



ENQUIRY DOCUMENT - TENDER

(Document No : C113-TENDER_DOC-C113-000-79-41-LA-T-8521)



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BHARAT PETROLEUM CORPORATION LIMITED



REFINERY CUM PETROCHEMICAL COMPLEX AT RAMAYAPATNAM, ANDHRA PRADESH, INDIA

**SUPPLY OF KNOW-HOW/LICENSE, BASIC ENGINEERING
DESIGN PACKAGE (BEDP), PROPRIETARY CATALYST,
PROPRIETARY ITEMS & OTHER RELATED SERVICES FOR
STYRENE BUTADIENE RUBBER (SBR) UNIT**

(BIDDING DOCUMENT NO.: LT/C113-000-LA-T-8521/1025)

(OPEN GLOBAL COMPETITIVE BIDDING)

PREPARED AND ISSUED BY:



EIL OFFICE COMPLEX, SECTOR-16, GURUGRAM- 122 001, HARYANA, INDIA

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	INVITATION FOR BIDS (IFB) FOR SUPPLY OF KNOW-HOW/LICENSE, BASIC ENGINEERING DESIGN PACKAGE (BEDP), PROPRIETARY CATALYST, PROPRIETARY ITEMS & OTHER RELATED SERVICES FOR STYRENE BUTADIENE RUBBER (SBR) UNIT (BIDDING DOCUMENT NO.: LT/C113-000-LA-T-8521/1025) (GLOBAL COMPETITIVE BIDDING)	

1.0 INTRODUCTION

M/s Bharat Petroleum Corporation Limited (BPCL) is planning to set up a Refinery-cum-Petrochemical Complex at Andhra Pradesh (AP), India with an envisaged refining capacity of 9 MMTPA and an ethylene production capacity of 1.5 MMTPA, producing both transportation fuels and petrochemical products. The major objectives of the project are:

- Production of fuel/refinery products and Petrochemicals
- Production of fuels conforming to BS VI specifications as minimum
- Maximize Petrochemical including niche petrochemicals production in line with market demand.

M/s Engineers India Limited (EIL) has been engaged by BPCL for the Technology Evaluation and Licensor selection for its Refinery cum Petrochemical complex at Ramayapatnam, Andhra Pradesh (AP), India. M/s EIL's scope for the project includes technology identification, short listing and evaluation of technology licensors, detailed project cost estimation, economic evaluation of the project and so forth.

EIL, on behalf of BPCL, invites e-Bids from the LICENSORS of Styrene Butadiene Unit (SBR) Unit technology with sound technical and commercial capabilities meeting the qualification criteria stated in clause 4.0 below.

2.0 BRIEF SCOPE OF WORK:

Bharat Petroleum Corporation Limited (BPCL) invites firm techno-commercial proposals from the LICENSORS of Styrene Butadiene Rubber (SBR) technologies for supply of Commercially Proven Technology, Know-how / License, Basic Engineering Design Package (BEDP), proprietary catalysts, proprietary items, if any and other related services for evaluation and selection of their technologies for the proposed Styrene Butadiene Rubber (SBR) Unit at Andhra Pradesh Refinery and Petrochemical Complex, Andhra Pradesh (AP), India.

The table 1.1 below lists out the capacity and objective for the proposed SBR Unit.

Table: 1.1

Sl. No	Styrene Butadiene Rubber (SBR) Unit		
	Process unit	Capacity	Objectives
1)	Styrene Butadiene Rubber (SBR) Unit	2 trains, each of 75 KTPA of e-SBR production capacity and 1 train of 40 KTPA of s-SBR production capacity	• To produce total 190 KTPA of SBR product, out of which 150 KTPA shall be emulsion based SBR (e-SBR) grades and 40 KTPA shall be solution based SBR (s-SBR) grades. • Product grade slate consists of dry as well as

			oil extended e-SBR grades and s-SBR grades respectively. • Feed (monomer) to the unit shall be 1,3 Butadiene from the upstream Ethylene Cracker unit and Styrene from open market. • Other feed such as Extender Oil shall also be sourced from open market.

(For details of Scope, refer technical specification doc. No. C113-79-41-TS-0021)

3.0 SALIENT FEATURES OF BIDDING DOCUMENT

S. NO.	SALIENT FEATURES	DETAILS
a)	Bidding Document No.	: LT/C113-000-LA-T-8521/1025
b)	Bidding Document & subsequent Addendum/ Corrigendum (if any) available on Website for viewing & downloading	: (i) Govt. of India Central Public Procurement Portal (CPPP) website: https://eprocure.gov.in/eprocure/app . (ii) Also, link to bidding document is available on EIL website: http://tenders.eil.co.in and on BPCL website https://www.bharatpetroleum.in
c)	Period during which Bidding Document can be viewed & downloaded from Website	: From 07.05.2026 to 02.07.2026 (up to 12:00 Hrs IST)
d)	Last date of Receipt of Bidder's Queries for Pre-Bid meeting	: 19.05.2026
e)	Pre-Bid Meeting	: 14:00 Hrs. (IST) on 21.05.2026 Through online platform (MS teams) Details for the meeting is as follows: Link: https://teams.microsoft.com/meet/42673192030241?p=710oVmCN0aTNfB9yuV Meeting ID: 426 731 920 302 41 Passcode: 7tb9Aw3b
f)	Last Date and time of online submission of e- Bids (Unpriced & Priced)	: 12:00 Hrs. (IST) on 02.07.2026
g)	e-Tendering Portal for online submission of e- Bids (Unpriced & Priced)	: Govt. of India Central Public Procurement Portal (CPPP) website: https://eprocure.gov.in/eprocure/app
h)	Online Opening of Techno Commercial Unpriced E-Bids	: 14:00 Hrs. (IST) on 03.07.2026

S. NO.	SALIENT FEATURES	DETAILS
i)	Contact Persons for any query / clarification	a) Mr. Jaydeep Jesur, AGM (SCM-C&P) Tel. No.: +91-124- 289 1351 Email: jaydeep.jesur@eil.co.in b) Mr. Suman Mandal, DGM (SCM-C&P) Tel. No.: +91-124- 289 1305 Email: sk.mandal@eil.co.in c) Mr. Lotavath Thavurya, GM (SCM-C&P) Tel. No.: +91-124- 289 2509 Email: l.thavurya@eil.co.in
j)	Cost of Bidding Document	Not Applicable
k)	Earnest Money Deposit (EMD)/ Bid Security	<u>Indian bidder:</u> INR 20,00,000/- (Indian Rupees Twenty Lakh only) <u>Foreign bidder:</u> USD 21,400/- (US Dollar Twenty-One Thousand Four Hundred only) or Euro 18,200/- (Euro Eighteen Thousand Two Hundred only) EMD shall be uploaded in designated place in the above mentioned Govt. of India CPP Portal. Bids not accompanied with the EMD shall be rejected and shall not be considered for further evaluation. In case, bidder fails to upload scanned copy of EMD on CPP Portal by the bid due date & time, such bid shall not be considered for evaluation. EMD/ Bid Security (if submitted through BG/ Insurance surety Bond), in addition to uploading on the above mentioned Govt. of India CPP Portal along with the bid, shall also be submitted in Original physical form within 7 (Seven) calendar days from final extended bid due date and time. If the Bidder fails to submit Bid Security physically in original within the above cut-off date, his bid shall be rejected and not considered for further evaluation, irrespective of their status/ ranking in tender and notwithstanding the fact that a copy of Bid Security was earlier uploaded by the bidder on the e-tendering portal. (For details refer clause no. 3.10 of ITB)
l)	Online Opening of Priced Bids of Techno-Commercially Accepted Bidders	On date & time to be intimated later on.

S. NO.	SALIENT FEATURES	DETAILS
m)	Time schedule for BEDP submission	24 Weeks for BEDP (Soft including Native files), inclusive of all reviews from zero date i.e. finalization of Design Basis. [For details and milestone wise break up, refer Annexure-2.0 (Time Schedule) enclosed with Technical Specifications].

3.1 If identified dates as in cl. no. **3.0 e) and h)** above happen to be a declared holiday/closed day in EIL Gurugram, activity shall be conducted on the next working day at the time specified therein.

3.2 All Amendments (including Corrigendum/Addendum etc.), time extension, clarifications etc. will be uploaded in the Govt. of India Central Public Procurement Portal <https://eprocure.gov.in/eprocure/app> only. Bidders should regularly visit the above website to keep themselves updated.

4.0 BIDDER'S QUALIFICATION CRITERIA (BQC)

Bidder shall fulfil the following qualification criteria:

4.1 BIDDER QUALIFICATION CRITERIA (TECHNICAL):

4.1.1. The bidder must be a licensor of emulsion based Styrene Butadiene Rubber (e-SBR) and solution based Styrene Butadiene Rubber (s-SBR) Units.

4.1.2. The bidder must have licensed a Styrene Butadiene Rubber Unit with both e-SBR and s-SBR trains (hereinafter called reference unit #1). The minimum capacity of the e-SBR single train shall be 40 KTPA (in terms of e-SBR product) and that for s-SBR single train shall be 20KTPA (in terms of s-SBR product).

4.1.3. The reference unit#1 should:

- i) have been licensed within the last fifteen (15) years (Note-1).
- ii) have been for a client other than Licensor himself (i.e., unit should be non-captive) (Note-3).
- iii) be a commercial unit (Reference of pilot plant, laboratory scale plant, demonstration plant shall not be accepted).
- iv) be grass-root unit and not be a revamp or debottlenecked unit.
- v) have completed at least one year of operation while meeting processing objective of the unit (Note-1)
- vi) have been licensed in India or in a country other than the Bidder's home country (Note-2)
- vii) Should have been designed to produce following grades:
 - (A) Dry and oil extended e-SBR grades.
 - (B) Dry and oil extended s-SBR grades.

4.1.4. If the reference unit #1 is not designed to produce all the SBR grades mentioned under clause 4.1.3)-vii) above, then Bidder to offer additional reference unit licensed by the Bidder (hereinafter called reference unit #1A) and Reference unit #1 & #1A to meet the capacity requirement of e-SBR and s-SBR separately as mentioned in Clause 4.1.2 above and together to produce all SBR grades mentioned under clause 4.1.3)-vii) above.

The reference unit#1A should:

- i) have been licensed within the last fifteen (15) years (Note-1).

- ii) have been for a client other than Licensor himself (i.e., unit should be non-captive) (Note-3).
- iii) be a commercial unit (Reference of pilot plant, laboratory scale plant, demonstration plant shall not be accepted).
- iv) be grass-root unit and not be a revamp or debottlenecked unit.
- v) have completed at least one year of operation while meeting processing objective of the unit. (Note-1)
- vi) have been licensed in India or a country other than the Bidder's home country (Note-2).

4.1.5. In case the Bidder offers the same catalyst(s) as employed in reference units #1 or reference unit #1 & #1A for the BPCL Project, then the relevant reference unit/s should meet the following criteria:

- i) The offered catalyst(s) must have completed minimum one year of operation while meeting processing objective of the unit. (Note-1)

4.1.6. In case the Bidder offers alternative catalyst(s) other than the catalyst(s) employed in reference unit #1 or Reference unit #1 & #1A then the bidder should offer other reference unit licensed by the bidder (hereinafter called as reference unit #2).

The reference unit #2 should:

- i) have been for a client other than Licensor himself (i.e., unit should be non-captive) (Note-3).
- ii) be a commercial unit (Reference of pilot plant, laboratory scale plant, demonstration plant shall not be accepted).
- iii) can be grass-root, brownfield or debottlenecked unit.
- iv) The offered catalyst(s) must have completed minimum one year of operation within last fifteen (15) years while meeting processing objective of the unit (Note-1).
- v) have been licensed in India or a country other than the Bidder's home country (Note-2).

Note-1: Cut-off date for meeting the criteria will be reckoned as the last day of the month previous to the one in which bids are invited.

Note-2: Bidder's home country means the country where the bidder has their registered office.

Note-3: "Captive Unit" means a reference unit where the bidder has actual control, defined as ownership of equal to or more than half the voting rights or share capital, of the company owning the reference unit.

4.2 **BIDDER QUALIFICATION CRITERIA (FINANCIAL):**

4.2.1 The average Annual Financial Turnover of the bidder during the last three years of the previous financial years ending 31st March/ 31st December (**depending on the accounting year of the bidder**), should be at least:

For Indian Bidders:	INR 78,45,90,000/- (Indian Rupees Seventy Eight Crore Forty Five Lakh Ninety Thousand Only)
For Foreign Bidders	USD 8,361,400/- (US Dollar Eight Million Three Hundred Sixty-One Thousand Four Hundred Only) or Euro 7,116,100/- (Euro Seven Million One Hundred Sixteen Thousand One Hundred Only)

Note: The accounting year for annual turnover will be March / December ending. If bidder proposed accounting year is different than above, the same shall also be considered. However, number of months in an accounting year should be 12 months.

4.2.2 The financial net worth of the Bidder as per the audited financial results of immediate preceding financial year should be **positive**.

Net worth means paid up share capital, Share Application Money pending allotment* and reserves# less accumulated losses and deferred expenditure to the extent not written off.

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

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

Accordingly, the definition of Net Worth shall be as follows:

Sl. No.	Description	As shown in Audited Financial Statement	
		Figure (In Currency_____)	Schedule Reference, Page no., Clause no.
A	Paid up Share capital	XXXX	
B	Add: Share Application Money pending allotment	XXX	
C	Add: Reserves (As defined above)	XXXX	
D	Less: Accumulated Losses	XX	
E	Less: Deferred Revenue Expenditure to the extent not written off	XX	
F	Net Worth (A+B+C-D-E)	XXXX	

Note:

i) Conversion Factor for Annual Turnover:

In case Audited Financial Statement submitted by the Bidder towards qualification of Financial criteria is other than in Indian Currency/ specified Foreign currency, the value of Bidder's Financials shall be derived to Indian Currency/ specified Foreign currency by considering the Currency conversion factor specified in the Audited Financial statement for the respective Financial Year if shown in the Financial statement. Otherwise, RBI Reference Rate on the end date of Financial Year, specified in the Financial statement, shall be considered.

In case, the RBI Reference rate is not available as on the date of conversion as specified above for respective cases, the currency conversion rate shall be SBI TT Sell (Telegraphic Transfer). Further in absence of SBI TT Sell (Telegraphic Transfer), the conversion Rate shall be taken from the Internet, such as.

- <https://www.xe.com/currencyconverter>
- <https://www.oanda.com/currency/converter>
- <https://economictimes.indiatimes.com/markets/forex/currency-converter>

4.3 DOCUMENTS TO BE SUBMITTED BY BIDDER TOWARDS MEETING THE TECHNICAL (EXPERIENCE) CRITERIA (UNDER CLAUSE 4.1 ABOVE):

Bidder shall submit the following documents as a minimum as documentary evidence to support the references provided to meet the criteria of Technical BQC.

- a) Details of Reference Unit(s) including name, address, telephone number and email of contact person(s) for each reference unit.
- b) Relevant documents such as extract of License Agreement or relevant work order or contract agreement with the Licensee as a proof of holding Licensing rights. The extracts should include the following:
 - i. Cover sheet depicting name of project
 - ii. Licensor-Licensee definition
 - iii. Technology Definition
 - iv. Date of signing
 - v. Signature of Licensor-Licensee

In case of a mismatch between the License Agreement Date and the Date of Signing the same, the later date shall be considered as the effective date of the License Agreement.

- c) Relevant documents such as extract of Engineering Agreement and/or Design Basis and/or guarantee document as a proof of Unit design Capacity and product specification.
- d) Details of the catalyst Reference Units including name, address, telephone number and email of contact person(s) for each reference unit.
- e) Communication from Licensee/ Owner to support claim that the specified catalyst(s) in the reference unit(s) has completed at least one year of operation within the last fifteen (15) years during which the desired objective has been met.
- f) Communication from the Licensee to support claim for :
 - (i) Date of Commissioning
 - (ii) Unit has completed operation of one year meeting desired operation
 - (iii) Type of grades produced.
- g) Relevant documents such as extracts of catalyst agreement or purchase order with the licensee / unit owner for the reference unit(s).
- h) Audited financial statement / Annual audited report of immediate preceding financial year, clearly indicating the percentage shareholding to support compliance with Note-3 of Clause 4.1.3, Clause 4.1.4 and Clause 4.1.6 regarding the requirement of share capital in the company owning the reference unit.

4.4 General Requirements:

The Bidder shall ensure submission of complete authentic information/ documentation along with the bid.

Wherever specific compliance to the relevant documentation from Licensee in support of the criterion mentioned in qualification criteria clauses above is required post Bid submission, BPCL/EIL reserves the right to directly interact with the Bidder's clients to verify the relevant documentation and the Bidder will render assistance in facilitating that.

EIL/BPCL at its own discretion may visit any of the reference unit(s) which is/are submitted by Bidder in the offer. Bidder shall render assistance in facilitating such visits. EIL/BPCL

shall verify all the submitted information by the bidder during the visit to that/those reference unit(s). Any discrepancy, if found in the information collected by EIL/BPCL during site visit of any reference unit(s) w.r.t. the information submitted by Bidder, Bidder's offer shall be liable for rejection.

4.5 DOCUMENTS TO BE SUBMITTED BY BIDDER TOWARDS MEETING THE FINANCIAL CRITERIA: (UNDER CLAUSE 4.2 ABOVE):

- 4.5.1** For meeting the financial criteria, bidder shall submit with the bid the complete set of audited annual financial statements or a letter from the statutory auditor/ Chartered Accountant (CA) / Certified Public Accountant (CPA) **(as per Annexure-A enclosed)** or a letter from the bidder duly certified by statutory auditor/ Chartered Accountant/ Certified Public Accountant (CPA) **(as per Annexure-B enclosed)** for the preceding 3 financial years.

The above financial details, as per **Annexure-A or B**, shall be submitted without any reservation/qualification remarks. In case of any qualification remarks, complete booklet of audited annual financial statements along with auditor's report shall also be submitted with the bid.

Note: CA/CPA Certificate (CA/ CPA not being an employee/Director and not having any interest in the bidder's company) is acceptable where audited accounts are not mandatory as per law of bidder's country (in line with the present system) and **declaration in this regard is given by CA/ CPA.**

- 4.5.2** In case the financial year closing date is within 6 months of original bid due date and Audited annual report of immediate preceding financial year is not available, Bidder has the option to submit the financial details of the three previous years immediately prior to the last financial year.

In case the financial year closing date is within 6 -9 months of original bid due date and Audited annual report of immediate preceding financial year is not available, Bidder has the option to submit the financial details of the three previous years immediately prior to the last financial year provided Bidder submits a letter from CA/ CPA stating the reasons of non-preparation/furnishing of the latest year's Audited Financial Statements.

In case, the financial year closing date is beyond 9 months of original bid due date, it is compulsory to submit the financial details of the immediate three preceding financial years.

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

- 4.5.3** Financial BQC parameter shall be calculated after giving effect to the impact of Quantified and Qualified opinion (if any) given in the Statutory Auditor's report.
- 4.5.4** In case a **bidder (a Parent Company) is having wholly owned subsidiaries** but only a single consolidated annual report is prepared and audited which includes the financial details of their wholly owned subsidiaries, consolidated audited annual report shall be considered for establishing the financial criteria subject to statutory auditor of the bidder certifying that separate annual report of bidder (without the financial data of subsidiaries) is not prepared and audited.
- 4.5.5** Further, in case a **bidder is a subsidiary company** and separate annual report of the bidder is not prepared & audited, but only a consolidated annual report of the Parent Company is available, consolidated audited annual report shall be considered for establishing the financial criteria subject to statutory auditor of the Parent Company certifying that separate annual report of bidder is not prepared and audited. In such case, a declaration of the financial credentials (Annual Turnover and Net worth) of the bidder certified by the Chief Financial Officer (CFO) / Chief Executive Officer (CEO) / Company

Secretary / any Functional Director in the Board of Directors [in case of Limited Company (Private/Public)] shall be required to be submitted.

- 4.5.6** In case, **it is not mandatory for a company (Bidding Entity)** to get their accounts audited as per the law of the country, then a declaration (as per **Annexure-C**) to this effect along with the financial credentials (Annual Turnover and Net worth) issued by the Chief Financial Officer (CFO)/Chief Executive Officer (CEO)/Company Secretary/any Functional Director in the Board of Directors [in case of Limited Company (Private/Public)] shall be considered for evaluation of financial criteria. [A copy of the reference document supporting such law of the country should also be annexed to the declaration.](#)

5.0 AUTHENTICATION AND VERIFICATION OF BQC DOCUMENTS:

- 5.1** In order to lend credibility and instil confidence in the procurement process, the mechanism for authentication of documents (BQC Documents) shall be done as under:

- a) Bidder (Company) shall furnish an undertaking in the format as per **Annexure-D** towards the authenticity of submitted BQC Documents, duly signed by the authorized signatory of Bidder holding Power of Attorney for signing of Bid.

In case of Proprietorship / Partnership firms, the authentication shall be by the proprietor / any two Partners.

- b) Requirement of above certification shall not be applicable to published audited annual financial statements in English, if original booklets are submitted.
- c) Bidders shall be required to upload the digitally signed authenticated copies of documents for meeting BQC on the e-tendering website only. Bidders shall not be required to submit the original of authenticated documents in physical form to EIL. In addition, bidder shall also confirm that all authenticated documents submitted for meeting the BQC are certified as per the authentication requirement defined in the Bidding Document.

- 5.2** Submission of authentic documents is the prime responsibility of the Bidder. EIL/BPCL reserves the right of getting the document cross verified, at their discretion from the document issuing authority. Bidder shall provide all necessary assistance in this regard.

However, in addition to the above, EIL/BPCL shall carry-out cross verification of the highest NPV bidder's credentials submitted in the bid and considered by EIL/BPCL for meeting the BQC - technical criteria from the document issuing authority. It shall be the responsibility of the bidder to assist EIL/BPCL in carrying out this exercise. EIL/BPCL shall also reserve the right to communicate directly with the certificate issuing authority and /or carryout a visit to the office/works of the certificate issuing authority. Bidder shall provide complete assistance towards the same. Bidder to note that first payment against the contract, if placed, shall be released only on completion of the verification.

It shall, therefore, be the responsibility of the Bidder/ Contractor to get their BQC documents considered for qualification successfully verified as above.

