NRL Document number.

The Asset Code is a four-character code for this document consisting of the following:



Above codes are defined in Technical Document Numbering Specification NR-0ZZZZ-GE-SPE 0001.

- Asset code for common facility such as Flare KOD,Steam Drum etc. within a unit would be paired with the main unit. Eg. MS Block is consisting of 3 units (NHT, CCR & ISOM), therefore asset code of NHT (main unit) would be used for all common facility.

2.2.2 Service Code & System number

All main units are comprising of different systems for different services.Each system has a system number and service code with function description assigned to it. The system number & service code are defined in Technical Document Numbering Specification NR-0ZZZZ-GE-SPE-0001.

2.2.3 Sequence Number

Sequence number consists of minimum two and maximum three digits, the first number in the sequence should always be (01 or 001) i.e. shall not be (00, or 000). Sequence number shall be part of the tag number and provides uniqueness in combination with system number for the same type of equipment.

2.2.4 Suffix

Suffix is a single capital alpha character from A-Z with the exception of letters I and O to avoid ambiguity with the digits.

Eg.1P21-PA-0401A and 1P21-PA-0401B

2.3 ENGINEERING EQUIPMENT TAG NUMBERING

All major items of mechanical, safety, HVAC, telecom equipment and packages equipment will need to be given a project tag number. This includes but is not limited to the majority of equipment items shown on Project and/or Supplier P&IDs.

Equipments which are part of any Package shall be numbered like other equipments of the unit. However, block of tag numbers to be allocated to the packages for their equipments.

Equipmemt Tag number shall be as per Fig 1.0 below:

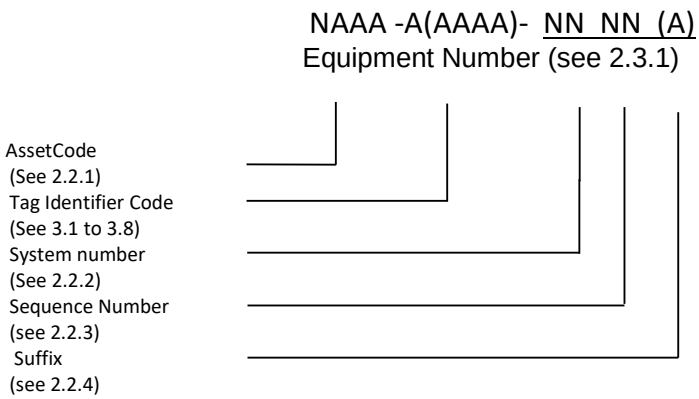


Figure 1 Engineering Equipment Tag Numbering Format

e.g.1st Crude Oil Pump Tag number in New CDU-VDU of Expansion would be 1P21-PA-0401A.

2.3.1 Equipment Number

The combination of system number and sequence number of equipment tags (figure 1.0) is called "Equipment Number". It shall be unique within each asset for the Equipment Tags numbered using 'Mechanical Equipment', or 'Electrical Equipment' Tag Identifier codes are defined in **ANNEXURE-2 to 11.**The exceptions to this rule are:

Mechanical, Electrical or Instrument equipment that is a sub-component of a larger item (e.g. Pump Motor 1P21-PM-0401 on Pump 1P21-PA-0401), which should have the same Equipment Number of the tag as the main item of equipment.

- The equipment sequence number shall be 01, 02, 03 and so on for a unit irrespective of system/service .
- In case of similar service, equipment tag number shall be numbered with suffix (A/B/C etc.). For instance, 1st Crude Oil Pumps (3 nos.) Tag number in new CDU-VDU of Expansion would be 1P21-PA-0401A, 1P21-PA-0401B and 1P21-PA-0401C.
- No equipments can have same sequence number within one system. For instance Pump, Vessel, Heat Exchanger, Column of Crude Oil system have to be numbered with different block of sequence number. For example, Crude Oil system Pump sequence to be numbered from 01 to 20, Vessel from 21 to 30, Exchanger from 31 to 50 and so on.
- 'Lifting Equipment' Tag Identifier codes may have the same equipment number as other tags numbered as 'Mechanical Equipment' or 'Electrical Equipment' as defined in **ANNEXURE-5.**

3. TAG ENGINEERING NUMBERING FORMAT

The following sub-sections describe the tag numbering formats that must be used for each equipment type. Equipment codes are listed in **ANNEXURE-1** to **11** together with the attribute requirements for each class. If a new equipment code needs to be created then is must be added to the said **ANNEXURES** using the appropriate management of change process.

3.1 MECHANICAL EQUIPMENT TAG NUMBER

Mechanical equipment must be allocated a project tag number in accordance to Figure 1.0

Mechanical Equipment tag identifier codes consist of two parts. The first alpha represents the main mechanical equipment. The second alpha can be used if needed to identify subsidiary items associated with the main equipment.

Example: 1P21-PM-0401 is a pump motor associated with pump 1P21-PA-0401.

3.1.1 Mechanical Equipment Tag Identifier Codes

Mechanical Equipment tag identifier codes are defined in **ANNEXURE-2.**

3.2 SAFETY EQUIPMENT TAG NUMBER

Fire fighting/safety equipment stations shall be given a unique project tag number in accordance to Figure 1.0. Individual fire fighting and safety equipment i.e. fire extinguishers, etc, will also require a project tag number.

3.2.1 Safety Equipment Tag Identifier Codes

Safety Equipment tag identifier codes are defined in **ANNEXURE-3.**

3.3 HVAC EQUIPMENT TAG NUMBER

All HVAC Equipment Items require a unique project tag number as per the tagging structure shown in Figure 2.0 below:

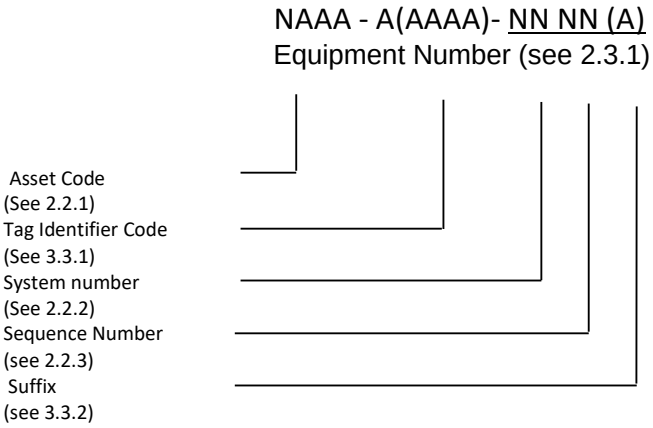


Figure 2 HVAC Equipment Tag Numbering Format

3.3.1 HVAC EquipmentTag Identifier Codes

HVAC Equipment tag identifier codes are defined in **ANNEXURE-4.**

3.3.2 HVAC Suffix

The optional suffix is used to identify HVAC equipment of the same type serving the same room e.g. 1P21-HAC-0401A and 1P21-HAC-0401B.

3.4 LIFTING EQUIPMENT TAG NUMBER

Lifting equipment must be allocated a project tag number in accordance to Figure 1.0.

All fixed mechanical handling systems (e.g. runway beams, pad-eyes,monorail etc.) require a project tag number. Portable mechanical handling equipment that is permanently located on a specific asset, such as fork lift trucks, trolleys, load slings, etc. bought by a contractor shall be assigned a unique project tag number.

Lifting gear items that are to be purchased by Operations and will be used on a temporary basis on any asset are outside the scope of this document.

3.4.1 Lifting Equipment Tag Identifier Codes

Lifting Equipment tag identifier codes are defined in **ANNEXURE-5.**

3.5 ARCHITECTURAL /CIVIL /STRUCTURAL /BUILDING EQUIPMENT TAG NUMBER

Architectural /Civil /Structural /Building Equipment that requires a tag number must be allocated a project tag number in accordance to Figure 1.0.

3.5.1 Architectural /Civil /Structural /Building Equipment Tag Identifier Codes

Architectural /Civil /Structural /Building Equipment tag identifier codes are defined in **ANNEXURE-6.**

Page 1024 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

3.6 PIPING EQUIPMENT (PIPING SPECIAL ITEMS) TAG NUMBER

All piping special items, require a unique project tag number in accordance to Figure 1.0 e.g. 1P21-BS-0401.The two digits sequence number will recommence from the beginning of the sequence (e.g. at 01) (see section 2.2.3) for each piping equipment type. This is the unique operational tag. The exception to this is that any special / off spec piping valves that do not have codes specified (e.g. non-standard / dissimilar check valves, reduced pressure zone valves, auto-drain valves) shall be assigned unique Tag Numbers in the same manner as for on spec piping valves.

The generic tag SPNNNN will be used by project for bulk materials and should be replaced by operational tag number at agreed stage of the project. The generic SP item tag can be used alongside the on spec piping valve Tag Numbers for special / off spec valves.

3.6.1 Piping Equipment Tag Identifier Codes

Piping Equipment tag identifier codes are defined in **ANNEXURE-7.**

3.7 PIPING VALVE TAG NUMBER

This tag group comprises all valves (including non-return valves) that are not instrumentation valves or equipment tagged as Piping Equipment.

The numbering format for Piping Valves is defined in Figure 3.0 below

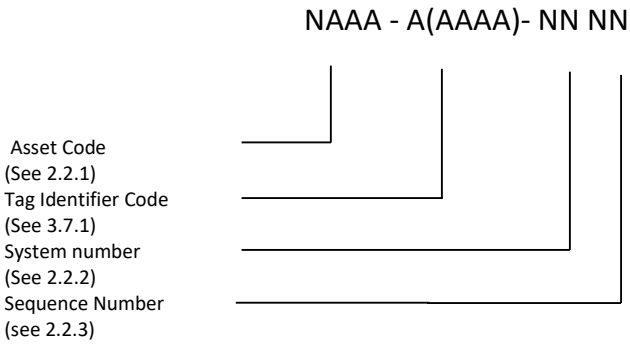


Figure 3 Piping Valves Numbering Format

Notes:

Note 1: Piping valves sequence number does not need to be related to the line number.
Note 2: Tag Identifier Code for all valves shall be used as “HV” irrespective of type of valve.

3.7.1 Piping Valve Tag Identifier Codes

Piping Valve tag identifier codes are defined in **ANNEXURE-7.**

3.8 ELECTRICAL EQUIPMENT TAG NUMBER

All major electrical equipment located inside electrical substation must be allocated a project tag number with substation number in accordance to Figure. 4.0. In order to have substation number part of all electrical equipment inside substation, below tagging procedure shall be used.

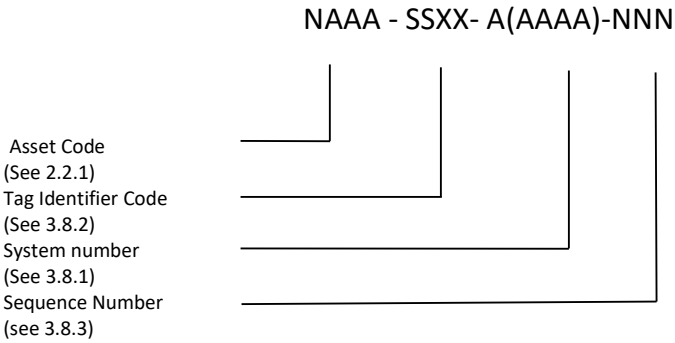


Figure 4 Electrical Equipment Tag Number inside substation numbering format

Example: 33kV GIS, 6.6kV AIS and 415V PMCC located in new CDU/VDU unit shall be 1U64-SS12-GIS-104, 1U64-SS12-AIS-203 and 1U64-SS12-PMCC-311 respectively.
6.6kV AIS and 415V PMCC located in new PFCC unit shall be 1U64-SS12-AIS-204 and 1U64-SS12-PMCC-315 respectively.
33kV GIS, 6.6kV AIS and 415V PMCC located in new RPTU unit shall be 1U64-SS14-GIS-107, 1U64-SS14-AIS-208 and 1U64-SS14-PMCC-311.

All electrical equipment located outside electrical substation must be allocated a project tag number in accordance to Figure 5.0.

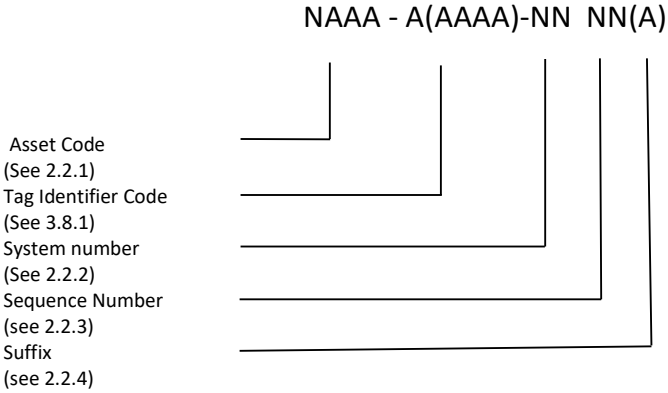


Figure 5 Electrical Equipment Tag Number outside substation numbering format

Example: LDB (Lighting Distribution board), ELDB (Emergency Lighting Distribution board), PDB (Power Distribution Board), Welding Socket (WS), Socket outlet (SO) located in field for new CDU/VDU of NREP shall be 1P21-LDB-0001, 1P21-PDB-0001, 1P21-WS-0001, 1P21-SO-0001

3.8.1 Electrical Equipment Tag Identifier Codes

Electrical Equipment tag identifier codes are defined in **ANNEXURE-8.**

3.8.2 Electrical Substation Number

As the existing NRL refinery has substation numbers till SS #09, shall start using from SS #10 for the NREP. Below substation number shall be used for the NREP.

Unit	Substation no,
DHDT	SS #10
HGU	SS #11
CDU/VDU, PFCC, GDS & LPGTU	SS #12
Utility	SS #13
RPTU & NHT/CCR/ISOM	SS #14
OFFSITES-1 (North-West)	SS #15
SRB (SRU/SWS/ARU)	SS #16
OFFSITES -2 (North-East)	SS #17
CT - (North-East)	SS #18 (Provision)
CPP – TBC	TBC
ETP	TBC

3.8.3 Electrical Equipment sequence number

Below sequence number shall be followed for the HV switchgears (33kV GIS, 6.6/11kV AIS), MV Switchgears(MV PMCC, MV MCC, MV ASB/MLDB/EMLDB, AC UPS, DC UPS, ACDB, DCDB ..etc..)

101 to 199 – 33kV GIS (Gas Insulated Switchgear) or GIS breaker panel

New main 33kV GIS @ SS #CPP or SS #09 - 101

DHDT 33kV Breaker panel - 102, 103

CDU/VDU and PFCC common 33kV GIS - 104

Utility 33kV Breaker Panel - 105, 106

RPTU & NHT/CCR/ISOM common 33kV GIS - 107

SRU 33kV Breaker panel - 108, 109

CT (North East) 33kV Breaker Panel - 110, 111

201 to 299 – 11kV or 6.6kV AIS (Air Insulated Switchgear)

DHDT 6.6kV AIS - 201

HGU 6.6kV AIS - 202

CDU/VDU 6.6kV AIS - 203

PFCC 6.6kV AIS - 204, 205

Utility 6.6kV AIS - 206, 207 (Reserve)

RPTU 6.6kV AIS - 208, 209 (Reserve)

NHT/CCR/ISOM 6.6kV AIS	- 210, 211 (Reserve)
OFFSITES-1 (North-West) 6.6kV AIS	- 213
SRU 6.6kV AIS	- 214, 215 (Reserve)
OFFSITES -2 (North-East) 11/6.6kV AIS	- 216, 217(Reserve)
CT - (North-East) 11/6.6kV AIS	- 218, 219 (Reserve)
ETP 6.6kV AIS	- 220
CPP 6.6kV AIS	- TBC

301 to 399 – 415V MV Switchgear (415V PMCC)

DHDT 415V PMCC	- 301 to 305
HGU 415V PMCC	- 306 to 310
CDU/VDU 415V PMCC	- 311 to 315
PFCC 415V PMCC	- 316 to 320
Utility 415V PMCC	- 321 to 325
RPTU 415V PMCC	- 326 to 330
NHT/CCR/ISOM 415V PMCC	- 331 to 335
OFFSITES-1 (North-West) 415V PMCC	- 336 to 340
SRU 415V PMCC	- 341 to 345
OFFSITES -2 (North-East) 415V PMCC	- 346 to 350
CT - (North-East) 415V PMCC	- 351 to 355
ETP 415V PMCC	- 356 to 360
CPP 415V PMCC	- TBC

401 to 499 - 415V MV Switchgear (415V MCC)

DHDT 415V MCC	- 401 to 405
HGU 415V MCC	- 406 to 410
CDU/VDU 415V MCC	- 410 to 415
PFCC 415V MCC	- 416 to 425
Utility 415V MCC	- 426 to 435
RPTU 415V MCC	- 436 to 445
NHT/CCR/ISOM 415V MCC	- 446 to 455
OFFSITES-1 (North-West) 415V MCC	- 456 to 460

SRU 415V MCC	- 461 to 465
OFFSITES -2 (North-East) 415V MCC	- 466 to 470
ETP 415V MCC	- 471 to 475
CT - (North-East) 415V MCC	- 476 to 480
CPP 415V MCC	- TBC

501 to 599

Sequence number starting from 501 shall be used for all the other Auxiliary Switchboards, MLDB, EMLDB, AC UPS, DC UPS, ACDB, DCDB, lighting transformers, LDB, ELDB, PDB, etc.in each Substation.

3.8.4 Associated Electrical items for Electrical/Process Equipment

All associated electrical items to electrical / process equipment (Space heater, control stations, Instrument, etc.) require a unique project tag number as per the tagging structure shown in Figure 6.0.

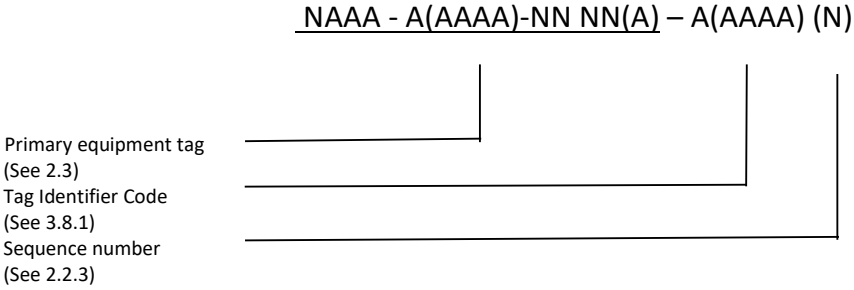


Figure 6 Associated Electrical items for Electrical/Process Equipment Numbering Format

Example: Motor Tag: 1P21-PM-0401
Motor Space heater tag: 1P21-PM-0401-SH
Local Control station tag: 1P21-PM-0401-LCS1, 1P21-PM-0401-LCS2
Motor winding temperature Tag: 1P21-PM-0401-RTD
PJB Tag: 1P21-PM-0401-PJB1
Welding Socket Junction box tag: 1P21-WS-0001-WJB1
Cable splice tag: 1U64-SS12-AIS-201-ESP1

3.9 LIGHTING AND SMALL POWER DISTRUBITION EQUIPMENT TAG NUMBER

This section applies to electrical items which are fed from a distribution board. All PESO (Petroleum and Explosives Safety Organization) certified electrical fittings e.g. lights, switches, etc within sub-contractor and/or supplier packages or modules must be allocated a project tag number.

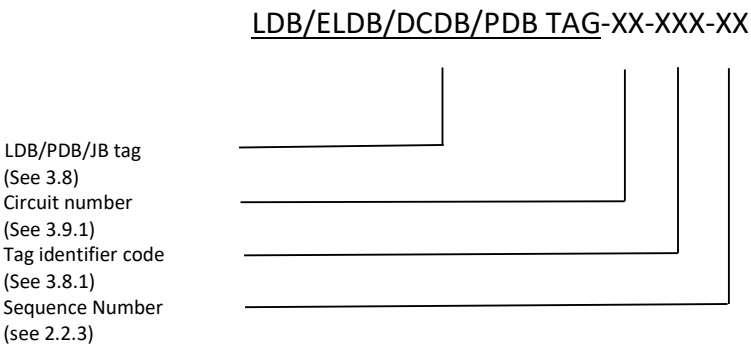


Figure 7 Lighting and small power distribution tag number format

Example: Light fixture, Intermediate junction box powered from LDB (Lighting Distribution board) and from ELDB located in field for new CDU/VDU of NREP shall be 1P21LDB0001-01-LF-01, 1P21LDB0001-01-IJB-01 and 1P21ELDB0001-01-LF-01, 1P21ELDB0001-01-IJB-01. Socket outlet powered from PDB (Power Distribution board) located in field for new CDU/VDU of NREP shall be 1P21PDB0001-01-SO-01.

Light fixture powered from LDB (Lighting Distribution board) and from ELDB located inside substation for new CDU/VDU of NREP shall be 1U64SS12LDB501-01-LF-01 and 1U64SS12ELDB501-01-LF-01. Socket outlet powered from PDB (Power Distribution board) located inside substation for new CDU/VDU of NREP shall be 1U64SS12PDB501-01-SO-01.

3.9.1 Circuit number

Circuit number is the number of the distribution board circuit from which the items are fed, circuit numbers should be two digit number assigned by design contractor's Electrical Discipline.

3.10 SWITCHBOARD CUBICLE NUMBERING

The Switchboard Cubicle number consists of the switchboard plus the cubicle number and is described in figure 8.0.

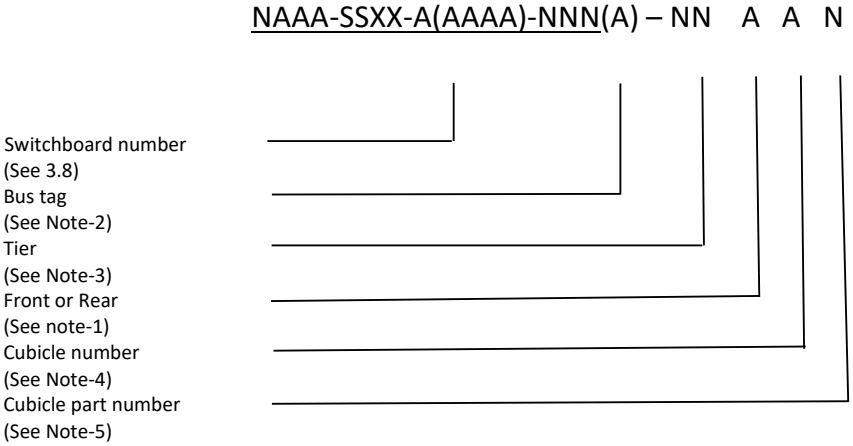


Figure 8 Switchboard Cubicle Equipment Numbering Format

Notes:

Note 1: Bus section is a one character Alpha code.
Note 2: Tier which is a one character numerical code assigned in ascending order
Note 3: Cubicle position "F" – Front, "R" – Rear. This is optional and can be omitted if there is not a Front and Rear section for example with HV Switchboards
Note 4: Cubicle Number one character Alpha code in ascending order i.eA, B, C etc. while moving from top to bottom. The Cubicle Number is optional and can be omitted if the cubicle consists of the full tier.
Note 5: Cubicle part Number which is one numeric character in ascending order i.e. 1, 2, 3 etc. if a particular cubicle has more than one outgoing feed

3.11 INSTRUMENT TAG NUMBER AND TAG IDENTIFIER CODES

Instrument tag number and tag identifier codes are defined in **ANNEXURE-9.**

3.11.1 Additionally, following key points to be considered for the Instrumentation tag Philosophy:

For the Instrumentation Tag, there will be two types of consideration for the tagging of the Instrumentation items i.e. Equipment specific (associated with a particular equipment) and Piping/ line specific.