Accordingly, bidder shall ensure that bidder shall submit those executed works meeting the qualification criteria for which they can arrange such verification.

Failure of cross verification shall entitle EIL/BPCL to reject the bid or terminate the Purchase Order / Contract, if already issued.

Bidder shall also render assistance in facilitating visit to the reference unit, if so considered necessary by owner. Cost of visit shall not be to the bidder's account.

6.0 LANGUAGE OF BID AND TRANSLATION

The Bid and all correspondence incidental to and in connection with the Bid shall be in the English Language only. In case a bidder submits any of the Bidder Qualification support

documents in any language other than in English, then it shall be the responsibility of such Bidder to also provide the English translation copy of the same duly certified by either of the following:

- i. Local Chamber of Commerce.
- ii. Indian Embassy in Bidder's Country ^
- iii. Bidder's Embassy in India ^
- iv. Any translator in India recognized / authorized by Bidder's Embassy ^

^ Not applicable for Indian bidders.

For the purpose of interpretation / evaluation of Bid, the English Translation shall govern.

7.0 GENERAL NOTES

7.1 Failure **to meet the above Qualification Criteria will render the Bid to be summarily rejected**. Therefore, the Bidder shall in their own interest furnish complete documentary evidence in the first instance itself along with their bid, in support of their fulfilling the Qualification Criteria as mentioned above and other techno-commercial requirements as per bidding document modified to the extent of Amendments, if any.

7.2 In case the documents submitted along with the bid are not fulfilling the BQC requirement, Bidders shall be allowed to submit additional document for any of the work out of the past experience(s) list already submitted along with the bid, to support their meeting the BQC.

Bidders shall not be permitted to submit document related to new reference of work experience if not mentioned in the list (past experience) submitted along with the bid and any such submission shall not be considered for evaluation.

7.3 All documents furnished by the bidder in support of meeting the Technical and Financial criteria of BQC as per IFB shall be uploaded in the e-procurement website in a separate section along with their offer. This section shall be titled as **"Documentation against Bidder's Qualification Criteria (Technical and Financial)" with proper index and page numbering**. Refer Instructions to Bidders (ITB) for details.

7.4 Any additional documents other than what are specifically asked in various sections of the bidding document, if deemed necessary to establish the qualifying requirements may be submitted by the Bidder of their own.

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

7.6 The bidder should submit a declaration to the effect that they are not currently serving any blacklisting/ holiday/ negative/ suspension/ banning/ constraint list (collectively called as Holiday list) orders issued by BPCL, EIL or MOPNG debarring them from carrying on business dealings with the BPCL/EIL/MOPNG. The declaration submitted by bidder shall be the basis for evaluation of Bidder's offer. If the declaration is not given, the bid will be rejected as non-responsive.

A declaration for the above shall be submitted by bidder. Offers not accompanied with such declaration shall make the bidders liable for rejection. Any wrong declaration in this context shall make the bidders liable for action under the holiday listing procedure. **Refer Annexure-F.**

7.7 Bidder shall not be under insolvency or liquidation or court receivership or other similar proceedings. Bidder shall confirm that such proceedings have NOT been initiated and pending against them and shall submit a self-certificate stating that they are not under insolvency, liquidation, court receivership or similar proceedings. Failure to do so or if the bidder is under insolvency, liquidation, court receivership or similar proceedings, their bids shall not be considered.

- 7.8 Bidder to give a declaration regarding their existing Litigation/Arbitration, if any. However, submission of these existing Litigation / Arbitration details may not be a reason for disqualification. In case, if declaration is not submitted, the bid will be rejected as non-responsive.

In case of Litigation/Arbitration, bidder to confirm that **the current Litigation/ Arbitration, in which bidder is involved will not have any impact in work being tendered or in entering into contract during the validity of offer and performing the contract till all the contractual obligations under contract are performed.**

- 7.9 Bidder has to comply with the provisions regarding Procurement from a Country sharing Land Border with India. Bidders shall submit a certificate of compliance in the format enclosed with the tender document.
- 7.10 **Bidders are required to sign and submit the scanned copy of Integrity Pact along with their bid. Format of INTEGRITY PACT is attached as ANNEXURE-II N of ITB.**
- 7.11 BPCL/EIL reserves the right to assess bidder's capability to execute this work by using in-house information and taking into account various aspects such as past performance during evaluation of bids.
- 7.12 In case any Bidder is found to be involved in cartel formation, his Bid will not be considered for evaluation / placement of order. Such Bidder will also be debarred from bidding in future.
- 7.13 Canvassing in any form by the Bidder or by any other agency on their behalf may lead to disqualification of their Bid.
- 7.14 Bids submitted on Consortium or unincorporated Joint-Venture basis shall not be accepted.
- 7.15 OWNER/EIL reserves the right to reject any or all the bids received or annul the bidding process at any time without assigning any reason, whatsoever.
- 7.16 BPCL/EIL will not be responsible or liable for cost incurred in preparation, submission & delivery of bids, regardless of the conduct or outcome of the bidding process.
- 7.17 Unsolicited clarifications to the offer and / or change in the prices during the validity period would render the bid liable for rejection.
- 7.18 Bidders may view the Bid opening through the above e-procurement portal or may witness the bid opening in EIL Office Complex Sector-16 Gurugram (Haryana).
- 7.19 **Validity of bid shall be for a period of 12 Months from the final Bid Due Date.**
- 7.20 For detailed specifications, terms and conditions and other details, refer complete Bidding Document.

8.0 PRE-BID MEETING

- 8.1 Pre-bid Meeting shall be held online as per link provided in 3.0 (e) above. Bidders or their authorized representatives are requested to attend the Pre-Bid Meeting so that their queries, if any, related to the Bidding Document, Bidder's Qualification Criteria and Scope of Work can be addressed during the meeting.
- 8.2 The bidders are requested to send queries/clarifications, if any, as per Format enclosed in the bidding document through e-mail to reach EIL on or before the date mentioned at Cl. 3.0 above. The clarifications shall be provided during the pre-bid meeting. Bidder shall send query in editable soft copy in the format included in the Bidding document through e-mail.
- 8.3 Bidders are required to participate in pre-bid meeting after going through the entire Bidding document along with BQC requirement. Bidder shall submit all technical and commercial

issues separately, on which they need clarification and also to ensure that they possess all supporting documents for meeting the BQC to get their queries clarified, if required, during the pre-bid meeting to avoid any post-Bid discussion/clarification on this issue.

8.4 Non-attendance of the pre-bid meeting shall not be a cause of disqualification of the Bidder.

8.5 In case any Bidder does not attend the pre-bid meeting, it shall be understood that the Bidder has a clear understanding of the BQC, scope, terms and conditions of the Bidding document and does not have any comment / deviation to the requirement of Bidding document.

9.0 SUBMISSION OF BID

9.1 Bids are required to be submitted only through Govt. of India CPP Portal as mentioned in clause **3.0** above on or before the Bid submission date and time. It may also be noted that the price details are required to be filled & submitted only in the Schedule of Price format downloaded from above e-Procurement Portal.

9.2 Bidders in their own interest are requested to enroll on the above Govt. of India CPP portal and upload/submit their bid well in time. In the event of failure in bidder's connectivity with EIL/CPP Portal during the last few hours, bidder is likely to miss the deadline for bid submission. Due date extension request due to above reason may not be entertained.

9.3 Physical Bids / Offers or Bids through any other mode shall not be accepted. The Offers submitted through e-tendering system, as above shall only be considered for evaluation and ordering.

9.4 Bidders to refer Instruction to Bidders for e-Tendering Methodology provided as **Annexure to Instructions to Bidders (ITB)**, in the Bidding Document. Bidders are requested to get acquainted with the e-Tendering System in advance and obtain/seek clarifications, if any from EIL and/or CPP Portal Helpdesk, whose contact information is provided in the **Annexure to ITB**.

9.5 Bidder then need to login to the site thro' their user ID/ password chosen during registration.

9.6 The **Digital Signature (DSC)** that is registered in the above mentioned e-procurement portal should only be used by the bidder and should ensure safety of the same.

9.7 EIL/BPCL will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders.

9.8 The e-procurement Portal will show a successful bid updation /submission message after uploading all the bid documents using the DSC of the bidder and bidder shall keep the record of successful submission of bid in the form of auto generated email/acknowledgement received from the system.

9.9 The above email/acknowledgement will act as a proof of bid submission against the bidding document floated in e-procurement portal.

9.10 The bidder should ensure that the bid documents submitted should be complete and in a compatible format so that it can be downloaded and get opened. In the event, such documents could not be opened for any reason, during the bid opening, such bid shall be liable for rejection.

9.11 The time settings displayed in the said e-procurement portal will be valid for all actions of request, bid submission etc. The bidders should follow these time settings during bid submission.

9.12 The bidders are requested to submit the bids through online e-tendering system to the Tender Inviting Authority (TIA) well before the bid submission end date & time (as per Server System Clock).

General Manager (SCM)
Engineers India Limited, Gurugram

Engineers India Ltd / BPCL including its officers and representatives, shall under no circumstances solicit or request any payment, monetary consideration from bidders other than those specifically stipulated in the published tender/enquiry document and its amendments (if any). Bidders are cautioned that, should they receive any phone calls, messages, emails, or personal approaches requesting payments other than specified in Tender Document for processing, evaluation or award, such communications are fraudulent and do not originate from the Engineers India Ltd. / BPCL. Engineers India Ltd / BPCL shall not be responsible for any financial loss, penalty, or damage caused due to actions taken by Bidders/Contractors on the basis of such communications.

ANNEXURES TO IFB

Annexure – A (Letter from Statutory Auditor/CA)
(To be printed on Letter Head of Statutory Auditor/CA)

FINANCIAL DETAILS

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

OR

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

Financial details of the above mentioned Company, as per latest available audited balance sheet / Financial Details [either audited by Statutory Auditor (for 1st para above) or certified by Practicing Chartered accountant (for 2nd para above) not being an employee or a Director or not having any interest in the company, as applicable]] are as follows: Auditor/CA to select either of the following options and strike off the other.

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

OR

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

OR

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

S no.	Description	Year	Value Currency (_____)
1.	Turnover	Latest financial year (_____)	
		Preceding 1 st year (_____)	
		Preceding 2 nd year (_____)	
2.	Average Turnover of Last Three Years		

3.	Net Worth	Latest financial year (_____)	(*)

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

Note:

1. In case the financial year closing date is within 6 months of original bid due date and Audited annual report of immediate preceding financial year is not available, Bidder has the option to submit the financial details of the three previous years immediately prior to the last financial year.

In case the financial year closing date is within 6 - 9 months of original bid due date and Audited annual report of immediate preceding financial year is not available, Bidder has the option to submit the financial details of the three previous years immediately prior to the last financial year provided Bidder submits a letter from CA stating the reasons of non-preparation/ furnishing of the latest year's Audited Financial Statements.

In case, the financial year closing date is beyond 9 months of original bid due date, it is compulsory to submit the financial details of the immediate three preceding financial years.

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

2. In case a bidder (Parent Company) is having wholly owned subsidiaries but only a single consolidated annual report is prepared and audited, which includes the financial details of their wholly owned subsidiaries, consolidated audited annual report shall be considered for establishing the financial criteria subject to statutory auditor of the bidder certifying that separate annual report of bidder (without the financial data of subsidiaries) is not prepared and audited.
3. Further, in case a bidder is a subsidiary company and separate annual report of the bidder is not prepared and audited, but only a consolidated annual report of the Parent Company is available, consolidated audited annual report shall be considered for establishing the financial criteria subject to statutory auditor of the parent company certifying that separate annual report of bidder is not prepared and audited.

4. Networth calculation:

Networth means paid up share capital, Share Application Money pending allotment* and reserves# less accumulated losses and deferred expenditure to the extent not written off as per the audited financial statements of the company/entity. Networth has been calculated using the following formula, as per provisions of the enquiry document:

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

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

Accordingly, the definition of Net Worth shall be as follows:

S. No.	Description	As shown in Audited Financial Statement	
		Figure (In Currency _____)	Schedule Reference, Page no., Clause no.
A	Paid up Share capital	XXXX	
B	Add : Share Application Money pending allotment	XXX	
C	Add : Reserves (As defined above)	XXXX	
D	Less : Accumulated Losses	XX	
E	Less: Deferred Revenue Expenditure to the extent not written off	<u>XX</u>	
F	Net Worth (A+B+C-D-E)	<u>XXXX</u>	

5. **Turnover:** Turnover shall be calculated excluding GST and other Incomes.
6. Net worth and Turnover have been calculated using the above mentioned formulae and after giving effect to the impact of Audit Qualifications given in the Audit Report.

Signature
Name & Designation

*(Note: Certification by a **CPA** is also acceptable in lieu of a **CA**. Please indicate accordingly in the format.)*

Annexure – B (Certification by Statutory Auditor/CA)
(To be printed on Letter Head of Company)

FINANCIAL DETAILS

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

OR

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

Financial details of our Company, as per latest available audited balance sheet/ Financial Details [either audited by Statutory Auditor (for 1st para above) or certified by Practicing Chartered accountant (for 2nd para above) not being an employee or a Director or not having any interest in the company, as applicable]] are as follows: Company to select either of the following options and strike off the other.

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

OR

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

OR

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

S no.	Description	Year	Value Currency (_____)
1.	Turnover	Latest financial year (_____)	
		Preceding 1 st year (_____)	
		Preceding 2 nd year (_____)	
2.	Average Turnover of Last Three Years		

3.	Net Worth	Latest financial year (_____)	(*)

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

Note:

1. In case the financial year closing date is within 6 months of original bid due date and Audited annual report of immediate preceding financial year is not available, Bidder has the option to submit the financial details of the three previous years immediately prior to the last financial year.

In case the financial year closing date is within 6 - 9 months of original bid due date and Audited annual report of immediate preceding financial year is not available, Bidder has the option to submit the financial details of the three previous years immediately prior to the last financial year provided Bidder submits a letter from CA stating the reasons of non-preparation/ furnishing of the latest year's Audited Financial Statements.

In case, the financial year closing date is beyond 9 months of original bid due date, it is compulsory to submit the financial details of the immediate three preceding financial years.

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

2. In case a bidder (Parent Company) is having wholly owned subsidiaries but only a single consolidated annual report is prepared and audited, which includes the financial details of their wholly owned subsidiaries, consolidated audited annual report shall be considered for establishing the financial criteria subject to statutory auditor of the bidder certifying that separate annual report of bidder (without the financial data of subsidiaries) is not prepared and audited.
3. Further, in case a bidder is a subsidiary company and separate annual report of the bidder is not prepared and audited, but only a consolidated annual report of the Parent Company is available, consolidated audited annual report shall be considered for establishing the financial criteria subject to statutory auditor of the parent company certifying that separate annual report of bidder is not prepared and audited.
4. **Networth calculation:** Networth means paid up share capital, Share Application Money pending allotment* and reserves# less accumulated losses and deferred expenditure to the extent not written off as per the audited financial statements of the company/entity. Networth has been calculated using the following formula, as per provisions of the enquiry document:

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

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

Accordingly, the definition of Net Worth shall be as follows:

S. No.	Description	As shown in Audited Financial Statement	
		Figure (In Currency _____)	Schedule Reference, Page no., Clause no.
A	Paid up Share capital	XXXX	
B	Add : Share Application Money pending allotment	XXX	
C	Add : Reserves (As defined above)	XXXX	
D	Less : Accumulated Losses	XX	
E	Less : Deferred Revenue Expenditure to the extent not written off	<u>XX</u>	
F	Net Worth (A+B+C-D-E)	<u>XXXX</u>	

5. **Turnover:** Turnover shall be calculated excluding GST and other Incomes.
6. Networthand Turnover has been calculated using the above mentioned formulae and after giving effect to the impact of Audit Qualifications given in the Audit Report.

Signature
Name & Designation

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

*(Note: Certification by a **CPA** is also acceptable in lieu of a **CA**. Please indicate accordingly in the format.)*

Annexure – C (Certification by CEO/CFO/CS/any Functional Director from Board of Directors)

(To be printed on Letter Head of Company)

FINANCIAL DETAILS

I, _____ S/o/D/o of _____, working as CEO/CFO/Company Secretary/any functional Director of Board of Directors (indicate, as applicable) of the Company _____ having its registered office at _____ certify the following :

“I S/o/ D/o certify that financial statements/accounts of M/s (Name of Company) have not been audited in the previous three financial years in accordance with the law of the country (name of the Country).”

I further certify that the Financial details of (Name of Company) are as follows:

–

S no.	Description	Year	Value Currency (_____)
1.	Turnover	Latest financial year (_____)	
		Preceding 1 st year (_____)	
		Preceding 2 nd year (_____)	
2.	Average Turnover of Last Three Years		
3.	Net Worth	Latest financial year (_____)	(*)

(*) – Indicate Positive or Negative (Value is not Mandatory). For all other details absolute value is required to be put.

Note:

1. In case the financial year closing date is within 6 months of original bid due date and Audited annual report of immediate preceding financial year is not available, Bidder has the option to submit the financial details of the three previous years immediately prior to the last financial year.

In case the financial year closing date is within 6 - 9 months of original bid due date and Audited annual report of immediate preceding financial year is not available, Bidder has the option to submit the financial details of the three previous years immediately prior to the last financial year provided Bidder submits a letter from CA stating the reasons of non-preparation/ furnishing of the latest year's Audited Financial Statements.

In case, the financial year closing date is beyond 9 months of original bid due date, it is compulsory to submit the financial details of the immediate three preceding financial years.

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

compulsory to submit the financial details of the immediate three preceding financial years only.

2. **Net worth calculation:** Net worth means paid up share capital, Share Application Money pending allotment* and reserves# less accumulated losses and deferred expenditure to the extent not written off as per the audited financial statements of the company/entity. Net worth has been calculated using the following formula, as per provisions of the enquiry document:

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

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

Accordingly, the definition of Net Worth shall be as follows:

S. No.	Description	As shown in Audited Financial Statement	
		Figure (In Currency)	Schedule Reference, Page no., Clause no.
A	Paid up Share capital	XXXX	
B	Add : Share Application Money pending allotment	XXX	
C	Add : Reserves (As defined above)	XXXX	
D	Less : Accumulated Losses	XX	
E	Less : Deferred Revenue Expenditure to the extent not written off	XX	
F	Net Worth (A+B+C-D-E)	XXXX	

3. **Turnover:** Turnover shall be calculated excluding GST and other Incomes.
4. Net worth and Turnover have been calculated using the above mentioned formulae.
5. Bidder to list out all the documents in the index, alongwith all back-up documents related to financial statements along with basic details duly referred and number of pages.
6. Currency conversion Rate as per RBI reference Rate or if not available then SBI Bill Selling Rate as on the last Date of respective Financial Year shall be considered for evaluating Financial Criteria.

DECLARATION

I, _____ S/o/D/o of _____, working as CEO/CFO/Company Secretary/ any functional Director in Board of Directors (indicate, as applicable) of the Company _____ having its registered office at _____ with reference to our bid _____ against the Bidding document no. _____, declare that in case, at a later date, any of the details referred to above in this Annexure-C is found to be false/forged or fabricated, I, shall be held responsible for the same for and on behalf of my Company and EIL/Owner has every right to take action against

me and my Company, as deemed fit, as per provisions of the bidding documents including EIL/Owner's right to put our Company on Holiday/Black list for future business with EIL/Owner.

Specimen Signature of authorized representative

Signature

Name & Designation (CEO or CFO or Company Secretary/ any functional Director in Board of Directors)

*(Note: Certification by a **CPA** is also acceptable in lieu of a **CA**. Please indicate accordingly in the format.)*

FORMAT FOR UNDERTAKING FOR AUTHENTICATION

I, _____ S/o/D/o of _____, working as _____ {authorized signatory of Bidder holding Power of Attorney for signing of Bid or proprietor / any two partners in case of Proprietorship / Partnership firms (indicate, as applicable)} of the Company/Firm _____ having its registered office at _____ certify that all the details including documents pertaining to Bidder Qualification Criteria signed by undersigned vide our offer reference _____ against your Enquiry document _____, are true, authentic, genuine and true copy of its original.

It is certified that none of the documents are false/forged or fabricated. All the documents has been submitted with full knowledge of (i) the provisions of the Indian laws in respect of offences including, but not limited to those pertaining to criminal breach of trust, cheating and fraud (ii) provisions of bidding conditions and iii) Suspension / Banning rules of Owner/ EIL, which entitle the Owner/EIL to initiate action in the event of such declaration turning out to be a misrepresentation or false representation.

It is further certified that, if any documents are required to be submitted by our company/Firm subsequent to submission of bid, shall also be submitted under my knowledge and shall be true, authentic, genuine copy of its original and shall not be false/forged or fabricated.

I hereby acknowledge that the Owner/EIL possesses the right to verify the BQC Documents from the relevant document issuing authority or end user. The results of this verification, as stated above, shall be binding upon our Company/Firm, without any opportunity for dissent or contestation.

I also accept that in case, at a later date, any of the document submitted in our bid referred above is found to be false/forged or fabricated, I, shall be held responsible for the same and EIL/Owner has every right to take action against me and my company, as deemed fit as per law of land and provisions of the Bidding Documents and EIL/Owner's right to put our company on Suspension / Banning list for future business with EIL/Owner.

Specimen Signature of authorized signatory of Bid

Signature

Name & Designation (Proprietor in case of Proprietorship Firm / any two Partners in case of Partnership firms (indicate, as applicable))

PROFORMA OF DECLARATION OF HOLIDAY LISTING

(Please submit the following self-declaration on your Company's Letter head)

To,

BHARAT PETROLEUM CORPORATION LIMITED

Attention: - Mr. _____

SUB:

(BIDDING DOCUMENT NO.: _____)

SELF DECLARATION

I / We Hereby declare that I am / We are currently not serving any Holiday Listing orders issued by Bharat Petroleum Corporation Ltd (BPCL) or Engineers India Limited (EIL) or Ministry of Petroleum and Natural Gas (MOPNG) debarring me / us from carrying on business dealings with BPCL / EIL / MOPNG.

(AUTHORISED SIGNATORY)

Name of Signatory:

Bidder Name:

Date:

Place:

(BIDDER'S SEAL)

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INSTRUCTIONS TO BIDDERS

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1.0 BIDDING DOCUMENT, CLARIFICATION AND ADDENDUM

1.1 Bidding Document

Bidding Document comprising following sections are uploaded on websites for the purpose of submitting Bid.