- **Equipment specific (associated with a particular equipment):** If the Instruments are directly mounted on the equipment or intended for the control/ indication of the process parameters of the equipment, then the Instrumentation items shall be considered as Equipment specific (associated with the particular equipment). In this case, the System Number and the Sequence number of the associated equipment shall be considered for the tagging of the instruments. In the other word all components of the control loop shall have same system and sequence number w.r.t. the associated equipment followed by it's (Instrument's) own sequence number as per Tag identifier code metioned elsewehere in this document.

- **Piping/** line specific: If the Instrument is mounted on Piping /line and not linked with any particular equipment, then the System Number of the piping to be considered. Additionally, "00" to be considered in the place of equipment Sequence number followed by it's own sequence number as per Tag identifier code metioned elsewehere in this document.

Notes:

- **Tagging of an Instrumentation loop (control/ Indication/interlock):** Primary Measuring Instruments mounted/ associated with equipment along with other FCE (Final Control Element) and related controller/ Indicator/ function block of the entire control loop shall be tagging with the same system no. and Equipment Sequence no. of the associated equipment. Also, the Instrument tag no. (excluding the asset code and tag Identifier code) of the primary Measuring Instruments shall be used for all the component of the control loop including FCE (with suffix A/B..X/Y in case of redundant Instruments, FCE or split range control) with applicable tag identifier code as per the component/ Instrument category.

e.g.

- For a level control scheme: If the tag No. of the level transmitter (Primary Instrument) is LT-1201A01, the tag of level controller, Function (calculation/ logical), control valve block will be LIC-1201A01, YLIC-1201A01 and LV-1201A01 respectively.

- For a top pressure control scheme having split range control valves (dual): If the tag No. of the pressure transmitter is PT-1201A01, then the tag of main controller, sub controller/function (spilt range) for split range valves (dual) will be PIC-1201A01, YPIC-1201A01A, YPIC-1201A01B, PV1201A01A and PV1201A01B respectively. This is irrespective of the system no. (Fluid type) of piping/ line where the valves are installed.

3.11.2 Exceptions:

- If the Primary Measuring Instrument is common for multiple equipment (not redundant equipment), then the piping/ line parameters shall be considered for tagging instead of the equipment.
- If the Primary Measuring Instrument is common for redundant equipment and associated to equipment as defined above, then the tagging philosophy shall be equipment specific. However, the suffix A/B etc. of the redundant equipment should not be considered while tagging the items of the Instrument loop being common for both the redundant equipment.
- Any secondary control loop (closed) used for a primary control loop (closed) for cascade control will be tagging with the installation location/ intended control of the secondary control loop only, not the primary one e.g. Primary control loop is level and secondary loop for cascade control is Flow: Then the primary loop will be tagging as per the parameters (System no. and Equipment no.) of the associated vessel/ column etc. and the secondary flow loop will be as per the piping parameter (System no.) of the associated piping where the FT/FV are installed/ connected.

Common examples: In line with the above philosophy, **following shall be considered as Instruments associated with equipment (Equipment specific) and accordingly the system no. and sequence no. of the associated equipment *followed by it's (Instrument's) own* sequence number as per Tag identifier code mentioned elsewhere in this document to be considered.** Primary Measuring Instruments, related Function blocks, Controllers, Indicators and Final control element of the control loops shall be tagged considering the parameters (System No, and Equipment No.) of the equipment as mentioned below (for reference).

➢ For vessel/ column/ Reactor/ Tank etc.:

- Primary Measuring Instruments mounted on the equipment (directly associated) along with related Function blocks, Controllers, Indicators and Final control element of the control loops.
- Primary Measuring Instruments mounted on the piping/ line connected to an equipment and meant for the control/ indication of the process parameters (Pressure, Temperature, Inlet/ outlet flow etc.) of the equipment and installed near to the equipment along with related Function blocks, Controllers, Indicators and Final control element of the control loops. (e.g. column pressure control PT mounted on Column overhead line etc.).

e.g.: Level Control/Temperature Control/ Top pressure control/ Inlet & outlet process parameters (Pressure, Temperature, flow, analysers etc.) installed near to the equipment/ DP Across BED or Tray/ Bed Temperature/ PSV/PRV/ N2 blanketing etc.

➢ For rotary equipment:

- Machine Monitoring System, Antisurge Controller/ spill back system, Speed Controller, Suction and discharge process parameters shall be considered as equipment specific and shall be in line with the main equipment.
- For other utilities/ sub system of the main equipment like Lube oil/ Seal oil/ Seal gas system, the respective system no. including the sequence no. of associated sub equipment shall be considered for tagging of the associated Instruments.

Note: Package Equipment/Auxiliary Skid: Individual auxiliary skid (like Lube Oil, Seal Oil etc) (sub system) which are part of main package equipment (like Compressor, Pump etc) shall follow own system and sequence number of the sub system/ sub equipment. However non-skid item like seal pot instrumentation associated with pump to be numbered as equipment specific.

- For Furnace/ Heaters/ burners: Skin temperature, Pass flows, Coil inlet/ outlet temperature/ pressure, Flame temperature, temperature monitoring and control loop of product, Pressure/ temperature/ Flow of Box/ Duct/ Stack, Instruments for inlet/ outlet air flow of duct etc.
  Note: In case of fuel to furnace/ burner loop, the related Instrument shall be tagged with the system no. of the associated piping.

- For Heat Exchanger: Instruments for inlet/ outlet parameters (temperature/ pressure).

- Others: Associated Command Switches (Start/ Stop/ ESD etc.): Should be considered as the associated Instruments of the Main equipment and sub equipment along with related System No. and Equipment Sequence No.

Tagging philosophy of Interlock function: Following format shall be considered:

Case 1: If linked with safety Instrumentation system/ ESD:
Asset code- IS-XX

Case 2: For others, (not linked with safety Instrumentation system/ ESD):
Asset code-I-XX

XX- Numerical (00 to 99) (Sequence No.) and if required, 3 digits can also be considered as per number of interlocks.

3.12 FIRE AND GAS FIELD DEVICES

The items that are used to detect fire or emissions of gas on any asset will be classified as Fire and Gas field devices. The tag format structure will be as defined in Figure 9.0.

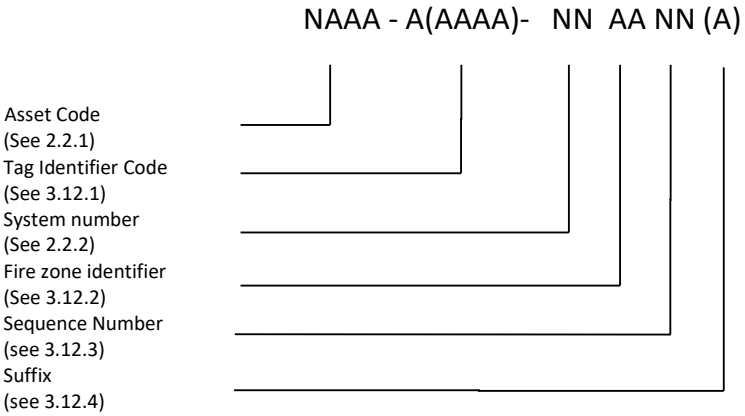


Figure 9 Fire and Gas Field Devices Engineering Numbering Format

3.12.1 Fire and Gas Field Devices Tag Identifier Codes

Fire and Gas Field Devices tag identifier codes are defined in **ANNEXURE-10.**

Where any detector has Remote status lamps fitted, such as smoke detectors where the detector is in a cabin and the remote status lamps are fitted outside the room in the corridor then these can be identified by adding the letter L to the identifier. For example: DSIL, DSOL, DHCL, etc.
All Fire and Gas physical switches shall be tagged using Instrument tag code “HS”.

3.12.2 Fire Zone Identifier

The Fire Zone Identifier is two characters code which is assigned by design contractor during design stage of the project. Fire zone register should be issued by design contractor for each asset prior to assigning Fire and Gas field devices tags.

3.12.3 Sequence number

Sequence number consists of two numeric characters and format should be as per section 2.2.4.

3.12.4 Fire and Gas Field Devices Suffix

Suffix will be used in Fire and Gas field devices to identify the functions of sight devices as following “A” will be used to identify the transmitter and “B” will be used to identify the receivers.

3.12.5 Fire and Gas Loop Number

The Fire and Gas loop number consists of full Fire and Gas Tag Identifier Code, Fire and Gas tag system number, Fire Zone Identifier and Fire and Gas tag sequence number. Any suffixes will be omitted, for Example: XA-04001A and XA-04001 Bare Fire and Gas tags on Loop XA-04001.

All devices on a single loop will have the same loop number.The combination of Fire Zone and Sequence number will be unique for any given system.

3.13 COMMUNICATIONS EQUIPMENT TAG NUMBER

All permanently installed communications equipment requires a project tag number in accordance to Figure 1.0. Internal components of equipment panels generally don’t need their own project tag numbers unless they interface with the DCS or other platform systems.

3.13.1 Communications Equipment Tag Identifier Codes

Communications Equipment tag identifier codes are defined in **ANNEXURE-11**.

3.14 COMMUNICATIONS FIELD DEVICE TAG NUMBER

Communication field devices will have different function and Tag Identifier codes from communication equipment. Communications field devices tag format structure will be as defined in Figure 10.0.

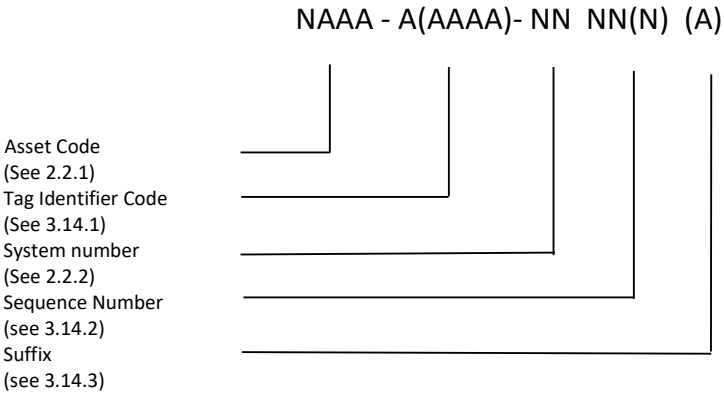


Figure 10 Communications Field Devices Engineering Numbering Format

3.14.1 Communications Field Device Tag Identifier codes

Communications Field Devices Tag Identifier codes are defined in **ANNEXURE-11.**

3.14.2 Communications Field Device Sequence Number

Sequence number consists of four numeric characters and format should be as per section 2.2.3.

3.14.3 Communications Field Device Suffix

Suffix (eg.A, B etc.) is used to identify parallel Telecom Field Devices with the same sequence number.

3.15 JUNCTION BOX NUMBERING

All PESO certified junction boxes within sub-contractor and/or supplier packages or modules must be allocated a project tag number.

All skid edge / interface junction boxes into which a purchaser's or other contractor's cable is terminated must have a project tag number.

All Junction Boxes will be numbered in accordance to this procedure and to the structure paragraphs below.

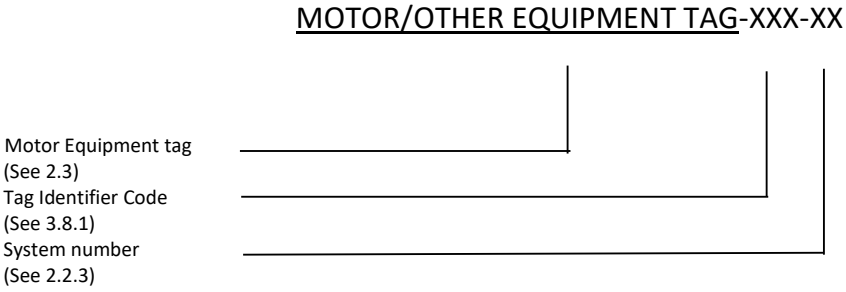


Figure 11 Heat tracing junction box tag number

Heat Tracing Junction Boxes that are fed from a Distribution Board must have a tag format as defined in Figure 12.0. Heat Tracing junction boxes that are fed from a distribution board will be given a Junction Box Number that consists of the Equipment Number of the distribution which the junction box is fed from, followed by a two digit number corresponding to the circuit number of the distribution board which junction box is fed from.

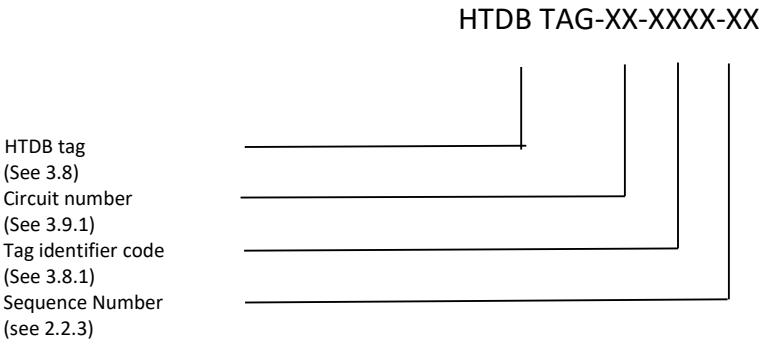


Figure 12 Heat tracing junction box tag number

Example: Heat tracing Junction box located in field in New CDU/VDU shall be 1P21-HTDB-0001-01-HTJB-01.

3.16 INSTRUMENT, FIRE & GAS AND COMMUNICATIONS EQUIPMENT JUNCTION BOX TAG NUMBER

Instrument, Fire & Gas and Communications Equipment junction boxes will follow the structure defined in Figure 13.0 below and will have assigned a three (one optional) digit unique sequence number.

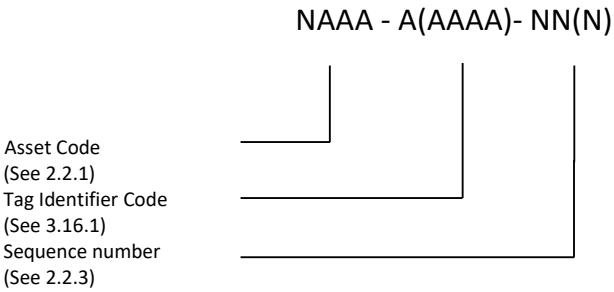


Figure 13 Instrument/Fire&Gas/Communications Equipment Junction Boxes Engineering Numbering Format

3.16.1 Instrument, Fire & Gas and Communications Equipment Junction Box Identifier Codes

Lighting, Small Power, Welding and Heat Tracing Junction Box tag identifier codes are defined in **ANNEXURE- 9,10, & 11.**

3.17 CATHODIC PROTECTION JUNCTION BOX TAG NUMBER

Cathodic protection junction box must have a tag format as defined in Figure 14.0. Sequence number for Junction box shall be two digits.

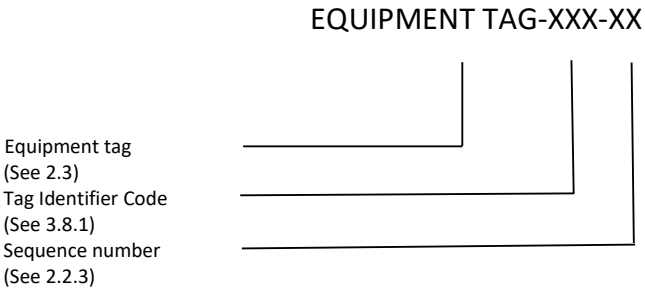


Figure 14 Cathodic protection Junction box numbering format

Example: Cathodic protection junction associated to crude tank shall be 1S71-TT-0401-CJB-01.

3.18 INSTRUMENTS AND COMMUNICATIONS FIELD DEVICES JUNCTION BOX TAG NUMBER

Instrument and Communications Field Devices Junction Boxes will follow the structure defined in Figure 15.0.

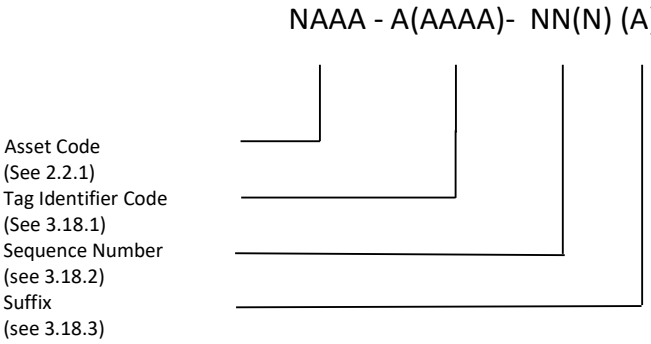


Figure 15 Instrument and Telecom Devices Junction Boxes Engineering Numbering Format

Example : 1P21-DJB-001A

3.18.1 Instruments and Communications Field Devices Junction Box Identifier codes

Instrument and Communications Field Device Junction Box tag identifier codes are defined in **ANNEXURE-9, 10 & 11**.

3.18.2 Instruments and Communications Field Devices Junction Box Number

The seven character Junction Box Number for Instruments and Communications Field Devices Junction Boxes must correspond to the System number and sequence number of the associated field device. (see sections 3.15 and 3.16).

3.18.3 Instruments and Communications Field Devices Junction Box Suffix

Suffix is optional and may be used if the associated field device is a parallel device that has a suffix in the tag number or Suffix can be used to identify parallel Local Field Device Junction Boxes.

3.19 FIRE AND GAS FIELD DEVICES JUNCTION BOXES

Fire and Gas Field Device Junction Boxes number format will be as shown in Figure 16.0 below.

Page 1037 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

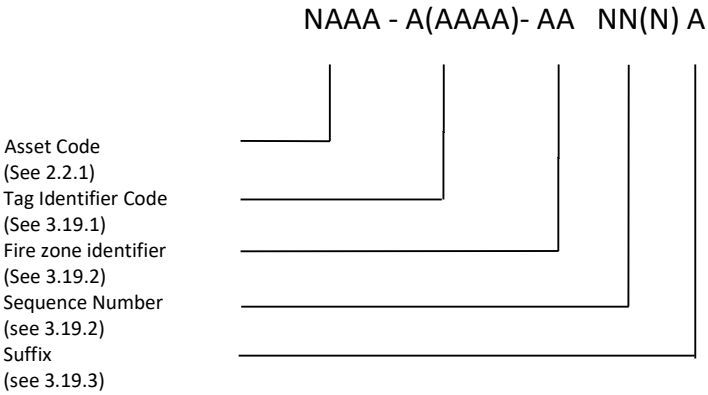


Figure 16 Fire and Gas Field Devices Junction Boxes Engineering Numbering Format

3.19.1 Fire and Gas Field Devices Junction Box Equipment Codes

Fire and Gas Device Junction Box tag identifier codes are defined in **ANNEXURE-10.**

3.19.2 Fire and Gas Field Device Junction Box Number

The Fire and Gas Field Device Junction box number shall consist of Fire Zone Identifier and Sequence Number.

Two digits Fire Zone Identifier code will be used where fire zone can be clearly identified, in cases where there are multiple fire zones “00” will be used instead.

In the case of supplier packages **NN AA N** portion of the junction box number could be numeric part of the package equipment tag number followed by two digit sequence number.

Examples:

1P21-FJB54003A DGL705403A LOS TRANSMITTER BOX
1P21-FJB54003B DGL705403B LOS RECEIVER BOX

Example of Fire and Gas Junction box on Generator package: 1P21-FJB1201A where 8012 is the numeric part of the Generator skid and 01 is the sequence number of the FJB on the skid.

3.19.3 Fire and Gas Field Device Junction Box Suffix

Suffix can be used to identify parallel Local Field Device Junction boxes with the same sequence number or when the field device is a detector / receiver.

4. CABLE ENGINEERING NUMBERING FORMAT

All the cables that connect to the tagged items that numbered in line with the project tagging specification shall have the project cable number in accordance to this specification and structured as described in this section. Instrument package cables are exception to this rule. These cables will be numbered as per the vendors numbering system after approval from NRL competent authorities.

Cables and Control wiring inside packages of the equipment which is not tagged in accordance to this specification will not require the project cable number in accordance to this specification. These cables will be numbered as per the vendors numbering system.

All cable numbers shall be unique..

Cable tag numbering format is defined in figure 17.0

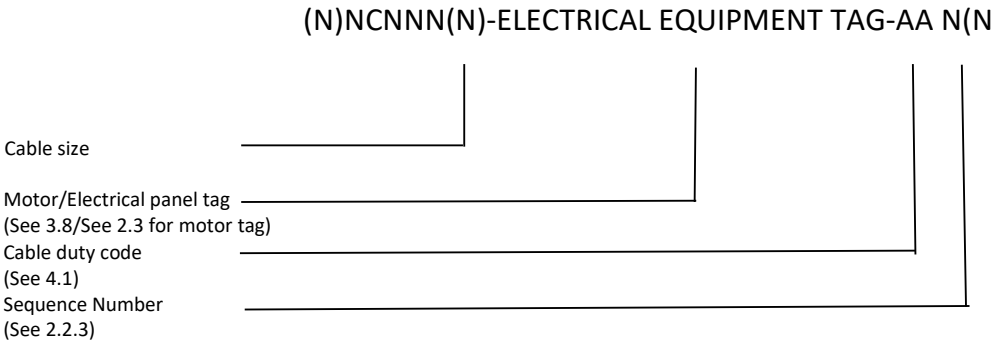


Figure 17 Cable tag numbering format

Example: : In New CDU/VDU, 1st Crude Oil Pump motor power cable tag, local control station, motor anti-condensation heater, motor temperature measurement RTD & (Interposing Relay Panel) IRP cable tag number shall be 3C120-1P21-PM-0401-P1, 7C2.5-1P21-PM-0401-LCS-C1, 3C2.5-1P21-PM-0401-SH-S1, 6T1.5-1P21-PM-0401-RTD-T1 and 3C2.5-1P21-PM-0401-IRP-C1

In New CDU/VDU, 33/6.9kV transformer 1U64-SS12-TR-203A incomer cable from 33kV GIS 1U64-SS12-GIS-104 shall be 1C500-1U64-SS12-TR-203A-R1/Y1/B1/R2/Y2/B2 for 2 runs of 1Cx500mm² per phase and 3C500-1U64-SS12-TR-203A-P1/P2 for 2 runs of 3Cx500mm².

The cable number will include the equipment tag number of which the cable is feeding (the load/instrument).

Exceptions to this rule include:

- Where a cable feeds a switchboard incomer (from generator or transformer). In this case the source equipment tag is used instead.
- For interconnect cables between switchboards, the smaller board (Board of lower voltage rating) will be taken as the load.
- For control and instrument cables between switchboards or unit control panels (UCPs) and DCS marshalling cabinets, the switchboard or UCP will be the end device / instrument (load).
- For cables between Switchboard & GEP/GCPP/IRP/ECS, corresponding load tag for which cable is intended will be considered as electrical equipment tag. [(N)NCNNN(N)-ELECTRICAL EQUIPMENT TAG - XXXXX - AA N(N)]
  [Cable Size – Electrical Equipment Tag – Equipment Naming – Cable Duty Code – Sequence Number]. **Example:** Control cable from 1U64-SS11-MCC-501 to IRP Cabinet for consumer 1P21-PM-0401A will have tag as 3C2.5- 1P21-PM-0401A-**IRP**-C1.

4.1 CABLE DUTY CODE

Cable Duty Codes are defined in **ANNEXURE-12.**

4.2 DIRECT ELECTRICAL HEATING CABLE NUMBER

Cable tag numbering format for direct heating of lines is defined in the figure 18.0 below.