- I. Notice Inviting Tender(NIT)/ Invitation for Bids (IFB) including all its Annexures.
- II. Instructions to Bidders (Commercial) including all its Annexures.
- III. Special Conditions of Contract
- IV. Schedule of Prices
- V. Technical Specifications
- VI. General Conditions of Contract and General Purchase Conditions
- VII. Integrity Pact

Detailed IFB/NIT/NIB, including Brief Description, Bidder Qualification Criteria (BQC), Bid Due date and time of opening of bid etc. shall be hosted in Govt. of India Central Public Procurement Portal <https://eprocure.gov.in/eprocure/app> and only link will be provided in EIL website <http://tenders.eil.co.in>. The tender link shall also be published in BPCL's website (<https://www.bharatpetroleum.in/>) also.

Bidders can view / download the document from any one of the websites mentioned above.

Any Amendment/ Addendum issued hereinafter shall also form part of the Bidding Document.

All Amendments, time extension, clarifications etc. will be uploaded in the Govt. of India Central Public Procurement Portal <https://eprocure.gov.in/eprocure/app> only. Bidders should regularly visit the above website to keep themselves updated. Amendment includes Corrigendum/Addendum etc.

Request for extension or any queries received from any bidder with less than two working days prior to bid due date shall generally be ignored, since there will not be adequate time for proper inter departmental communication and with other Bidders. Bidders shall submit the bid directly and in their own name without involving any intermediaries.

"Bidder" shall mean the Licensor/ Agency who has submitted the Bid for the services described in this Bidding Document.

1.2 Clarification Requests by Bidder

Bidder shall examine the Bidding Document thoroughly in all respects and if any conflict, discrepancy, error or omission is observed, Bidder may request clarification during pre-bid meeting and queries shall reach to EIL and BPCL on or before the date of receipt of queries indicated in IFB. Any failure by Bidder to comply with the aforesaid requirement shall not absolve the Bidder of his responsibility, after subsequent award of contract, of performing in accordance with the agreement. The Replies to Pre-Bid queries are for clarification purpose only and shall not form part of

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the Bidding Document/ Agreement, unless issued in the form of Addendum/Amendment.

1.3 Amendment of Bidding Document

Owner/EIL may, for any reason either at their own initiative or in response to the clarification requested by prospective Bidders, issue amendment in the form of Addendum/ Amendment /Corrigendum during the Bidding period or subsequent to receiving the Bids. Any Addendum/ Amendment /Corrigendum thus issued shall become part of Bidding Document and Bidder shall submit the copy of Addendum/ Amendment /Corrigendum duly signed and stamped in token of his acceptance.

1.4 Confidentiality of Document

- 1.4.1 The Bidding Document is non-transferable and shall be returned to the OWNER by any recipient who does not intend to submit a Bid.
- 1.4.2 The Bidding Document are and shall remain the exclusive property of the OWNER with a right for the Bidder to use it only for the intended purpose of bidding and for use by the successful Bidder with reference to the resultant Contract for the Owner's subject Unit.
- 1.4.3 The Bidder shall take due measures to keep it secret and confidential and shall disclose the Bidding Document and/or furnish copies in whole or part thereof to employees involved in the preparation of the Bid who have understood the proprietary and confidential nature of the documents and have undertaken to be bound by and maintain confidentiality.

1.5 MULTIPLE/ ALTERNATIVE BID

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

A sub-Contractor can be common to more than one Bidder, provided the sub-Contractor themselves are neither a Bidder nor a consortium member.

- 1.5.2 Alternative bids are not acceptable.

1.6 POWER OF ATTORNEY

- 1.6.1 The bidders shall be required to submit the Power of Attorney (POA), in original, in addition to submission of a copy in e-procurement portal along with the e-Bid, in the name of authorized signatory signing the Bid and who possesses the DSC Key on behalf

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of the bidder's company to sign the e-bid and subsequent submissions on behalf of the Bidder. However, in case of General Power of Attorney, photocopy duly notarized / signed by Chief Financial Officer (CFO) / Chief Executive Officer (CEO) / Company Secretary (CS) / any Functional Director in the Board of Directors is also acceptable. Non submission of POA in Original shall lead to rejection of the e-Bid.

- 1.6.2 In case of Foreign Bidder who does not have digital signature issued by an Indian Certifying Authority, he can authorize his Indian representative to use the representative's digital signature to upload the bid on behalf of foreign bidder. In such a case, the authority letter shall be submitted along with the e-bid with the Original signed authority letter along with the Power of Attorney.
- 1.6.3 The cancellation of any document such as Power of Attorney, Partnership Deed, etc. should be promptly communicated by the Bidder to the Owner in writing well in time, failing which Owner shall have no responsibility or liability for any action taken by Owner on the strength of the said documents.

2.0 PREPARATION OF BIDS

2.1 Cost of Bidding

All direct and indirect costs associated with the preparation and submission of Bid, any other expenses in connection with Bid (including Pre-Tender Meeting, Pre-Bid Meeting and other post bid submission clarification meetings and visits by Bidder to Owner/EIL offices or to Licensee locations, as required) shall be to Bidder's account. Owner/EIL will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process.

2.2 Language of Bid

The Bid and all correspondence incidental to and in connection with the Bid shall be in the English Language only. In case a foreign bidder submits any of the Bidder Qualification support documents in any language other than in English, then it shall be the responsibility of such foreign Bidder to also provide the English translation copy of the same duly certified by either of the following:

- Local Chamber of Commerce.
- Indian Embassy in Bidder's Country
- Bidder's Embassy in India
- Any translator in India recognized / authorized by Bidder's Embassy.

For the purpose of interpretation / evaluation of Bid, the English Translation shall govern.

2.3 Arrangement of Bid

The Bid shall be neatly arranged, and printed on white paper with consecutively numbered pages. The Bid and all details submitted by the Bidder subsequently shall be signed and stamped on each page by a person, legally authorized to enter into agreement on behalf of the Bidder. The same person shall also sign corrections and alterations, if any. Bidder shall submit Power of Attorney in favor of the person who signs the Bid and subsequent submissions on behalf of the Bidder.

2.4 Schedule of Prices

The Schedule of Prices shall be read in conjunction with all other sections of the Bidding Document. Rates/ amount must be filled in the format of Schedule of Prices

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enclosed as part of this Bidding Document.

The Prices quoted by the Bidder shall be firm and fixed for the completion period of the offered services and supplies and in accordance with the price schedule format enclosed and strictly based on the terms specified related to the bid prices in the instructions/ conditions.

Firm prices are required for all the items including supply of proprietary Catalyst, Chemicals, Absorbents, Adsorbents, & Additives (as applicable) and proprietary equipment supplies. The escalation rates mentioned in Form-B7 of Schedule of Prices shall also be firm.

Escalation Rates shall be specified by Bidder as per details given in Schedule of Prices. In case Escalation Rates are not specified by the Bidder, then the prices quoted for the various items shall be considered valid and firm upto the date specified in the respective forms and no escalation shall be payable.

Bidder shall quote all the items of Schedule of Prices after careful analysis of cost involved for the performance of the completed item considering all parts of the Bidding Document. In case any activity is specifically not covered in description of item under Schedule of Prices but is required to complete the work as specified elsewhere in the Bidding Document, then the quoted prices for the item shall be deemed to be inclusive of cost incurred for such activity and no claims whatsoever on this account shall be entertained by Owner.

The Insurance for Bidder's employees / personnel shall be in Bidder's scope and shall be deemed inclusive in their quoted price.

2.4.1 Currency of Quote and Payment

- Bidder (Indian as well as Foreign) shall quote the prices for materials and services to be imported in India in INR / USD / EURO. Bidder can quote their prices in INR and/or in any one of the Foreign Currency as indicated above.
- Bidders shall quote the price for materials and services to be procured from India in Indian Rupees (INR) only.
- No other currencies shall be allowed other than Indian Rupees or US Dollar or Euro as stated above.
- Currency once quoted shall not be permitted to be changed. Bidder shall quote prices both in figures as well as in words, wherever applicable.
- Payment to the Indian Bidder shall be made in Indian Rupees only.
- Payment to the Foreign Bidder shall be made in currency of quote. The payment to Licensor's Indian Subsidiary/ Affiliate (for the services /supplies as permissible in Technical Section/SOP/Bidding Document) shall be made by the Owner in Indian Rupees based on certification of the invoices by the Licensor.

Bidder shall mention the details of such Indian Affiliate in their bid. In case Licensor proposes any sub-supplier in their offer, then Agreement for such Supply/Services shall be signed with Licensors indicating the details of the sub-Supplier, subject to provision that single Point responsibility shall lie with Licensor only. If required by the Affiliate, Purchase Order for such services/supplies can be issued by the Owner in

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the name of Indian Affiliate to facilitate payment only, however overall liability shall lie with Licensor.

2.5 Documents Comprising the Bid

2.5.1 Bidder is advised that Owner or Project Management Consultant (PMC)/ Owner's Management Consultant (OMC), appointed by owner, shall fully evaluate the technical and unpriced commercial submissions. It is important that Bidder clearly demonstrates his experience and capability, giving Owner/PMC/ OMC a high level of confidence about the technology being licensed and also that if awarded, the Bidder will be able to perform within the stipulated Time Schedule and quoted price total scope requirements listed in the Bidding Document. Bidder is requested to furnish complete and correct information required for evaluation of their Bid irrespective of whether it is specifically asked or not.

2.5.2 **Single stage Two Bids Three e-Envelopes system** will be followed for bidding process. The three e-envelopes shall be uploaded in the following manner:

PART I: UN-PRICED BID

a) PART-I: e-Envelope-1: EMD

(i) Scanned copy of Earnest Money Deposit (EMD)

b) PART-I: e-Envelope-2: BQC documents, Technical & Commercial documents

e-Envelope-2 shall contain the "**UNPRICED BID**", containing all techno-commercial documents excluding the documents as mentioned in sl. No. 2.5.2 a) above, technical details, specifications, completion schedule etc. as per requirement of bidding/enquiry documents. Such Unpriced bid shall be required to be submitted in e-procurement portal.

e-Envelope-2 of the bid shall broadly contain the following,:

- (i) Scanned copy of Authenticated BQC Documents [Technical Experience and Financial Criteria related] pertaining to Technical & Financial BQC to be uploaded in e-procurement portal.
- (ii) Index of authenticated documents
- (iii) Power of Attorney in favour of authorised signatory of the Bid as per provisions of Bidding Document as mentioned in detail in ITB.
- (iv) Commercial offer including Covering Letter, duly signed and stamped Master index, Compliance to Bid requirement, Unpriced copy of Price Bid etc. as detailed in Bidding Document.
- (v) Duly filled forms and declarations as Per Annexure IIA to IIL to ITB.
- (vi) The Unpriced copy of Price Bid without any prices (Price Column shall be filled up with "QUOTED IN PRICE PART" in the Schedule of Prices).

Note: The Unpriced copy of Price Bid and Price Bid shall be identical in all respects except that only the Priced Bid shall contain the prices. The Unpriced copy of Price Bid and Price Bid shall also not contain any condition, deviation, clarification etc.

- (vii) Technical offer and Engineering details, containing the information required as per enclosed Technical Specification of Bidding Document.

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- (viii) Bidder shall also furnish any other information other than Price that are required to complete their bid in all respects with respect to the provisions of the bidding document
- (ix) Integrity Pact (all pages duly signed & stamped)
- (x) Bidder to submit a declaration that "Licensors' patent is valid, subsisting and that they have the right to use it in BPCL and that there is no infringement regarding the said patent. Licensor further declares that as on date there is no dispute on-going regarding or in relation to the patented technology being licensed to BPCL. Licensor further declares that it shall ensure that the above declaration shall remain subsisting throughout the contract period."

PART II: PRICED BID

- (i) **e-Envelope-3** shall contain the **duly filled in Schedule of Price (i.e. Price Bid or SOP) as per requirement of Bidding Document**, duly signed and stamped on each page without any deviation, clarification, condition etc. OR as per provisions of NIC e-procurement portal.

Bidder to note that the price submitted in the e-folder for Priced Bid shall only be considered for evaluation and award.

No stipulation, deviation, terms or conditions, presumptions, basis etc. shall be indicated in Price part of the Bid. In case any stipulation, deviation, terms or conditions, presumptions, basis etc. are indicated in the Priced Bid, these shall be considered null and void and may render the Bid liable for rejection if these are not withdrawn by the Bidder.

3.0 SUBMISSION OF BID:

- 3.1** Techno-Commercial Unpriced e-Bid and Priced e-Bid shall be submitted only in the designated folders of the Govt. of India Central Public Procurement Portal (CPP) <https://eprocure.gov.in/eprocure/app> in the manner as specified above.
- 3.2** Methodology for e-tendering shall be as per attached Annexure-IIJ to ITB. Bidders are requested to get acquainted with the E-Tendering Website and the formalities and load their Bid well within the time (extended time in case of extension of bid submission date) provided for bid submission to avoid last minute hassles.
- 3.3** Bidders in their own interest are requested to register on e-Tendering portal and upload/submit their e-bid well in time. Bidders should avoid the last hour rush to the website for registration of User I.D. & Password, enabling of User I.D. and mapping of Digital Signature Serial Number, etc. since this exercise require activities from EIL & the Service Provider and needs time. In the event of failure in bidder's connectivity with EIL/Service Provider during the last few hours prior to bid submission time, bidder is likely to miss the deadline for bid submission. EIL/Service Provider shall not be held responsible for such failure to submit the Bid in time. Any due date extension request due to aforesaid reason shall also not be entertained.
- 3.4** Bidders are requested to obtain/seek clarifications, if any from CPP Portal Helpdesk, whose contact information is provided in the Annexure- II J to ITB.

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- 3.5** Bids in hard copies by Hand/ Registered Air Mail/Courier Service, through email/Fax or in other electronic mode shall not be accepted.
- 3.6** No bid will be received after the deadline of submission of bid.
- 3.7** E-tendering system shall close immediately after the deadline for submission of bid.
- 3.8** Unsolicited bids or bids being uploaded to address other than one specifically stipulated in the bidding documents will not be considered for opening / evaluation / award.
- 3.9** Submission of Original Documents

The following original documents to be submitted within Bid Due Date.

- Power of Attorney (along with Original signed authority letter, if applicable- refer clause 1.6.2 above)
- Original EMD (in form of BG or Insurance security Bond, in the pro-forma enclosed in the Bidding Document).

The address for submission of original documents is as follows:

**ENGINEERS INDIA LIMITED,
DAK RECEIPT SECTION,
R&D COMPLEX, SECTOR-16 (On N.H.-8)
TOWER-2 (GROUND FLOOR),
GURGAON-122 001
HARYANA (INDIA)
Kind Attn.: Mr. Lotavath Thavurya, GM (SCM-C&P)**

3.10 EARNEST MONEY DEPOSIT (EMD) / BID SECURITY

EMD/Bid Security shall be required as per IFB/ NIT. Bids not accompanied with the EMD shall be rejected and shall not be considered for further evaluation.

EMD/Bid Security shall be in INR (for Indian Bidder) or in Equivalent USD/EURO (For Foreign Bidder). However, in case of Foreign Licensor, EMD can also be submitted by Indian Counterpart of Foreign Licensor in INR on the behalf of Foreign Licensor.

In case of a Foreign Bidder, EMD/ Bid Security may be submitted by their subsidiary or associate Company or their Indian Counter Part/ Agent, on behalf of the Foreign Bidder in US Dollar/ Euro/ INR. In such a case, following conditions must be complied:

- Bid Security, if issued in the form of a bank guarantee shall clearly state that it is issued by the Indian Counter Part for & on behalf of the Foreign Bidder.
- The bank guarantee shall contain specific declaration from the Indian Counter Part that the Bank Guarantee shall be liable for invocation in case of any default by the foreign bidder in terms of the bidding document.
- The Indian Counter Part shall be duly authorised by the foreign bidder to issue the bank guarantee on their behalf, on the foreign bidder's letter head. This authorisation shall be appended with the bid security.

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EMD / Bid Security shall be submitted in favour of Bharat Petroleum Corporation Ltd., in the form of non-revocable Bank Guarantee (Format as per BPCL GCC) on non-judicial stamp paper of appropriate value and in the prescribed proforma enclosed with bidding document. EMD, if submitted in the form of BG shall be, from any Indian Scheduled Bank or from any Indian branch of an International Bank and valid for 2 (Two) Months beyond the original bid validity. EMD validity may have to be extended in line with Bid validity extension, if applicable.

Insurance surety Bonds are also accepted as EMD/ Performance Security Deposit.

EMD can be also submitted through Electronic Fund Transfer to BPCL Bank Account (**Refer details as per Annexure-II O**).

It may be noted that EMD in the form of Demand Draft/ Bank Draft shall not be acceptable.

Following categories of bidders should be exempted from paying Earnest Money Deposit (EMD) and Tender Fee, if any.

Micro or Small Enterprises (MSEs) registered on UDYAM registration portal having valid "UDYAM Registration Certificate", shall be exempted from submission of bid security. **Benefit of exemption from Bid Security/EMD to MSE-Traders shall not be applicable. Further, benefit of exemption from Bid Security / EMD to any MSE shall not be applicable in case of Works Contracts.**

MSEs shall provide the necessary valid documentary evidence, i.e. UDYAM Registration Certificate, Certification from a practicing Chartered Accountant (CA) (dated after the date of floating of tender and specific to the tender for which bid is being submitted). MSE Bidders shall be eligible for exemption only if the URC Certificate / URC detail as submitted in the Bid. The Udyam registration certificate shall be verified from GoI Udyam registration portal (present web address is <https://udyamregistration.gov.in>). The status of the MSE Bidder as on the date of Unpriced Bid opening shall be considered.

In case of an upward change in terms of investment in Plant and Machinery or Equipment or Turnover or both, and consequent re-classification, an enterprise shall continue to avail of all non-tax benefits of the category (Micro or Small or Medium) it was in before the re-classification, for a period of three years from the date of such upward change.

In case of upward change in status, Bidder is required to submit the previous certificate also to establish consequent re-classification for claiming exemption of EMD.

Bidder shall be required to submit the copy of the bid security within the final extended bid due date and time on the e-tendering portal. In case of bid security in the form of BG/ Insurance surety Bond, bidders shall also be required to submit the original BG/ ISB to EIL, preferably before the final extended bid due date and time but not later than 7 (Seven) calendar days from final extended bid due date and time. If the Bidder fails to submit Bid Security (BG/ ISB) physically in original within the above cut-off date, his bid shall be rejected and not considered for further evaluation, irrespective of their status/ ranking in tender and notwithstanding the fact that a copy of Bid Security was

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earlier uploaded by the bidder on the e-tendering portal.

In case of EMD in the form of Bank Guarantee, vendors shall provide the SFMS details along with the Bank Guarantee. In case the SFMS details is not made available, then EIL shall take up with the bidder's bank for confirmation of the validity of the Bank Guarantee.

Bid security of bidders shall be returned promptly as follows:

a	On cancellation/annulment of Enquiry / Bidding document at any stage of the bidding process but before the award of work/ items (as applicable)	:	EMD of all the Bidders shall be returned at the earliest from the date of such decision.
b	Within 30 days of Publishing the result of Unpriced bid evaluation	:	EMD of Bidders who have submitted late bids/ where un priced bids not opened / whose price bids are not opened.
c	After award to the successful bidder	:	EMD of unsuccessful Bidders whose prices have been opened.
d	After order/ contract is effective and submission of CPBG/security deposit by successful bidder and acceptance of the same by the owner.	:	EMD of the Respective successful Bidder(s).

3.11 The EMD may be forfeited in any of the following situations:

- a) If the bidder submits alternative bids; or
- b) If the bidder suo moto modifies his bid; or
- c) Withdraws his bid during the period of bid validity; or
- d) In case, during evaluation of bid, it is found that any forged / fake document has been furnished.
- e) In case of applicability of provisions of clause 4.2.4 below.
- f) In the case of a successful bidder, if the bidder fails or refuses:
 - i) To accept the Purchase Order / signing of the Contract
 - ii) To furnish Contract Performance Bank Guarantee.
 - iii) To accept arithmetical corrections of its bid, as per the terms of the Bidding Document.

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In case, any of the above events happens, the bidder shall be given a notice of 7 days to take necessary corrective action [except for Sl. No. a) & d) above] and in case corrective action is not taken, the bid security shall be encashed without any further notice. Holiday listing activities will also be initiated by BPCL.

- 3.12** Owner/ EIL shall not pay any interest, commission, bank charges on EMD furnished. Further, in case bank guarantee submitted is found to be fake, bid of such bidder shall be rejected and may initiate action as deemed necessary as per EIL / OWNER Policy.

4.0 BID OPENING AND EVALUATION

4.1 OPENING OF TECHNO-COMMERCIAL BIDS:

- 4.1.1 The un-priced Bids shall be opened in above mentioned e-procurement portal at EIL, Gurgaon Office on the specified date and time given in the Enquiry (IFB) document or on the extended date and time, as will be intimated in the said website(s). The participating bidders can view the bid opening details online at their respective places. There will not be any separate public opening and bidder shall not be called for attending the bid opening.

4.2 Clarification & Additional Information

- 4.2.1 As the technical, commercial, legal issues, Bidder's Qualification Criteria (BQC) and authentication documents etc. with respect to the provisions of the Bidding document are discussed and clarified in the Pre-Tender Meet / Pre-Bid Meeting, it is expected that the Bid submitted by the Bidder shall be a fully responsive Bid in compliance with the provisions of the Bidding document and deviations are not expected. Non-attending the Pre-Tender Meet and/or Pre-bid Meeting by the competent representatives of the Bidder including technical, commercial and legal personnel does not absolve the Bidder from submitting a bidding provisions' compliant Bid at the first instance and it will be deemed considered that Bidder has understood all provisions of the Bidding document in case of non-attending the Pre-Tender Meet and/or Pre-Bid Meeting and they do not require any clarifications/ have any deviations on the various provisions of the Bidding document
- 4.2.2 During evaluation, Owner/Owner appointed consultant (PMC/OMC) may request Bidder for any clarification on the Bid, additional or outstanding documents. Bidder shall submit all additional documents as requested by Owner/ PMC. Bidder should furnish clarifications within a maximum period of one week from the query.
- 4.2.3 Any unsolicited reduction in price offered by a bidder within the bid validity period by way of discount or revised prices, subsequent to the bid due date, shall not be taken into account for price comparison. However, such reduction in price shall be considered for ordering if such bidder happens to be recommended as per the originally quoted prices.
- 4.2.4 In the event of unsolicited price increase, subsequent to the bid due date and before price bid opening, the bid of such bidder shall be rejected, in case the bidder does not agree to withdraw the price increase.