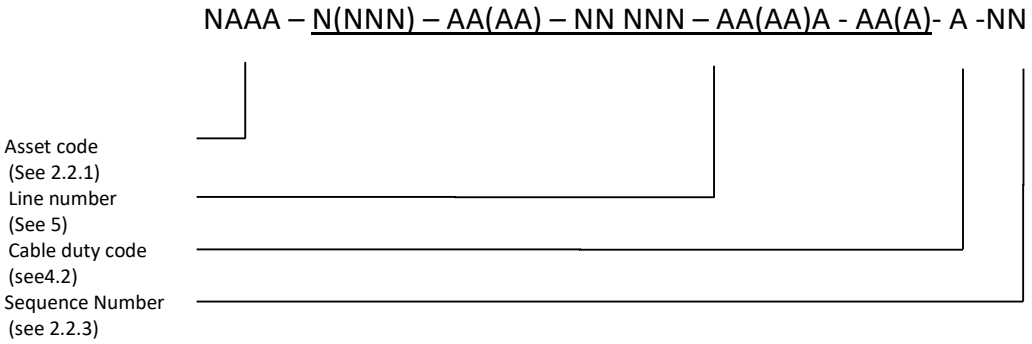


Figure 18 Direct Electrical Heating Cables Engineering Numbering Format

4.3 HEAT TRACING TAPE CABLE NUMBER

Tag numbering format for heat tracing tapes is defined in the figure 19.0.

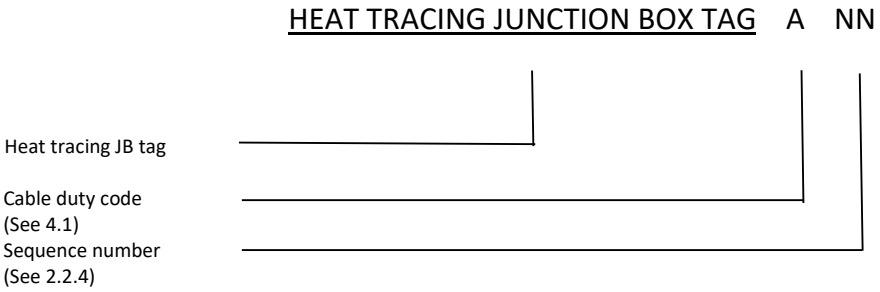


Figure 19 Heat Tracing Tape Engineering Numbering Format

4.3.1 Junction Box Number

The Junction Box number consists of the junction box tag number from which the heat tracing tape is fed.

4.4 EARTHING CABLE EXAMPLES

Figure 20.0 below provides examples of how earthing cables should be tagged. The tagging of supplementary bonding is not required.

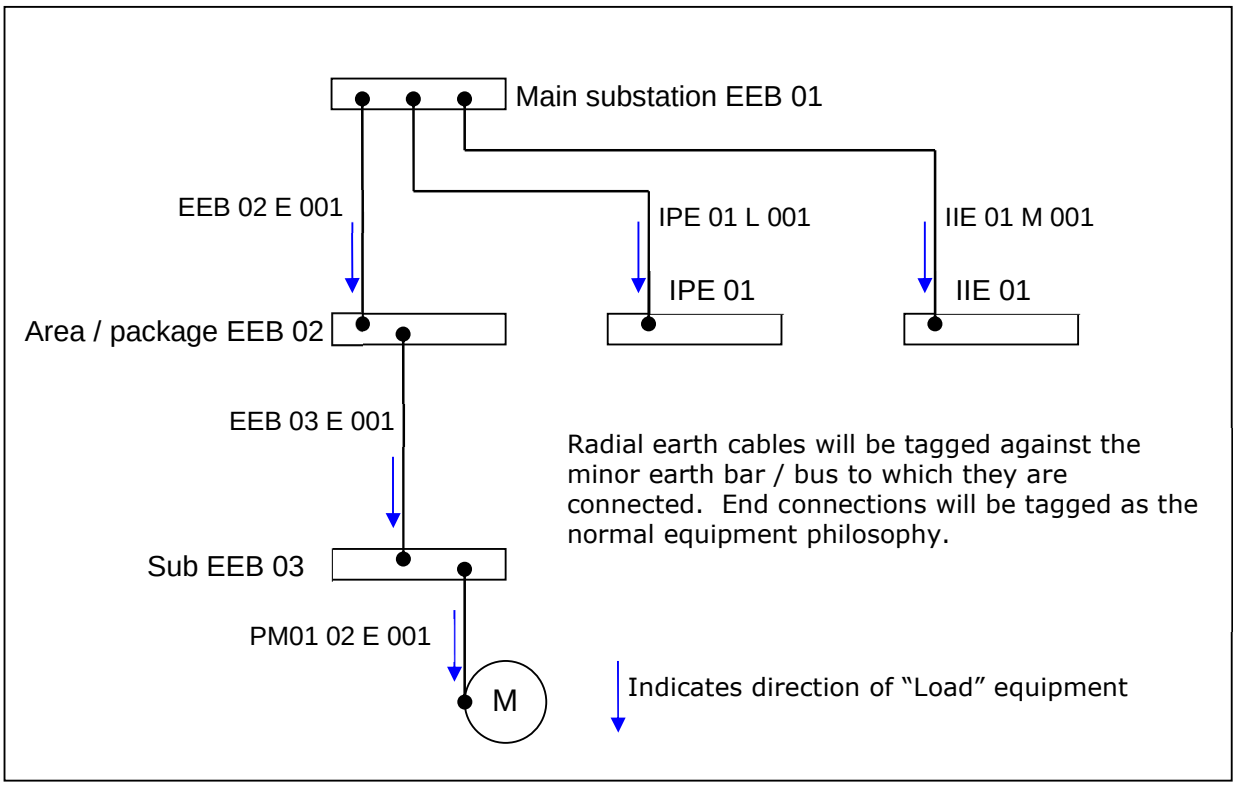


Figure 20 Radial Earth Connections

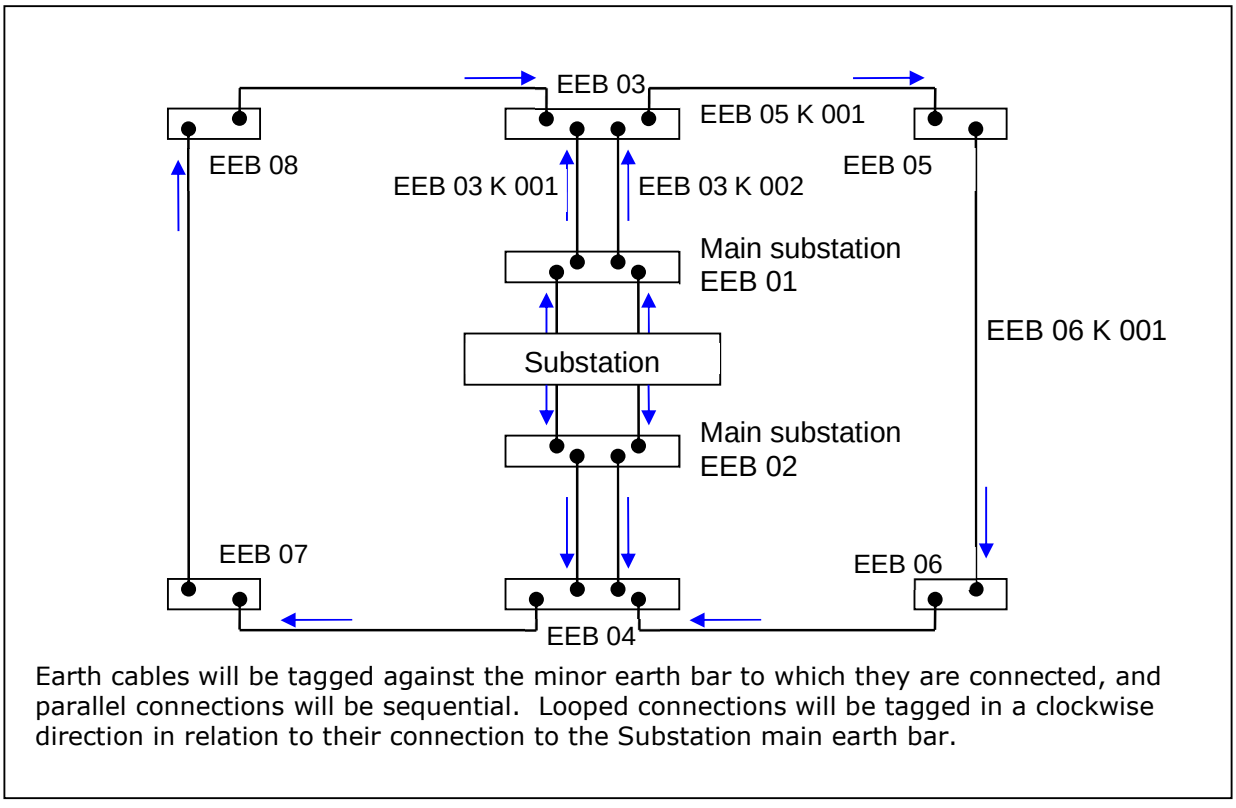


Figure 21 Ring / Looped Earth Connections

5. LINES ENGINEERING NUMBERING FORMAT

All lines within supplier process packages (e.g. RGC) shall have a project tag number (line number).

All lines within supplier machinery packages that connect directly to a unit line shall be identified via a skid tie-in Point (TP1, TP2, etc.).

All lines will be numbered in accordance with this specification. Each line will have a line number which will be shown on project drawings i.e. Piping and Instrumentation Drawings which will start with nominal bore size in inches and will follow structure defined in Figure 22.0.

The combination of system number, facility code and sequence number will define uniqueness i.e. no two lines can have the same number combination if they have different service codes.

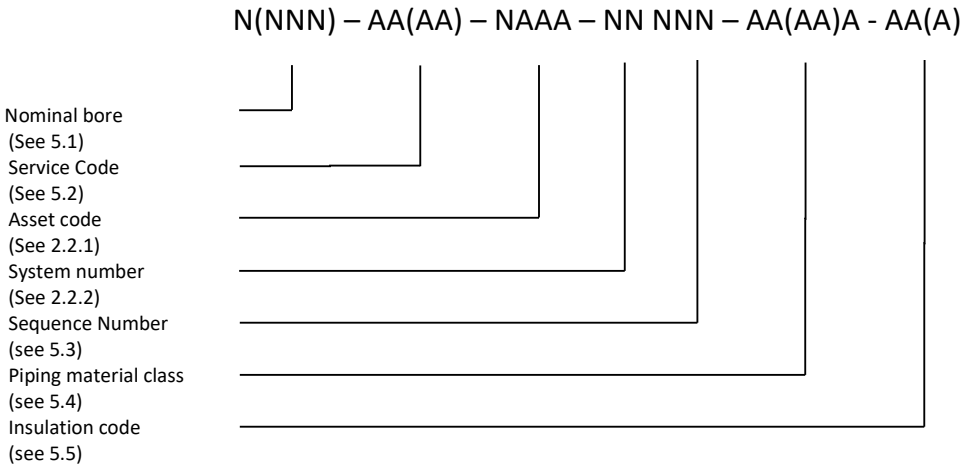


Figure 22 Lines Engineering Numbering Format

e.g.1st Plant Air line (4") in Crude Storage Unit of COT at Paradip would be numbered as 4"-PA-3U21-59001-A01E-NI.

5.1 LINE NOMINAL SIZE

Pipe nominal bore is in inches, sizes below 1" are represented as, for example 3/4", and not 0.75". Note that this can result in 11/2" using up 3 characters.

5.2 LINE SERVICE CODES

The Line Service codes are defined in **ANNEXURE-1.**

5.3 LINE SEQUENCE NUMBER

Sequence number consists of three (03) numeric characters and format should be as per section 2.2.3.

5.4 LINE PIPE MATERIAL CLASS

Line Pipe Material Class will be defined in the Piping Material Specification (PMS) of NRL's project document (**NR-0ZZZZ-PI-SPE-0001**).

5.5 LINE INSULATION CODES

The Line Insulation codes are defined in **ANNEXURE-1.**

6. Design Area Number shall be composed of 6 digits as follow:

The Below naming philosophy for the Design areas, shall be used for splitting each asset/area geographically.

NAAAAN(N) where
NAAA is the Asset Code (Primary asset code to be used for Design area. For instance, ATU unit inside CDUVDU unit will bear the asset code of CDUVDU unit)
A is the sub facility inside the asset where
R - for Piperack
C- for the Platform (PSV/other Valve stations/piping supported on the platform) above the respective Piperack
W - for Pipeway/Sleeper
A - for Area
U - for UG
N(N) is the sequence number starting from 1 for each sub facility

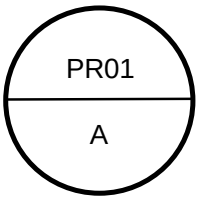
Example : In CDUVDU unit, the Design areas will be named as:
1P21A1
1P21A2…
1P21R1 and PSV Platform will be 1P21C1
1P21R2 and PSV Platform will be 1P21C2
1P21U1
1P21U2…

7. Grid numbering :

a) Grid numbering to be made Structure wise for each structure in an asset. Example in CDU VDU unit, a Piperack will be named as 1P21-PR-0001, 1P21-PR-0002 and a Technical Structure will be named as 1P21-ST-0001, 1P21-ST-0002.

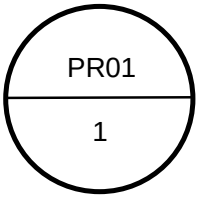
b) The Structure Tag Code as per Annexure 6 to be added on the Top portion of the Grid name along with the sequence number. (System number will always be 00 for the Civil tag items as they cannot be linked with the System Code)

c) On North-to-South axis, grid shall be numbered with letters:
- Starting from A on the most southern point.
- Then following alphabetic order while going North.
- Letter O and I shall not be used.
- If a new grid needs to be added between A and B, its name shall be A1.



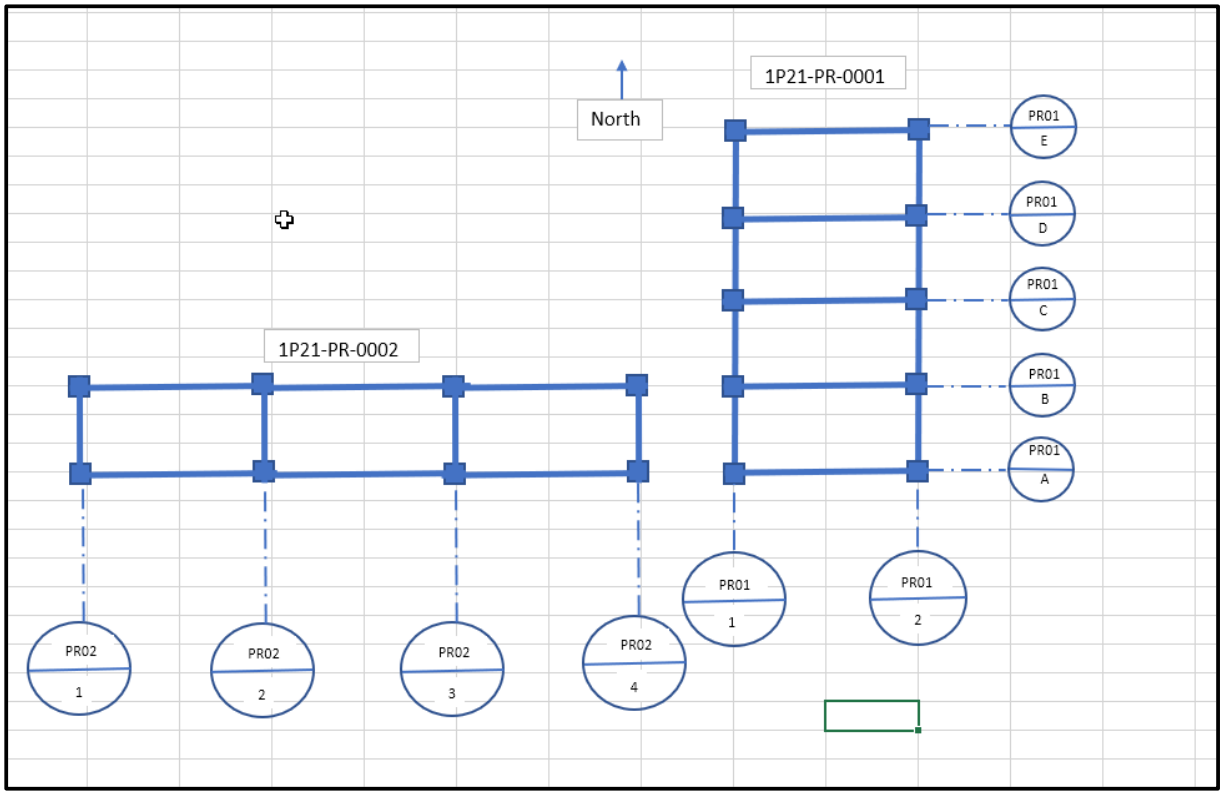
d) On West-to-East axis, grid shall be numbered with numbers:
- Starting from 1 on the most western point.

- Then following numerical order while going East.
- If a new grid needs to be added between 2 and 3, its name shall be 2A.



e) For Sleepers, Tag code PW to be added in the Tag numbering philosophy and the above points to be followed.

Example :



8 REFERENCE DOCUMENTS: LIST OF ANNEXURES

ANNEXURE-1	List of Service Code, System numbe& Insulation Coder
ANNEXURE-2	List of Tag Code for Mechanical Equipment
ANNEXURE-3	List of Tag Code for Safety Equipment
ANNEXURE-4	List of Tag Code for HVAC Equipment
ANNEXURE-5	List of Tag Code for Lifting Equipment
ANNEXURE-6	List of Tag Code for Architectural/Civil /Structural /Building
ANNEXURE-7	List of Tag Code for Piping Equipment
ANNEXURE-8	List of Tag Code for Electrical Equipment
ANNEXURE-9	List of Tag Code for Instrument Tag
ANNEXURE-10	List of Tag Code for Fire and Gas Field Device
ANNEXURE-11	List of Tag Code for Telecom Equipment
ANNEXURE-12	List of Cable Duty Code
ANNEXURE-13	List of Asset/Location Codes

INITIAL START UP, PRECOMMISSIONING &

COMMISSIONING

SPECIFICATION FOR

COOLING TOWER SYSTEM

OWNER	**:**	**NUMALIGARH REFINERY LIMITED (NRL)**
PROJECT	**:**	**EPCM SERVICES FOR SETTING UP POLYPROPYLENE UNIT AT NRL**
JOB NO.	**:**	**C050**

Rev. No.	Date	Purpose	Prepared by	Checked by	Approved by
0	20-08-25	ISSUED FOR TENDER	MPS	SC	SC

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Table of Contents

1.0 SCOPE 3
2.0. DEFINITIONS 4
3.0. OTHER REQUIREMENTS 10
4.0. HOUSE KEEPING 10
5.0. FINAL INSPECTION BEFORE START OF COMMISSIONING 11
6.0. UTILITIES REQUIREMENT 11
7.0. SAFETY 11
8.0. SCOPE MATRIX 11

ANNEXURE-I FORMATS TO BE USED DURING PRECOMMISSIONING AND COMMISSIONING

ANNEXURE-II PRE-COMM ACTIVITIES NEED TO BE COMPLETED FOR DECLARING MECHANICAL COMPLETION WITHIN CONTRACTOR STIPULATED TIME FOR PROCESS SYSTEMS IN UNITS

ANNEXURE-III PRE-COMM ACTIVITIES NEED TO BE COMPLETED FOR DECLARING MECHANICAL COMPLETION WITHIN CONTRACTOR STIPULATED TIME FOR UTILITY SYSTEMS IN UNITS

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1.0 SCOPE

The cooling water system envisaged for the 360 KTA of Polypropylene Unit (PP unit) is fresh water recirculating type. The cooling water system will cater to the requirements of PP unit, offsite and utility system coming as part of this project.

The cooling water system includes cooling towers, cooling water circulating pumps, cooling water treatment facilities viz. chemical dosing for quality control, Sulphuric acid for pH control etc. and other auxiliary items.

This document provides pre-commissioning, commissioning responsibilities of the Package contractor.

EIL under this bid document to implement the following unit:

1.1. The Cooling Water System & Associated Facilities (hereafter referred as 'Unit') shall be provided for the PP UNIT as part of NRL Project. Bidder shall bid for complete scope of supply/work on turnkey basis and agree to take single point responsibility for the entire scope of the package. Scope of work of the contractor with respect to these facilities is described elsewhere in the bid document. The Bidder's scope under the cooling water system includes cooling towers, cooling water treatment facilities viz. chemical dosing for quality control, Sulphuric acid for pH control etc. and other auxiliary items.

Cooling Water System shall conform to Cooling Water System Design Basis (C050-79-41-PDB-1U68), PDS, Equipment list, Cooling Water System P&Ids (No. C050-79-41-1U68-1111-1; C050-79-41-1U68-1111-2; C050-79-41-1U68-1112, C050-79-41-1U68-1113) and typical P&Ids for chemical dosing system (Nos C050-79-41-1U68-1112) and sulphuric acid handling facility (Nos. C050-79-41-1U68-1111-2), Equipment layout, and LSTK process scope of work as per bid document indicating scope but not limited to materials and supplies as per the specifications and drawings/ documents/standards enclosed and forming a part of the Tender.

1.2. The CONTRACTOR shall be responsible to carry out pre-commissioning and commissioning of the Unit as indicated in scope of work.

1.3. A procedure for detailed mechanical completion, pre-commissioning, commissioning and start up shall be developed by CONTRACTOR based on the inputs from the licensor and guidelines

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provided in this document. Also CONTRACTOR shall prepare the start – up and shut down procedure along with operating manual of the Unit on the guidelines provided in the document.

1.4. PCAMS Software is used by EIL in start – up and commissioning. Status of all the formats shall be through PCAMS only, hence Contractor to align his system with the PCAMS software and working at site by the Contractor shall be through PCAMS only.

2.0. DEFINITIONS

2.1. MECHANICAL COMPLETION

Mechanical Completion of systems mean that all installation works of the unit is completed and hydro tested in accordance with approved construction drawings, approved specification, applicable code/s as defined in the bid package, accepted international good engineering practice and all the pre-commissioning activities are completed in a comprehensive manner by the Contractor as detailed in section 2.2.

Contractor shall submit certificate as per FORMAT-I (attached as Annexure-I) stating system/sub-system, which is mechanically completed along with test certificates connected with the system/sub systems viz. hydrotest reports, NDT reports, inspection certificates, certificates of various statutory bodies etc.

OWNER/ PMC/Consultant representatives will check the system and shall issue FORMAT- II (as per format given in Annexure-I) which includes deficiencies / modifications, intimation of deviations from P& IDs, requirement of safety, start –up, Operation and Maintenance required for the portion of the work that is declared by the Contractor as mechanically complete.

Contractor shall liquidate all the checklist points agreed between Contractor /OWNER / PMC and issue certificate in form of FORMAT – III (as per format given in Annexure-I). All the coordination for resolution of P & ID issues, alarm/trip values, interlocks and complex loop issues shall be closed by CONTRACTOR.

Contractor shall get the approval or acceptance of FORMAT-III to carry out pre-commissioning activities as mentioned in section 2.2 under the guidance / supervision of Owner / PMC.

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2.2. PRE-COMMISSIONING ACTIVITIES

Pre-commissioning activities will include but will not be limited to the following:

i) Opening & box-up of piping, valves, instruments, spool pieces etc as per pre-commissioning procedure.

ii) Air blowing, cardboard blasting, water flushing, Air drying and steam blowing of pipes, vessels, equipments for clearance of box - up & maintain records for commissioning activities. In case sufficient pressure during water flushing is not available, contractor to make necessary temporary arrangement for getting the required pressure. (Inspection of all vessels and columns shall be jointly by OWNER, EIL / PMC).

iii) Fabrication and supply of temporary facilities, for example, temporary bypasses, spools, blinds, jumpovers, vents, strainers, screens etc. Fabrication / Purchase of valve keys/blinds and other pre-commissioning /commissioning related consumables as required.

iv) Chemical cleaning / Passivation

v) Carry out leak test/tightness test. Carry-out integrated leak test & maintain records. Attending leaks by tightening to the required torque/replacement of faulty gaskets where necessary.

vi) Receiving material required as per requisite format approved by EIC from owner's store / warehouse / designated area or any other location within plant premises including loading , unloading and maintain the records.

vii) Contractor to ensure that Gaskets, stud, bolts etc. used are strictly as per piping material specification for the pipe class specified for that line.

viii) Carrying out RIGGING JOBS including dismantling/ erection of structure/ equipment, piping, etc. as per the instructions of the Engineer-in-charge.

ix) Opening & Box Up Of Static Equipment / column/Vessel / Man ways and Pipe Line Flanges/Heat Exchangers, Isolation, removal & re-fixing of instruments mounted on Static Equipment / columns /Vessels, Heat Exchangers bundle pulling and re-fixing.

x) Opening and Re-Fixing of all Type of Valves including PSVs & control valves, line mounted Instruments Including Both Ways Transportation between Plant and Work Shop.