In the event of unsolicited price increase after price bid opening, the same shall be treated as null and void and bid shall be evaluated and considered for award without considering the price increase. In a situation where the bidder does not accept the

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order without Price increase submitted by him, the EMD of the Bidder shall be forfeited and further punitive action as per company policy shall be taken against the Bidder.

4.3 Techno-Commercial Discussions

Techno-commercial discussions with Bidder shall be arranged, if needed. Bidder shall depute his authorized representative(s) for attending the discussions at BPCL/PMC/OMC office, in India. The representative(s) attending the discussions shall produce authorization from Bidder to attend the discussions and sign the minutes of meeting on behalf of Bidder. The authorized representatives must be competent and empowered to settle all technical and commercial issues.

4.4 Evaluation Criteria

4.4.1 Bidder Qualification

The Bidder qualification shall be as mentioned in the Bidder Qualification Criteria stated in IFB. The Bidders who are considered qualified, on the basis of details furnished in respect of Bidder Qualification Criteria, shall be considered for further evaluation.

4.4.2 Technical and Commercial Evaluation

4.4.2.1 Technical acceptability shall be ascertained in accordance with requirements mentioned in Technical Specifications/documents included in the Bidding Document.

4.4.2.2 Commercial Acceptability shall be ascertained in accordance with Bidder's compliance to Invitation for Bids, NIT, Instruction to Bidders, Commercial Terms and Conditions and Schedule of Prices.

4.4.2.3 Price Bid Opening

The Bidders who are considered technically and commercially acceptable, shall be considered for Price Bid opening. Bidders selected for opening of their price bids shall be informed about the date and time of price bid opening.

The price Bids shall be opened in above mentioned e-procurement portal at EIL, Gurgaon Office on the specified date and time, as will be intimated. The participating bidders can view the bid opening details online at their respective places. There will no separate public opening and bidder shall not be called for attending the price bid opening.

The prices as quoted in Schedule of Prices shall be read out to the Bidders. Bidder's authorised representative, if present during the price bid opening, shall sign the Price Opening Statement.

4.5 Evaluation of Price Bid

4.5.1 The prices quoted by the Bidder shall be checked for arithmetic errors based on prices filled in by the Bidder in the formats issued. If some discrepancies are found between the rate/ amount given in figures/words, the total amount shall be corrected as per the following procedure, which shall be binding upon the bidder:

- a) When there is a difference between the rate in figures and in words for an item, the rate which corresponds to the amount worked out by the bidder for the item based on the quantity specified, shall be taken as correct.

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- b) When the rate quoted by the bidder in figures and words tallies but the amount is incorrect, the rate quoted by the tenderer shall be taken as correct.
- c) When it is not possible to ascertain the correct rate as detailed above, the rate quoted for the item in words shall be adopted as the quoted rate.
- d) If the total amount written against an item does not correspond to the rate written in figures and if the rate in words is not written by the bidder, then the higher of the rates, i.e. higher of the rate worked out by dividing the amount by the quantity or the rate quoted, shall be considered for evaluation. In the event that such a bid is determined as the highest NPV bid, the lower of the rates shall be considered for award of works

4.5.2 To facilitate evaluation and comparison of prices including NPV calculation, all foreign Bidders' Bid prices shall be converted into Indian Rupees based on the RBI reference rate as on the date of price bid opening. If RBI reference rate is not available for the date of Price Bid opening, the latest available rates of RBI shall be considered for Price Bid Evaluation.

In the absence of RBI reference rate, SBI TT Sell (Telegraphic Transfer) reference rate on the date of price bid opening or the latest available will be considered. In absence of RBI reference rate, SBI TT reference rate, the conversion Rate shall be taken from the Internet, such as:

- <https://www.xe.com/currencyconverter>
- <https://www.oanda.com/currency/converter>
- <https://economictimes.indiatimes.com/markets/forex/currency-converter>

4.5.3 In case the exchange rate is not available as on the day of price bid opening, the latest available rate prior to the day of price bid opening, shall be considered.

4.6 Deviations

4.6.1 All exceptions and deviations retained by Bidder to the stipulations of the Bidding Document shall be indicated at one location in the Technical and Unpriced Commercial Part of the bid as per the format given in Annexure-II A only and not in the Bidding Document or Priced Commercial Bid. Any exceptions or deviations indicated elsewhere in the bid shall not be construed as valid.

4.6.2 None of the exceptions/ deviations/ alterations in terms and conditions incorporated by Bidder in bidding document shall be part of contract terms and conditions unless specifically agreed and confirmed in writing by OWNER/PMC/OMC.

4.7 Loading Factors

4.7.1 To facilitate evaluation and comparison of prices the Price loading (for determining CAPEX) on account of commercial deviations taken by bidders in respect of payments and other conditions shall be as under:

- a) Any differential payment terms on higher side offered by Bidder as against the terms specified in the Bidding document shall be loaded at 15% (simple interest) per annum for the differential time period as per milestone.

Notes:

- i) Payment milestones & percentage weightage on Kick-off meeting, Commissioning and PGTR for BEDP, License Fee & Detailed Engineering Fee (as applicable) shall be under Bid Rejection Criteria.

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- ii) The differential time period to be considered for loading against payment terms for proprietary equipment, shall be as under:

i. Order on sub vendors	75% of the delivery period
ii. Receipt of raw material at Vendor's works	50% of the delivery period
iii. Period for any other stage shall be suitably decided at the time of evaluation.	

- b) No deviation for the "Unit" of Schedule of Price (SOP) is acceptable.
- c) In case Bidder does not accept Liquidated Damages / Price Reduction Schedule for delay in delivery and/or takes any deviation or takes exception to the percentage rate mentioned in bidding document, the offer of such Bidder shall be loaded by differential of the percentage from 5% (i.e. maximum percentage as defined against respective item).

d) Overall Aggregate Liability:

Overall aggregate liability shall be 100% of License Fee + 100% of BEDP Fee + 100% Detailed Engineering (if applicable). In case Bidder does not accept overall aggregate Liability clause the offer of such Bidder shall be loaded as below:

If the bidder limits Liability to x% of License Fee + y% of BDEP Fee, loading by (100% - x%) of License Fees + (100% - y%) of BDEP Fee and (100% - z%) of Detailed Engineering Fee (if applicable)."

Note: It is clarified that no deviations are acceptable in respect of the following:

- Liabilities for not meeting the (i) Process Performance Guarantees (against Guarantee Parameters), (ii) Minimum Guarantees, (iii) Guarantee for Catalyst, Chemicals, Absorbents, Adsorbents, & Additives (as applicable as per Technical specifications) and other guarantees (if any), (iv) Proprietary Equipment/Items supplied by Licensor, as detailed in the Technical Specifications and referred to in Article No. 8.5 titled "LIABILITIES FOR NOT MEETING THE GUARANTEES" of Special Conditions of Contract.
- Liabilities on account of Reimbursement of certain costs for making modifications, additions, alterations, or replacements to correct Owner's Unit due to faulty design, information and services provided by Licensor, as detailed in the Technical Specifications and referred in Article 8.4 of Special Conditions of Contract.
- Liabilities on account of Patent Infringement as detailed in Article 8.1 of Special Conditions of Contract.

- e) **Technical Loading**, if any, based on Technical evaluation of Bid (as indicated in TBA)

4.7.2 Loading of taxes & duties shall be as under:

- Goods and Services Tax (GST),
- Custom Duty and
- Withholding Tax, if prices quoted by bidder is net off of withholding tax.

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The following shall be loaded for evaluation purpose:

- 1) Applicable Custom Duty, Social Welfare Surcharge etc. (non-MOOWR cases) / Present value of deferred import duties (MOOWR cases), (excluding IGST & GST Compensation Cess (if applicable) on imported material which shall be dealt as per bid evaluation methodology given in 2) below) shall be loaded for price bid evaluation in respect of supplies for which bill of entry has to be filed by Owner / in the name of Owner (MOOWR cases).

The MOOWR (Manufacturing and Other Operations in Warehouse) benefit will apply to all imported Supplies as per following:

Sr. No.	Supplies	MOOWR Benefit	Deferred Custom Duty considered Payable (Discounting factor as 12% per annum)	Year at which Custom Duty is considered Payable
a)	Supplies other than Catalysts, Co-Catalysts, Resins, Adsorbent, Absorbents, Additives, Solvents, Donors & Chemicals	Yes	Yes	At the end of Plant Life
b)	Fixed bed Catalyst, Adsorbent, Absorbents	Yes	Yes	At the end of each Replacement period
c)	Continuous consumption Catalysts, Co-Catalysts, Resins, Adsorbent, Absorbents, Additives, Solvents, Donors & Chemicals including initial fill	No	Not Applicable	Not Applicable
d)	Precious Metals* for Fixed bed Catalyst, Adsorbent, Absorbents	Yes	Yes	At the end of each Replacement period

* The replacement cost shall be considered as 1% (Considering 99% recovery) of precious metal cost, however, Custom duty shall be loaded on 100% precious metal cost on each loading cycle with MOOWR benefit."

- 2) (a) GST including GST Compensation Cess (if applicable) on which input credit is not available to Owner [Excluding (b) below] (currently 40% of GST amount to be loaded for evaluation purpose)
- (b) Present Value of GST deferred under MOOWR scheme (Present value of 40% of GST amount to be loaded for evaluation purpose)

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- 3) Applicable Income tax (lower of withholding tax rate under Indian Income Tax Act or under Double Taxation Avoidance Agreement (DTAA) with bidder country), in case foreign bidder quotes prices net of taxes.

Notes:

- Presently, there is “no” concessional rate of Custom Duty available to the Owner for the said Project. Hence, Custom Duty shall be on Merit rate for the purpose of evaluation of bids. However, MOOWR benefits are applicable to BPCL.
- In case of supply contracts, Bill of Entry shall be in the name of Bharat Petroleum Corporation Limited, being the importer of goods. For indigenous supplies, e-way bill shall be provided by Supplier. For imported supplies, e-way bill shall be provided by BPCL, being the importer of goods.
- The lower of withholding tax rate under Indian Income Tax Act or under Double Taxation Avoidance Agreement (DTAA) with bidder country applicable on the date of payment shall be considered for payment purpose.

4.8 Process to be confidential

Information related to the examination, clarification, evaluation and comparison of Bids and recommendations for award of contract shall not be disclosed to Bidder or other person not officially concerned with such process. Any effort by Bidder to influence the Owner's/PMC/OMC processing of Bidding or award decisions may result in rejection of such Bidder's Bid.

4.9 Owner's Right to accept or Reject aBid

Owner reserves the right to accept or reject any Bid in whole or in part, or to annul the Bidding process or to reject all Bids. Such decisions by Owner shall bear no liability whatsoever consequent upon such decisions.

4.10 Rejection Criteria

Deviations to following provisions shall be liable for rejection of Bid:

- EMD / Bid Security
- Time Schedule
- Exclusion of Govt. of India's Liability.
- Non-submission of bid in English language.
- Governing laws to be Indian Laws
- Bid Validity Period.
- A Bid with incomplete scope of work and/or which does not meet the technical specifications and requirements as specified in the enquiry documents.
- Discovery of false / forged documents / fraudulent practices by the Bidder
- Payment milestones & percentage weightage on Kick-off meeting, Commissioning and PGTR for BEDP, License Fee & Detailed Engineering Fee (as applicable)
- CPBG (With respect to BG value and validity)
- Not meeting BQC qualification criteria.
- Non-acceptance of liabilities defined under technical specifications
- Declaration regarding Holiday / negative list of BPCL or MOP&NG
- Non-submission / deviation in Integrity Pact.
- Other rejection criteria specified elsewhere in the tender document.

5.0 AWARD OF WORK AND CONTRACT DOCUMENT

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5.1 Award of Work

- 5.1.1 The Award of the work shall be done on Net Present Value (NPV) basis. Bidder with Highest NPV shall be recommended for placement of order.
- 5.1.2 The Bidder, whose Bid is technically and commercially accepted by Owner as per terms and conditions of the Bidding document and its Amendment etc. (if any), shall be issued a Letter/ Fax of Intent (LOA/FOA) prior to the expiry of Bid validity period. Bidder shall confirm acknowledgement by returning a signed copy of the same.
- 5.1.3 The Client shall issue Letter of Acceptance (LOA) / PO to the selected Licensor for:
- (i) License Fee
 - (ii) BEDP Fee
 - (iii) Detailed Engineering Fee, if any,
 - (iv) Prices for Mandatory services,
 - (v) Prices for Additional services,
 - (vi) Training Charges, if applicable

For proprietary item(s) and proprietary and non-proprietary Catalyst and proprietary Chemicals, Absorbents, Adsorbents, & Additives (as applicable and more specifically defined in Technical specifications included in the bidding document), the purchase order shall be placed at later date(s) keeping the Prices and delivery period firm considering the physical progress at site, shelf life and the delivery schedule of the items.

- 5.1.4 Owner/ EIL shall not be obliged to furnish any information/ clarification/ explanation to the unsuccessful Bidders regarding non-acceptance of their Bids. Owner/ EIL shall correspond only with the successful Bidder.

5.2 Contract Document

The successful Bidder shall be required to execute a formal agreement within specified period. This Bidding Document along with addendums/ corrigendum, if any, will form part of the agreement.

6.0 CARTEL FORMATION

In case any Bidder is found to be involved in cartel formation, his bid will not be considered for evaluation/ placement of order. Such bidder will also be debarred from bidding infuture.

7.0 FRAUDULENT PRACTICES

- 7.1 The OWNER requires that Bidders/ Vendors/ Contractors observe the highest standard of ethics during the award/ execution of Contract. "Fraudulent Practice" means a misrepresentation of facts in order to influence the award of a Contract to the detriment of the OWNER, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the OWNER of the benefits of free and open competition.
- 7.2 The OWNER will reject a bid for award if it determines that the bidder recommended for award has engaged in fraudulent practices in competing for the Contract in question.
- 7.3 Bidder is required to furnish the complete and correct information/ documents

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required for evaluation of their bids, if the information/ documents forming basis of evaluation is found to be false/ forged, the same shall be considered adequate ground for rejection of bids and forfeiture of Earnest Money Deposit.

- 7.4 In case, the information/ document furnished by the Bidder/vendor/Contractor forming basis of evaluation of his bid is found to be false/ forged after the award of the contract, OWNER shall have full right to terminate the contract and get the remaining job executed at the risk & cost of such Bidder/ Vendor/ Contractor without any prejudice to other rights available to OWNER under the contract such as forfeiture of CPBG/Security Deposit, withholding of payment etc.
- 7.5 In case, this issue of submission of false document comes to the notice after execution of work, OWNER shall have full right to forfeit any amount due to the Bidder/ Vendor/Contractor along with forfeiture of CPBG/Security Deposit furnished by the Bidder/Vendor/Contractor.
- 7.6 Further, such Bidder/Vendor/ Contractor shall be put on Blacklist/ Holiday/Negative List of OWNER debarring them from future business with OWNER for a time period, as per the prevailing policy of OWNER.

8.0 REQUIREMENT OF EMPLOYMENT VISA FOR FOREIGN NATIONALS

- 8.1 All foreign nationals coming to India for execution of Projects/Contracts will have to apply for Employment Visa only and that grant of Employment Visa would be subject to strict adherence of following norms:
- i) Employment Visa is granted only for the skilled and qualified professionals or to a person who is being engaged or appointed by a Company, Organization, Industry or Undertaking etc. in India on contractor employment basis at a senior level, skilled position such as technical expert, senior executive or in managerial position etc.
 - ii) Request for Employment Visa for jobs for which large number of qualified Indians are available, is not considered.
 - iii) Under no circumstances an Employment Visa is granted for routine, ordinary secretarial / clerical jobs.
- 8.2 Bidders are advised in their own interest to check latest Visa rules from Indian Embassy / High Commission in their country in case foreign nationals are required to be deputed to India during execution of the Contract.

9.0 RESTRICTION ON PROCUREMENT FROM BIDDERS FROM COUNTRY (IES) SHARING BORDER WITH INDIA

Bidder has to comply with the provisions regarding Procurement from a Country sharing Land Border with India, as per Annexure-II L of this ITB. Bidder to submit a certificate for compliance in the enclosed format of this Annexure IIL to ITB.

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10.0 PROCUREMENT METHODOLOGY FOR PRECIOUS METALS

Methodology of Procurement of Precious Metal by Licensor on behalf of Licensee (If applicable) shall be as per Annexure II M to ITB.

11.0 INTEGRITY PACT

Bidders are required to sign an Integrity Pact (IP) as per the proforma enclosed herewith as Annexure-IIN. Proforma of Integrity Pact shall be submitted by the Bidder along with the bid documents (Techno Commercial Bid), duly signed by the same signatory who is authorized to sign the bid documents. All the pages of the Integrity Pact shall be duly signed.

ANNEXURE – II A TO ITB
FORM-1

BID COMPLIANCE (Without Deviation)

(TO BE SUBMITTED ON THE LETTERHEAD OF BIDDER)

NAME OF WORK : _____

BIDDING DOCUMENT. : _____

We [Insert Name of Bidder] hereby agree to fully comply with, abide by and accept without variation, deviation or reservation all technical, commercial and other conditions of the Bidding Document and its Technical & Commercial Amendments, issued by EIL on behalf of Owner.

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

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

For and on behalf of
Authorised signatory holding POA

Signature:

Date:

Name:

Designation:

Company Seal

ANNEXURE – II A TO ITB
FORM-2

EXCEPTIONS AND DEVIATION STATEMENTS
(Technical & commercial to be submitted separately)

(TO BE SUBMITTED ON THE LETTERHEAD OF BIDDER)

NAME OF WORK : _____

BIDDING DOCUMENT. : _____

We confirm that our offer complies to the Bidding document Terms and Conditions modified to the extent of Technical and Commercial Amendments (if issued) with the following exceptions or deviations.

For no deviation, Bidder to mention “NIL” in this format.

SL. No.	BIDDING DOCUMENT REFERENCE		SUBJECT	DEVIATIONS
	PAGE NO.	CLAUSE NO.		

NOTE :

Bidder is required to comply with the requirements of the Bidding Document, and not to stipulate any exceptions or deviations. In case it is unavoidable, Bidder may stipulate exceptions to requirements of Bidding Document in the above format only.

All exceptions and deviations taken by Bidder to the stipulations of the Bidding Document shall be indicated at one location in a separate section titled “Exceptions and Deviations- Technical/ Commercial” in the techno-commercial unpriced part of the Bid as per the above format only and not in any part of your bid or in the Price Bid.

Any exceptions or deviations indicated elsewhere in the Bid and / or in any other format shall not be taken cognizance of and Bid of the Bidder shall be deemed considered without having any such deviations taken by the Bidder. Any exceptions/deviations brought out elsewhere in the bid shall not be construed as valid.

If the above table is left blank (unfilled), it will be construed that the bidder have not taken any deviation to this Bidding document.

For and on behalf of
Authorised signatory holding POA

Signature:
Date:

Name:
Designation:
Company Seal

ANNEXURE – II B TO ITB**SUBJECT: - COMMERCIAL QUESTIONNAIRE**

SL. NO.	EIL'S QUERIES	BIDDER'S REPLY/CONFIRMATION
1.0	(i) Confirm that the organizational set up/structure, incorporation details and their relation with the Parent Company, Subsidiary etc. as a bidding entity in the form of a Chart with documentary evidence submitted	
	(ii) Confirm that documents defining constitution or legal status, place of registration and principal place of business of the Company submitted	
2.0	Bid Validity: Confirm that your Bid is valid 12 Months from the final Bid Due Date.	
3.0	Please confirm that while submitting your 'Price', you have taken into consideration the following: -	
3.1	' Price ' has been submitted exactly as per the format included in the Bidding Document under section 'Schedule of Prices' (SOP).	
3.2	Blank copy of Schedule of Prices (SOP) duly signed (i.e. without prices) has been submitted in Unpriced part of Bid to confirm no deviation taken in the Price Bid.	
3.3	Please confirm that Quantity for each type of Catalysts, Chemicals, Adsorbents, Absorbents, Additive (as applicable) have been separately indicated in priced part only.	
3.4	a) Confirm that Quantity of Catalyst, Chemicals, Adsorbents, Absorbents, Additive (as applicable as per Technical Specifications) with Unit rate has been mentioned in the Price Part.	
	b) Confirm that contingencies towards losses & spillage of Catalyst, Chemicals, Adsorbents, Absorbents, Additives (as applicable as per Technical Specifications) have been considered in the quoted price.	
	c) Confirm that Quantity of Metals and names of Metals are excluded from Catalyst, Chemicals, Adsorbents, Absorbents, Additive (as applicable as per Technical Specifications) have been indicated in the Priced Part only.	

SL. NO.	EIL'S QUERIES	BIDDER'S REPLY/CONFIRMATION
3.5	Confirm that Mandatory Services as per SOP FORM-B2 has been quoted for the services indicated in the Technical part of the Bidding Document.	
3.6	Confirm that quoted prices for Mandatory Services as per SOP FORM-B2 in line with provision of Bidding Document.	
3.7	Confirm that break up of man days for Mandatory Services have been provided under SOP FORM-B2A included in Bidding Document.	
3.8	Confirm that the Per-diem rates for Additional services as per SOP FORM-B4 in line with provision of Bidding Document.	
3.9	Confirm that quoted lump sum prices of Training as per SOP FORM-B3 in line with provision of Bidding Document.	
3.10	Please confirm that “Escalation Rates” for Proprietary Items, Mandatory Services, Additional Services, Training and Catalysts/Chemicals/Adsorbents/Absorbents/ Additives have been quoted as per FORM-B7 in Price Part. Confirm that in case “Escalation Rates” are not specified as per FORM-B7, then the prices quoted as per FORM-B2 to FORM-B6 shall be considered valid and firm up to period defined in SOP and no escalation shall be payable.	
3.11	Confirm that prices (License Fee, BDEP Fee and Detail Engineering Fee) as quoted in FORM-B1 are FIRM till the execution of work and no escalation shall be payable.	
3.12	a. Bidder to categorically CONFIRM that the prices quoted are GROSS of Withholding Tax b. In case quoted prices are net of Withholding tax. Bidder has to indicate rate of Withholding tax as per DTAA Agreement.	
4.0	(a) Please confirm that you have complied with all the commercial terms and conditions of the Bidding Document and have not taken any exceptions and deviations in the Format included as ‘Annexure-II A (FORM-1) to ITB’. (b) In case you have taken exceptions/deviations w.r.t. stipulations of commercial terms and conditions of the Bidding Document, then please confirm the following:	
4.1	(i) Exceptions/Deviations have been submitted exactly in the Format included as ‘ Annexure-II A	

SL. NO.	EIL'S QUERIES	BIDDER'S REPLY/CONFIRMATION
	(FORM-2) to ITB'.	
	(ii) Confirm that Exceptions/Deviations mentioned in any other format or in scope of work or draft copy of Agreement etc. or in any other part of your Bid shall not be taken into consideration and shall be deemed considered unconditionally withdrawn in favour of the stipulations of the Bidding document.	
	(iii) Confirm that Exception/ Deviations for Commercial Part and Technical Part are submitted separately in the Format included as 'Annexure-II A (FORM-2) to ITB'.	
5.0	Confirm that the ' Net Present Value ' (NPV) shall be calculated on the basis of philosophy mentioned in the Bidding Document supplemented by other details as decided by Owner/EIL.	
6.0	Reply to Pre-Bid Queries as per Annexure-II E to ITB, duly signed, submitted	
7.0	Confirm Power of Attorney (POA) in favour of the person who has signed the Bid is submitted as per relevant ITB Clause	
8.0	Name & Designation of the Person in whose name Power of Attorney is given	
9.0	Name & Designation of the Person in whose name DSC has been taken and e-bid is submitted	
10.0	Confirm that details of past experience meeting the Technical Qualification Criteria as per relevant IFB Clauses along with documentary evidence as specified, are submitted	
11.0	Confirm that Complete Audited Financial Statements as per relevant IFB Clause and Annexure-II D to ITB including Profit and Loss A/C, auditor's report, all schedules/enclosures etc. for the preceding 3 financial years is submitted	
12.0	In case of consolidated Financial Statement of Parent Company submitted (No separate Financial Statement not prepared and audited), confirm that Certification in this regard from Statutory Auditor/Chartered Account as per the provision of IFB is submitted in the Format included in IFB	

SL. NO.	EIL'S QUERIES	BIDDER'S REPLY/CONFIRMATION
13.0	In case of BQC related and other documents are not in English, confirm that English translated copies of these documents duly certified as per the provisions of the relevant IFB clause are also submitted	
14.0	Confirm that all BQC documents submitted are Authenticated as per relevant IFB clause	
15.0	Bidder to confirm whether or not India has a Double Taxation Avoidance Agreement (DTAA) with the Licensor's country.	
16.0	Confirm that Form-10F, TRC and Permanent Establishment Certificate as per Annexure-II H to ITB submitted (if applicable)	
17.0	Confirm that Technical Details/documents specified under "Technical Information Required along with Bid" is submitted	
18.0	Confirm that Table of Contents (Master Index), duly signed and stamped, on each page submitted	
19.0	Confirm that all Technical and Commercial Amendments (if issued prior to Bid submission) are duly signed and submitted in e-procurement portal as a confirmation of your Bid considering these Amendments	
20.0	Please indicate the Delivery Schedule of Catalyst, Chemicals, Adsorbents, Absorbents, Additives (as applicable as per Technical Specifications)	_____ Months from the placement of order on FOB Port of Shipment Basis (For Foreign Bidder)/ FOT Dispatch Point Basis (For Indian Bidder)
21.0	Please indicate the Delivery Schedule of Proprietary Equipment/items	_____ Months from the placement of order on FOB Port of Shipment Basis (For Foreign Bidder)/ FOT Dispatch Point Basis (For Indian Bidder)
22.0	Bidder to confirm that they have quoted Ocean freight for supply of proprietary items/ equipment in Form-B5 of SOP, in their price bid	

SL. NO.	EIL'S QUERIES	BIDDER'S REPLY/CONFIRMATION
23.0	Bidder to confirm that they have quoted Ocean freight for supply of first charge of proprietary catalysts/ proprietary chemicals/ proprietary adsorbents/ proprietary absorbents/ proprietary additives/ proprietary solvents (as applicable) in Form-B6 of SOP, in their price bid	
24.0	Confirm that you have submitted Floor Rate for Molybdenum in Form B6 of PRICE BID	
25.1	Also confirm that support Letter from Supplier of Molybdenum is enclosed in your offer.	
25.0	Confirm that all the documents as per ITB Clause no. 2.5.2 a) and b) are submitted in e-procurement portal in the manner specified	
26.0	Confirm that the documents to be submitted in ORIGINAL as per clause no. 3.9 of ITB are submitted to the address as specified	
27.0	Confirm that all authenticated documents submitted for meeting the BQC are certified as per the authentication requirement defined in the Bidding Document.	
28.0	Bidder to note that the Insurance for Bidder's employees / personnel shall be in Bidder's scope and shall be deemed inclusive in their quoted price.	
29.0	Bidder to note that irrevocable Standby Letter of Credit (ISBLC) in place of Performance Bank Guarantee (PBG) is not permitted. Bidder to confirm they shall furnish Contract Performance Bank Guarantee (CPBG)/ Performance Bank Guarantee (PBG)/ Insurance Surety Bond, wherever applicable, as per format provided in Bidding document.	
30.0	GST rate as applicable on License Fee, BDEP Fee, Detail Engineering Fee, Mandatory Services, Personnel rate for Additional Services, Training etc. as per Technical Specifications	_____ %
31.0	Bidder to confirm about submission of Annexure-III of Social Media Policy along with the unpriced bid.	

SIGNATURE OF BIDDER: _____

NAME OF BIDDER: _____

SEAL: _____

SELF DECLARATION

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

SL. NO.	DESCRIPTION	BIDDER'S DECLARATION
1.	We confirm that we are not under Liquidation, Court Receivership or similar proceeding, otherwise, if involved please furnish information about the same.	
2.	(a) We confirm that we are not involved in any Litigation/Arbitration	(a)
	(b) (In case of Litigation/Arbitration) We confirm that the current Litigation/ Arbitration, in which bidder is involved will not have any impact in work being tendered or in entering into contract during the validity of offer and performing the contract till all the contractual obligations under contract are performed.	(b) [To be replied only in case bidder confirms there is any Litigation/Arbitration]
3.	We further confirm that the above declaration/confirmation are true and accurate in all respects, and not in conflict with the declaration mentioned in our any part of our bid / financial statement/any other document.	

SIGNATURE OF BIDDER : _____

NAME OF BIDDER : _____

COMPANY SEAL : _____

ANNEXURE – II D TO ITB**ANNUAL TURNOVER, NET WORTH DETAILS****A. ANNUAL TURNOVER**

Annual Turnover data for the last 3 Financial years ending 31st March/ 31st December

FINANCIAL YEAR (F.Y.)	ANNUAL TURNOVER (indicate currency) [As per Audited Financial Statement]	ANNUAL TURNOVER (In USD/EURO, for Foreign Bidder) [As on Date of Audited Financial Statement]	Bidder's Currency to USD/EURO conversion factor
F.Y. _____			
F.Y. _____			
F.Y. _____			

B. NET WORTH

Networth in the latest financial year [To be calculated as per the format included in the IFB]

FINANCIAL YEAR	NET WORTH (indicate currency) [As per Audited Financial Statement]	NET WORTH (POSITIVE or NEGATIVE)
F.Y. _____		

SIGNATURE & STAMP OF THE BIDDER : _____**NAME OF THE BIDDER : _____**

ANNEXURE – II E TO ITB**FOR BIDDER'S QUERIES FOR PRE BID CONFERENCE/ MEETING**

SL. NO.	REFERENCE OF BIDDING DOCUMENT				BIDDER'S QUERY	OWNER'S REPLY
	Section	Page No.	Clause No.	Subject		

NOTE:

1. The Pre-Bid Queries may be sent to e-mail addresses: l.thavurya@eil.co.in, sk.mandal@eil.co.in, jaydeep.jesur@eil.co.in
2. Bidder shall send editable word file of the queries in the above format only.

SIGNATURE OF BIDDER : _____

NAME OF BIDDER : _____

ANNEXURE-II F

PROFORMA FOR ACKNOWLEDGEMENT LETTER OF BIDDING DOCUMENT
(TO BE SUBMITTED IN BIDDER'S OWN LETTER HEAD)

Ref No. :

DATE:

To

ENGINEERS INDIA LIMITED
R&D COMPLEX, SECTOR-16 (On N.H.-8)
TOWER-1 (1st Floor),
GURGAON-122 001
HARYANA (INDIA)

Attn.: Mr. Lotavath Thavurya, GM (SCM)

SUBJECT : BIDDING DOCUMENT NO.:

Dear Sir,

We hereby acknowledge receipt of a complete set of e-Bidding Document along with all enclosures for the subject work as per the Master Index for preparation and submission of the Bid.

We undertake that the contents of the above e-Bidding Document shall be kept confidential and further that specifications and documents shall not be transferred and that the said documents are to be used only for the purpose for which they are intended.

A) We intend to electronic bid as requested for the subject works and furnish following details with respect to our quoting office:

(i)	POSTAL ADDRESS	:	_____

(ii)	TELEPHONE NUMBER	:	_____
	(with ISD & Area Code)		
(iii)	MOBILE NO.	:	_____
(iv)	TELEFAX NUMBER	:	_____
(v)	CONTACT PERSON	:	_____
(vi)	DESIGNATION	:	_____
(vii)	EMAIL ADDRESS	:	_____
(viii)	REGISTERED OFFICE	:	_____

B) Contact person at Delhi, if any:

- (i) POSTAL ADDRESS : _____

- (ii) TELEPHONE NUMBER
 (with ISD & Area Code) : _____
- (iii) MOBILE NO. : _____
- (iv) TELEFAX NUMBER : _____
- (v) CONTACT PERSON : _____
- (vi) DESIGNATION : _____
- (vi) EMAIL ADDRESS : _____

C) We are unable to submit e-bid for the reasons given below.

Reasons for non-submission of e-Bid:

BIDDER'S NAME :

SIGNATURE : _____
 NAME : _____
 DESIGNATION : _____
 DATE : _____

NOTE: Bidder is requested to furnish the details mentioned at (A) and (B) or (C) within 7 days from the date of uploading the Bidding Document in e-procurement Portal.

(SIGNATURE & SEAL OF BIDDER HOLDING POA)_____

ANNEXURE – II G TO ITB

PROFORMA OF BANK GUARANTEE/ ISB FOR EMD/BID SECURITY

Refer GCC for the same

E-TENDERING METHODOLOGY

Instructions for Online Bid Submission:

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

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

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

REGISTRATION

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

SEARCHING FOR TENDER DOCUMENTS

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

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

PREPARATION OF BIDS

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

SUBMISSION OF BIDS

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

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

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

RETENDER

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

WITHDRAWAL OF BID

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

ASSISTANCE TO BIDDERS

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

PROFORMA OF DECLARATION OF BLACK LISTING / HOLIDAY LISTING

In the case of a Proprietary Concern

I hereby declare that neither I in my personal name or in the name of my Proprietary concern M/s. _____ which is submitting the accompanying Bid/Tender nor any other concern in which I am proprietor nor any partnership firm in which I am involved as a Managing Partner have been placed on black list or holiday list declared by BPCL /EIL, MOP & NG, except as indicated below:

(Here give particulars of blacklisting or holiday listing, and in absence thereof state "NIL")

In the case of a Partnership Firm:

We hereby declare that neither we, M/s. _____, submitting the accompanying Bid/Tender nor any partner involved in the management of the said firm either in his individual capacity or as proprietor or managing partner of any firm or concern have or has been placed on blacklist or holiday list declared by BPCL /EIL, MOP & NG, except as indicated below :

(Here give particulars of blacklisting or holiday listing and in the absence thereof state "NIL")

In the case of Company:

We hereby declare that we have not been placed on any holiday list or black list declared by BPCL / EIL, MOP&NG, except as indicated below:

(Here give particulars of black listing or holiday listing and in the absence thereof state "NIL")

It is understood that if this declaration is found to be false in any particular, BPCL / EIL, MOP&NG, shall have the right to reject my/our bid, and if the bid has resulted in a contract, the contract is liable to be terminated.

(Note : We also confirm that any change in Bidder status with respect to holiday list or black list declared by BPCL / EIL, MOP & NG during any stage of Bidding shall be communicated to EIL/BPCL by us immediately).

SIGNATURE OF BIDDER : _____

NAME OF BIDDER : _____

**Annexure-II L TO ITB
(COMPLIANCE OF RESTRICTIONS FOR COUNTRIES
WHICH SHARE LAND BORDER WITH INDIA)**

**Tender Clause on Procurement from Bidders from Country(ies) sharing
land border with India**

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

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

- d) Where no natural person is identified under a) or b) or c) above, the beneficial Owner is the relevant natural person who holds the position of senior managing official;
 - e) **In case of a Trust**, the identification of beneficial Owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- vii). **"Agent"** is a person employed to do any act for another, or to represent another in dealings with third persons.
- [Note:
- i). A person who procures and supplies finished goods from an entity from a country which shares a land border with India will, regardless of the nature of his legal or commercial relationship with the producer of the goods, be deemed to be an Agent for the purpose of this Order.
 - ii). However, a Bidder who only procures raw material, components etc. from an entity from a country which shares a land border with India and then manufactures or converts them into other goods will not be treated as an Agent.]

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

- i). Certain sectors and technologies have been identified as sensitive from the national security point of view. **The sectors listed in Schedule I (copy attached) are considered Category-I sensitive sectors. The sectors listed in Schedule II (copy attached) are considered Category-II sensitive sectors. The technologies listed in Schedule III (copy attached) are considered sensitive technologies.**
- ii). **For Category-I sensitive sectors**, Bidders with ToT arrangement in any technology with an entity from a country which shares a land border with India shall require registration.
- iii). **For Category-II sensitive sectors**, Bidders with ToT arrangement in the sensitive technologies listed in **Schedule III**, with an entity from a country which shares a land border with India shall require registration.
- iv). **In Category-II sensitive sectors**, the Secretary (or an officer not below the rank of Joint Secretary to Government of India, so authorized by the Secretary) of the Ministry/ Department of the Government of India is empowered, after due consideration, to waive the requirement of registration for a particular item/ application or a class of items/ applications from the requirement of registration, even if included in Schedule-III. The Ministry/ Department concerned shall intimate the Department for Promotion of Industry and Internal Trade (DPIIT) and National Security Council Secretariat (NSCS) of their decision to waive the requirement of registration.

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

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

6.0 Sub-contracting in works contracts

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

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

7.0 Certificate regarding compliance

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

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

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

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

To,

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

Tender Name : _____

Tender No. : _____

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

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

Notes:

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

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

Place :

Signature (#):

Date :

Name :

Designation :

Seal :

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

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

To,

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

Tender Name : _____

Tender No. : _____

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

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

Notes:

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

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

Place :

Signature (#):

Date :

Name :

Designation :

Seal :

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

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

(On Company's Letter Head)

To,

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

Tender Name : _____

Tender No. : _____

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

i).	Bidder does not have any ToT arrangement requiring registration with the competent authority	[]
ii).	Bidder has valid registration to participate in this procurement	[]
Notes: a) Bidder to tick appropriate option (✓) in either i) or ii) above) b) In case of sl. no. ii) above, Bidder to attach evidence of valid registration by the Competent Authority.		

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

Place :

Signature (#):

Date :

Name :

Designation :

Seal :

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

No.F.7/10/2021-PPD (1)
Government of India
Ministry of Finance
Department of Expenditure
Procurement Policy Division

264-C, North Block, New Delhi.
23.02.2023.

Order (Public Procurement No. 4)

Subject: Restrictions under Rule 144(xi) of the General Financial Rules (GFRs), 2017.

Attention is invited to Order (Public Procurement No. 1) issued vide F.6/18/2019-PPD dated 23.07.2020, Order (Public Procurement No. 2) issued vide F.6/18/2019-PPD dated 23.07.2020, Order (Public Procurement No. 3) issued vide F.6/18/2019-PPD dated 24.07.2020, Office Memorandum (OM) No. F.18/37/2020-PPD dated 08.02.2021, OM No. F.12/1/2021-PPD(Pt.) dated 02.03.2021 and OM No. F.7/10/2021-PPD dated 08.06.2021. In this regard, the following is hereby ordered under Rule 144(xi) (as amended vide OM No. F.7/10/2021-PPD dated 23.02.2023) on the grounds stated therein, in supersession to all of the above mentioned Orders/ clarifications:

Requirement of registration:

2. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority, specified in **Annexure I**.
3. Any bidder (including an Indian bidder) who has a Specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority, specified in **Annexure I**.
4. The requirement of registration for cases covered by paragraph 2 above has been applicable since 23.07.2020. The requirement of registration for bidders covered by paragraph 3 above will be applicable for all procurements where tenders are issued/ published after 01.04.2023.
5. In tenders issued after 23.07.2020 or 01.04.2023, as the case may be, the provisions of requirement of registration of bidders and of other relevant provisions of this Order shall be incorporated in the tender conditions.

Applicability:

6. Apart from Ministries/ Departments, attached and subordinate bodies, notwithstanding anything contained in Rule 1 of the GFRs 2017, the Order shall also be applicable

- a) to all Autonomous Bodies;
- b) to all public sector banks and public sector financial institutions;
- c) to all Central Public Sector Enterprises;
- d) to all procurement in Public Private Partnership projects receiving financial support from the Government or public sector enterprises/ undertakings; and
- e) Union Territories, National Capital Territory of Delhi and all agencies/ undertakings thereof.

7. This order will not be applicable for cases falling under **Annexure II**.

Definitions:

8. "*Bidder*" for the purpose of the Order (including the term 'tenderer', 'consultant' 'vendor' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process.

9. "*Tender*" for the purpose of the Order will include other forms of procurement, except where the context requires otherwise.

10. "*Transfer of Technology*" means dissemination and transfer of all forms of commercially usable knowledge such as transfer of know-how, skills, technical expertise, designs, processes and procedures, trade secrets, which enables the acquirer of such technology to perform activities using the transferred technology independently. (Matters of interpretation of this term shall be referred to the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade, and the interpretation of the Committee shall be final.)

11. "*Specified Transfer of Technology*" means a transfer of technology in the sectors and/ or technologies, specified in paragraph 15, occurring on or after 23.07.2020.

12. "*Bidder (or entity) from a country which shares a land border with India*" for the purpose of the Order means

- (a) An entity incorporated, established or registered in such a country; or
- (b) A subsidiary of an entity incorporated, established or registered in such a country; or
- (c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
- (d) An entity whose beneficial owner is situated in such a country; or
- (e) An Indian (or other) agent of such an entity; or
- (f) A natural person who is a citizen of such a country; or

(g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

13. *Beneficial owner* for the purposes of Para 12 (d) will be as under:

(i) In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person(s), has a controlling ownership interest or who exercises control through other means.

Explanation:-

- a. "Controlling ownership interest" means ownership of, or entitlement to, more than twenty-five per cent of shares or capital or profits of the company;
 - b. "Control" shall include the right to appoint the majority of the directors or to control the management or policy decisions, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
- (ii) In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
- (iii) In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
- (iv) Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
- (v) In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

14. "*Agent*" for the purpose of the Order is a person employed to do any act for another, or to represent another in dealings with third persons.

[Note:

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

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

15. (i) Certain sectors and technologies have been identified as sensitive from the national security point of view. The sectors listed in Schedule I to this Order are considered Category-I sensitive sectors. The sectors listed in Schedule II to this Order are considered Category-II sensitive sectors. The technologies listed in Schedule III are considered sensitive technologies.

(ii) For Category-I sensitive sectors, bidders with ToT arrangement in any technology with an entity from a country which shares a land border with India shall require registration.

(iii) For Category-II sensitive sectors, bidders with ToT arrangement in the sensitive technologies listed in Schedule III, with an entity from a country which shares a land border with India shall require registration.

(iv) In Category-II sensitive sectors, the Secretary (or an officer not below the rank of Joint Secretary to Government of India, so authorized by the Secretary) of the Ministry/ Department of the Government of India is empowered, after due consideration, to waive the requirement of registration for a particular item/ application or a class of items/ applications from the requirement of registration, even if included in Schedule III. The Ministry/ Department concerned shall intimate the Department for Promotion of Industry and Internal Trade (DPIIT) and National Security Council Secretariat (NSCS) of their decision to waive the requirement of registration. Ministries/ Departments of the Government of India are not required to consult the DPIIT/ NSCS before deciding and are only required to intimate the decision to DPIIT/ NSCS. If any point is raised by DPIIT/ NSCS, it should be considered in future procurements; ongoing procurement for which the waiver was granted need not be interrupted or altered.

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

Sub-contracting in works contracts

17. In works contracts, including turnkey contracts, contractors shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority. The definition of "contractor from a country which shares a land border with India" shall be as in paragraph 12 above. This shall not apply to sub-contracts already awarded on or before 23.07.2020.

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

Certificate regarding compliance

18. An undertaking shall be taken from bidders in the tender documents (**Annexure III**) that the extant guidelines for participation in the tenders (which should include conditions for implementation of this Order) have been complied with. If such certificate given by a bidder whose bid is accepted is found to be false, this would be a ground for debarment and further legal action in accordance with law.

Validity of registration

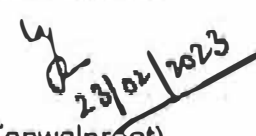
19. In respect of tenders, registration should be valid at the time of submission of bids and at the time of acceptance of bids. In respect of supply otherwise than by tender, registration should be valid at the time of placement of order. If the bidder was validly registered at the time of acceptance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

Government e-Marketplace (GeM)

20. GeM shall remove non-compliant entities from GeM unless/ until they are registered in accordance with this Order.

Model Clauses/ Certificates

21. Model Clauses and Model Certificates which may be inserted in tenders/ obtained from Bidders are given at Annexure-III. While adhering to the substance of the Order, procuring entities are free to appropriately modify the wording of these clauses based on their past experience, local needs etc.