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xi) SCAFFOLDING ERECTION AND DISMANTLING JOBS including supply and erection of temporary scaffolding & staging, making temporary platforms using pipes, pipe clamps, beam clamps etc. in conformance with established safety codes, BIS codes etc.inside/ outside of equipment like Columns, Vessels, structures etc

xii) Carrying out FILTERS, STRAINERS, STEAM TRAPS, DEMISTER PADS related jobs including removal of auxiliary connections, dropping assemblies, cleaning, finally boxing up the complete assembly with proper alignment, flushing, draining, cleaning and filling up of hydraulic oil consoles / tanks of rotary equipment, removing and cleaning all types of filters and strainers, Cleaning of area / oil spillage, after the job, Cleaning of all types of steam traps, Dropping, cleaning and re-fixing the de-mister pads after inspection, Cleaning and lubrication of fasteners, etc.

xiii) Rechecking of alignments for the rotating equipment.

xiv) Assistance to carry out checks on rotary equipment as per OEM requirement.

xv) Topping up of bearing oil/ lube oil in rotary equipment.

xvi) Hose connections/ removal.

xvii) Opening & box-up of piping for connection & disconnection of chemical drums / iso containers & their unloading into the system.

xviii) Make cold/ hot alignments, necessary checks, adjustments, repairs required during pre-commissioning & commissioning of the system / equipment.

xix) Install, adjust and replace mechanical seals, packing and accessories, as necessary during pre-commissioning / commissioning period.

xx) Providing assistance to Vendor's Representative for equipment preparation/ repair and any other similar activity as per the commissioning requirement as per the instruction of Engineer-in-charge including supply of necessary hand tools, equipment, consumables (scaffolding, electrodes, gas) and with single point responsibility of contractor's supervision.

xxi) Carry out site modifications as found necessary during system check / inspection from view point of operability, maintenance and safety of the units.

xxii) Check pipe hangers, supports, guides and pipe specialties for hot settings and make minor adjustments as necessary.

xxiii) Carry out cleaning of vessel internal surface, distributors, supports, packing material etc as and when required.

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xxiv) Instrument pre-commissioning includes all checks that will ensure instrument operability i.e. remove all shipping stops, check pointer travels, and verify instrument capability to measure, operate and stroke in the direction and manner required by the process application, conduct checking of complex loops and interlocks, instrument loop checking, instrument calibration, check for proper tagging of instruments etc.

xxv) Electrical pre-commissioning including proper earthing, pre-commissioning checks done on cable continuity checks, electrical panels, MCCs, switch gears, motors, transformers etc.

xxvi) Supplying and installation of locks and chains for locking of valves wherever required.

xxvii) To remove insulation from insulated piping, Valves, flanges etc in such a way so that these can be reused and re-fix the same after the job is completed.

xxviii) Carry out dewatering of pits / basins as directed, using electrical pump.

xxix) Maintenance & repairing of valves by a skilled valve repair mechanic.

xxx) Dropping & reinstatement of valves by a skilled valve repair mechanic.

xxxi) Supply & Installation of barricading tape.

xxxii) Supplying safety appliances & suitable PPEs to all workers.

xxxiii) Removal of scrap to identified area, maintain housekeeping, & return material after the job completion.

xxxiv) CONTRACTOR to ensure during Pre Commissioning, all the accessories /equipments required for availability of utilities for carrying out commissioning works shall be ready at least three months before start of Commissioning activities.

xxxv) CONTRACTOR to coordinate and confirm compliance regarding completion of all, mechanical, Instruments and Electrical installation work.

xxxvi) CONTRACTOR to take trial run of Fire Water system, Gas detector system and other safety system and obtain approval of the same from OWNER/PMC/EIL.

xxxvii) To obtain necessary safety / work permits and comply with all safety norms & regulations.

xxxviii) Supplying consumables required to complete the assigned works including but notlimited to the following.

- Welding consumables electrodes, filler wire, Argon gas, Al. lugs etc.
- Flame cutting consumables like DA, O2, etc.
- Cutting wheel, grinding wheel, buffing wheel

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- Fuel, oil, Lubricants etc. for running contractor deployed machinery
- Emery papers
- Cardboard for cardboard blasting
- Soap solution with squeeze bottles as required for leak test.
- Plastic sheets
- Gaskets
- Aluminium /brass target plates
- Temporary Strainer SS mesh

2.3. DECLARING READY FOR COMMISSIONING

2.3.1. The unit shall be considered `Ready for Commissioning' (FORMAT – IV) when all the facilities have been completed along with their auxiliaries and support facilities in every respect including charging of lubes, chemicals, preparation of solution, last minutemodifications, if any, as recommended by OWNER / PMC. All temporary structures, scaffolding etc. used for carrying out pre-commissioning activities shall be removed, all the blinds shall be placed into position as per P&IDs /OWNER/PMC.

2.3.2. Contractor shall ensure that all safety devices like pressure safety valves (PSV), emergency shutdown valves are tested, witnessed and certified by representative of Contractor /OWNER/PMC. These certificates are to be handed over to OWNER/PMC prior to start-up of the UNIT.

2.3.3. Once the Unit has been declared “Ready for Commissioning”, the Contractor shall not carry out any erection related work including hot work without prior permission of the OWNER.

2.4. COMMISSIONING

2.4.1. Commissioning of the Unit will be carried out by Contractor once mechanical completion is over successfully, all pre- commissioning activities are carried out and system is ready for commissioning under necessary guidance and overseeing of PMC/OWNER. Representative from process designer will provide necessary co-ordination during start up and related technical clarifications shall be furnished by them.

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2.4.2. Commissioning of the Unit means taking the feed in, passing it through the normal route; establishing the process control parameters first at turn down & then at design throughput stipulated in the process package (guarantee parameters as per bid document) with supplementary instructions if any from OWNER.

2.4.3. Contractor will provide necessary assistance during commissioning of the unit.

2.4.4. The Unit shall be considered to be commissioned successfully once all the system with instrumentation / control systems and support systems have been on uninterrupted stable operation for not less that 72 hours. Any interruption of duration up to 30 minutes during the commissioning run of 72 hrs shall be ignored. However for interruptions greater than 30 minutes, the commissioning run period shall be extended by the time equal to the interruption plus the time taken to stabilize the Unit back to the normal operating conditions. Whether the 72 hours operation has been successful or not, shall be decided by the OWNER / PMC based on the observations recorded during 72 hours. The countdown for 72 hours operation shall start only after Unit has been on stable operation with all controls and safety system in normal operation for a period of not less than 48 hours. OWNER will issue acceptance certificate (Format-V) accordingly. Three months in advance of starting the commissioning, the CONTRACTOR shall submit proposal to the OWNER's Representative giving details of the programme to be followed during commissioning. This shall be checked by OWNER/PMC. The CONTRACTOR shall depute operating team comprising of commissioning co- coordinator, process/operational co-coordinator, mechanical, electrical & instrumentation engineers, technicians/ semi-skilled personnel to carryout UNIT startup & commissioning and maintenance under the overall guidance of PMC/OWNER. OWNER shall depute operating team consisting of process operators (field and control room) and supervisors during the commissioning.

2.4.5. The bidder CONTRACTOR in his offer shall submit the organization manpower chart of commissioning team and the bio-data of key persons who shall be present at the time of commissioning. The bidder CONTRACTOR shall also specify the planned duration of stay of these personnel.

2.4.6. The CONTRACTOR shall also be required to provide on the job training to OWNER's operation personnel by associating them in all the day to day pre- commissioning, commissioning, maintenance activities and UNIT operations. After successful commissioning of the process Unit same shall be handed over to the OWNER for operation. In case of any constraint in achieving the above process parameters in the Unit by the CONTRACTOR, the same shall be

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communicated by the CONTRACTOR to the OWNER in writing. This will be reviewed jointly by OWNER/PMC to arrive at a decision on whether the constraint is on account of reasons attributable to the CONTRACTOR or not. The action in either case will be according to the relevant provisions / provided elsewhere in the contract.

2.4.7. CONTRACTOR in some cases may be required to do part commissioning of the mechanically completed sections of the UNIT as per directives from the OWNER.

2.4.8. Upon successful commissioning of the Units the same shall be taken over by the OWNER for day to day operation and maintenance only, the final take-over shall be subject to compliance to all the contractual obligations by the CONTRACTOR. Once the Unit is successfully commissioned CONTRACTOR will issue the format-V to OWNER for take-over of the Unit from CONTRACTOR.

3.0. OTHER REQUIREMENTS

i) The Contractor shall also provide `No Smoking' boards & Do's and Dont's, boards for other designated instructions in unit areas.

ii) Contractor shall also ensure implementation of all recommendations arising out of audits viz. internal pre-commissioning audit and audit by statutory bodies like PESO, OISD etc., as and when required.

iii) Before start up of unit, safety audit shall be conducted by Owner/PMC. All such check lists/ deficiency report generated by safety audit team shall be liquidated by the Contractor. The safety audit shall cover aspects such as floor opening, trip hazards, bump hazards, electrical safety concerns, mechanical safety concerns etc.

iv) Correct support, vibration and thermal expansion problems detected during commissioning.

4.0. HOUSE KEEPING

i) Provide continuous clean-up of the construction and operational area.

ii) Remove excess materials, temporary facilities and scaffolding and pick-up trash.

iii) Perform washing for further clean-up as required.

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5.0. FINAL INSPECTION BEFORE START OF COMMISSIONING

i) OWNER/Contractor /PMC or any other Third party (Like OISD) shall carry out a final inspection of the UNIT before starting the commissioning activity.

ii) Record of liquidation of checklist point, test record etc shall be submitted by the Contractor to OWNER/PMC. Any deficiency/ changes required in the offered system shall to be liquidated by the Contractor.

iii) It shall be the Contractor's responsibility to repair any damage to the systemoccurred during storage, installation, pre-commissioning and commissioning stage.

6.0. UTILITIES REQUIREMENT

All the utilities like air, cooling water, raw water, DM water, steam, power, instrument air etc. shall be provided by client for pre-commissioning and commissioning. However, temporary piping/ fittings required to be done for drawing these utilities shall be in the scope of Contractor.

7.0. SAFETY

i) The Contractor shall follow OWNER's safety practices during execution of pre-commissioning / commissioning works. Contractor is required to maintain and follow all safety practices equivalent or better than those being practiced by OWNER for the complex during pre-commissioning and commissioning.

ii) Necessary Hot/ cold work permit shall be obtained to carryout jobs once declared mechanically completed. (Refer OISD-STD-105, work Permit System).

8.0. SCOPE MATRIX

The Dark box in the First Column pertains to the activities to be performed by the Contractor to achieve mechanical Completion as per Contract. The activities indicated

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in the Second Column are also to be performed by the Contractor. However the same shall not be reckoned for Mechanical Completion with regard to Contracts. For activities where dark box is placed in both first and second column, the activity needs to be completed by contractor to the extent possible for mechanical completion i.e. the reason for non completion should not be attributable to the contractor.

Work		Work Responsibility		
		CONTRACTOR		OWNER
		1	2	3
1.1	**Manufacturer OR Vendor Service Assistance where responsibility is not indicated in Section 2.**			
1.1.1	Obtain the assistance of the manufacturer or vendor, when necessary, to make a satisfactory installation as agreed on by the Contractor and the Owner	■	□	□
1.1.2	Obtain the assistance of the manufacturer or vendor, as required, for technical assistance during run-in by the Owner's operating and maintenance personnel, for training or for informational and operating purposes	□	■	□
1.1.3	Furnish names and telephone numbers including emergency contact of manufacturers, and vendors, technical service representatives for use by the Owner.	□	■	□
1.2	**Permits**			
1.2.1	Procuring all necessary permits and certifications required to be secured by the Owner for initial use of the plant.	■	□	□
1.2.2	Make applications for all necessary permits issued in the Owner's name that are required for plant use, occupancy and operation.	■	□	□
1.3	**Instructions**			
1.3.1	Maintain an adequate vendor instruction file so that information may be readily retrieved through plant commissioning.	■	□	□
1.3.2	Transmit to the Owner all applicable vendor's or manufacturer's instructions and drawings.	■	□	□
1.3.3	Provide the Owner with any special instructions such as the required procedures for drying liners	■	□	□
1.4	**Removal of Rust Preventives**			
1.4.1	Remove all rust preventives and oils used to protect the equipment during the construction period whenever these protective materials will be detrimental to operation	■	□	□
1.4.2	Provide the Owner with a record of work completed.	■	□	□
1.5	**Lubricants**			
Work		Work Responsibility		
		CONTRACTOR		OWNER

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		1	2	3
1.5.1	Provide a list of the manufacturer's recommended lubricants for use in the plant	■	□	□
1.5.2	Approve the lubricant list	□	□	■
1.5.3	Provide all lubricants	■	□	□
1.5.4	Flush systems and install initial charge of the lubricants. Dispose of all flushing oil in accordance with the Owner's instructions	■	□	□
1.5.5	Maintain Lubrication after initial charge	■	□	■
1.6	**Packing and Seals**			
1.6.1	Install mechanical seals and accessories, as required.	■	□	□
1.6.2	Install permanent packing and accessories as required.	■	□	□
1.6.3	Adjust and replace mechanical seals, packing and accessories as necessary during commissioning period.	□	■	□
1.7	**Removal of Temporary Bracing**			
1.7.1	Remove all temporary supports, bracing or other foreign objects that were installed in vessels, ducts piping, transformers, machinery or other equipment to prevent damage during shipping, storage and erection and repair any damage sustained.	■	□	□
1.8	**Rotation and Alignment**			
1.8.1	Check rotating machinery for correct direction of rotation and for freedom of moving parts before connecting the driver.	■	□	□
1.8.2	Perform cold alignment to the manufacturer's tolerances and record data.	■	□	□
1.8.3	Perform any doweling required.	■	□	□
1.8.4	Perform Hot alignment	□	■	□
1.8.5	Obtain the services of a factory representative to witness installation of equipment as required.	■	□	□
1.9	**Tie-Ins at Unit Limits**			
1.9.1	Prepare all systems for safe tie-ins	■	□	□
1.9.2	Obtain approval and make the necessary tie-ins at the unit limits, as required by the specifications and as directed by the Owner.	■	□	□
1.9.3	Remove blinds, car seals and so forth as required.	□	■	□
1.10	**Leak and Pressure Tests**			
1.10.1	Notify the Owner of the schedule for non-operating field leak tests or field pressure tests on piping and field fabricated equipment, unless otherwise directed by the Owner.	■	□	□
1.10.2	Provide any special media for test purposes.	■	□	□
1.10.3	Conduct all tests in accordance with applicable codes, specifications, regulations and the Owner's instructions.	■	□	□
1.10.4	Witness Tests.	■	■	■
1.10.5	Maintain records as required.	■	□	□
1.10.6	Dispose of all test media in accordance with the Owner's instructions.	■	□	□
1.10.7	Conduct all operational tightness tests.	□	■	□
1.10.8	Trial run of Fire Fighting system	□	■	□
1.10.9	Trial run of Gas Detection system	□	■	□

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1.11	**Inspection**			
	Work	**Work Responsibility**		
		CONTRACTOR		**OWNER**
		1	2	3
1.11.1	Provide inspection of the plant to verify that erected facilities conform to flow diagrams, construction drawings, vendor prints and specifications.	■	□	□
1.11.2	Verify that specified materials have been installed in the plant and document verification to the extent required by the Owner.	■	□	■
1.11.3	Verify and approve the plant inspection. Note any exceptions on a separate work order list (punch list).	□	□	■
1.11.4	Provide for special inspections such as those required by insurance or governmental agencies.	■	□	□
1.11.5	Perform and report routine shop inspection.	■	□	□
1.11.6	Perform shop inspection and witness tests as desired.	■	□	□
1.11.7	Witness final shop inspections, as specified.	■	□	■
1.12	**Pressure / Vacuum Safety Relief devices**			
1.12.1	Provide the Owner with a list of proper pressure settings.	■	□	□
1.12.2	Transfer relief devices to and from the specified unit	■	□	□
1.12.3	Test and adjust all devices to and from the specified unit	■	□	□
1.12.4	Install all devices after testing, adjusting and tagging.	■	□	□
1.12.5	Maintain records as required.	■	□	□
1.13	**Flushing and Chemical/Mechanical Cleaning.**			
1.13.1	Conduct all flushing, blowing and chemical/mechanical cleaning operations where such operation can be accomplished without using permanently installed equipment., with details of flushing plans (by CONTRACTOR).	■	□	□
1.13.2	Conduct all flushing and blowing operations where permanently installed equipment must be used to obtain proper line velocities.	■	□	□
1.13.3	Provide any special media for flushing and blowing operations where permanently installed equipment must be used to obtain proper line velocities.	■	□	□
1.13.4	Dispose of all media in accordance with the Owner's instructions.	■	■	□
1.13.5	Turn systems over to the Owner free of trash and construction debris (not necessarily free of welding slag)	■	■	□
1.13.6	Maintain records, as required.	■	■	□
1.14	**Temporary Screens, Strainers spools and Blinds.**			
1.14.1	Provide and install all required temporary strainers.	■	■	□
1.14.2	Clean strainers, as required during circulation.	■	■	□
1.14.3	Remove strainers when system is adequately cleaned.	■	■	□
1.14.4	Provide install and remove all blinds, spools required for flushing and isolation.	■	■	□
1.14.5	Maintain records as required.	■	■	□
1.15	**Purging/Inerting**			
1.15.1	Install purge/inerting connections.	■	□	□
1.15.2	Provide purge materials and conduct necessary purge operations.	■	■	□
1.15.3	Provide inerting materials and introduce where specified.	■	■	□

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1.16 Vessel Packing and Fixed Beds			
Work	**Work Responsibility**		
	CONTRACTOR		**OWNER**
	1	2	3
1.16.1 Install all inert materials such as sand, gravel balls rings and saddles.	■	□	□
1.16.2 Install all materials other than the materials specifically noted in Section 2, such as chemicals, resins, desiccants and catalysts.	■	■	□
1.16.3 Install all mixed beds involving combinations of material, covered by 1 and 2 above.	■	■	□
1.16.4 Inspect the vessel interior before and during loading to ensure proper installation.	■	■	□
1.16.5 Maintain records, as required.	■	■	□
1.17 House-Keeping			
1.17.1 After completion of construction, remove excess material, temporary facilities and scaffolding, rough sweep or rake the area and pick up trash, perform washing or further cleanup, as required.	■	□	□
1.17.2 After completion of construction, maintain adequate housekeeping practices, as required for safe operation.	■	□	□
1.18 Maintenance, Spare Parts and Special tools			
1.18.1 After pre-commissioning is complete, protect equipment from normal weather conditions, corrosion or damage	□	■	□
1.18.2 After pre-commissioning is complete provide adequate maintenance for equipment including the cleaning of strainers and the repairing of steam traps.	■	□	□
1.18.3 Provide the Owner with spare parts list as recommended by the manufacturers.	■	□	□
1.18.4 After pre-commissioning is complete, maintain adequate spare parts and supplies required during commissioning & performance test run.	□	■	□
1.19 Noise Survey			
1.19.1 Conduct individual equipment noise surveys, as required by the Occupational Safety & Health administration on the Owner's specifications.	■	■	□
1.19.2 Document all survey data	■	■	□
2.1 Vessels			
2.1.1 Open the vessel after erection and put in place any internals requiring field installation. These internals will be inspected before and after installation	■	□	□
2.1.2 Open both internal and external manways for inspection of the vessel by the Owner, unless otherwise specified.	■	□	■
2.1.3 Witness inspections to the extent desired.	□	□	
2.1.4 Dry out if required, upon vessel and install materials that are designated in 1.16	■	□	□
2.1.5 Close after proper execution of closure permits.	■	□	□
2.5 Pumps and Drivers			

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2.5.1	Level base plates and sole plates and grout all bearing surfaces.	■	□	□
2.5.2	Alleviate any excess piping stresses that may be imposed on pumps, compressors and drivers.	■	□	□
2.5.3	Chemically clean any completed lube and seal oil system when specified. Dispose of wastes and cleaning media in accordance with the Owner's instructions.	■	□	□
2.5.4	Charge the lube oil, seal oil and oil cooling systems with flushing oil and circulate for cleaning purpose. Dispose of any flushing oil in accordance with Owner's instructions.	■	□	□
2.5.5	Charge the lube oil, seal oil and oil cooling systems with the operating oil recommended by the manufacturer.	■	□	□
2.5.6	Operate equipment and make vibration trip governor and safety device checks and any operating tests and adjustments as required.	■	■	□
2.5.7	Obtain the assistance of service engineer for technical advice during installation or start up if desired.	■	■	□
2.5.8	Maintain records as required.	■	□	□
2.6	**Tanks**			
2.6.1	After erection and installation, install any internals, which require field installation.	■	□	□
2.6.2	Test tank and internals as required. Dispose of test water in accordance with the Owner's instructions.	■	□	□
2.6.3	Conduct chemical cleaning or flushing operations as required. Dispose of wastes and cleaning media in accordance with the Owner's instructions.	■	■	□
2.6.4	Witness test and inspections to the extent desired.	□	□	■
2.6.5	Close after proper execution of closure permits.	■	□	□
2.7	**Piping System**			
2.7.1	Notify the Owner of test schedule.	■	□	□
2.7.2	Hydrotestically or pneumatically test all piping as required by codes, specifications and the Owner's instructions.	■	□	□
2.7.3	Witness field pressure tests, when notified.	□	□	■
2.7.4	Flush and drain system and install orifice plates. Orifice plates shall not be installed before hydrostatic testing. (see 2.9 for the removal or isolation of other inline components).	■	□	□
2.7.5	Drain system, remove blinds and perform tightness tests as required.	□	■	□
2.7.6	Insulate or, piping system, paint flanges, threaded joints or field welds after the specified testing of each system a has been completed. Unless instructed otherwise by Owner.	■	■	□
2.7.7	All welded joints (longitudinal, girth and nozzle) in underground piping that have not been shop tested shall be left exposed (free of paint, dope and wrap) until the specified testing has been completed. After final testing of these joints cover the system.	■	□	□
2.7.8	Check pipe-hangers, supports, guides, expansion joints and other pipe specialties for the removal of all shipping and erection stops and for the correctness of cold settings for the design service. Also provide the Owner with instructions for hot settings.	■	□	□

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2.7.9 Check pipe-hangers, supports guides and pipe specialties for hot settings and make minor adjustments as necessary.		■	□
2.7.10 Install permanent filter elements as required.		■	□
2.7.11 Verify, to the extent required by the Owner that specified valve packing has been provided in valves installed in the plant.	■	□	□
2.7.12 Install car seals on valves whether necessary.	□	■	□
2.7.13 Check and record the positions of all car sealed valves paint of identify valves as required.	□	■	□
2.7.14 Correct support, vibration and thermal expansion problems detected during commissioning.		■	□
2.7.15 Re-torque all hot and cold service bolting during commissioning and startup as required.		■	□
2.8 Electrical Power and Lighting Systems			
2.8.1 Notify the Owner of the test schedule.	■	■	□
2.8.2 Witness tests when notified and record test data as required.	□	□	■
2.8.3 Using a megohmmeter, make insulation tests on all wing except lighting wiring.	■	□	□

2.8.4 Using a megohmmeter, make insulation tests on motor and transformer winding from phase to phase and phase go ground.	■	□	□
2.8.5 Make grounding system tests to determine the continuity of connections and the value of resistance to ground.	■	□	□
2.8.6 Arrange for breakdown tests on oil sample from oil insulated transformers larger than 100 kilovolts absolute.	■	□	□
2.8.7 Charge electrical gear with oil and / or other media as required.	■	□	□
2.8.8 Perform trails and adjustments on all switchgear, motor control equipments and generators.	■	■	□
2.8.9 Test and set switchgear and circuit breaker relays for proper coordination.	□	■	□
2.8.10 Obtain local inspector's approval, where required.	■	■	□
2.8.11 Energize all substations with approval of the Owner after completion of all tests.	■	■	□
2.8.12 Check phase sequence polanty and motor rotation.	■	■	□
2.8.13 Check installation of emergency power and lighting systems.	■	■	□
2.8.14 Provide the Owner with a record of work complete.	■	■	□

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2.9	Instrument System			
2.9.1	Conduct any non-operating checks to ensure instrument operability, that is remove all shipping stops, check pointer travels and verify instrument capability to measure operate and stroke in the direction and manner required by the process application.	■	■	□
2.9.2	As dictated by the Owner's practice, bench or field calibrate instruments with standard test equipments and make all required adjustments and control point settings.	■	□	□
2.9.3	Clean all transmission and control tuning by blowing with cooled and filtered clean air before connecting to instrument components.	□	■	□
2.9.4	Clean all air-supply headers by blowing with clean air and check them for tightness.	□	■	□
2.9.5	Leak test pneumatic control circuits in accordance with clean the latest edition of ISA Recommended Practice 7.1. Pneumatic control circuit pressure test.	■	■	□
2.9.6	Install and connect all system components and verify their conformance to specification and design criteria for function and range suing dummy transmission signals as need.	□	■	□
2.9.7	Check all electrical signals and alarm wiring for continuity, correct source of power and polarity.	□	■	□
2.9.8	Check thermocouples for proper joining of wires, position of elements in wells proper polarity and continuity of receiving instruments.	□	■	□
2.9.9	Identify orifice plates by tagging.	■	■	□
2.9.10	Check and record bores or orifice plates and install after completion of flushing operations.	□	■	□

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2.9.11 Isolate or remove, if necessary, in line components such as control valves, positive displacement meters and turbine metersfor pressure testing. Reinstall these items after testing the system with the components removed or isolated.	■	■	□
2.9.12 Isolate or remove components for flushing operations and reinstall them on the completion of these operations.	■	■	□
2.9.13 Install any sealing fluids as required.	□	■	□
2.9.14 Fully pressurize and energize the transmitting and control signal system(s) by opening process connections at primary sensors and final regulations and by making control mode settings for automatic operation of equipment as the process unit is charged and brought on stream.	□	■	□
2.9.15 Provide a schedule of recorder charts.	■	■	□
2.9.16 Checking piping from instruments to process piping for tightness'	■	■	□
2.10 Boilers/Heaters			
2.10.1 Make a non-operating boiler pressure test in accordance with applicable codes, specifications and the Owner's instructions, if required.	■	□	□
2.10.2 Inspect the boiler for completeness and correctness of installation and make other non-operating preferring checks.	■	□	□
2.10.3 Check operation of air pre-heaters, dampers soot blowers and other equipment for proper positioning and travel.	■	■	□
2.10.4 Dry refractories during initial firing by following the manufacturer's temperature cycles.	■	■	□

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2.10.5 Purge, flush and drain steam mains as necessary.	■	■	□
2.10.6 Obtain and charge treated water of bailout and initial operation as required.	□	■	□
2.10.7 Commission auxiliaries as detailed elsewhere under the appropriate equipment type.	□	■	□
2.10.8 Conduct Boilout, chemical cleaning, and flushing operations, as required .Dispose of wastes, cleaning media, in accordance with Owners, instruction	■	□	□
2.10.9 Conduct initial lightoff, making associated checks and adjustments	□	■	□
2.10.10 Obtain the assistance of service engineer for technical advice during installation of start up if desired.	▮	▮	□
2.10.11 Conduct all operating tests and obtain the required certifications.	□	▮	▮
2.10.12 Check and set pressure relief valves.	□	▮	□
2.11 Miscellaneous Equipment (Agitators, Mixers, Rotary Filters, Weigh Scales and Materials Handling Equipments).			
2.11.1 Fully assemble rotary filters except for final filter media (cloth, precoat or screen).	▮	□	□
2.11.2 Install all final filter media.	□	▮	□
2.11.3 Level and calibrate weigh scales with the assistance of the manufacturer's representation and set tare weights wherever possible.	▮	□	□
2.11.4 Manually check materials handling equipment for freedom and direction of movement.	▮	□	□
2.11.5 Check clearance on materials handling equipment as directed by the Owner.	□	▮	□
2.11.6 Make all final adjustments during run in and conduct any required performance test.	□	▮	□
2.11.7 Obtain a service engineer for technical assistance during installation of startup, if required.	▮	▮	□
2.11.8 As required obtain certification that all lifting and materials handling installations and other items of equipment comply with government regulations.	▮	▮	□

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ANNEXURE-I

FORMAT TO BE USED DURING PRE-COMMISSIONING AND COMMISSIONING

(TOTAL 5 FORMATS)

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F O R M A T - I

INTIMATION REGARDING SYSTEM COMPLETION

PROJECT:_____ CUSTOMER:_____
UNIT:_____

Following system/sub-system has been mechanically completed in all respects with exceptions noted below. The system/sub-system can be taken up for checking and preparation of checklist.

SYSTEM/SUBSYSTEM NO.

SYSTEM/SUBSYSTEM DESCRIPTION:

EXCEPTIONS:

SIGNATURE DATE

CONTRACTOR 'S
CONSTRUCTION :
CO-ORDINATOR

The system is ready/ not ready for Check listing

OWNER:

PMC:

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F O R M A T - II

CHECKLIST

PROJECT:_____CUSTOMER:_____UNIT:___

SYSTEM/SUB-SYSTEM_____
_____

CHECKLIST TYPE	**PRELIMINARY/FINAL**

SL.NO.	**CHECKLIST ITEMS**	**REMARKS**

SIGNATURE DATE

PMC :

OWNER:

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F O R M A T - III

READY FOR PRE-COMMISSIONING CERTIFICATE

PROJECT:_____ CUSTOMER:_____
UNIT:_____

This is to certify that the following Plant/system/sub- system as detailed below is completely installed and all the Checklist points are carried out except for minor details as given in the attached list.

SYSTEM/SUB-SYSTEM No. _____

DESCRIPTION OF SYSTEM/SUBSYSTEM: _____

SIGNATURE DATE

CONTRACTOR 'S CONSTRUCTION CO-ORDINATOR:

CONTRACTOR 'S COMMISSIONING CO-ORDINATOR

The system is ready/ not ready for pre-commissioning

PMC :

OWNER:

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F O R M A T - IV

READY FOR COMMISSIONING CERTIFICATE

PROJECT:_____ CUSTOMER:_____
UNIT:_____

This is to certify that all the necessary pre-commissioning activities for the system/sub-system as detailed below have been completed and the system/sub-system is ready for commissioning except for the minor details as given below which will not affect the commissioning trial runs.

SYSTEM/SUB-SYSTEM No. : _____

DESCRIPTION OF SYSTEM/SUB-SYSTEM : _____

SIGNATURE DATE

CONTRACTOR 'S COMMISSIONING:
CO-ORDINATOR

SIGNATURE DATE

PMC:

OWNER:

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F O R M A T - V

COMPLETION OF COMMISSIONING CERTIFICATE

PROJECT:_____CUSTOMER:_____
UNIT:_____

This is to certify that the system/sub-system as detailed below has been successfully commissioned and is under operational control of Client's Production department.

SYSTEM/SUB-SYSTEM_____

DESCRIPTION OF SYSTEM/SUB-SYSTEM : _____

SIGNATURE DATE

CONTRACTOR 'S COMMISSIONING : CO-ORDINATOR

SIGNATURE DATE

PMC:

OWNER:

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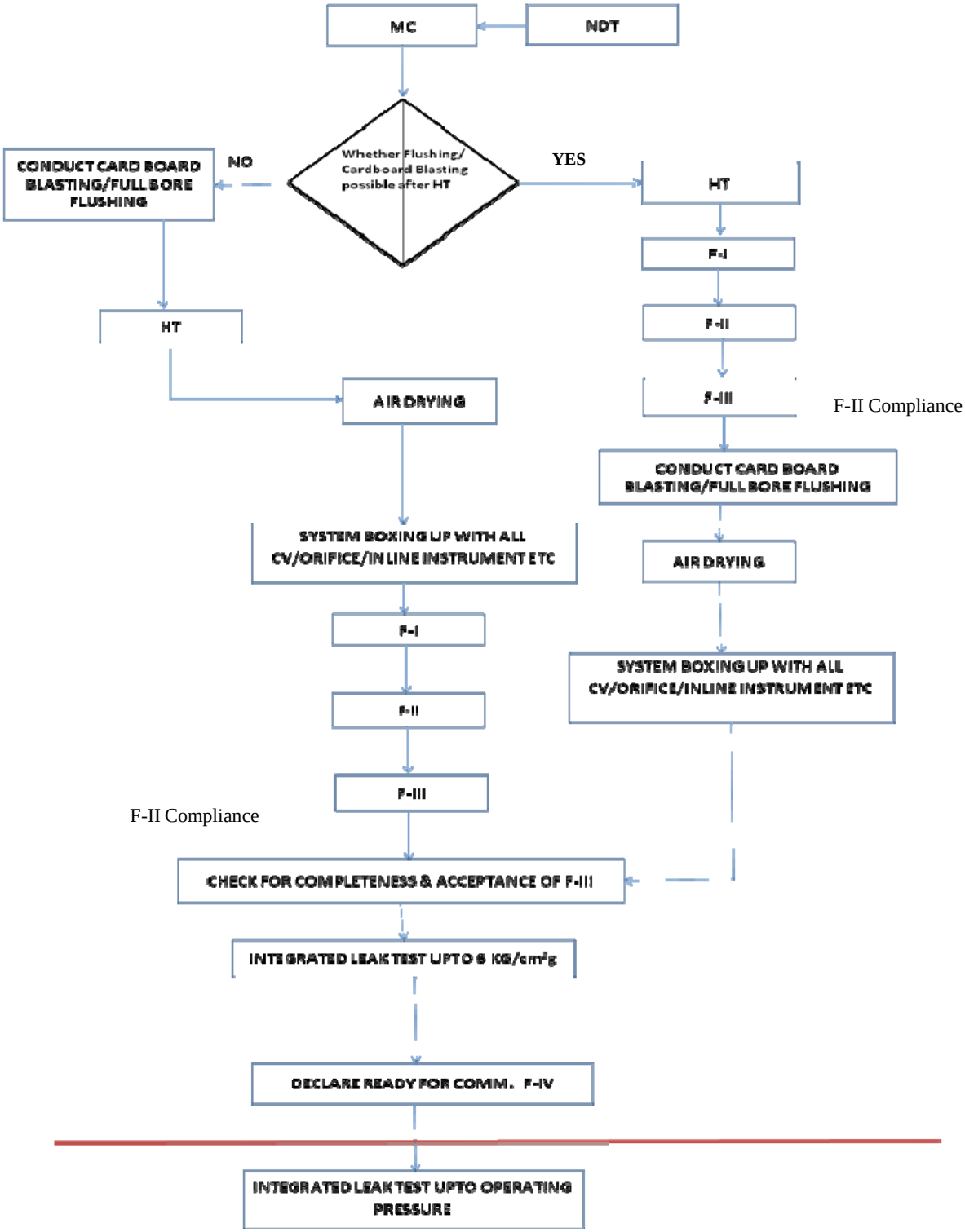
ANNEXURE-II

PRE-COMM ACTIVITIES NEED TO BE COMPLETED FOR DECLARING MECHANICAL COMPLETION WITHIN CONTRACTOR STIPULATED TIME FOR PROCESS SYSTEMS IN UNITS



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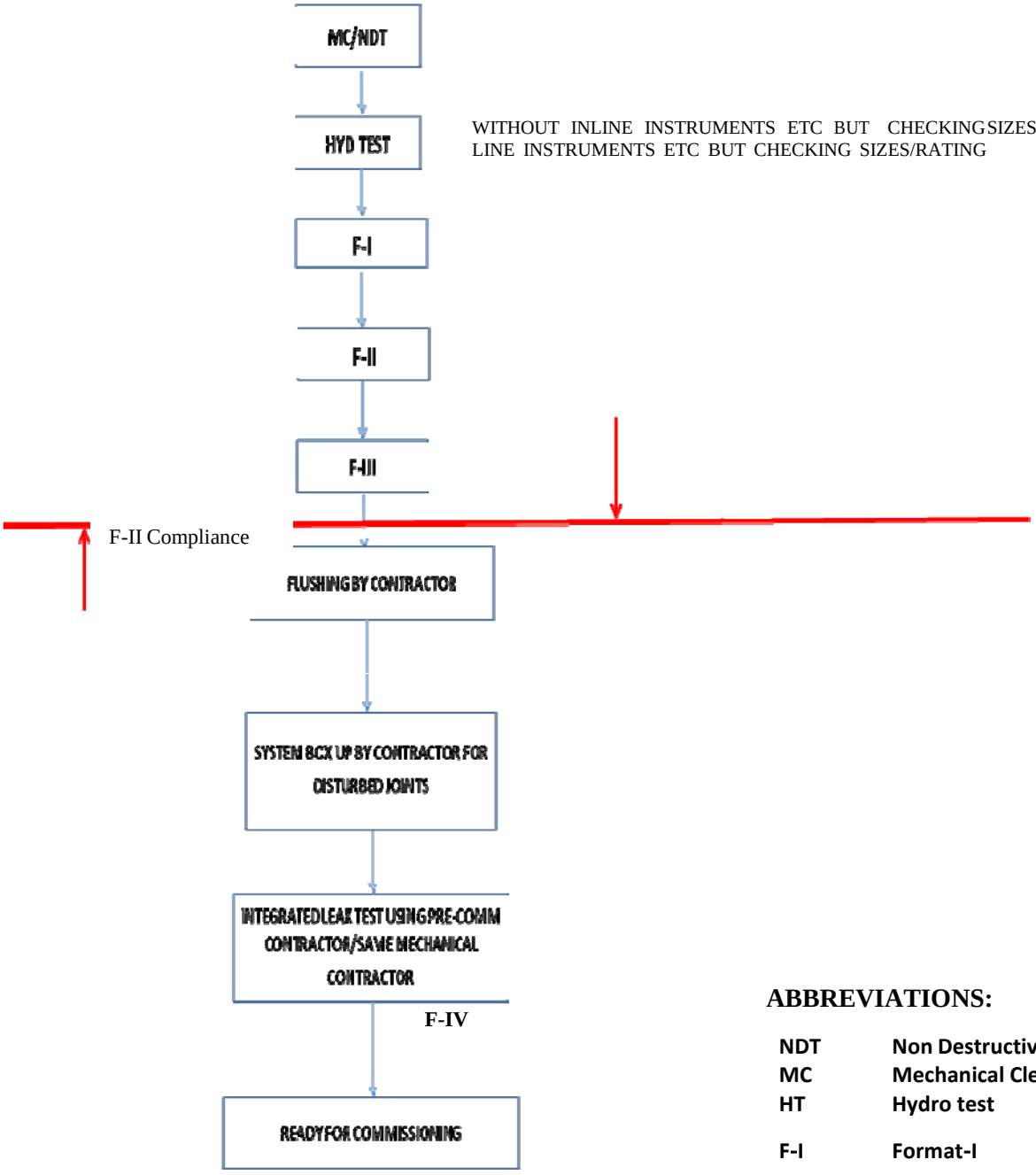
ANNEXURE-III

PRE-COMM ACTIVITIES NEED TO BE COMPLETED FOR DECLARING MECHANICAL COMPLETION WITHIN CONTRACTUAL STIPULATED TIME FOR UTILITY SYSTEM IN UNITS



WITHOUT INLINE INSTRUMENTS ETC BUT CHECKING SIZES/RATING ETC

LINE INSTRUMENTS ETC BUT CHECKING SIZES/RATING

ABBREVIATIONS:

NDT	**Non Destructive Testing**
MC	**Mechanical Clearance**
HT	**Hydro test**
F-I	**Format-I**
F-II	**Format-II**
F-III	**Format-III**
F-IV	**Format-IV**

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पी.एम.सी. जॉब और पैकेज क्रय आदेश के लिए निरीक्षण कार्यप्रणाली तथा समन्वय कार्यविधि

Inspection Methodology & Co-ordination Procedure for PMC Jobs & Package Orders

Rev. No.	Date	Purpose	Prepared by	Reviewed by	Approved by
0	26.08.2025	Issued for implementation	SK	SK	H. PAL

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Abbreviations:

BBU	:	Billing Break UP for the Package.
CV	:	Curriculum Vitae
EIL	:	Engineers India Limited
EPC	:	Engineering, Procurement & Construction
FPO	:	Foreign Procurement Office
H	:	Hold Point
HO	:	Head Office
IBR	:	Indian Boiler Regulations
IC	:	Inspection Certificate
ICP	:	Inspection Categorization Plan
IR	:	Inspection Report
IRN	:	Inspection Release Note
ITP	:	Inspection and Test Plan
IS	:	Indian Standard
LSTK	:	Lump Sum Turn Key
MPL	:	Master Packing List
NDT	:	Non-Destructive Testing
P	:	Package Order
EIL	:	Project Management Consultant
PMI	:	Positive Material Identification
PO	:	Purchase Order
PR	:	Purchase Requisition
PS	:	Purchase Specification
PTR	:	Past Track Record
QA/QC	:	Quality Assurance / Quality Control
QAP	:	Quality Assurance Plan
QTY	:	Quantity
R	:	Review
RW	:	Random Witness
RCM	:	Resident Construction Manager
RPO/BO	:	Regional Procurement Office/Branch Office
TPIA	:	Third Party Inspection Agency
W	:	Witness

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CONTENTS

Clause No.	Clause Title	Page No.
1.0	PURPOSE	4 - 4
2.0	SCOPE	4 - 4
3.0	REFERENCES	4 - 4
4.0	DEFINITIONS	4 - 6
5.0	INSPECTION OFFICES OF EIL	6 - 6
6.0	METHODOLOGY AND CONTROLS	7-13
7.0	DOCUMENTATION AND CONTROLS	13-13
8.0	STATUS & MONITORING REPORT	13-13
9.0	ANNEXURE-I (MATRIX OF INSPECTION AND CERTIFICATION RESPONSIBILITY)	14-14

Note: All documents referred herein are as specified in contract.

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1.0 PURPOSE

The purpose of this document is to detail out the Inspection Methodology & Co-ordination procedure to be adopted for ensuring the quality of the materials being supplied and defines the roles of various agencies involved and the quality system to be adhered to.

2.0 SCOPE

This document is applicable for inspection and coordination of bought out items to be supplied by the EPC / LSTK CONTRACTORS / Package suppliers in EIL's PMC Jobs and Package orders / Materials supplied by site contractors for EIL's EPCM Job.

Raw materials procured for site fabricated equipment under scope of site construction inspection such as raw materials for site storage tank etc. shall not fall under purview of this document.

3.0 REFERENCES: This document shall be read in conjunction with the following documents.

a. Bid / Contract Document / Purchase Requisition.
b. Guidelines for Item Categorization Plan (Document No. C050-8-1842-0004) as attached with the Contract documents.

4.0 DEFINITIONS

4.1. OWNER:

Owner shall mean the project owner.

4.2. PMC:

PMC shall mean Project Management Consultant, viz. Engineers India Limited (EIL).

4.3. EPC / LSTK CONTRACTOR / PACKAGE SUPPLIER:

EPC / LSTK Contractor means any party whose scope includes Engineering, Procurement, Construction and Commissioning of the Unit / Facilities / System on Lump Sum basis, covered under the specified scope of work as per the Contract document. Contractor, EPC Contractor and LSTK Contractor are considered synonymous.

4.4. SUPPLIER

Supplier means any party supplying any of the Package, equipment, material, products and services to the EPC/LSTK Contractor. Package Supplier, Vendor, Seller, Agent, traders are considered synonymous to Supplier.

4.5. SUB SUPPLIER

Sub supplier means any party on whom supplier sub-orders materials and items and whose role is defined in approved ITP's / QAP's.

4.6. STANDARD INSPECTION AND TEST PLAN (Standard ITP):

EIL's Inspection and Test Plan attached with Bid/Tender documents.

4.7. INSPECTION AND TEST PLAN (ITP) / QUALITY ASSURANCE PLAN (QAP):

It is a document generated by the supplier based on the Standard ITP attached with Bid/Tender documents with complete listing of various Inspection stages, tests, reference documents material certification, recording documents requirements and parties involved indicating their roles in various Inspection stages viz. Hold Point(H), Witness Point(W), Random Witness Point (RW) and Review Point (R) of Quality control documents / records for an item.

For items for which Standard ITP are not attached with the Bid/Tender documents:

- EPC/LSTK contractor shall generate their own ITP/QAP and shall submit the same for review & approval as per approved item categorization plan.
- For Package Orders, Package supplier shall generate ITP/QAP and get the same approved as per approved item categorization plan.

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4.8.1 HOLD POINT (H):

A Hold Point is a stage designated in the ITP / QAP, which requires Witness Inspection before supplier can proceed with further processing, except for cases where prior written permission for waiver of Witness Inspection is obtained.

4.8.2 WITNESS POINT (W):

A Witness point is a stage designated in the ITP / QAP, which requires Physical Witness Inspection. EPC / LSTK Contractor / Supplier shall give proper notifications (minimum three working days) with a firm schedule to all concerned parties and coordinate with them to complete the stage before proceeding with further processing. In case any or all concerned parties unable to turn up on the scheduled date and time, the Contactor / Supplier shall proceed with the further processing, unless notified otherwise.

4.8.3 RANDOM WITNESS POINT (RW):

A Witness point is a stage designated in the ITP / QAP, which requires Witness Inspection on randomly selected samples. EPC / LSTK Contractor / Supplier shall give proper notifications (minimum three working days) with a firm schedule to all concerned parties and coordinate with them to complete the stage before proceeding with further processing. In case any or all concerned parties unable to turn up on the scheduled date and time, the Contactor / Supplier shall proceed with the further processing, unless notified otherwise.

4.8.4 REVIEW POINT (R):

A review point is a stage designated in the ITP / QAP which requires the concerned agencies to verify the documents for their correctness and to confirm that the said documents meet the requirements laid down.

4.8.5 NODEL RPO:

EIL regional procurement office (inspection office), where EPC/LSTK contractor/Package supplier located.

4.8. THIRD PARTY INSPECTION AGENCY (TPIA):

Third Party Inspection Agency means an inspection agency appointed for carrying out Inspection, review of documents and issuance of IRN of items being procured by the EPC/LSTK Contractor & Package supplier.

4.9. INSPECTION CATEGORY

Inspection category determines the scope of Inspection for the Supplier, TPIA, OWNER/PMC for various materials depending upon criticality as identified in the Item Categorization Plan (ICP) generated as per Table-1 of document No. C050-8-1842-0004 (Guidelines for Item Categorization Plan)

4.10. QUALITY CONTROL RECORDS:

These are the documents, which demonstrate achievement of required Quality and effective operation of quality systems during manufacturing of an item as per QAP / ITP. These may include but not limited to following:

- Quality Assurance Plan
- Manufacturing & Quality Control Procedure (Heat treatment, PMI, He-Leak, Pneumatic, NDE, Draining, dryness, Nitrogen purging etc)
- Inspection test plan
- Procedure Qualification Records, WPS, WPQ etc.
- Material Test Certificates & it's summery.
- Stage Inspection Records / Test Reports

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- Visual and dimensional inspection records
- Calibration Records of measuring instruments & testing equipments.
- Calibration records of shop electrical & instruments items (welding rectifiers, volt meters, ammeters, temperature recorder etc)
- NDT records
- PMI reports
- Pressure test reports.
- Type test reports.
- Statutory certifications
- Any other test reports as specified in relevant codes / specifications.