(Kanwalpreet)
Director(PPD)

Tel.No. 2309 3811; email: kanwal.irss@gov.in

To

1. Secretaries of all Ministries/ Departments of Government of India for information and necessary action. They are also requested to inform these provisions to all procuring entities.
2. Secretary, Department of Public Enterprises with a request to immediately reiterate these orders in respect to public enterprises.
3. Secretary, Department of Financial Services with a request to immediately reiterate these orders in respect to public sector and public sector financial institutions.
4. Secretary DPIIT with a request to take action as provided under Annexure I.
5. Chief Secretaries/ Administrators of Union Territories/ National Capital Territory of Delhi.
6. CEO/ GeM with a request to ensure implementation of this order on GeM.

Schedule I

List of Category-I Sensitive sectors:

Sr.No.	Sector
(i)	Atomic Energy
(ii)	Broadcasting/ Print and Digital Media
(iii)	Defence
(iv)	Space
(v)	Telecommunications

List of Category-II Sensitive sectors:

Sr.No.	Sector
(i)	Power and Energy (including exploration/ generation/ transmission/ distribution/ pipeline)
(ii)	Banking and Finance including Insurance
(iii)	Civil Aviation
(iv)	Construction of ports and dams & river valley projects
(v)	Electronics and Microelectronics
(vi)	Meteorology and Ocean Observation
(vii)	Mining and extraction (including deep sea projects)
(viii)	Railways
(ix)	Pharmaceuticals & Medical Devices
(x)	Agriculture
(xi)	Health
(xii)	Urban Transportation

List of Sensitive Technologies:

Sr.No.	Sensitive Technologies
(i)	Additive Manufacturing (e.g. 3D Printing)
(ii)	Any equipment having electronic programmable components or autonomous systems (e.g. SCADA systems)
(iii)	Any technology used for uploading and streaming of data including broadcasting, satellite communication etc.
(iv)	Chemical Technologies
(v)	Biotechnologies including Genetic Engineering and Biological Technologies
(vi)	Information and Communication Technologies
(vii)	Software

Competent Authority and Procedure for Registration

- A. The Competent Authority for the purpose of registration under this order shall be/ continue to be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT)*. [This Committee was already constituted under Order (Public Procurement) No.1].
- B. The Registration Committee shall have the following members*:
- i. An officer, not below the rank of Joint Secretary, designated for this purpose by DPIIT, who shall be the Chairman;
 - ii. Officers (ordinarily not below the rank of Joint Secretary) representing the Ministry of Home Affairs, Ministry of External Affairs, and of those Departments whose sectors are covered by applications under consideration;
 - iii. Any other officer whose presence is deemed necessary by the Chairman of the Committee.
 - iv. With effect from 01.04.2023, an officer (ordinarily not below the rank of Joint Secretary) representing the National Security Council Secretariat.
- C. DPIIT shall lay down the method of application, format etc. for such bidders as covered by the Order.
- D. On receipt of an application seeking registration from a bidder covered by Para 2 and 3 of this order, the Competent Authority shall first seek political and security clearances from the Ministry of External Affairs and Ministry of Home Affairs, as per guidelines issued from time to time. Registration shall not be given unless political and security clearance have both been received.
- E. The Ministry of External Affairs and Ministry of Home Affairs may issue guidelines for internal use regarding the procedure for scrutiny of such applications by them.
- F. The decision of the Competent Authority, to register such bidder may be for all kinds of tenders or for a specified type(s) of goods or services, and may be for a specified or unspecified duration of time, as deemed fit. The decision of the Competent Authority shall be final.
- G. Registration granted by the Competent Authority of the Government of India shall be valid not only for procurement by the Central Government and its bodies specified in para 6 of this order, but also for procurement by State Governments and their agencies/ public enterprises etc. No fresh registration at the State level shall be required.
- H. The Competent Authority is empowered to cancel the registration already granted if it determines that there is sufficient cause. Such cancellation by itself, however, will

not affect the execution of contracts already awarded. Pending cancellation, it may also suspend the registration of a bidder, and the bidder shall not be eligible to bid in any further tenders during the period of suspension.

- I. For national security reasons, the Competent Authority shall not be required to give reasons for rejection/cancellation of registration of a bidder.

[*Note:

(i) In respect of application of the Order to procurement by/ under State Governments, all functions assigned to DPIIT shall be carried out by the State Government concerned through a specific department or authority designated by it. The composition of the Registration Committee shall be as decided by the State Government. However, the requirement of political and security clearance as per para D shall remain and no registration shall be granted without such clearance.

(ii) Registration granted by State Governments shall be valid only for procurement by the State Government and its agencies/ public enterprises etc. and shall not be valid for procurement in other states or by the Government of India and their agencies/ public enterprises etc.]

Special Cases

- A. In projects which receive international funding with the approval of the Department of Economic Affairs (DEA), Ministry of Finance, the procurement guidelines applicable to the project shall normally be followed, notwithstanding anything contained in this order and without reference to the Competent Authority. Exceptions to this shall be decided in consultation with DEA.
- B. This order shall not apply to procurement by Indian missions and by offices of government agencies/ undertakings located outside India.
- C. This order will not apply to bidders (or entities) from those countries (even if sharing a land border with India) to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects. Updated lists of countries to which lines of credit have been extended or in which development projects are undertaken are given on the website of the Ministry of External Affairs.
- D. Procurement of spare parts and other essential service support like Annual Maintenance Contract (AMC)/ Comprehensive Maintenance Contract (CMC), including consumables for closed systems, from Original Equipment Manufacturers (OEMs) or their authorized agents, shall be exempted from the requirement of registration.

ANNEXURE III

Model Clause/ Certificate/ Undertaking to be inserted in tenders etc.

[While adhering to the substance of the Order, procuring entities and GeM are free to appropriately modify the wording of the clause/ certificate based on their past experience, local needs etc.

The conditions relating to specified ToT (as shown in italics) should be incorporated only in the tenders which attract the restrictions due to specified ToT.]

A. Model Clauses for Tenders (including tenders issued manually or any electronic portal including GeM):

I. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority. *Further, any bidder (including bidder from India) having specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India, shall also require to be registered with the same competent authority.*

II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.

III. "Bidder (or entity) from a country which shares a land border with India" for the purpose of this Order means: -

- (a) An entity incorporated, established or registered in such a country; or
- (b) A subsidiary of an entity incorporated, established or registered in such a country; or
- (c) An entity substantially controlled through entities incorporated, established or registered in such a country; or
- (d) An entity whose beneficial owner is situated in such a country; or
- (e) An Indian (or other) agent of such an entity; or
- (f) A natural person who is a citizen of such a country; or
- (g) A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

IV. The beneficial owner for the purpose of (III) above will be as under:

1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation—

a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent. of shares or capital or profits of the company;

b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

VI. [To be inserted in tenders for Works contracts, including Turnkey contracts] The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

VII. The registration shall be valid at the time of submission of bid and at the time of acceptance of bid.

VIII. If the bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution

Model Certificate for Tenders:

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

Model Certificate for Tenders for Works Involving possibility of sub-contracting:

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority and will not sub-contract any

work to a contractor from such countries unless such contractor is registered with the Competent Authority. I hereby certify that this bidder fulfills all requirements in this regard and is eligible to be considered. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

Model additional certificate by Bidders in the cases of specified ToT:

"I have read the clause regarding restrictions on procurement from a bidder having Transfer of Technology (ToT) arrangement. I certify that this bidder does not have any ToT arrangement requiring registration with the competent authority."

OR

"I have read the clause regarding restrictions on procurement from a bidder having Transfer of Technology (ToT) arrangement. I certify that this bidder has valid registration to participate in this procurement."

B. Model Certificate for GeM (to be taken by the GeM from seller during registration on GeM. GeM should also obtain this certificate from all existing bidders as soon as possible):

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India; I certify that this vendor/ bidder is not from such a country and does not have any specified Transfer of Technology (ToT) from such a country or, if from such a country or if having specified ToT from such a country has been registered with the Competent Authority. I hereby certify that this vendor/ bidder fulfills all requirements in this regard and is eligible to be considered for procurement on GeM. [Where applicable, evidence of valid registration by the Competent Authority shall be attached.]"

ANNEXURE- II M TO ITB

Rev 1

Procurement of Precious Metal by Licensor on behalf of Licensee

Conditions with respect to the procurement of Catalyst containing Precious metal is to be quoted by bidder in the bid shall be as follows:

- a) Upon receipt of Purchase Order from the Licensee, Licensor on behalf of Licensee, shall purchase the Precious Metal required by Licensor to manufacture the Catalyst which contains Precious Metal.
- b) Licensee shall provide advance payment against submission of irrevocable Bank Guarantee (BG) of equivalent amount by the Licensor, towards procurement of Precious Metal for the quantity quoted by Licensor in the Bid for manufacturing the Catalyst. The BG shall be valid till the date of receipt of Catalyst by the Licensee.
- c) For the purpose of availing advance, Licensor shall submit a pro-forma invoice for purchasing of the Precious Metal, consisting of the following:
 - i) Price of Precious Metal established as per the Precious Metal (PM) Price declared by London Bullion Market Association (LBMA) on London Metal Exchange (LME) available on the day previous to the date of Proforma Invoice. Amount shall be arrived at as the product of Price as above and the quantity of Precious Metal quoted by the Licensor in their bid. In case, specific metal price is not available in LME website, the metal price in CRU RYAN Notes shall be considered.
 - ii) Additional 10% contingency on Amount as arrived at para i) above.
 - iii) The advance paid by the Licensee shall be the sum of amount arrived at [c (i) & (ii)] above. The advance shall be settled and reconciled based on the actual purchase price and quantity as mentioned in the bid. The detailed mechanism for arriving at the actual purchase price for procurement of Precious Metal shall be mutually discussed and agreed upon between Owner and the Licensor in a detailed Catalyst Supply Agreement, which shall be finalized post award with the successful Licensor.
 - iv) All Precious Metal transactions will be arranged through Licensee's Precious Metal stock account.
- d) The quantity of precious metal in Kg under Schedule of Prices (at least up to 4 decimal places), quoted / confirmed by the Licensor in the bid is firm and inclusive of any losses required by the Licensor during the manufacturing / conversion/ formulation / impregnation and handling of the Catalyst by the Licensor. Bidder shall mention below the losses in terms of percent of the total precious metal quantity (as indicated above) required by the Licensor during the manufacturing / formulation / impregnation and handling of the catalyst by the Licensor in their bid.

Losses in percentage (%) of the total Precious metal quantity %

- e) The Licensor shall specify the exact form/ grade of precious metal and the purity of the Precious metal required by them as below

Precious Metal
FORM/Grade
Purity

- f) The base cost of Catalyst shall include all charges but not limited to procurement charges, conversion charges, service charges, bank charges, for taking the delivery of Precious metal from their sub-vendor's place to the place required by the Licensor for manufacturing/ conversion/ formulation/ impregnation and handling of Catalyst.
- g) Post award, Licensee may, enter into a detailed Catalyst Supply Agreement on the above terms and conditions and further detailed terms and conditions shall be mutually discussed and agreed upon by and between the Licensee and the Licensor regarding the procurement and reconciliation of Precious metal.
- h) Precious Metals mean Palladium, Platinum, Silver and Gold.

[To be executed on plain paper and applicable for all tenders of value above Rs. 10 Crore]

INTEGRITY PACT

Between

Bharat Petroleum Corporation Limited (BPCL) hereinafter referred to as "The Principal",

And

.....hereinafter referred to as "The Bidder/ Contractor/ Supplier".

Preamble

The Principal intends to award, under laid down organization procedures, contract/s for The Principal values full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s, Contractor/s and Supplier/s.

In order to achieve these goals, the Principal cooperates with the renowned international Non-Governmental Organization "Transparency International" (TI). Following TI's national and international experience, the Principal will appoint Independent External Monitor who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 - Commitments of the Principal

- (1) The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - a) No employee of the Principal, personally or through family members, will in connection with the tender, or the execution of the contract, demand, take a promise for or accept, for himself/ herself or third person, any material or immaterial benefit which he/she is not legally entitled to.
 - b) The Principal will, during the tender process, treat all Bidders with equity and reason. The Principal will, in particular, before and during the tender process, provide to all Bidders the same information and will not provide to any Bidder confidential/ additional information through which the Bidder could obtain an advantage in relation to the tender process or the contract execution.

- c) The Principal will exclude from the process all known persons having conflict of interest.
- (2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal Code (IPC) 1860 (replaced by Bhartiya Nyaya Sanhita (BNS), 2023) and Prevention of Corruption Act 1988, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section 2 - Commitments of the Bidder/ Contractor/ Supplier

- (1) The Bidder/ Contractor/ Supplier commits itself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
 - a) The Bidder/ Contractor/ Supplier will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person, any material or immaterial benefit which he/she is not legally entitled to, in order to obtain in exchange, any advantage of any kind whatsoever during the tender process or during the execution of the contract.
 - b) The Bidder/ Contractor/ Supplier will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal, in violation of Competition Act 2022 (as amended from time to time). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
 - c) The Bidder/ Contractor/ Supplier will not commit any offence under the Indian Penal Code (IPC) 1860 (replaced by Bhartiya Nyaya Sanhita (BNS), 2023) and Prevention of Corruption Act 1988; further the Bidder/ Contractor/ Supplier will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d) The Bidder/ Contractor/ Supplier will, when presenting his bid, disclose any and all payments he has made, is committed to, or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

- e) The Bidder/ Contractor/ Supplier shall make sure that the terms of this Integrity Pact are also adopted by its sub-contractors, sub-sub-contractors etc, if any and submit such adoption confirmation proof to the Principal. The Bidder/ Contractor/ Supplier shall be solely responsible for the adherence to the provisions of IP by its sub-contractors, sub-sub-contractors etc.
 - f) The bidder / contractor of foreign origin shall disclose the name and address of agents and representatives in India related to this tender. Similarly, the bidder / contractor of Indian nationality shall furnish the name and address of their foreign principals or associates, if any, related to this tender. Further details, as mentioned in the “Guidelines on Indian Agents of Foreign Suppliers,” shall be disclosed by the Bidder(s)/Contractor(s) as per Annex.
- (2) The Bidder/ Contractor/ Supplier will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 - Disqualification from Tender Process and Exclusion from Future Contracts

If the Bidder, before contract award, has committed a transgression through a violation of Section 2 or in any other form such as to put his reliability or credibility as Bidder into question, the Principal is entitled to disqualify the Bidder from the tender process or to terminate the contract, if already signed, for such reason or take action as per laid down procedure to debar the Bidder(s)/Contractor(s) from participating in the future procurement processes.

- (1) If the Bidder/ Contractor/ Supplier has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal is also entitled to exclude the Bidder/ Contractor/ Supplier from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressors within the company hierarchy of the Bidder and the amount of the damage. The exclusion will be imposed for a minimum of 6 months and maximum of 3 years.
- (2) A transgression is considered to have occurred if the Principal after due consideration of the available evidences, concludes that no reasonable doubt is possible.
- (3) The Bidder accepts and undertakes to respect and uphold the Principal's absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken.

This undertaking is given freely and after obtaining independent legal advice.

- (4) If the Bidder/ Contractor/ Supplier can prove that he has restored/ recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal may revoke the exclusion prematurely.

Section 4 – Compensation for Damages

- (1) If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover from the Bidder liquidated damages equivalent to Earnest Money Deposit/Bid Security.
- (2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor/ Supplier liquidated damages equivalent to Security Deposit/ Performance Bank Guarantee.
- (3) The Bidder agrees and undertakes to pay the said amounts without protest or demur subject only to condition that if the Bidder/ Contractor/ Supplier can prove and establish that the exclusion of the Bidder from the tender process or the termination of the contract after the contract award has caused no damage or less damage than the amount of the liquidated damages, the Bidder/ Contractor/ Supplier shall compensate the Principal only to the extent of the damage in the amount proved.

Section 5 - Previous Transgression

- (1) The Bidder declares that no previous transgression occurred in the last 3 years from the date of bid submission with any other Company in any country conforming to the TI / Anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- (2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section 6 - Equal treatment of all Bidders/ Contractors/Suppliers/ Subcontractors

- (1) The Bidder/ Contractor/ Supplier undertakes to demand from all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the principal before contract signing. In case of a joint venture, all the partners of the joint venture should sign

the Integrity Pact. In case of sub-contracting, the principal contractor shall be solely responsible for the adherence to the provisions of IP by subcontractor.

- (2) The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors/ Suppliers.
- (3) The Principal will disqualify from the tender process all Bidders who do not sign this Pact or violate its provisions.

Section 7 - Punitive Action against Violating Bidders/ Contractors/ Suppliers/ Subcontractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor, Supplier or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor, Supplier or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

Section 8 - Independent External Monitors

- (1) The Principal has appointed competent and credible Independent External Monitors for this Pact after approval by the Central Vigilance Commission. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- (2) The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairperson of the Board of the Principal.
- (3) The Bidder/ Contractor/ Supplier accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Bidder/ Contractor/ Supplier. The Bidder/ Contractor/ Supplier will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to this project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder/ Contractor/ Supplier/ Subcontractor with confidentiality. The Monitor has also signed declarations on 'Non disclosure of Confidential Information' and 'Absence of Conflict of Interest'. In case of any conflict of interest arising later, the IEM shall inform the Management of the Principal and recuse themselves from that case.
- (4) The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the

contractual relations between the Principal and the Bidder/ Contractor/ Supplier. The parties offer to the Monitor the option to participate in such meetings.

- (5) As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or heal the violation, or to take other relevant action. The Monitor can in this regard submit non-binding recommendation. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action. However, the Independent External Monitor shall give an opportunity to the Bidder/ Contractor/ Supplier to present its case before making its recommendations to the Principal.
- (6) The Monitor will submit a written report to the Chairperson of the Board of the Principal within 8 to 10 weeks from the date of reference or intimation to him by the 'Principal' and, should the occasion arise, submit proposals for correcting problematic situations.
- (7) If the Monitor has reported to the Chairperson of the Board a substantiated suspicion of an offence under relevant Indian Penal Code (IPC) 1860 (replaced by Bhartiya Nyaya Sanhita (BNS), 2023) and Prevention of Corruption Act 1988, and the Chairperson has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- (8) The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor/ Supplier 12 months after the last payment under the respective contract, and for all other Bidders 6 months after the contract has been awarded. Any violation of the same would entail disqualifying the bidders and exclusion from future business dealings.

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

Section 10 - Other Provisions

- (1) This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. Mumbai. The Arbitration clause provided in the main

tender document/ contract shall not be applicable for any issue/ dispute arising under Integrity Pact.

- (2) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- (3) If the Bidder/ Contractor/ Supplier is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- (4) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- (5) If any Bidder/ Contractor/ Supplier entering into Integrity Pact, aggrieved by any decision / action of the Principal, shall approach the IEMs and await their decision before pursuing any other remedy available to him in law.
- (6) Issues like Warranty / Guarantee, etc., shall be outside the purview of IEMs.

sandeepkumar Digitally signed by
sandeepkumar
Date: 2025.09.15 14:51:14
+05'30'

Procurement Leader (AP Refinery)

For & On Behalf of the Principal
(Office Seal)

For & On Behalf of Bidder / Contractor / Supplier
(Office Seal)

Place.....

Date

Witness 1
(Name & Address)

Witness 1
(Name & Address)

Annex– Guidelines on Indian Agents of Foreign Suppliers

- 1.1 There shall be compulsory registration of agents for all Global Tender Enquiries (GTE) and Limited Tender Enquiries (LTE). An agent not registered with the Procuring Entity shall apply for registration with them.
- 1.2 Registered agents shall file an authenticated Photostat copy duly attested by a Notary Public / Original certificate of the Principal confirming the agency agreement and giving the status being enjoyed by the agent and the commission/remuneration/salary/ retainer ship being paid by the Principal to the agent before the placement of an order by the Procuring Entity.
- 1.3 Wherever the Indian representatives have communicated on behalf of their principals and the foreign parties, have stated that they are not paying any commission to the Indian agents, and the Indian representative is working based on salary or as a retainer, a written declaration to this effect should be submitted by the party (i.e., Principal) before finalising the Contract.
- 2.0 Disclosure of Particulars of Agents/ Representatives in India, if any.

2.1 Bidders of Foreign nationality shall furnish the following details in their offer:

- 2.1.1 The name and address of the agents/representatives in India, if any and the extent of authorisation and authority given to commit the Principals. If the agent/representative is a foreign Company, it shall be confirmed whether it is a real functioning Company, and details of the same shall be furnished.
- 2.1.2 The amount of commission/remuneration included in the quoted price(s) for such agents/representatives in India.
- 2.1.3 Confirmation of the Bidder that the commission/ remuneration, if any, payable to his agents/representatives in India, may be paid by the Procuring Entity in Indian Rupees only.

2.2 Bidders of Indian Nationality shall furnish the following details in their offers:

- 2.2.1 The name and address of the foreign principals indicating their nationality as well as their status, i.e., whether manufacturer or agents of manufacturer holding the Letter of Authority of the Principal specifically authorising the agent to make an offer in India in response to tender either directly or through the agents/representatives.
- 2.2.2 The amount of commission/remuneration included in the price (s) quoted by the Bidder for himself.

2.2.3 Confirmation of the foreign principals of the Bidder that the commission/remuneration, if any, reserved for the Bidder in the quoted price (s) may be paid by the Procuring Entity in India in equivalent Indian Rupees on satisfactory completion of the Project or supplies of Stores and Spares in case of operation items.

- 2.3 In either case, in the event of the contract materialising, the payment terms shall provide for payment of the commission /remuneration, if any, payable to the agents/representatives in India in Indian Rupees on expiry of 90 days after the discharge of the obligations under the contract.
- 2.4 Failure to furnish correct and detailed information as called for in paragraph - 2.0 above shall render the concerned bid liable to rejection or, in the event of a contract materialising, the same liable to termination by the Procuring Entity. Besides this, there would be a penalty of banning business dealings with the Procuring Entity or damage or payment of a named sum.