4.11. INSPECTION COORDINATOR / INSPECTION MONITOR

An Inspection engineer at EIL-HO/RPO/BO/FPO, nominated by HOD (Inspection), Engineers India limited as nodal officer.

5.0 INSPECTION OFFICES OF EIL

- Head Office (HO) and RPO – Northern Region Inspection: Inspection Dept., Engineers India Limited, 1, Bhikaji Cama Place, New Delhi-110066, India, Phone-+91-11-2676-2011
- Branch Office (BO): Engineers India Bhavan, Plot-85, Sector-11, Kharghar, Navi Mumbai, Maharashtra, PIN-410210, India, Phone: +91-22-2774-0051
- RPO-Ahmedabad : Engineers India Bhavan, Survey No.256, Opp. Sehjanand Tower, Sterling Hospital Road,Gurukul Road, Memnagar, Ahmedabad, Gujarat 380052, India, Phone:+91-79-27497962
- RPO-Bengaluru : 2nd floor, PR Plaza, No-5, Vatal Nagaraj Road, Okalipuram, Bengaluru, Karnataka 560021 Phone: +91-80-23125630
- RPO-Chennai: 2nd Floor, Engineers India Bhawan, Plot No. F-9, SIPCOT IT Park First Main Road,Siruseri,Chennai-603 103,Tamilnadu,India,Phone-+91-44-27469401/2
- RPO-Hyderabad: Engineers India Limited, 79 Bldg, BHEL, R.C.Puram, Hyderabad, PIN:502032, Telegana, India, Phone :+91-40-29568377/ 88
- RPO-Kolkata : Engineers India Limited, 16th Floor (Flat Nos. 2 to 7), 33A, Chatterjee International Centre, Jawaharlal Nehru Road, Kolkata - 700071, Phone:+91-33-22265190
- RPO-Vadodara : Engineers India Limited , 4th & 5th Floor, Meghdhanush Complex, Transpek Circle, Race Course Road, Vadodara – 390 015, Gujarat, India, Phone: +91-265-2340503.
- RPO-Pune: 14, Boat Club Rd, Sangamvadi, Pune, Maharashtra 411001, Phone: +91-20-26163521, 26161196, 26169563, 26160589
- EIL-London(FPO): 487, Great West Road, Hounslow, Middlesex, Post Code-TW5 0BS, London, United Kingdom, Phone: +44-208-570-5530
- EIL-Shanghai : Room No. 1621,16th Floor, V-Capital Mansion,333 Xian Xia Road, Shanghai – 200 336, China, Tel.: +86-21-31030084,
- EIL-Italy: Milan Apartment Rental, Apartment 109, Piazza Luigi di Savoia 28, Milan – 20124, Italy.

6.0 METHODOLOGY AND CONTROLS

6.1 GENERAL

6.1.1 The EPC / LSTK Contractor & Supplier / sub supplier shall maintain an effective Quality Assurance System, to ensure that all materials supplied for the Project meet the required Quality standards and specifications.

6.1.2 TPIA shall be appointed as per contract requirements by the EPC/LSTK / Package contractor at their cost from the 'Third party Inspection agencies-TPIA' recommended by Client.

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6.1.3 **PROCUREMENT:**

a. All materials shall be procured from the Suppliers approved by PMC / OWNER as per the contract requirements.

b. In case for any item, project vendor / supplier list is not available, Contractor / Package Supplier shall submit list of such proposed suppliers along with their Past track record for specific approval well in advance to avoid any delay in sub-ordering due to approval process.

c. EPC/LSTK contractor / Package supplier to ensure enlistment parameters such as work location, range, size, MOC, model and current validity of supplier enlistment etc. before placement of orders on Manufacturers.

6.1.4 EPC / LSTK Contractor / Supplier shall ensure that all requisite facilities including testing equipment / Instruments / Gauges having calibration validity with certificate are made available to Inspection Authorities.

6.1.5 Summary of calibration records for measuring instruments, testing equipment and shop electrical & instrumentation equipments shall be made available along with calibration certificate.

6.1.6 PMC / Owner reserves the right to visit supplier / sub suppliers' works at any stage during order execution.

6.2 CATEGORIZATION

6.2.1. Various equipment/items to be procured by the EPC/LSTK Contractor/ Package Supplier shall be categorized into various inspection categories, depending upon their criticalities "for carrying out inspection and testing".

6.2.2. The EPC / LSTK Contractor / Package supplier shall submit at the time of Kick-off Meeting or earlier, the "Categorization Plan for inspection" of all equipment / items to be procured by them for approval, to OWNER/ PMC (Inspection coordinator).

6.2.3. Categorization plan should include major sub-ordered items, source (Indigenous & Imported) and quantity. ITP's for applicable items (as per approved Categorization plan) shall be submitted to the TPIA for their review and approval, as per categorization plan.

For PO items wherein no stage wise/final Inspection was witnessed by PMC (if any), EPC/ LSTK contractor / Package supplier shall submit all inspection related documents duly reviewed to the Nodal EIL RPO for review and endorsement of IRN issued by the nominated TPIA.

6.2.4. All equipment/items supplied by the EPC / LSTK Contractor / Package Supplier to the Project shall be categorized as Category "A", "B", "C" or "P" as per Table-1 of Document No. C050-8-1842-0004 (Guidelines for Item Categorization Plan) attached herewith.

a. Category A (Critical Items / Equipment):

- QAP / ITP review by Supplier, Contractor & approval by TPIA.
- All stage & final Inspection witness including documents review and issuance of Inspection Release Note (IRN) by TPIA and endorsement by the EPC/LSTK Contractor / Package Supplier.

b. Category B (Major items / equipment)

QAP / ITP review by Supplier, Contractor & approval by TPIA.

- All stage & final Inspection witness including documents review and issuance of Inspection Release Note (IRN) by TPIA and endorsement by the EPC/LSTK Contractor / Package Supplier.

Note: Though the stage/final Inspection by OWNER/PMC has not been envisaged for Category 'A' & 'B' items. OWNER/PMC reserves the rights to witness inspection of any stage which shall be decided at a later stage, based on the process criticality.

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c. Category C (Regular items):

- QAP/ITP review by Contractor, Supplier & approval by TPIA.
- Witness of stage and final Inspection including documents review and issuance of Inspection Release Note (IRN) by TPIA and endorsement by the EPC/LSTK Contractor / Package Supplier.
- Material shall be dispatched based on unconditional IRN issued by TPIA and endorsement by EPC/LSTK contractor/Package Supplier.

d. Category P (Package Order):

- All items/Components under supply in the Package shall be categorized as Category A, B & C as explained in Clause no. 6.2.4. Package supplier shall generate the ICP accordingly and the same shall be approved by OWNER/PMC.

Notes:

- Materials shall be dispatched based on unconditional IRN issued by TPIA & endorsement of same by EPC/LSTK contractor/Package Supplier.
- Items coming under the purview of IBR, inspection or documentation review shall be done as per applicable IBR regulations and norms/procedure by IBR/ authorized agency. EPC/LSTK contractor/Package Supplier to ensure conformity to all statutory / regulations requirements.
- Items under the purview of ASME Code stamps, inspectio0n shall be done by ASME AI.

e. Following items do no fall under purview of categorization plan. EPC/LSTK contractor / Package supplier should get in touch with EIL site in-charge for methodology/ acceptance of these items.

- Raw materials procured for site fabricated equipment under scope of site construction inspection.
- Cement, reinforcement bars.
- Structural steel materials & plates as per IS-2062. Hand railing material etc.
- Wrapping and coating materials
- Paints, chemicals and cleaning agents
- Oil lubricants
- Insulation materials
- Earthing materials
- Hardware used at site for electrical and instrumentation items
- Any other non-critical items such as fuse, contactors, MCB, ELCB, sage area lamp,/ switch/ socket/cabinet cooling fans etc., unless specified otherwise.

6.3 INSPECTION AND TEST PLAN / QUALITY ASSURANCE PLAN (ITP/ QAP) :

EIL's Standard ITPs for major items are attached to the bid documents. These ITPs are indicative and generic only. Based on these ITPs, EPC/LSTK Contractor / Package Supplier shall generate detailed ITP/QAPs applicable to the specific item ordered. However, none of the stages shall be waived in detailed ITPs/QAPs without the consent of PMC. Wherever EIL's ITP is not attached, the EPC/LSTK CONTRACTOR / Package Supplier shall generate the detailed ITP.

The ITP/QAP shall give complete listing of stages of inspection, final inspection, tests and material certification requirements for the item, meeting all requirements specified in the Contract Document / Approved project specifications / Approved Drawings & Data sheets and shall clearly indicate Hold (H), Witness (W) Inspection, Random Witness (RW), Review (R) stages of inspection to be carried out by the supplier and TPIA. For the supplier, all the stages of inspection shall be HOLD

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points and no stage shall be offered to TPIA without having performed / witnessed such stages.

The ITP thus generated shall identify and include the following as minimum:

Sequence of all inspection and test activities related to the item manufactured, specific procedures, methods and work instructions to be applied to each activity in manufacturing of the item.

This will include but not limited to:

- Material identification,
- Qualification of welding procedures, welders, welding operators,
- NDT procedures & personnel qualifications
- Post Weld Heat Treatment procedures, Pneumatic, He-leak etc
- Positive Material Identification (PMI) including that of welds @ at least 10% at random,
- Visual / dimensional checks.
- Pressure tests,
- Performance tests, Mechanical run tests
- String tests, strip tests, review of type test reports / statutory certifications (as applicable)

Respective acceptance criteria and pre-shipment clearing procedures etc. as the case may be.

EPC / LSTK contractor/ Package Supplier may opt for making their own Standard ITP/QAP for each bulk items viz. fittings, flanges, pipes, hoses, gaskets, fasteners, cables, cable glands, instrument tube & fittings, pressure gauge, manometers etc. and go for one time approval for each item type.

EPC/LSTK contractor/ Package Supplier may also opt for using EIL's Standard ITP attached to the bid documents. However, same shall be submitted (as per approved ICP) after incorporating job specific requirements (as applicable) after proper review at their end by TPIA.

Package CONTRACTOR / TPIA shall ensure that all personnel engaged in performing the activities have requisite competency (qualification) in that domain and relevant work experience. Wherever required, specialized operators shall be qualified and certified before commencement of activity.

NDT operators employed, if any, shall be certified as per ASNT / ISNT and shall have valid certificates.
EPC/LSTK/Packages Suppliers shall ensure that personnel performing the specific activities (approval of ITPs, review of stages & final reports, witness of critical stages, endorsement of IRN etc) shall be competent enough and shall have relevant work experience in particular field.

6.4 INSPECTION

6.4.1. SELECTION OF TPI AGENCY BY CONTRACTOR & PACKAGE SUPPLIERS: It is LSTK/EPC contractor & Package Supplier's responsibility to select engage Agency out of recommended agencies as per contract /bid document. TPI agency other than approved agencies listed as per contract is not acceptable.

6.4.2. In case, OWNER/PMC's participation is asked for, EPC / LSTK Contractor shall notify in writing to the respective OWNER, RPO/BO/FPO of EIL coordinating the LSTK/EPC/Package order, at least 7 days in advance of the date and the place at which the item will be ready for witnessing inspection / testing by PMC and/or OWNER. Following documents shall be submitted along with inspection notice:

- Un priced copy of Purchase Order
- Approved Purchase Requisition
- Approved Drawings / data sheets.
- Agreed Deviations
- Approved QAP / ITP
- Approved Categorization Plan.

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6.4.3. TPIA shall issue an Inspection Certificate after satisfactory Stage wise & Final inspection including documents review in compliance to 'H', 'W', 'RW' &' R' stages of inspection by all parties as per approved ITP/QAP, PR, Purchase specifications, standards/codes etc.

6.4.4. The Inspection Certificate/ Inspection Release Note (IRN) shall give reference of the purchase order, approved engineering documents (PR, drawings etc.) and approved ITP referred for inspection and tests carried out. The inspection certificate / Inspection Release Note shall list out short supplies / pending work details, if any and order status viz. Partial/Complete.

6.4.5. In case Contractor / Supplier or TPIA find any deviation or non- conformity with respect to the agreed specifications during manufacturing of the item and where corrective action is not feasible, the Contractor shall report the same to EIL in the designated "Waiver / Deviation Request" thru EIL online portal and seek prior approval from EIL / Owner as applicable, before proceeding further.

6.4.6. The Contractor / Supplier shall ensure that all items covered by statutory regulations are inspected at the manufacturer's works and are duly certified by competent authority as per stipulated requirements.

6.4.7. Pre-fabricated modules shall be inspected and tested as per approved ITP / QAP before dispatch from shop / yard.

6.4.8. Material / equipment shall be inspected only after receipt of drawings / data sheets approved by PMC / Owner (as applicable) in Code 2. However, dispatch clearance shall be after Code-1 approval.

6.4.9. The Contractor / Supplier / TPIA shall check the calibration status and traceability of all measuring instruments and testing equipments used by the supplier for testing. Calibration status of shop electrical & instrumentation items (welding rectifiers, ammeters, voltmeters, temp recorders / indicators etc) shall also be checked, verified and recorded by TPIA at supplier works.

6.4.10. All bulk items like pipes, fittings, fasteners etc. shall be color coded as per instructions given in the specifications by the Supplier and witnessed by Contractor / Supplier / TPIA.

6.4.11. The Contractor / Supplier / TPIA shall carry out physical verification of all spares and check their Tag No., Serial No., Model No., Quantity, Model, Size, Rating etc. and review manufacturer's test reports / certificates, Material test certificates etc. to confirm compliance to requirements.

6.4.12. In case any item is found not complying to the specifications laid down in the contract, it shall be the responsibility of the package CONTRACTOR to ensure replacement / rectification of the equipment / material, as decided by OWNER/ PMC.

6.5 INSPECTION CERTIFICATE(IC) / INSPECTION RELEASE NOTE (IRN):

6.5.1. TPIA shall issue an IC / IRN after satisfactory completion of all required stages of Inspection as per approved QAP / ITP and after ensuring compliance to specified requirements of all relevant applicable documents. The Inspection Certificate shall give reference of the approved documents including Purchase Requisition / Specification, Drawing, Data sheet, QAP / ITP with revision number referred for inspection and tests carried out, balance activities and short supplies, if any.

IC / IRN to be issued only after drawings / data sheets are approved by EIL in Code 1 / R, unless agreed otherwise.

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6.5.2. The IC / IRN shall include the following as minimum

- Job No. / Project Title / PO no. / Purchase Specification no., Date of inspection and Status of the visit - Initial / Intermediate / Final.
- Item Tag no. / Name / Total quantity ordered / released / offered for inspection and accepted during the visit.
- Manufacturer's Name, Package contractor's name, PMC & OWNER
- Date & Place of Inspection, name of Inspection Agency and Inspection Authority.
- Reference of Documents with Revision status. (It shall be clearly indicated in the inspection certificate that "inspection has been carried out based on code-1 drawings and approved ITP" and comply all PR/Specification requirements.)
- Verification of calibration documents.
- Details of Inspection carried out.
- Details of documents reviewed.
- Results of Inspection.
- The IC/IRN shall indicate the PO status (PARTIAL/COMPLETED) clearly.
- Punch points/Compliance by suppliers (endorsed by Inspection authority)
- Deviations, if any.

6.5.3. IC / IRN issued by the TPIA shall be accompanied with the following docs. as minimum

- Works Certificate with details of Hydrostatic Test and PMI / Leak Tests (if applicable) for Fabricated equipment
- Works Certificate with details of Performance Test, Mechanical Run Test (if specified in PR) and String Test (if applicable) for Rotating Equipment
- Works Certificate with details of acceptance tests, calibration and Certificate of statutory approvals if applicable.
- Works Certificate with details of Mechanical tests, PMI and Helium Leak tests, if applicable, for all bulk items such as pipes, valves, fittings, fasteners and gaskets.
- MPL signed by Inspection authority
- Undertaking letter for Completion of order as mentioned under clause 6.5.4 from the supplier.

6.5.4. Package CONTRACTOR shall submit copy of each Inspection Certificate (IC)/ Inspection Release Note (IRN) issued TPIA, along with all attachments mentioned therein. Package contractor shall distribute the Inspection Certificate to the following officials:

- Project Manager of EIL.
- Respective RPO where contractor is located, if applicable.
- Resident Construction Manager (RCM) of EIL.
- Owner's Representative at Site.
- Contractor's Ware-house in-charge

Contact details of all concerned will be intimated after kick off meeting.

Immediately after dispatch, the package CONTRACTOR shall submit one set of all documents listed in the "Vendor Data Requirement" sheet attached with the PR / Contract to RCM of EIL.

6.5.5. Contractor/Package Supplier shall dispatch the items to site only after receipt of endorsement of Inspection documents from EPC / LSTK Contractor / Package contractor (as applicable).

6.6 Master packing list:

A "master packing list" which covers all the main items, sub ordered items, spares, loose items including fasteners, glands & gland packing etc. shall be submitted in v-portal by the package supplier in mid of the manufacturing but not later than the readiness for issue of IRN /IC before dispatch of 1st lot of PO items. With This Master packing list, Inspection authority will issue the IRN/

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IC and mention the items list for which IRN/IC is issued and shall be part of IRN issued by the Inspection authority.
Package Supplier shall submit the DCI in V-portal for "Master Packing List" accordingly to facilitate submission of Master packing list.
Supplier shall create the Master Packing list based on approved drawings (Master Drawings and associated items drawings); which includes all main items/line items, sub items, Spares and loose items.

While Issuing the IRN/IC, Master packing list shall be attached indicating items for which IRN/IC being issued. Supplier shall submit IRN/IC (along with master packing list uploaded in the v-portal indicating for which IRN issued.) issued by the Inspection authority. Master Packing List shall include following details as minimum

- Item Sr. No.
- Item Description
- Qty Required
- Qty released in current IRN

.

Final Inspection certificate in complete status shall be issued by the inspection authority once all the items in the scope of package supplier and listed in Master packing list, are completed after satisfactory inspection and submission of following declaration by the package supplier:

"This is to certify that all the items required to be supplied for the above-mentioned contract to complete the package installation at site, have been supplied by us in totality. We confirm that there is no shortfall in the supply with respect to the scope mentioned in the Contract/PR and the items required to complete installation of the system. We also confirm that shortage of items, if any, found during installation of the package shall be made good by us in the shortest possible time and no extra cost to Employer.".

7.0 DOCUMENTATION AND CONTROLS

FINAL DOCUMENTS.

On completion of each order, package vendor shall submit the final documents to the PMC / Owner in requisite number of hard copies / soft copies (CD) as per the vendor data requirements attached with PR duly reviewed and certified / endorsed by the nominated TPIA with Seal / stamp at least on the index sheet of final documents / data folder along with Certificate of Completeness of Final Documentation duly certified by the nominated TPIA and EPC/LSK Contractor / Package supplier. Hard copies shall be sent directly to EIL Site office with a soft copy to EIL's Project Manager.

8.0 STATUS & MONITORING REPORT

Package CONTRACTOR shall closely monitor the manufacturing progress at Supplier's works for various orders and expedite timely delivery of all items at site. If required and found necessary, visits to Supplier shops by PMC / OWNER and meetings with Suppliers shall be organized by the package CONTRACTOR. In case of any delay in supply of the items by any supplier, the package CONTRACTOR shall initiate remedial actions for expediting delivery of the items.

Package CONTRACTOR shall submit status report of all procurement items and related information, to the Inspection Coordinator of EIL on a FORTNIGHTLY basis. Reporting Format to be finalized during Kick off meeting (KOM) with the EIL / Owner.

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Annexure-I

Matrix of Inspection and Certification Responsibility

Activities	Contractor / Supplier	Category A		Category B		Category C	
		TPIA	EIL	TPIA	EIL	TPIA	EIL
ICP	To submit	Approval by EIL					
ITP Document	Review	Approval required	Not Applicable	Approval required	Not Applicable	Approval required	Not required
Providing approved drawings to TPIA / PMC	To Provide	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Stage Inspection	To perform	Applicable	Not Applicable	Applicable	Not Applicable	As Applicable	Not Applicable
Final Inspection	To perform	Applicable	Not Applicable	Applicable	Not Applicable	Applicable	Not Applicable
Issue of Inspection certificate	To endorse TPIA's Inspection Certificate / IRN.	To Issue	Not Applicable	To issue	Not Applicable	To issue	Not Applicable
Distribution of inspection certificate with attachments	To distribute As per contract documents	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Final documents (Note-3)	To submit as per Contract document, after endorsing the certification by TPIA & EPC/LSTK	To certify the completeness of the documentation as per contract document.	Not Applicable	To endorse the completeness of documentation certified by the Contractor, as per contract document.	Not Applicable	To certify the completeness of the documentation as per contract document.	Not Applicable

Notes:

1. OWNER/PMC reserves the rights to witness inspection of any stage which shall be decided during ICP/QAP approval stage based on the process criticality.
2. Items not covered in Table-1 of Doc. No. C050-8-1842-0004 shall also be categorized in consultation with Owner / PMC.
3. For Category 'P' Item, Supplier shall submit Final Documents on completion of scope of works or as defined in PO / PR.

Notwithstanding the above, PMC / Owner reserves the right to participate in any stage / final inspection

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GUIDELINES FOR ITEM CATEGORIZATION PLAN

Rev. No	Date	Purpose	Prepared by	Reviewed by	Approved by
0	26.08.2025	Issued for tendering	SK	SK	H. PAL

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Abbreviations:

BO	:	Branch Office
EIL	:	Engineers India Limited
EPC	:	Engineering, Procurement & Construction
EPCM	:	Engineering, Procurement and Construction Management
ICP	:	Inspection Categorization Plan
ITP	:	Inspection and Test Plan
LSTK	:	Lump Sum Turn Key
P	:	Package order
PMC	:	Project Management Consultant
QAP	:	Quality Assurance Plan
TPIA	:	Third Party Inspection Agency
W	:	Witness

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CONTENTS

Clause	Title	Page No.
1.0	PURPOSE	4-4
2.0	SCOPE	4-4
3.0	REFERENCES	4-4
4.0	ITEMS DO NOT FALL UNDER THIS CATEGORIZATION PLAN	4-4
5.0	ITEM LIST AND CATEGORY	4-4
6.0	TABLE-1	5-21

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1.0 PURPOSE

The purpose of this document is to provide guideline for preparation and approval of item Categorization Plan for Inspection and defines the Inspection scope for various agencies for the Project.

2.0 SCOPE

This guideline is applicable for all material to be supplied by the EPC / LSTK Contractors for 360 KTPA Polypropylene Unit (PPU) Project of NRL.

3.0 REFERENCE:

This document shall be read in conjunction with document no. C050-6-1842-0005 “Inspection Methodology & Co-ordination Procedure” attached to the contract and other documents mentioned therein.

4.0 ITEMS DO NOT FALL UNDER THIS CATEGORIZATION PLAN: EPC/LSTK

Contractor / Package supplier should get in touch with Site for in charge for methodology/ acceptance of these items.

- Cement, Reinforcement bars
- Structural steel material & plates as per IS-2062. Hand railing material
- Wrapping & Coating material.
- Paints, Chemicals and Cleaning agents
- Oil lubricants Insulation material earthing material
- Hardware used at Site for Electrical and Instrumentation items.
- Loose spares
- Any other non-critical item.

5.0 ITEM LIST AND CATEGORY:

Item listed in the Table-1 of this document. Item not covered in the table-1/ exempted item list as per clause 4.0 of this document, shall also be categorized and submitted for approval from EIL.

Note: The category of items mentioned in the Table-1 is standard. EIL reserves the rights to alter the category of item based on the Process criticality and Client requirement, during approval of ICP/QAP.

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Table-1

Sr.No.	Item Description	Item Category	Remarks
1	A.C. VARIABLE SPEED DRIVE (VFD) SYSTEM	B	
2	ACCESS CONTROL SYSTEM	C	
3	ACSR CONDUCTOR	C	
4	ACTUATORS - MOV	C	
5	ADDITIVE MIXING SYSTEM	C	
6	ADDITIVE UNLOADING SYSTEM	P	
7	AGITATOR	C	
8	AIR CONDITIONING SYSTEM - CENTRAL	P	
9	AIR CONDITIONING SYSTEM - PACKAGE UNIT	P	
10	ANALYSER SHELTER	B	
11	ANALYSER SYSTEMS	B	
12	ANALYSER-DENSITY/SP. GRAVITY (NUCLEONIC/ VIBRATION CYLINDER/ CORIOLIS TYPES)	B	
13	AUTO DCP EXTINGUISHING SYSTEM	C	
14	AUTOMATIC GAS SAMPLER	C	
15	AUTOMATIC LIQUID SAMPLER	C	
16	BAG SLITTING PACKAGE	P	
17	BAG STICHING MACHINE	C	
18	BAGGING & PALLETIZING LINES	P	
19	BATTERIES-LEAD ACID (FLOODED)	C	
20	BATTERIES-LEAD ACID (VRLA)	C	
21	BATTERIES-NICKLE CADMIUM	C	
22	BATTERY CHARGERS	B	
23	BLOWER-TURBO CENTRIFUGAL	B	
24	BOILER - INDUSTRIAL WATER TUBE >25TPH	C	
25	BRANCH PIPES	C	
26	BURNER-CONVENTIONAL	C	
27	BURNER-LOW Nox (PROCESS FIRED HEATER)	C	
28	BURNER-SRU	C	
29	BUS DUCTS	C	
30	CABLE GLANDS (HAZARDOUS AREA)	C	
31	CABLE TERMN. & JOINTING KIT	C	
32	CABLE TRAYS-FRP	C	
33	CABLES - EXTRA HIGH VOLTAGE(220KV & ABOVE)	B	
34	CABLES COMMN. (JELLY FILLED)	B	
35	CABLES:CONTROL-PVC	C	
36	CABLES-FIRE ALARM AND COMMN.	B	

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Sr.No.	Item Description	Item Category	Remarks
37	CABLES-HIGH VOLTAGE& EXTRA HIGH VOLTAGE UPTO 132KV)	B	
38	CABLES-MEDIUM VOLTAGE-POWER-PVC	C	
39	CCTV & CCTV SYSTEM	B	
40	CHAIN PULLEY BLOCK	C	
41	COMP. HIGH PRESSURE (PIANS)	B	
42	COMP-CENT.(SPP)	A	
43	COMP-EXPANDER(PRO)	A	
44	COMP-RECIPRO(DIAPHRAGM)	B	
45	COMP-RECIPRO(LABYRINTH)	B	
46	COMP-RECIPRO(SPP)	B	
47	COMP-ROT.LIQUID RING / VP(AS)	B	
48	COMP-ROT.LIQUID RING/VP(PS)	B	
49	COMP-ROT.LOBE/VP(AS)	B	
50	COMP-ROT.LOBE/VP(PS)	B	
51	COMP-ROT.SCREW(PIAS)	B	
52	COMP-ROT.SCREW(PS)	B	
53	CONTROL STATIONS- WEATHERPROOF	C	
54	CONTROL STATIONS-FLAME PROOF	C	
55	CONVEYOR	C	
56	CRANE- E.O.T (HAZARDOUS AREA)	B	
57	CRANE- E.O.T (SAFE AREA)	C	
58	CRANE H.O.T. (HAND OPERATED)	C	
59	CT/PT OUTDOOR (EHV)	B	
60	CYCLONES (HYDRO)	C	
61	CYCLONES (PNEUMATIC)	C	
62	DAMPER(FOR FIRED HEATER/AIR PREHEAT SYS)	C	
63	DELUGE VALVE AND HEAT DETECTORS	C	
64	DG SET	B	
65	DIFFERENTIAL PRESSURE GAUGES	C	
66	DISTRIBUTED CONTROL SYSTEMS (PACKAGE)	P	
67	DRUM LEVEL INSTRUMENTS (ELECTRONIC)	C	
68	ELECTRIC HOISTS	C	
69	ELECTRONIC WEIGH SCALE	C	
70	EPABX SYSTEM	C	
71	FAN-AXIAL FLOW	C	
72	FAN-ID/FD	B	
73	FASTENERS	C	
74	FIELD INSTRUMENTS (P, DP, F, L, T, TD)	C	
75	FILTER SEPARATOR	C	

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Sr.No.	Item Description	Item Category	Remarks
76	FIRE & GAS DETECTION SYSTEMS	C	
77	FIRE ALARM SYSTEM	B	
78	FIRE EXTINGUISHERS (PORTABLE)	C	
79	FIRE HOSE ACCESSORIES	C	
80	FIRE PROTECTION SYSTEM (VALVES & ACC.)	B	
81	FITTING BLOCK FORGED-CARBON STEEL	C	
82	FITTING-GRE/FRP/IS1239	C	
83	FITTINGS-FABRICATED(ALL)	C	
84	FITTINGS FROM SEAMLESS PIPES(AS, SS, EXOTIC)	C	
85	FITTINGS FROM SEAMLESS PIPES (CS)	C	
86	FITTINGS PIPE CAP (CS, AS, EXOTIC, SS)	C	
87	FITTINGS-FOREIGN AGENTS/STOCKIST/TRADERS	C	Review of 3.2 certification. Sourced from EIL approved Suppliers.
88	FLANGE- CARBON STEEL	C	I
89	FLARE STACK COMPONENTS	P	
90	FLOW METERS : (MASS/ MAGNETIC/ VORTEX/ TURBINE/ ULTRASONIC / POSITIVE DISPLACEMENT)	C	
91	FORK LIFT TRUCK	C	
92	FRP/FRP REINFORCED PVC/PP LINED EQPT.	C	
93	FUME TREATMENT PLANT	P	
94	FURNACE	P	
95	GAS CHROMATOGRAPH: (PROCESS GAS / NATURAL GAS)	C	
96	GAS DETECTION SYSTEMS	C	
97	GAUGE GLASSES & COCKS	C	
98	GLASS WOOL INSULATION PRODUCTS	C	
99	HEAT EXCHANGER (SS-DUPLEX/SUPER DUPLEX)	A	
100	HEAT EXCHANGER (CARBON STEEL)	B	
101	HEAT EXCHANGER (LTCS)	B	
102	HEAT TRACERS	C	
103	HIGH MAST LIGHTING SYSTEM	C	
104	HOSE DELIVERY	C	
105	HOSE METALLIC FLEXIBLE SS	C	
106	HOSE- RUBBER (STEAM/GAS/AIR/WATER/CHEM.)	C	
107	HVAC SYSTEM	P	
108	HYDRANT/LANDING VALVE	C	
109	INSTRUMENT TRANSFORMERS CT & PT (HV)	C	
110	INSTRUMENT TRANSFORMERS CT & PT (MV)	C	

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Sr.No.	Item Description	Item Category	Remarks
111	INSTRUMENT TUBE FITTINGS	C	
112	INSTRUMENT TUBING	C	
113	INSTRUMENT VALVES& MANIFOLDS	C	
114	INSULATING BRICKS	C	
115	INSULATING REFRACTORY CASTABLE	C	
116	JUNCTION BOXES (FLAME PROOF)	C	
117	LEVEL INSTRUMENTS-DISPLACER TYPE	C	
118	LEVEL SWITCHES (DISPLACER/FLOAT)	C	
119	LIFTS (PASSENGER & GOODS)	C	
120	LIGHTING & POWER PANELS (FLP)	C	
121	LIGHTING & POWER PANELS (SAFE AREA)	C	
122	LIGHTING FIXTURE & ACCESSORIES (NON-HAZARDOUS)	C	
123	LIGHTING FIXTURE & ACCESSORIES (HAZARDOUS)	C	
124	LIGHTING TRANSFORMERS	C	
125	LIGHTNING ARRESTORS	C	
126	LINING-FRP(TANKS & VESSELS)	C	
127	CBG/LPG FILLING MACHINE	B	
128	MAGNETIC LEVEL INSTRUMENTS	C	
129	MECH.SEAL FOR PUMPS/AGITATORS	C	
130	LT MOTORS(UPTO 415V)	C	
131	MOTOR WITH VFD-ALL RATING	B	
132	HT MOTORS ABOVE (415V)	B	
133	MULTICYCLONES	C	
134	MV POWER CABLE - FIRE SURVIVAL	C	
135	NEUTRAL GROUNDING RESISTORS-H.V.	C	
136	OPTICAL FIBRE CABLE & ASSOC.ITEM	C	
137	ORIFICE PLATES & FLANGES	C	
138	PIPE / FITTINGS -PTFE LINED	C	
139	PIPE/TUBE-CS (SEAMLESS)TO ASTM STDS	C	
140	PIPE-CARBON STEEL TO INDIAN STANDARDS	C	
141	PIPE-CARBON STEEL(WELDED)TO ASTM STDS	C	
142	PLANT COMMUNICATION SYSTEM	B	
143	PREFABRICATED INSTRUMENT HOOKUPS	C	
144	PRE-FABRICATED PIPING SPOOL	B	
145	PRESSURE GAUGES	C	
146	PRESSURE RELIEF VALVE	C	
147	PRESSURE SWITCHES	C	
148	PRESSURE VESSEL - LTCS	B	

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Sr.No.	Item Description	Item Category	Remarks
149	PRESSURE VESSEL -CS (UPTO 50MM)	B	
150	PRESSURE VESSEL -CS (ABOVE 50MM)	A	
151	PRESSURE VESSEL-LOW ALLOY STEEL	A	
152	PRESSURE VESSEL-TITANIUM	A	
153	PRESSURE VESSEL-CLAD SITE FABRICATED	A	
154	PRESSURE VESSEL-CS SITE FABRICATED	A	
155	PRODUCT QUALITY ANALYSER - ALL TYPES	B	
156	PROGRAMMABLE LOGIC CONTROLLERS	B	
157	PUMP - AIR OPERATED DIAPHRAGM	C	
158	PUMP_CENT.HOR(GPP)	B	
159	PUMP-CENT.(BFW)	B	
160	PUMP-CENT.(LOW CAPACITY HIGH HEAD)	B	
161	PUMP-CENT.HOR(GWS)	C	
162	PUMP-CENT.HOR(LCWS)	B	
163	PUMP-CENT.HOR(SPP)	B	
164	PUMP-CENT.HOR.MULTI STAGE(SPP)	B	
165	PUMP-CENT.VERT(GPP)	B	
166	PUMP-CENT.VERT(LCWS)	B	
167	PUMP-CENT.VERT.(GWS)	C	
168	PUMP-RECIPRO(API 674)	B	
169	PUMP-RECIPRO(API 675,PLUNGER/DIAPHRAGM)	B	
170	PUMP-ROT.SCR.ARC(ES)	B	
171	PUMP-ROTARY(LOBE)	C	
172	PUMP-ROTARY.GEAR	C	
173	PUMP-ROTARY.SCREW	C	
174	PUMP-SLURRY CENT REC.IMPELLAR	C	
175	PUMP-SLURRY.CENT.H/V	B	
176	PUMP-SLURRY.RECIPRO	B	
177	QUICK OPENING CLOSURE(FILTER/SEPARATOR)	C	
178	RAIL & ROAD WEIGH BRIDGE	C	
179	RECEIVER INSTRUMENTS	C	
180	RELAY & CONTROL PANEL	B	
181	REMOTE CONTROLLED MONITORS	C	
182	SAMPLE COOLER.	C	
183	SCADA SYSTEMS	P	
184	SCRUBBERS - SPRAY TYPE	C	
185	SCRUBBERS - VENTURI TYPE	C	
186	SEPARATOR INTERNALS	C	
187	SEPARATORS (FOR OIL FIELDS)	B	
188	SIGNAL CABLES	B	

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Sr.No.	Item Description	Item Category	Remarks
189	SOLENOID VALVES	C	
190	SPECIAL TEMPERATURE ELEMENTS	C	
191	SPRAY NOZZLE- FIRE FIGHTING	C	
192	SPRING SUPPORTS	C	
193	STACK GAS ANALYSERS -ALL TYPES	C	
194	STATIC MIXER	C	
195	STRAINERS	C	
196	STRAINERS (FAB/CAST/FORGED)	C	
197	SURGE RELIEF VALVE	B	
198	SWITCHBOARD FIXED FOR PACKAGE EQUIPTS	B	
199	SWITCHBOARD-EHV-GAS INSULATED	B	
200	SWITCHBOARD-HV (INDOOR) WITH VCB BREAKR	B	
201	SWITCHBOARD-HV(INDOOR) WITH SF6 BREAKER	B	
202	SWITCHBOARD-HV-GAS INSULATED	B	
203	SWITCHBOARD-M.V.-MCC/PCC/PMCC-DRAWOUT	B	
204	SWITCHBOARD-MV:MCC/ASB/LDB-FIXED TYP	B	
205	SYNCHRONOUS GENERATORS (HV)	B	
206	TANK FARM MANAGEMENT SYSTEM	P	
207	TANK LEVEL INSTRUMENT (GUIDED WAVE RADAR/ NON-CONTACT TYPE RADARS / SERVO TYPE)	B	
208	TANK LEVEL INSTRUMENT (ULTRASONIC)	C	
209	TANK LEVEL INSTRUMENTS (FLOAT OPERATED)	C	
210	TANK PR. PROTECT. DEVICES(BREATHER VALVES) / FLAME ARRESTER	C	
211	TELECOMMUNICATION SYSTEM	B	
212	TEMP.GAUGES(BI METALLIC,FILLED SYSTEM) & THERMOWELLS	C	
213	TEMPERATURE ELEMENTS & THERMOWELLS	C	
214	TURNKEY INSTRUMENTATION	P	
215	U.P.S. SYSTEM	B	
216	VALVE BALL - FIRE SAFE (FORGED)	C	
217	VALVE BALL FIRE SAFE-CCS	C	
218	VALVE BALL FIRE SAFE-CSS	C	
219	VALVE BALL JACKETED - NON FIRE SAFE	B	
220	VALVE BALL MULTIPORT NON FIRE SAFE	C	
221	VALVE BALL NON FIRE SAFE-CCS	C	
222	VALVE BALL NON FIRE SAFE-CSS	C	
223	VALVE BALL NON FIRE SAFE-FCS	C	
224	VALVE BALL NON FIRE SAFE-FSS	C	
225	VALVE BELLOW SEALED	C	
226	VALVE- BLOWDOWN (Straight/Angle Pattern)	C	

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Sr.No.	Item Description	Item Category	Remarks
227	VALVE BUTTERFLY - CCS	C	
228	VALVE BUTTERFLY (PTFE SEATED)	C	
229	VALVE BUTTERFLY -CAS	C	
230	VALVE BUTTERFLY -CSS	C	
231	VALVE CHECK (DUAL PLATE TYPE)	C	
232	VALVE CHECK CAST	C	
233	VALVE CHECK EXCESS FLOW	C	
234	VALVE CHECK FORGED	C	
235	VALVE CHECK GUNMETAL/BRASS/BRONZE	C	
236	VALVE CUTTING	C	
237	VALVE DIAPHRAGM CAST CARBON STEEL	C	
238	VALVE DIAPHRAGM CAST STAINLESS STEEL	C	
239	VALVE DIAPHRAGM-(FOREIGN SUPPLIERS)	C	
240	VALVE DOUBLE DISC GATE	C	
241	VALVE FOOT/AIR	C	
242	VALVE GATE (MOTOR OPERATED)	B	
243	VALVE GATE (THRU CONDUIT) (AP16D)	C	
244	VALVE GATE CAST	C	
245	VALVE GATE FORGED	C	
246	VALVE GATE GUNMETAL/BRASS/BRONZE	C	
247	VALVE GLOBE CAST	C	
248	VALVE GLOBE CRYOGENIC CAST	C	
249	VALVE GLOBE CRYOGENIC FORGED	C	
250	VALVE GLOBE FORGED	C	
251	VALVE GLOBE GUNMETAL/BRASS/BRONZE	C	
252	VALVE PLUG CONCENTRIC- CCS (F.S & N.F.S)	C	
253	VALVE PLUG CONCENTRIC -CSS (F.S & N.F.S)	C	
254	VALVE PLUG CONCENTRIC-CAS(F.S. & N.F.S.)	C	
255	VALVE PLUG PRESSURE BALANCED (FS)	B	
256	VALVE PLUG PRESSURE BALANCED (NFS)	C	
257	VALVE PLUG-(FOREIGN SUPPLIERS)	C	
258	VALVE SHUT DOWN	B	
259	VALVE SLIDE	C	
260	VALVE SPECIAL CATEGORY	B	
261	VALVE TANK BOTTOM/FLUSH BOTTOM	C	
262	VALVE-BUTTERFLY (TRIPLE OFFSET)	C	
263	VALVE-DUPLEX / SUPER DUPLEX SS	B	
264	VALVE-NON SLAM CHECK (NOZZLE)	C	
265	VAPOUR RECOVERY SYSTEM	C	
266	VENTILATION & PRESSURISATION SYSTEM	P	

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Sr.No.	Item Description	Item Category	Remarks
267	WASTE HEAT RECOVERY SYSTEM	P	
268	WATER CUM FOAM MONITOR	C	
269	WATER MONITOR	C	
270	WATER SPRINKLER	C	

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बोलीकर्ता / आपूर्तिकर्ताओं / ठेकेदारों से गुणवत्ता प्रबंधन प्रणाली अपेक्षाओं हेतु विनिर्देश

SPECIFICATION FOR QUALITY MANAGEMENT SYSTEM REQUIREMENTS FROM BIDDERS / SUPPLIERS / CONTRACTORS

Rev. No.	Date	Purpose	Prepared by	Checked by	Approved by: Standards Committee Convener	Approved by: Standards Bureau Chairman
3	29-09-2025	General Revision	QMS Standards Committee	QMS Standards Committee	AK	MN
2	12-06-2020	General Revision	QMS Standards Committee	QMS Standards Committee	SKB	SKS
1	12-03-2015	General Revision	QMS Standards Committee	QMS Standards Committee	MPJ	SC
0	04-06-2009	Issued as Standard Specification	QMS Standards Committee	QMS Standards Committee	SCT	ND

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Abbreviations:

EIL	Engineers India Limited
ISO	International Organization for Standardization
MR	Material Requisition
PO	Purchase Order
PR	Purchase Requisition
QMS	Quality Management System

QMS Standards Committee

Convener: Mr. Anil Kumar

Members: Mr. Himangshu Pal (SCM-Inspection)
Mr. Ravindra Kumar (Const.)
Mr. Vinod Kumar (CQA)
Mr. Swapnil Vaishnav (Projects)
Mr.Vijay Kumar Garg (SCM)
Mr.Raju Kumar Pandey (Equipment Division)

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CONTENTS

Clause	Title	Page No.
1.0	SCOPE	4
2.0	DEFINITIONS	4
3.0	REFERENCE DOCUMENTS	4
4.0	QUALITY MANAGEMENT SYSTEM – GENERAL	4
5.0	QUALITY SYSTEM REQUIREMENTS	4
6.0	AUDITS	6
7.0	DOCUMENTATION REQUIREMENTS	7

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1.0 SCOPE

This specification establishes the Quality Management System requirements to be met by BIDDER for following purpose:

- QMS requirements to be met by suppliers/contractors after award of work/duringcontract execution.

2.0 DEFINITIONS

2.1 Bidder

For the purpose of this specification, the word "BIDDER" means the person(s), firm, company or organization who is under the process of being contracted by EIL / Owner for delivery of some products (including service).The word "Bidder" is considered synonymous to supplier, contractor or vendor.

2.2 Project Quality Plan (PQP)

Document tailored from Standard Quality Management System Manual of BIDDER, specifying how the quality requirements of the project will be met.

2.3 Owner

Owner means the owner of the project for which services / products are being purchased and includes their representatives, successors and assignees.

3.0 REFERENCE DOCUMENTS

- Specification for Documentation Requirements from Contractors (Doc. No. 6-78-0002)
- Specification for Documentation Requirements from Suppliers (Doc. No. 6-78-0003)

4.0 QUALITY MANAGEMENT SYSTEM – GENERAL

Unless otherwise agreed with EIL / Owner, the BIDDER proposed quality system shall fully satisfy all relevant requirements of ISO 9001 "Quality Management Systems – Requirements."Evidence of compliance shall be current certificate of quality system registration to ISO 9001 or a recent compliance audit recommending registration from a certification agency.The quality system shall provide the planned and systematic control of all quality related activities for execution of contract.Implementation of the system shall be in accordance with BIDDER'S Quality Manual and PROJECT specific Quality Plan.

5.0 QUALITY SYSTEM REQUIREMENTS

5.1 BIDDER shall prepare and submit for review / record, Project Quality Plan / Quality Assurance Plan for contracted scope / job.The BIDDER'S Quality Plan shall address all of the applicable elements of ISO 9001, identify responsible parties within BIDDER'S organization, for the implementation / control of each area, reference the applicable procedures used to control / assure each area, and verify the documents produced for each area.The Project Quality Plan shall necessarily define control or make reference to the relevant procedures, for design and engineering, purchase, documentation, record control, bid evaluation, inspection, production/manufacturing, preservation, packaging and storage, quality control at construction site, pre-commissioning, commissioning and handing over (as applicable) in line with contract requirement and scope of work.

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5.2 BIDDER shall identify all specified or implied statutory and regulatory requirements and communicate the same to all concerned in his organization and his sub contractor's organization for compliance.

5.3 BIDDER shall deploy competent and trained personnel for various activities for fulfilment of PO / contract.BIDDER shall arrange adequate infrastructure and work environment to ensure that the specification and quality of the deliverable are maintained.

5.4 BIDDER shall do the quality planning for all activities involved in delivery of order.The quality planning shall cover as minimum the following:

- Resources
- Product / deliverable characteristics to be controlled.
- Process characteristics to ensure the identified product characteristics are realized
- Identification of any measurement requirements, acceptance criteria
- Records to be generated
- Need for any documented procedure

The quality planning shall result into the quality assurance plan, inspection and test plans (ITPs) and job procedures for the project activities in the scope of bidder. These documents shall be submitted to EIL/Owner for review/approval, before commencement of work.

5.5 Requirements for sub-ordering of outsourced items /sub-contracting / purchasing of services specified in MR/ contract / tender shall be adhered to. In general all outsourced items will be from approved vendors of EIL. Wherever requirements are not specified, or approved sub vendors do not exist, the sub-contractor shall establish and maintain a system for purchasing / sub-contracting to ensure that purchased product / service conforms to specified requirements in concurrence with EIL / Owner.Criteria for selection of sub-contractor, evaluation, re-evaluation, maintenance of purchasing data and verification of purchased product (sub-contractor services), constitute important components of this requirement.

5.6 BIDDER shall plan and carry production and service provision under controlled conditions.Controlled conditions shall include, as applicable

a) the availability of information that describes the characteristics of the product
b) the availability of work instructions
c) the use of suitable equipment
d) the availability and use of monitoring and measuring devices
e) the implementation of monitoring and measurement
f) the implementation of release, delivery and post-delivery activities

5.7 BIDDER shall validate any processes for production and service provision where resulting output cannot be verified by subsequent monitoring and measurement. This includes any process where deficiencies become apparent only after the product is in use or service has been delivered.