Sandeep Kumar K

Additional Information - Integrity Pact

1. Proforma of Integrity Pact (IP) shall be uploaded by the Bidder/s along with the un-priced bid documents duly signed (or digitally signed in case of e-tender) by the same signatory who is authorized to sign the bid documents. All the pages of the Integrity Pact shall be duly signed. Bidder's failure to upload the IP duly signed (Digitally) along with bid documents shall result in the bid not being considered for further evaluation.
2. If the Bidder has been disqualified from the tender process prior to the award of the contract in accordance with the provisions of the IP, BPCL shall be entitled to demand & recover from Bidder Liquidated Damages amount by forfeiting the EMD/Bid Security as per provisions of IP.
3. If the contract has been terminated according to the provisions of the IP, or if BPCL is entitled to terminate the contract according to the provisions of the IP, BPCL shall be entitled to demand & recover from Contractor Liquidated Damages amount by forfeiting the Security Deposit/Performance Bank Guarantee as per provisions of the IP.
4. Bidders may raise disputes/complaints, if any, with the nominated Independent External Monitors (IEM). The name, address & contact number of the IEMs are as given below:

Shri. Dr. Atanu Purkayastha	Shri. Pradeep Kumar	
<u>dratanu2011@gmail.com</u>	<u>pradeepawasthi1981@yahoo.com</u>	

However, clarifications with respect to the tender/RFQ shall be taken up only with the contact personnel as mentioned in the Tender/RFQ.

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DETAILS OF BANK FOR ELECTRONIC FUND TRANSFER

EMD can be also submitted through electronic fund transfer to the Account as detailed below:

FOR INDIAN RUPEES (INR):

BENEFICIARY	BHARAT PETROLEUM CORPORATION LIMITED
NAME OF THE BANK	ICICI BANK
Type of Account	Current Account
Virtual ID ACCOUNT NUMBER	BPCLSSC1138521PBR
IFS CODE	ICIC0000106
PAN of Owner:	AAACB2902M

FOR US DOLLARS (USD):**Beneficiary Details**

Beneficiary's Name	Bharat Petroleum Corporation Limited
Beneficiary's Bank Name	State Bank of India
Beneficiary's Branch Name	CAG Branch, Mumbai
Beneficiary's Account Number	36010165409
Beneficiary Bank's Swift Code	SBININBB162
Type of Account	EEFC Account
Branch Code	09995

Corresponding Bank Details

Name & Address	State Bank Of India, New York
Routing No	026009140
Swift Code	SBINUS33

FOR EURO:

ACCOUNT HOLDER'S INFORMATION	
Company/Customer Name	Bharat Petroleum Corporation Ltd
Address	Bharat Bhavan P.B. No. 688, 4&6 Currimbhoy Road, Ballard Estate, Mumbai -400001, Maharashtra
BANK INFORMATION	
Beneficiary Bank	State Bank of India
Beneficiary Bank Address	Corporate Accounts Group Branch, Ballard Estate, Mumbai
Swift Code	SBININBB162
Account No.	11083986979
IFSC code	SBIN0009995
Beneficiary Name	Bharat Petroleum Corporation Ltd
Beneficiary Bank Address	Corporate Accounts Group Branch, Ballard Estate, Mumbai
Proceeds to be remitted to (Correspondent bank/routing bank) Currency EUR	State Bank of India, Mainzer Landstrasse 61, D-60329 Frankfurt am Main, P.O.Box 111753, D-60052 Frankfurt Account Number 52607101120001 (SWIFT CODE SBINDEFF)



**SPECIAL CONDITIONS OF CONTRACT
(Rev. 2) FOR LICENSOR SELECTION
TENDERS OF GREENFIELD ANDHRA
PRADESH REFINERY AND PETCHEM
COMPLEX**



SPECIAL CONDITIONS OF CONTRACT

(Rev.2)

13th Nov,2025



**SPECIAL CONDITIONS OF CONTRACT
(Rev. 2) FOR LICENSOR SELECTION
TENDERS OF GREENFIELD ANDHRA
PRADESH REFINERY AND PETCHEM
COMPLEX**



SPECIAL CONDITIONS OF CONTRACT (SCC)

**[Note: This "Special Conditions of Contract" supersede relevant clauses of
the "General Conditions of Contract"]**

Abbreviations:

BEDP / BDEP	:	Basic Engineering and Design and Package
FOB	:	Free on Board
PBG	:	Performance Bank Guarantee
CPBG	:	Contract Performance Bank Guarantee
PGTR	:	Performance Guarantee Test Run
PRS	:	Price Reduction Schedule
PFD	:	Process Flow Diagram
P&ID	:	Piping and Instrumentation Diagram
ILC	:	Irrevocable Letter of Credit

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ARTICLE 1 – DEFINITION

- 1 The terms “Owner”, “Company”, or “Licensee”, as used in this Notice Inviting Tender (NIT), shall mean Bharat Petroleum Corporation Limited (BPCL), India, a Public Sector Undertaking under the administrative control of the Government of India, having its registered office at 4&6, Currimbhoy Road, Ballard Estate, Mumbai- 400001; or any Joint Venture (JV) entity, formed in the future, in which BPCL holds an equity interest and which is authorized to implement the scope of work under this project. The terms and conditions of this NIT shall apply without any change to such future JV involving BPCL, and the Bidder shall not deny applicability or enforceability of the terms and conditions of this NIT on the ground that such JV is formed at a date subsequent to issuance of this NIT.
- 1.1. "Process Technology" shall mean data, experience and know-how, patented and unpatented, related to the Plant, which Licensor owns, controls or has access to, on the date of submission of final BEDP.
- 1.2. "Licensed Territory" shall mean India.
- 1.3. "Owner's Plant" or "Plant" or "Unit" shall mean the first plant constructed by or for Owner in the Licensed Territory by means of the Process Technology which plant shall have a Rated Design Capacity.
- 1.4. "Mechanical Completion" shall mean the date when the plant is ready for pre-commissioning and activities like hydrostatic testing, wiring tests, calibration of instruments and electrical motor rotation tests have been executed.
- 1.5. "Start-up" shall mean the initial operation of the plant upon the introduction of feed stock charge into the plant after Mechanical completion.
- 1.6. "Owner's Contractor(s)" shall mean such engineering firm or firms, companies, individuals etc. selected by Owner for work on Owner's Plant or requested by Owner to bid on such work.
- 1.7. "Manday" shall mean any calendar day or part thereof, during which a Licensor representative shall be engaged in work performed for Owner including travelling time.
- 1.8. "Day", shall mean Calendar Day, unless otherwise defined elsewhere in the tender.
- 1.9. "Kick-off Meeting" shall mean the meeting between Licensor and Owner and with or without Owner's Consultant(s) as Owner may determine to establish and agree on basic design criteria to be used in the design of Owner's Plant in addition to or modification of the Design Basis set forth in Technical Specification hereof, and to establish the process boundaries of Owner's Plant for the purposes of Licensor's design.
- 1.10. The term "Basic Engineering Design Package" or BEDP or BDEP for the Plant shall mean such design and engineering as set forth in more detail in Technical Specification.
- 1.11. "Process" shall mean data; experience and know-how, patent related to the Plant, which Licensor owns, controls or has access to, on the date of submission of final BEDP.
- 1.12. "Technical Information" shall mean all operating techniques, apparatus data, technical data, information embodied in patents, pending patent applications, unpatented, improvements, developments and knowhow, to the extent the same is applicable to or relates to the subject technology, which is owned or controlled by the Licensor or its affiliates, without any restrictions on further disclosure at any time.
- 1.13. "LICENSOR" shall mean the supplier of License for the process unit with process Know-how, BEDP and other related services responding to this enquiry.
- 1.14. "PROJECT MANAGEMENT CONSULTANT" shall mean person or persons or consultant/s, appointed by OWNER for assistance during Project implementation,

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including Licensor selection and related activities of the process unit.

- 1.15. "COMMISSIONING" shall mean when the product of desired specification is obtained from unit and the same is declared jointly by Licensor, Owner and Project Management Consultant.
- 1.16. "RATED DESIGN CAPACITY" shall mean the capacity of the Unit desired by Owner as defined elsewhere in the Technical Specifications included in the bidding document, and to be achieved using the Process Technology / Process on a continuous basis based on 8000 Hours per year of operation.
- 1.17. "CATALYST" shall mean catalyst, chemicals, co-catalyst, additives, adsorbent, absorbents, donors as applicable.
- 1.18. "Patents" means the rights with respect to or transferable interests in patents and pending patent applications of all countries to the extent that they or the claims thereof cover the process, any equipment, apparatus, catalyst, absorbents, adsorbents, additives etc., for carrying out the process and the products of the process acquired by the Licensor including the inventions conceived by the licensor.
- 1.19. **Parent Company** / **"Holding company"**, in relation to one or more other companies, means a company of which such companies are subsidiary companies; [as per the Companies Act, 2013, India (For Indian Subsidiary of Foreign Bidder), or as per Act of the respective Country (For Foreign Subsidiary of Foreign Bidder)]
- 1.20. **"Subsidiary company"** or "subsidiary", in relation to any other company (that is to say the Holding company), means a company in which the Holding company.
 - a) controls the composition of the Board of Directors; or
 - b) exercises or controls more than one-half of the total share capital either at its own or together with one or more of its subsidiary companies:

Provided that such class or classes of Holding companies as may be prescribed shall not have layers of subsidiaries beyond such numbers as may be prescribed as per respective Company Act of Bidders country.
- 1.21. **"Affiliate"** means, in relation with any one of the parties, any company which, directly or indirectly, controls, or controlled by, or is under common control with such party. A company is controlled by the ownership of more than fifty percent (50%) of its voting rights.
- 1.22. **"Sister company"** is a company with close affiliations to an-other company with a separate name and personnel. Both companies are owned by the same parent and are considered subsidiaries of the larger company.

ARTICLE 2 - SCOPE OF WORK

The Licensor's scope of work is as set forth here below:

- 2.1 Granting the Owner a non-exclusive, irrevocable, non-transferable right to use the Technical Information and a non-exclusive, irrevocable License under Licensor's patent rights, for the operation of the Process & Process Technology in the owner's plant, for making or having made for its own use, in so carrying out the Process, any apparatus necessary therefore and for the use and sale of the products so produced from the Unit, in any country of the world. Notwithstanding what is stated above, Licensor has the right to revoke the License granted to Licensee only under this specific condition of License Fee being not fully paid by the Licensee as per provisions of Bidding Document.
- 2.2 Engineering comprising of preparation and handing over of a BEDP for the Unit and Detailed Engineering (as applicable) as per the agreed scope of work. Licensor shall also provide mandatory services and any other additional services such as training to Owners personnel, assistance during detailed engineering, construction, pre-commissioning, start-up and performance guarantee test runs under the terms and conditions / provisions of the agreement.

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- 2.3 Supply of Proprietary Catalysts, chemicals, adsorbents, absorbents & Additives (if applicable) comprising of supply of Catalysts for a minimum period as specified elsewhere in the bidding document.
- 2.4 Supply of Proprietary Equipment, as desired in detailed scope of work shall be as per the Technical Specifications enclosed in the Bidding Document.

Notes:

- a) The above agreements i.e. **License, Process Package, Engineering, proprietary Items, Catalyst Supply, Services etc.** either in a single agreement or any combination thereof shall be prepared strictly on the basis of terms and conditions mentioned in the Bidding Document, modified only to the extent as agreed by Owner before award of work. Any amendment shall form part of Bidding Document.
 - b) The Licensor shall provide and transfer the know-how and process package in accordance with the Time Schedule specified in Technical Specifications.
 - c) Post award, Owner may enter into a long-term catalyst Supply agreement based on terms & conditions to be mutually agreed, so as to take care of future operational needs of Owner. Owner may also procure subsequent batch of catalyst / chemical from other sources.
- 2.5 Guarantee and Liability agreement, as suitably incorporated in the above agreements. However, the detailed scope of work shall be as per the Technical Specifications enclosed in the Bidding Document.

Licensor confirms that no clauses having financial / legal implication will be incorporated in the agreement (License, Process Package, Engineering, Proprietary items, Catalyst supply, Services, etc.) which will be executed at a later date, after award of the job. Licensor confirms that if at all there are any financial implications, it will be borne by them.

ARTICLE 3 - CONTRACT PRICE

- 3.1. As full and complete consideration, payment and compensation to Licensor for performance of all Services and fulfillment of all Licensor's obligations under this Contract, Owner shall pay Licensor the Contract Price stated in Schedule of Prices. All costs and expenditures of whatever nature for which responsibility is not expressly assumed in this Contract by Licensor shall be deemed not to be covered by the Contract Price.

The total compensation provided herein, as it may be adjusted by Variation Order(s) issued pursuant to the provisions of Article 20 (Variations in the Services) is referred to herein as "Contract Price".

- 3.2. OWNER will be endeavoring to maximize the unit charge, once the operations stabilize, by improving the run length and/or by fully exploiting the available design allowances and flexibilities in feed qualities compared to design quality. This could naturally result in annual throughput exceeding the name plate capacity indicated in the Bidding Documents. OWNER will not be liable to pay any additional fee to Licensors, on account of processing additional feed as explained above. However, for enhancing capacity by modifying critical equipment shall be dealt mutually by Licensor and Licensee when such requirement arises.

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ARTICLE 4 – PAYMENT SCHEDULE

4.1 LICENSE FEE / BASIC ENGINEERING DESIGN PACKAGE FEE / DETAIL ENGINEERING FEE

Owner shall pay progressive payments against the lump sum price through wire transfer in accordance with following terms:

4.1.1 LICENSE FEE

Sl. No.	MILESTONE	WEIGHTAGE
i)	Upon submission of Heat & Material Balances and final Process Flow Diagram	5%
ii)	Upon submission of Final BEDP and its acceptance by Licensee (Acceptance shall be accorded when the work / services have been performed by the Licensor as per the scope and provisions of the Contract and Owner's comments have been incorporated by the Licensor).	5%
iii)	Upon final investment approval of project & Completion of milestone i & ii	40%
iv)	Upon Mechanical Completion of the unit or 57 Months from the date of Final BEDP Acceptance, whichever is earlier	15%
v)	Upon successful Commissioning of the unit or 60 Months from the date of Final BEDP Acceptance, whichever is earlier	20%
vi)	Upon successful completion of Performance Guarantee Test Run (PGTR) of the Plant and acceptance of PGTR report by OWNER or 66 Months from the date of Final BEDP Acceptance, whichever is earlier	15%

Note:

- The payment towards Sl. no. iii, iv, v, vi will be paid only after final investment approval of project and the completion of respective milestone.
- For the purpose of loading on differential payment terms, timelines of final investment approval of project as per milestone (iii) above, shall be considered as 12 months from date of final BEDP acceptance.

4.1.2 BASIC ENGINEERING DESIGN PACKAGE FEE

Sl. No.	MILESTONE	WEIGHTAGE
i)	Upon signing of Agreement, Successful completion of Kick-off Meeting and submission of Contract Performance Bank Guarantee (CPBG) [Refer Article-6 for details about CPBG]	10%
ii)	Upon submission and acceptance by Licensee of Heat & Material Balance and final Process Flow Diagram (PFD's), Utility summary.	15%
iii)	Upon submission and acceptance by Licensee of all Data Sheets of Critical equipment for long delivery (long lead) items to be identified during kick off meeting	15%
iv)	Upon submission and acceptance post review by Licensee of P&IDs (Acceptance shall be accorded when the work / services have been performed by the Licensor as per the scope and provisions of the Contract and Owner's comments have been incorporated by the Licensor)	20%

	SPECIAL CONDITIONS OF CONTRACT (Rev. 2) FOR LICENSOR SELECTION TENDERS OF GREENFIELD ANDHRA PRADESH REFINERY AND PETCHEM COMPLEX	
v)	Upon acceptance of Final BEDP by Licensee (Acceptance shall be accorded when the work / services have been performed by the Licensor as per the scope and provisions of the Contract and Owner's comments have been incorporated by the Licensor with revised edition).	15%
vi)	Upon acceptance of Operating manual by Owner	15%
vii)	Upon successful Commissioning of the unit or 60 Months from the date of Final BEDP Acceptance, whichever is earlier.	5%
viii)	Upon completion of successful Performance Guarantee Test Run (PGTR) of the Plant or 66 Months from the date of Final BEDP Acceptance, whichever is earlier.	5%

4.1.3 DETAILED ENGINEERING FEE

Sl. No.	MILESTONE	WEIGHTAGE
i)	Upon submission of complete Detailed Engineering Package and acceptance by Licensee, on milestone / pro-rata basis as will be decided in the Kick-off Meeting	50%
ii)	Upon acceptance of Detailed Engineering Package by Licensee (Acceptance shall be accorded when the work/ services have been performed by the Licensor as per the scope and provisions of the Contract and Owner's comments have been incorporated by the Licensor)	30%
iii)	Upon successful Commissioning of the unit or 60 Months from the date of Final BEDP Acceptance, whichever is earlier	10%
iv)	Upon completion of successful Performance Guarantee Test Run (PGTR) of the Plant or 66 Months from the date of Final BEDP Acceptance, whichever is earlier	10%

4.2 PAYMENT FOR TRAINING OWNERS' PERSONNEL

The payments for various trainings as per the scope defined in Technical Specifications shall be made through wire transfer as follows:

Theoretical Training at Licensor's Office/Facility:	100% of fee against completion of training
Practical Training at industrial plant Selected by licensor	100% of fee against completion of training
Classroom Training at Owner's Office/Plant	100% of fee against completion of training

4.3 MANDATORY AND ADDITIONAL SERVICES

Invoicing to be done after completion of respective services. Licensor shall submit only one invoice per month for all such services provided to the Licensee.

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4.4 PAYMENT FOR SUPPLY OF PROPRIETARY EQUIPMENTS, CATALYST / ABSORBENT / ADSORBENT / ADDITIVES (AS APPLICABLE) AND OTHER MATERIALS [COLLECTIVELY HEREIN REFERRED AS "GOODS" FOR BREVITY]

4.4.1 CATALYST / ABSORBENT / ADSORBENT / ADDITIVES (AS APPLICABLE) AND OTHER MATERIALS

For Foreign Supplies:

100% of the FOB value of "GOODS" along with full Ocean freight up to Chennai, (India) shall be paid on presentation of shipping documents through irrevocable letter of credit (ILC).

The shipping documents shall comprise of Invoice, clean Bill of Lading (BL), packing list and other usual shipping / related documents.

The ILC shall be opened by the OWNER within one month after receipt of following from the Licensor.

- i) Unconditional acceptance of Purchase Order for supply of said "GOODS" and
- ii) Original Performance Bank Guarantee (PBG) for 10% [5% towards Performance and 5% towards Price Reduction Schedule due to delay in delivery of "GOODS"] of the FOB value of "GOODS" in the format provided by the OWNER. The PBG shall be submitted by the Licensor within 30 days from the date of issue of Purchase Order by the OWNER. Refer Article-6 for further details about PBG.

The ILC opened by the OWNER shall be unconfirmed. In case the Licensor insists for confirmed LC, the LC confirmation charges shall be borne by the Licensor.

OWNER shall award separate Purchase Order(s) for supply of the "GOODS" considering the delivery timelines, project schedule etc. at a later stage.

BPCL reserves the right of issuing purchase order for Catalyst / absorbent / adsorbent / additives (as applicable) on either FOB or CFR basis.

For Indian Supplies:

100% of the value of "GOODS" along with full taxes, duties and freight charges up to the OWNER'S Project site shall be made against dispatch documents and after submission of PBG for 5% of the value of "GOODS".

The dispatch documents shall comprise of Invoice, Lorry Receipt, E-Way bill (as applicable), packing list and other usual dispatch / related documents. The PBG shall be provided in the format provided by the OWNER. Refer Article-6 for further details about PBG.

4.4.2 PAYMENT FOR PROPRIETARY EQUIPMENT

For Foreign Supplies:

Sl. No.	MILESTONE	WEIGHTAGE
i)	Against placement of sub-orders for major raw materials (to be defined for each piece of equipment) and against submission of Bank Guarantee of equivalent amount, valid up to FOB delivery period plus 6 (Six) months claim period, through Wire Transfer.	10%
ii)	Against receipt of major raw materials at Manufacturer's works place (to be defined for each piece of equipment) and against submission of Bank Guarantee of equivalent amount, valid up to FOB delivery period plus 6 (Six) months claim period, through Wire Transfer.	15%

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iii)	On dispatch of Proprietary Equipment on FOB International Sea Port of Exit basis / FCA International Airport of Exit basis, and upon submission of shipping documents through Irrevocable unconfirmed Letter of Credit.	65%
iv)	Upon completion of PGTR or 66 months from acceptance of Final BEDP whichever is earlier.	10%

The shipping documents shall comprise of Invoice, clean Bill of Lading (BL), packing list and other usual shipping/related documents.

The ILC shall be opened by the OWNER within one month after receipt of following from the Licensor.

- i) Unconditional acceptance of Purchase Order for supply of said "GOODS" and
- ii) Original Performance Bank Guarantee (PBG) for 10% [5% towards Performance and 5% towards Price Reduction Schedule due to delay in delivery of "GOODS"] of the FOB value of "GOODS" in the format provided by the OWNER. The PBG shall be submitted by the Licensor within 30 days from the date of issue of Purchase Order by the OWNER. Refer Article-6 for further details about PBG.

The ILC opened by the OWNER shall be unconfirmed. In case the Licensor insists for confirmed LC, the LC confirmation charges shall be borne by the Licensor.

OWNER shall award separate Purchase Order(s) for supply of the "GOODS" considering the delivery timelines, project schedule etc. at a later stage.

BPCL reserves the right of issuing purchase order for Proprietary equipment on either FOB or CFR basis.

For Indian Supplies:

Sl. No.	MILESTONE	WEIGHTAGE
i)	Against placement of sub-orders for major raw materials (to be defined for each piece of equipment) and against submission of Bank Guarantee of equivalent amount, valid up to delivery period plus 6 (Six) months claim period, through Wire Transfer.	10%
ii)	Against receipt of major raw materials at Manufacturer's works place (to be defined for each piece of equipment) and against submission of Bank Guarantee of equivalent amount, valid up to delivery period plus 6 (Six) months claim period, through Wire Transfer.	15%
iii)	On dispatch of Proprietary Equipment on FOT Dispatch point basis with taxes and duties. Payment shall be made against dispatch documents and after submission of PBG for 5% of the value of "GOODS".	65%
iv)	Upon completion of PGTR or 66 months from acceptance of Final BEDP whichever is earlier.	10%

The dispatch documents shall comprise of Invoice, Lorry Receipt, E-Way bill (as applicable), packing list and other usual dispatch / related documents. The PBG shall be provided in the format provided by the OWNER. Refer Article-6 for further details about PBG.