5.8 BIDDER shall establish a system for identification and traceability of product / deliverable throughout product realization.Product status with respect to inspection and testing requirements shall be identified.

5.9 BIDDER shall identify, verify, protect and safeguard EIL / Owner property (material / document) provided for use or incorporation into the product.If any Owner / EIL property is lost, damaged or otherwise found to be unsuitable for use, this shall be reported to the EIL / Owner.

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BIDDER shall ensure the conformity of product / deliverable during internal processing and delivery to the intended destination.Requirements mentioned in the MR/ tender shall be adhered to.

5.10 BIDDER shall establish system to ensure that inspection and testing activities are carried out in line with requirements.Where necessary, measuring equipment shall be calibrated at specified frequency, against national or international measurement standards; where no such standard exists, the basis used for calibration shall be recorded.The measuring equipment shall be protected from damage during handling, maintenance and storage.

5.11 BIDDER shall ensure effective monitoring, using suitable methods, of the processes involved in production and other related processes for delivery of the scope of contract.

5.12 BIDDER shall monitor and measure the characteristics of the product/deliverable to verify that product requirement has been met.The inspection (stage as well as final) by BIDDER and EIL / Owner personnel shall be carried out strictly as per the approved ITPs or ITPs forming part of the contract.Product release or service delivery shall not proceed until the planned arrangements have been satisfactorily completed, unless otherwise approved by relevant authority and where applicable by Owner / EIL.

5.13 BIDDER shall establish and maintain a documented procedure to ensure that the product which does not conform to requirements is identified and controlled to prevent its unintended use or delivery

5.14 All non-conformities (NCs) / deficiencies found by the BIDDER'S inspection / surveillance staff shall be duly recorded, including their disposal action shall be recorded and resolved suitably.Effective corrective actions shall be implemented by the BIDDER so that similar NCs including deficiencies do not recur.The BIDDER shall take appropriate actions to address the Risks and Opportunities in the project.

5.15 All deficiencies noticed and reported by EIL / Owner shall be analysed by the BIDDER and appropriate corrective actions shall be implemented.BIDDER shall intimate EIL / Owner of all such corrective action implemented by him.

5.16 BIDDER should follow the standards, specifications and approved drawings. Concessions/Deviations shall be allowed only in case of unavoidable circumstances. In such situations Concession/deviation request must be made by the BIDDER through online system of EIL vendor portal for document exchange. URL of EIL vendor portal for document exchange is http://edocx.eil.co.in/vportal. BIDDER shall have documented procedure for control of documents.

5.17 All project records shall be carefully kept, maintained and protected for any damage or loss until the project completion, then handed over to EIL / Owner as per contract requirement (Refer Specification Nos. 6-78-0002 - Specification for Documentation Requirements from Contractors and 6-78-0003 - Specification for Documentation Requirements from Suppliers), or disposed as per relevant project procedure.

6.0 AUDITS

BIDDER shall plan and carry out the QMS audit for the job. Quality audit program shall cover design, procurement, construction management and commissioning as applicable including activities carried out by sub-vendors and sub-contractors. This shall be additional to the certification body surveillance audits carried out under BIDDER'S own ISO 9001 certification scheme.

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The audit programs and audit reports shall be available with bidder for scrutiny by EIL / Owner.EIL or Owner's representative reserves the right to attend, as a witness, any audit conducted during the execution of the WORKS.

In addition to above, EIL, Owner and third party appointed by EIL/Owner may also perform Quality and Technical compliance audits.BIDDER shall provide assistance and access to their systems and sub-contractor / vendor systems as required for this purpose.Any deficiencies noted shall be immediately rectified by BIDDER.

7.0 DOCUMENTATION REQUIREMENTS

BIDDER shall submit following QMS documents immediately after award of work (Within one week) for record / review by EIL / Owner/ TPIA(Third Party Inspection Agency), as applicable:

- Organization chart (for complete organization structure and for the project)
- Project Quality Plan/Quality Assurance Plan
- Job specific Inspection Test Plans, if not attached with PR
- Job Procedures
- Inspection/Test Formats

In addition to above QMS documents, following documentation shall be maintained by the BIDDER for submission to EIL / Owner on demand at any point of time during execution of the project:

- Quality Manual
- Certificate of approval for compliance to ISO9001 standard
- Procedure for Control of Non-conforming Product
- Procedure for Control of Documents
- Sample audit report of the QMS internal and external audits conducted during last one year
- Customer satisfaction reports from at least 2 customers
- Project QMS audit report
- Technical audit reports for the project
- Corrective action report on the audits

Documents as specified above are minimum requirements. BIDDER shall submit any other document/data required for completion of the job as per EIL/Owner instructions.

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Page 1106 of 5436 : C050-TENDER DOC-C050-1U68-81-45-PB-T-8010 : Rev. A

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SPECIFICATION FOR DOCUMENTATION REQUIREMENTS FROM CONTRACTORS

Rev. No.	Date	Purpose	Prepared by	Checked by	Standards Committee Convener	Standards Bureau Chairman
					Approved by	
3	29-09-2025	General Revision	QMS Standards Committee	QMS Standards Committee	AK	MN
2	12-06-2020	General Revision	QMS Standards Committee	QMS Standards Committee	SKB	SKS
1	12-03-2015	General Revision	QMS Standards Committee	QMS Standards Committee	MPJ	SC
0	04-06-2009	Issued as Standard Specification	QMS Standards Committee	QMS Standards Committee	SCT	ND

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Abbreviations:

DEC	Detailed Engineering Contractor
DCI	Document Control Index
EIL	Engineers India Limited
EPCC	Engineering Procurement Construction Contract
FOA	Fax of Acceptance
IC	Inspection Certificate
IRN	Inspection Release Note
ITP	Inspection and Test Plan
LOA	Letter of Acceptance
LSTK	Lumpsum Turnkey
ODC	Over Dimension Consignment
PMC	Project Management Consultancy
QMS	Quality Management System
URL	Universal Resource Locator

QMS Standards Committee

Convener: Mr. Anil Kumar

Members:
Mr. Himangshu Pal (SCM-Inspection)
Mr. Ravindra Kumar (Const.)
Mr. Vinod Kumar (CQA)
Mr. Swapnil Vaishnav (Projects)
Mr.Vijay Kumar Garg (SCM)
Mr.Raju Kumar Pandey (Equipment Division)

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CONTENTS

Clause	Title	Page No.
1.0	SCOPE	4
2.0	DEFINITIONS	4
3.0	REFERENCE DOCUMENTS	4
4.0	DOCUMENTATION AND DATA REQUIREMENTS	4

Annexures:

S. No.	Title	Doc. No.
1.	Format for completeness of Final Documentation	Format No. 3-78-0004

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1.0 SCOPE

This specification establishes the Documentation Requirements from Contractors.

All documents/data against the Tender / Contract shall be developed and submitted to EIL/Owner by the contractor for review / records, in line with this specification.

2.0 DEFINITIONS

2.1 Contractor

For the purpose of this specification, the word "CONTRACTOR" means the person(s), firm, company or organization who has entered into a contractwith EIL / Owner for delivery of some products and services.The word is considered synonymous to bidder, supplier or vendor.

2.2 Owner

Owner means the owner of the project for which services / products are being purchased and includes their representatives, successors and assignees.

3.0 REFERENCE DOCUMENTS

- Specification for Quality Management System Requirements from Bidders (Doc. No. 6-78-0001)

4.0 DOCUMENTATIONAND DATA REQUIREMENTS

4.1 Order Acknowledgement and Assigning Project Manager

After placement of order, Contractor shall acknowledge order through V-Portal within 7 days of receipt of FOA/PO. Contractor shall assign a Project Manager for that order though online portal and provide requisite details. Project Manager details shall include e-mail address, mailing address, mobile/telephone nos., fax nos. and name of Project Manager. All the system generated emails pertaining to that order shall be sent to the assigned Project Manager.

4.2 Documents/Data to be submitted by the Contractor

4.2.1 The contractor shall submit the documents and data against the Tender/Contract as per the list specified in respective Tender/Contract.

4.2.2 Review of the contractor drawings / Documents by EIL would be only to review the compatibility with basic designs and concepts and in no way absolve the contractor of his responsibility/contractual obligation to comply with Tender/Contract requirements, applicable codes, specifications and statutory rules/regulations. Any error/deficiency noticed during any stage of manufacturing/execution/ inspection / installation shall be promptly corrected by the contractor without any extra cost or time, whether or not comments on the same were received from EIL during the drawing review / inspection stage.

4.2.3 Unless otherwise specified, submission of documents for Review/Records shall commence as follows from the date of Fax of Intent /Letter of Intent/ Fax of Acceptance (FOA)/ Letter of Acceptance (LOA):

QMS	-	1week
Document Control Index	-	2weeks
Other Documents/Drawings	-	As per approved Document Control Index

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4.2.4 Documents as specified in Tender/Contract are minimum requirements.Contractor shall submit any other document/data required for completion of the job as per EIL/Owner instructions.

4.3 Style and Formatting

4.3.1 All Documents shall be in ENGLISH language and in M.K.S System of units.

4.3.2 Before submitting the drawings and documents, contractor shall obtain the title block from EIL and ensure that the following information are properly entered in each drawing:

- Tender Number
- Name of Equipment / Package
- Equipment / Package Tag No.
- Name of Project
- Owner
- Main Contractor (if work is sub-contracted)
- Drawing / Document Title
- Drawing / Document No.
- Drawing / Document Revision No. and Date

4.4 Review and Approval of Documents by Contractor

4.4.1 All the Drawing/Documents shall be reviewed, checked, approved and duly signed/stamped by contractor before submission.Revision number shall be changed during submission of the revised contractor documents and all revisions shall be highlighted by clouds. Whenever there is a requirement of any sub- contractor/DEC drawings to be reviewed by EIL, the same shall be submitted by the contractor duly reviewed, approved and stamped by the sub- contractor/DEC and the contractor.Direct submission of sub- contractor's drawings without contractor's approval shall not be entertained.

4.5 Transportation Plan

Transportation Plan for Over Dimensional Consignments (ODC), if any, shall be submitted within 2 weeks of receiving FOA / LOA, for approval. Unless otherwise mentioned, consignments with parameters greater than following shall be considered as over dimensional.

Dimensions : 4 meters width x 4 meters height x 20 meters length

Weight : 32 MT (Metric Ton)

Dimensions and weight provided above are inclusive of all nozzles, attachments, transportation saddles etc.

Physical Route survey for ODC movement shall be submitted to EIL within 8 weeks of receiving FOA / LOA.

4.6 Document Category

Following review codes shall be used for review of contractor Drawings/Documents:

Code 1 - No comments. Proceed withManufacture/ Fabrication/ Constructionas per the document.

Code 2 - Proceed with Manufacture/Fabrication/Constructionas per commented document.Revised document required.

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Code 3 - Document does not conform to basicrequirements as marked.Resubmitfor review.

Code R - Document is retained for Records. Proceed withManufacturing/ fabrication as per Tender/ ContractRequirement.

Code V - Void, Document is returned as invalid.

Document is marked as Void under following conditions:

a) Wrong item drawing uploaded.
b) Superseded or obsolete submission.
c) Duplicate submission.
d) Out of sequence submission.
e) Mismatch in document name and title under which document uploaded.
f) Document not legible.
g) For PMC projects, document not signed and stamped by contractor and DEC

4.7 Methodology for Submission of Documents to EIL/Owner

4.7.1 Document Control Index (DCI)

Contractor shall create and submit Document Control Index (DCI) for review based on PO/PR/MR along with schedule date of submission of each drawing/document on EIL Vendor Portal.The DCI shall be specific with regard to drawing/document no. and the exact title. Proper sequencing of the drawings/documents should be ensured in schedule date of submission.

4.7.2 Submission of Drawings/Documents / Data

Drawings/documents, data and DCI shall be uploaded on the EIL VendorPortal. The detail guidelines for uploading documents on EIL Vendor Portal are available on following URL:

http://edocx.eil.co.in/vportal

4.7.3 Statutory Approvals

Wherever approval by any statutory body is required to be taken by Contractor, the Contractor shall submit copy of approval by the authority to EIL.

4.7.4 Schedule and Progress Reporting

Contractor shall submit monthly progress report (MPR) and updated procurement, engineering and manufacturing status (schedule vs. actual) and highlight constraints, if any, along with action plan for mitigation, to the EIL / Owner by 1st week of every month. One month Look-ahead schedule including the mobilization plan shall be submitted within 2 weeks from FOA / LOA.In case of exigencies, EIL/Owner can ask for report submission as required on weekly/fortnightly/ad-hoc basis depending upon supply status and contractor shall furnish such reports promptly without any price implication.Format for progress report shall be submitted by the contractor during kick off meeting or within one week of receiving FOA/LOA, whichever is earlier.

Contractor shall submit progress reports including Daily Progress Reports (DPR) through planning portal. “EIL CP Contractor Daily Update System” available in following url: https://www6.eil.co.in/CDUS/

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4.7.5 Quality Assurance Plan/Inspection and Test Plan

Inspection and test plans attached if any, to the tender are generic and indicative only. Immediately after receipt of the order, contractor shall submit within one week of receiving FOA/LOA, job specific ITPs based on the indicative ITPs. Further, contractor shall also submit Quality Assurance Plan for project activities in the scope of contract, starting from manufacturing to handing over/ commissioning, these plans shall cover/identify the activities, relevant procedure, if any, code of conformance, resources for performance and checking/monitoring, approval requirements and authority, records to be generated and audit scope by EIL/Owner.

For EPCC/LSTK/Package contracts, the contractor shall prepare a list of items/ equipment and their inspection categorization plans for all items included in the scope of supply immediately after receipt of order and obtain approval for the same from EIL. The items shall be categorized into different categories depending upon their criticality for the scope of inspection of TPIA and/or EIL.

4.7.6 Inspection Release Note (IRN)/ Inspection Certificate (IC)

Contractor shall ensure that all documents viz. documents reviewed, manufacture's test certificate etc., mentioned in Inspection Release Note(IRN), issued by EIL/third party against the materials supplied by contractor, are sent to EIL along with the IRN.

IRN/ IC shall be issued by EIL Inspector/ third party inspection agency only after all the drawings/documents as per DCI are submitted and are accepted under review code-1& code R. Material/Equipment dispatch from contractor's/sub vendor's works shall not commence till above condition is met.

Note 1: Nonfulfilling above requirement shall result into appropriate penalty or with- holding of payment as per conditions of Tender/Contract.

Note 2: For items where IRN/IC is issued by TPIA, supplier to ensure that following as a minimum must be mentioned by TPIA in IRN/IC

a) Tender document number
b) List of drawings / documents with EIL approval code
c) Tests witnessed, documents reviewed
d) Compliance statement by TPIA that product meets the requirement as specified in EIL standard specifications, Inspection Test Plan / Quality Assurance Plan (QAP) and approved documents.

4.7.7 Pre-Commissioning& Commissioning Activities Management System (PCAMS)

Pre-Commissioning& Commissioning activities management system software shall be followed for Mechanical completion, check listing of loops, punch points, hydro test and issue of Formats during the Pre-Commissioning and Commissioning activities and the same can be accessed on following URL

https://pcams.eil.co.in/

4.8 Final Documentation

4.8.1 As built Drawings

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Minor Shop/Site changes made by contractor after approval of drawings under 'Code 1' by EIL and deviations granted through online system, if any, shall be marked in hard copies of drawings which shall then be stamped 'As-built' by the contractor.These 'As-built' drawings shall be reviewed and stamped by EIL Inspector/Site engineer/TPIA also, as the case may be. Format for completeness of final documents (Format No. 3-78-0004) is attached with this specification.Contractor shall prepare scanned images files of all marked – up 'As – built' drawings. Simultaneously contractor shall incorporate the shop/site changes in the native soft files of the drawings also.

4.8.2 As built Final Documents

As built final documents shall be submitted as listed in Tender/Contract

4.8.3 Packing/Presentation of Final Documents

Final Documents shall be legible photocopies in A4, A3 size only.Drawings will be inserted in plastic pockets (both sides transparent, sheet thickness minimum 0.1 mm) with an extra strip of 12 mm wide for punching so that drawings are well placed.

Final Documentation shall be bound in hard board plastic folder(s) of size 265 mm x 315 mm (10½-inch x 12½-inch) and shall not be more that 75 mm thick. It may be of several volumes and each volume shall have a volume number, index of volumes and index of contents of that particular volume.Where numbers of volumes are more, 90mm thickness can be used.Each volume shall have top Poly Vinyl Chloride (PVC) sheet of minimum 0.15 mm thick duly fixed and pressed on folder cover and will have 2 lever clips.In case of imported items documents, 4 lever clip shall also be accepted.All four corners of folders shall be properly metal clamped.Indexing of contents with page numbering must be incorporated by contractor.Spiral/Spico bound documents shall not be acceptable.As mentioned above, books should be in hard board plastic folders with sheets punched and having 2/4 lever clips arrangement.

Each volume shall contain on cover a title block indicating Tender No., name of project, name of customer, package equipment tag no. & name (if applicable).Each volume will have hard front cover and a reinforced spine to fit thickness of book.These spines will also have the title printed on them.Title shall include also volume number (say 11 of 15) etc.

4.8.4 Submission of Soft copies

Contractor shall submit to EIL, the scanned images files as well as the native files of drawings/documents, along with proper index.

In addition to hard copies, contractor shall submit soft copies of all the final drawings and documents in pen drive or any other specified medium with proper identification tag, all text documents prepared on computer, scanned images of all important documents (not available as soft files), all relevant catalogues, manuals available as soft files (editable copies of drawings/text documents, while for catalogues/manuals/proprietary information and data PDF files can be furnished). All soft files shall be appropriately named, systematically indexed, and duly bookmarked in PDF format to facilitate ease of reference and access.

All the above documents shall also be uploaded on the EILVendor Portal and if applicable on Client Server also.

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4.8.5 Completeness of Final Documentation

Contractor shall get the completeness of final documentation verified by EIL/TPIA and attach the Format for Completeness of Final Documentation (Format No. 3-78-0004) duly signed by EIL or TPIA as applicable to the final document folder.

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COMPLETENESS OF FINAL DOCUMENTATION

Name of Supplier/Contractor	:	
Customer	:	
Project	:	
EIL's Job No.	:	
Purchase Order No./ Contract No.	:	
Purchase Requisition No./ Tender No.	:	Rev. No.:
Name of the Work/ Equipment	:	
Tag. No.	:	
Supplier's/ Contractor's Works Order No.	:	

Certified that the Engineering Documents/ Manufacturing & Test Certificates submitted by the supplier (as per Index sheet mentioned in Annexure-1) are complete in accordance with the Vendor Data Requirements of Purchase Requisition / Tender.

Signature	: …….	Signature	: …….
Date	: …….	Date	: …….
Name	: ……..	Name	: ……..
Designation	: ……	Designation	: ……
Department	: ……	Department	: ……
	Supplier/Contractor		EIL/TPIA

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Annexure-1

Final Documentation Index Sheet			
PR/PO/Tender No.		Revision No.	
Serial No.	Document Title	Page/ Folder No.	No. of Pages

Signature	: ……	Signature	: ……
Date	: ……	Date	: ……
Name	: ……..	Name	: ……..
Designation	: ……	Designation	: ……
Department	: ……	Department	: ……

Supplier / Contractor

EIL / TPIA

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आपूर्तिकर्ताओं से प्रलेखन अपेक्षाओं हेतु विनिर्देश

SPECIFICATION FOR DOCUMENTATION REQUIREMENTS FROM SUPPLIERS

Rev. No.	Date	Purpose	Prepared by	Checked by	Standards Committee Convener	Standards Bureau Chairman
					Approved by	
3	29-09-2025	General Revision	QMS Standards Committee	QMS Standards Committee	AK	MN
2	01-06-2020	General Revision	QMS Standards Committee	QMS Standards Committee	SKB	SKS
1	12-03-2015	General Revision	QMS Standards Committee	QMS Standards Committee	MPJ	SC
0	04-06-2009	Issued as Standard Specification	QMS Standards Committee	QMS Standards Committee	SCT	ND

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Abbreviations:

DCI	Document Control Index
EIL	Engineers India Limited
EPS	Electronic Procurement System
FOA	Fax of Acceptance
IC	Inspection Certificate
IRN	Inspection Release Note
ITP	Inspection and Test Plan
LOA	Letter of Acceptance
LR	Lorry Receipt
MR	Material Requisition
ODC	Over Dimension Consignment
PO	Purchase Order
PR	Purchase Requisition
PVC	Polyvinyl Chloride
QAP	Quality Assurance Plan
QMS	Quality Management System
RPO	Regional Procurement Office
TPIA	Third Party Inspection Agency
URL	Universal Resource Locator
V-Portal	Vendor Portal

QMS Standards Committee

Convener: Mr. Anil Kumar

Members:
Mr. Himangshu Pal (SCM-Inspection)
Mr. Ravindra Kumar (Const.)
Mr. Vinod Kumar (CQA)
Mr. Swapnil Vaishnav (Projects)
Mr.Vijay Kumar Garg (SCM)
Mr.Raju Kumar Pandey (Equipment Division)

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CONTENTS

Clause	Title	Page No.
1.0	SCOPE	4
2.0	DEFINITIONS	4
3.0	REFERENCE DOCUMENTS	4
4.0	DOCUMENTATION REQUIREMENTS	4

Annexures:

S. No.	Title	Doc. No.
1.	Format for completeness of Final Documentation	Format No. 3-78-0004

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1.0 SCOPE

This specification establishes the Documentation Requirements from Suppliers.

All documents/data against the PO / PR / MR shall be developed and submitted to EIL/Owner by the suppliers for review / records, in line with this specification.

2.0 DEFINITIONS

2.1 Supplier

For the purpose of this specification, the word "SUPPLIER" means the person(s), firm, company or organization who has entered into a contract with EIL / Owner for delivery of some products and/orservices.The word is considered synonymous to bidder, contractor or vendor.

2.2 Owner

Owner means the owner of the project for which services / products are being purchased and includes their representatives, successors and assignees.

3.0 REFERENCE DOCUMENTS

- Specification for Quality Management System Requirements from Bidders (Doc. No. 6-78-0001)

4.0 DOCUMENTATION REQUIREMENTS

4.1 Order Acknowledgement and Assigning Project Manager

After placement of order, Supplier shall acknowledge order through V-Portal within 7 days of receipt of FOA/PO. Supplier shall assign a Project Manager for that order though online portal and provide requisite details. Project Manager details shall include e-mail address, mailing address, mobile/telephone nos., fax nos. and name of Project Manager. All the system generated emails pertaining to that order shall be sent to the assigned Project Manager.

4.2 Documents/Data to be submitted by the Supplier

4.2.1 The Supplier shall submit the documents and data against the PO/PR/MR as per the list given in respectivePO/PR/MR.

4.2.2 Review of the supplier drawings/ documents by EIL would be only to review the compatibility with basic designs and concepts and in no way absolve the supplier of his responsibility/contractual obligation to comply with PR requirements, applicable codes, specifications and statutory rules/regulations.Any error/deficiency noticed during any stage of manufacturing/execution/inspection/ installation shall be promptly corrected by the supplier without any time and cost implications, irrespective ofcomments on the same were received from EIL during the drawing review stage or not.

4.2.3 Unless otherwise specified, submission of documents for Review/Records shall commence as follows from the date of Fax of Intent /Letter of Intent/ Fax of Acceptance (FOA)/ Letter of Acceptance (LOA):

QMS	-	1week
Document Control Index	-	2weeks
Other Documents/Drawings	-	As per approved Document Control Index

Signature Not Verified
Digitally signed by MD MAZHER ALI
Date: 2026.04.09 17:51:05 IST
Location: eProcure-EPROC

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