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4.5 TIME OF PAYMENT

- 4.5.1 Within thirty (30) days after receipt of each correctly prepared invoice submitted by Licensor pursuant to this Contract and certified by Engineer In Charge, Owner will pay Licensor the invoiced amount properly due and payable through wire transfer / ILC. Payment of each invoiced amount shall constitute full and complete consideration for performance of that part of the Services covered by the invoice.
- 4.5.2 Owner shall endeavor to make undisputed payment (as indicated in above clause) in 30 days but not later than 60 days. In the event that OWNER fails to make any undisputed payment beyond a period of sixty (60) days, LICENSOR may give written notice to OWNER of such default and should OWNER fail to correct within an additional thirty (30) days after receipt of notice for such default. LICENSOR may thereafter suspend Services.

However, in case of disputed payments, the dispute, if any, shall be raised by Owner, within 30 days of receipt of Invoice and the payment shall be released within 30 days after settlement of dispute. Digitally signed invoices are acceptable

ARTICLE 5 – PERFORMANCE OF SERVICES

- 5.1 The Licensor shall exercise all reasonable skill, care and diligence in the performance of the Services and such performance shall be in accordance in all respects with the terms and conditions of the Contract, with sound engineering principles and practices and to a standard compatible with the internationally recognized engineering standard. If there is deficiency in Licensor Services, Licensor will re-perform the deficient work, provided Owner identifies the specific problem within two months of Performance Guarantee Run or 68 months from the date of acceptance of Final BEDP, whichever is earlier. Warranty of merchantability is excluded. Warranty of fitness for purpose shall be limited to the technical obligations stipulated in the bidding document.
- 5.2 Except as may be expressly provided elsewhere in the Contract the acceptance or approval by Owner of any recommendation made by the Licensor shall not in any way relieve the Licensor of his full responsibility for the adequacy thereof.
- 5.3 The Licensor shall provide all necessary personnel, equipment if applicable, and facilities for the satisfactory performance of the Services.

ARTICLE 6 – BANK GUARANTEE

- 6.1 Within Thirty (30) days of the date of the Contract coming into force, Licensor shall obtain and provide an irrevocable Contract Performance Bank Guarantee (CPBG) for an amount equivalent to 5% of License Fee plus 5% of the BEDP Fee plus 5% of Detailed Engineering Fee. The CPBG shall remain valid throughout performance of the Services and until fulfilment of Licensor's obligation set forth in this Contract i.e. up to successful completion of the Performance Guarantee Test Run of the Plant or 68 months from the date of Final BEDP acceptance, whichever is earlier. Any payment to the Licensor (either for License Fee or BEDP Fee or Detailed Engineering fees) shall be made only after submission of Contract Performance Bank Guarantee.
- 6.2 For Proprietary Equipments and any Other Materials [**except** Catalyst / Absorbent / Adsorbent / Additives (as Applicable)]: The Performance Bank Guarantee shall be valid for 18 months from commissioning of unit or 24 months from the dispatch of the Proprietary Equipments and any Other Materials, whichever is earlier.
- 6.3 For Catalyst / Absorbent / Adsorbent / Additives: The Performance Bank Guarantee shall be valid for a period of total guaranteed life plus 6 months from the date of dispatch of the "Catalyst / Absorbent / Adsorbent / Additives" or 24 months from the date of Commissioning of the Unit, whichever is later.
- 6.4 Licensor shall effect such bond through a Nationalized / Scheduled Indian Bank or an Indian Branch

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of Foreign Bank on a stamp paper of appropriate value and in a format given by the Owner. List of Banks acceptable for BG submission is attached as **Annexure-II to SCC**.

- 6.5 Upon written request of Owner, Licensor shall promptly effect such changes in the amount of, or the validity period of, the bank guarantee as may be required due to changes covered by Variation Orders or amendments.
- 6.6 Licensor may note that Owner may be required to obtain certain Government of India approvals before releasing any payment to Licensor. In such a case, payment will not be released before the approvals are in place.
- 6.7 All Bank Guarantees submitted by Licensors shall have additional 6 (Six) month claim period beyond validity.

ARTICLE 7 – GUARANTEES

- 7.1 Licensor to guarantee the work as specified and described in the contract. The technical documents to be developed shall be in accordance with sound and established engineering practices, using the latest International Standards and Indian Codes and Regulations, wherever applicable, for the purpose specified, free from defects and suitable for respective uses intended.

LICENSOR shall be required to fulfill the following guarantees

- a) Process Performance Guarantee, Minimum Performance Guarantee shall be as detailed in the Technical Specifications enclosed in the Bidding Document.
- b) In case of Proprietary Items / Equipments supplied by Licensor as agreed contractually, the guarantees shall be as detailed in Technical Specifications enclosed in the Bidding Document.
- c) In case of Catalyst, Chemicals, Absorbents, Adsorbents, Additives (as applicable) supplied by Licensor as agreed contractually, the guarantees shall be as detailed in Technical Specifications enclosed in the Bidding Document.

ARTICLE 8 – RESPONSIBILITIES & LIABILITIES

- 8.1 Licensor shall, at all times, during a period of 20 years from the date of signing of License Agreement or date of expiry of the patent owned by Licensor, whichever is later, indemnify and hold harmless Owner from all liabilities, costs, damages and expenses arising out of any claims, actions or suits brought against Owner by third parties, or any related claims thereof, in respect of any actual or alleged infringement of any Patent Rights or registered design or any similar rights resulting from the use of the subject Technology or Technical Information or any improvements thereof provided by Licensor to Owner. Upon Owner's prompt notification to Licensor in writing of any such claims actions or suits upon such notice, or upon Licensor otherwise coming to know of such claims, actions or suits, Licensor shall, at its own expense, conduct, defend or dispose of, including settling of such claims, actions or suits on its own behalf and on behalf of Owner and Owner's Associate Company and are obliged to follow all instructions from Owner in this respect.

The Licensor shall ensure that the Technology, designs and engineering provided by them is free from any dispute, Patent Infringement etc.

Further, Licensor:

- a) Will undertake at its own expense the defense of any suit filed for infringement of Intellectual Property rights including attorney fees, court fees, incidental expenses etc. without any limit.
- b) May at its option recommend changes to the unit against which a suit has been brought to permit the unit to avoid such infringement claim and bear the cost of plant rectification / modification.

AND/OR

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Obtain a right from the third party in question for Licensee to operate the unit free from such infringement claim.

AND/OR

Hold Licensee free and harmless from any damages or other sums that may be assessed in or become under any decree or judgment by any court, which results from such suit.

Licensor's liability under (b) shall be limited to the sum of 100% of the license fees, 100% of the BEDP fees, and 100% of the Detailed Engineering fees (if applicable).

8.2 **Price Reduction Schedule (PRS) / Liquidated Damages (LD)**

A) Delay in completion of BEDP:

In case the Licensor fails to complete the whole work within the stipulated period, he shall be liable to pay liquidated damages of 0.5% of the basic value of the "License Fee plus BEDP Fee" per week and or part thereof of the delay subject to a maximum of 5% of the value of the "License Fee plus BEDP Fee".

For purpose of Liquidated Damages on delay in completion of BEDP, the date of submission of BEDP (soft copies including native files) by the Bidder shall be considered. Zero date shall be reckoned from the date of finalization of design basis.

B) Delay in completion of Detailed Engineering Package:

In case the Licensor fails to complete the whole work within the stipulated period, he shall be liable to pay liquidated damages of 0.5% of the basic value of the Detailed Engineering Fee per week and or part thereof of the delay subject to a maximum of 5% of the value of the Detailed Engineering Fee.

For purpose of Liquidated Damages on delay in completion of Detailed Engineering Package, the date of acceptance of final Detailed Engineering Package by the Owner shall be considered (Acceptance shall be accorded when the work/ services have been performed by the Licensor as per the scope and provisions of the Contract and Owner's comments have been incorporated by the Licensor). Zero date shall be reckoned from the date of finalization of design basis.

C) Delay in delivery of Proprietary Equipments / "Catalyst" [Catalyst, Chemicals, Absorbents, Adsorbents, Additives (as applicable) / Any other material [Collectively herein referred as "GOODS" for brevity]

Any delay in delivery due to reasons solely attributable to Owner shall not be a reason for applicability of PRS.

In case of delay in delivery of "GOODS", Owner shall accept delayed delivery at prices reduced by a sum equivalent to half percent (0.5%) of the total basic order value of such "GOODS" for every week of delay or part thereof, limited to a maximum of 5% of the total basic order value.

For Foreign supplies: The date of clean bill of lading or House Airway bill shall be considered as the date of delivery.

For India supplies: The date of Lorry Receipt (LR) shall be considered as the date of delivery.

The Licensor shall be required to raise their invoices for reduced amount in case of delay. In case the licensor does not submitted invoices of reduced amount, the Payment to the licensor shall be released after deducting the amount of Price Reduction Schedule.

Order for supply of Catalyst, Chemicals, Absorbents, Adsorbents, Additives (as applicable) may be placed with a condition that dispatches shall be made after placement of separate "CALL-ON ORDERS". The "CALL-ON ORDERS" shall be given by the Licensee based on actual quantity requirement of Catalyst, Chemicals, Absorbents, Adsorbents, Additives (as applicable). In case of such conditional order, "CALL-ON ORDERS" value shall be considered for applying the PRS for delay in delayed delivery of Catalyst / Chemicals / Absorbents / Adsorbents / Additives (as applicable).

Note: PRS for delay and Termination for delay shall not run concurrently, unless it becomes

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obvious already earlier that the PRS period will certainly be exhausted.

8.3 RECTIFICATION COSTS

In the event of faulty design / engineering, i.e. error or omission in the job performed by Licensor (Licensor Services), the Licensor shall furnish corrective technical studies and engineering as may be required without any additional cost to Owner within a mutually agreed time frame, which shall be arrived at within 15 days from the date of request from Owner. However, Licensor shall rectify the defects in services, provided owner identifies the specific problem with the work up to two months beyond PGTR or 68 months from the date of Final BEDP Acceptance, whichever occurs earlier.

The liabilities towards above provision shall be unlimited, without qualifications and not subject to any restrictions.

8.4 REIMBURSEMENT OF COST

Licensor shall reimburse Owner the total costs of making modifications, additions, alterations or replacements to correct Owner's Plant due to faulty design, information and services furnished and rendered by Licensor (Licensor Services). Licensor's responsibility and liability in this respect is described in detail in Technical Specifications. Licensor's liability under this Article shall be limited to sum of 50% of the License Fee plus 50% of BEDP Fee plus 50% of Detailed Engineering Fee and shall be included in the limit of Overall Aggregate Liabilities.

8.5 LIABILITIES FOR NOT MEETING THE GUARANTEES

- The provisions of Process Performance Guarantee, Minimum Performance Guarantee and the associated liabilities thereof shall be as described in the Technical Specifications enclosed in the Bidding Document.
- In case of Proprietary Items / Equipments supplied by Licensor as agreed contractually, the liabilities shall be as detailed in Technical Specifications.
- In case of Catalyst, Chemicals, Absorbents, Adsorbents, Additives (as applicable) supplied by Licensor as agreed contractually, the liabilities shall be as detailed in Technical Specifications.

8.6 Licensor shall not be responsible for defects arising from corrosion or erosion, defective material or equipment not supplied by Licensor, deficient engineering and design work furnished by others, improper operation and maintenance by Owner whether arising in contract, tort (including negligence) or otherwise.

8.7 Either Party shall not be liable for any loss of profit, loss of anticipated profit, loss of use, loss of production, business interruption or any other indirect or consequential damages that may be caused or suffered by the other Party, unless otherwise agreed by both Parties in writing.

8.8 OVERALL AGGREGATE LIABILITIES

Licensor's Overall Aggregate liability on all accounts under the contract shall be limited to sum of 100% of the License Fee, 100% of BEDP Fee and 100% of Detailed Engineering Fee except that this clause shall not limit the liability of the following:

- Rectification of defects in Licensor's services as per Article 8.3 above,
- In the defence of any event of any claim or loss or damage arising out of infringement of Intellectual Property (refer note 1 and note 2),
- Proprietary Items, Catalyst, Co- catalyst, Donor, Chemicals, Absorbents, Adsorbents, Additives (as applicable) as per Article 8.5 (b) & (c) above and PRS as per Article 8.2 (C) for delay in supply of Proprietary Items, Catalyst, Co-catalyst, Donor, Chemicals, Absorbents, Adsorbents, Additives (as applicable),

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- d) Deploying Licensor's Personnel for carrying out subsequent Performance Guarantee Test Runs (PGTR), if the PGTR had failed in the earlier attempt(s) due to reasons attributable to the Licensor. For details refer Technical Specifications,
- e) In the event of breach of any Applicable Law,
- f) In the event of fraud, willful misconduct or illegal or unlawful acts, or gross negligence of the Contractor or any person acting on behalf of the Contractor,
- g) In the event of acts or omissions of the Contractor which are contrary to the most elementary rules of diligence which a conscientious Contractor would have followed in similar circumstances.

Neither party shall be liable to the other Party for any kind of indirect or consequential loss or damage like, loss of use, loss of profit, loss of production or business interruption which is connected with any claim arising under the Contract.

Note 1: The overall aggregate liability of the Licensor is capped at sum of 100% of the license fees, 100% of the BEDP fees, and 100% of the Detailed Engineering fees, as outlined in the aforementioned provisions. This limitation also apply to liabilities arising from patent infringement. In the event of patent infringement, the cap on the Overall Aggregate Liability is adjusted to encompass sum of 100% of the license fees, 100% of the BEDP fees, and 100% of the Detailed Engineering fees except defence cost of patent infringement.

Note 2: A declaration shall be submitted by bidder that "Licensors' patent is valid, subsisting and that they have the right to use it in BPCL and that there is no infringement regarding the said patent. Licensor further declares that as on date there is no dispute on-going regarding or in relation to the patented technology being licensed to BPCL. Licensor further declares that it shall ensure that the above declaration shall remain subsisting throughout the contract period".

- 8.9 All liability of Licensor and its Affiliates as to certain or all Performance Guarantees shall terminate upon occurrence of any of the events set forth below:
- a) Such Performance Guarantees as have been satisfied as determined by the results of a successful Performance Test Run as herein provided; or
 - b) Owner's notification to Licensor in writing of its decision not to conduct a Performance Test Run; or
 - c) Licensor has paid Owner for remedial measures as set out in the contract.
 - d) 84 months beyond submission of Final BEDP and its acceptance by Owner. This period shall exclude delays attributable to Licensor. In case PGTR is not completed within the period of 66 months from acceptance of Final BEDP, Bidder will extend the validity of CPBG till 84 months beyond submission of Final BEDP and its acceptance by the Owner.

Note: "Overall Aggregate Liability" appearing in clause 8.8 and "Maximum cumulative Liability", if appearing in clause 4.7 and 4.10 of ITB has the same meaning or the expression thereof.

ARTICLE 9 - DISPUTE RESOLUTION

9.1 GENERAL

Any dispute or difference of any kind whatsoever between Owner and Licensor arising under, out of or in connection with this Agreement shall be settled in accordance with the provisions of this ARTICLE.

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9.2 NOTICE

Each party shall notify the other in writing when it considers a dispute or difference has arisen and which it wishes to refer to the other Party for amicable settlement pursuant to Article 9.3, and to arbitration pursuant to Article 9.4 in the event that amicable settlement is not reached. Such notice shall contain sufficient information as to the dispute or difference to enable the other Party to be fully informed as to the nature of the dispute, the amount of any monetary claim and the length of any extension of time claimed.

9.3 AMICABLE SETTLEMENT

Where notice of dispute or difference has been given under Article 9.2, the Parties shall attempt to settle such dispute amicably before commencement of arbitration provided that, unless the Parties agree otherwise, such dispute may be referred to Arbitration, subject to and in accordance with Article 9.4 on or after the sixtieth day after the day on which notice of dispute or difference was given, attempt for amicable settlement has been made.

9.4 MEDIATION

i) In the event of a dispute arising out of or in connection with this contract, including any question regarding its existence, validity or termination, the parties shall first seek settlement of that dispute by mediation in accordance with BPCL Mediation Scheme, 2025. The venue of mediation proceedings shall be at **Mumbai, India**.

BPCL Mediation Scheme 2025 can be accessed at

<https://www.bharatpetroleum.in/images/files/bpcl-mediation-scheme-2025.pdf>

ii) If the dispute is not settled by mediation in terms of BPCL Mediation Scheme, 2025, then the dispute shall be referred for adjudication through a court of competent jurisdiction in India.

iii) The governing law of the contract shall be the substantive laws of India.

iv) Neither party shall be entitled for any pre-filing interest, i.e., from the date of cause of action till the date of filing of civil suit. Parties agree that any claim for any such interest shall not be considered and shall be void. The Civil Court/Commercial Court shall have no right to grant any pre-filing interest to either of the parties.

v) In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/Port Trusts inter se and also between CPSEs and Government Departments/Organisations (excluding disputes relating to Income Tax, Customs & Excise Departments*), such dispute or difference shall be taken up by either party for its resolution through AMRCD as mentioned in DPE OM no. 05/0003/2019-FTS-10937 dated 14th December, 2022 and the decision of AMRCD on the said dispute will be binding on both the parties.

(* The exclusion would also include disputes concerning GST, State level Sales Tax / VAT etc; though not mentioned explicitly).

Refer Clause 94.0 of General Conditions of Contract (GCC) and clause 23. of General Purchase Conditions (GPC), as applicable, attached to this tender.

ARTICLE 10 - GOVERNING LAWS & JURISDICTION

10.1. This Agreement (contract), including all matters connected with this agreement (contract) shall be governed by the Indian law exclusively both substantive and procedural, for the time being in force and shall be subject to the exclusive jurisdiction of Indian Courts at Mumbai.

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ARTICLE 11 - NO WAIVER OF RIGHTS

- 11.1. A waiver on the part of either party of any terms, provisions or conditions of this contract shall not constitute a precedent, nor bind either party to a waiver of any succeeding breach of the same, of any other terms, provisions for conditions of this contract.

ARTICLE 12 - DAMAGE TO PROPERTY

- 12.1 Licensor shall be responsible for any loss or damage to properties belonging to Owner or other agencies within the site due to fault and/or the gross negligence or willful acts, or omission of, Licensor's employees, agents or representatives. In the same way Owner shall be responsible for any loss or damage to properties belonging to Licensor or other agencies within the site due to fault and/or the negligence or willful acts or omission of, Owner's employees, agents or representatives.
- 12.2 Licensor or Owner shall indemnify each other in this regard.

ARTICLE 13-SAFETY

- 13.1. The Licensor shall observe and abide by all safety regulations of Owner during the course of performance of the work at Owner's Project site at Ramayapatnam, Andhra Pradesh, India.

ARTICLE 14 - EXCLUSION OF GOVERNMENT OF INDIA'S LIABILITY

- 14.1. It is expressly understood and agreed that Owner is entering 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 a party to this contract, and has no liability, obligations or right whatsoever hereunder. It is expressly understood and agreed that Owner is an independent level entity with power and authority to enter into contracts solely on its own behalf under the applicable laws of India and the general principles of Contract law. The Licensor expressly agrees, acknowledge and undertakes that Owner is not an agent, representative or delegate of the Government of India and that 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. The Licensor hereby expressly waives, releases and forgoes any and all 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 or claim, cause of action or thing whatsoever arising out of or under this contract.

ARTICLE 15 - NOTICES

- 15.1. The official address and facsimile numbers of the parties for the purpose of this Agreement are as follows, but either party may change the same by notice in writing to the other party. The addresses of the parties hereto are:

Licensor: (To be specified)

Owner: Kuruvilla Sebastian,
DGM (Team Member AP Project)
kuruvillasebast@bharatpetroleum.in
First Floor , CPO (M)
BPCL Sewree Complex,
Sewree Fort Road
'K' Installation, Mumbai-400015
Maharashtra, India.

All notices hereunder shall be in writing and shall be sufficient if delivered or sent by registered mail, facsimile, airmail or cable addressed to the party entitled thereto at the above address.

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ARTICLE 16 - AMENDMENT

- 16.1. The Agreement shall not be amended, modified or terminated orally, and no amendment, modification, or attempted waiver of any of the provisions hereof shall be binding unless in writing and signed by authorized representatives of both the parties. Authorized representative shall mean a person holding Power of Attorney for signing.

ARTICLE 17 - IMPROVEMENTS

- 17.1 If Licensor should develop any Improvement (s) or should acquire Improvement(s) from a third party (for which Licensor has free right of disclosure) relating to the unit designed and constructed in accordance with the process package with in 5 years of completion of PGTR, then Licensor shall promptly free of charge inform Owner of the details of such Improvement (s) and shall at Owner's request communicate to Owner free of any additional cost the details necessary for incorporation of such Improvement(s) in the Unit, not involving any engineering services by Licensor. If Owner requires Licensor to perform engineering services for incorporating such Improvement in the unit, Licensor shall be obliged to perform such services at Licensor's usual charge. If Owner develops any improvement (s) within 5 years of completion of PGTR, then Owner shall promptly and free of charge share such improvements with the Licensor.

ARTICLE 18 - ASSIGNMENT

- 18.1 This Agreement shall not be assignable by either party without the prior written consent of the other party, except that without such consent, it may be assigned to the successor of either party or to a person, firm, or corporation acquiring all or substantially all of the business and assets of such party. No assignment of this Agreement shall be valid unless and until this Agreement shall have been assumed by the assignee. When duly assigned in accordance with the foregoing, this Agreement shall be binding upon and shall be to the benefit of the assignee.
- 18.2 Notwithstanding any other provision of this Article, Owner may, without the consent of Licensor, collaterally assign the benefit of this Agreement or any part thereof and any interest therein or there under to lenders to Licensee with respect to the Project (hereinafter referred to as the "Lenders") as security for the financing extended by the Lenders for such project, provided however that Licensor's obligations and responsibilities shall not be increased in any way by such assignment.
- 18.3 Notwithstanding above, Licensor may assign onsite services (assistance during pre-commissioning and commissioning) in India, as applicable, to their Indian affiliates having more than 51% of shareholding. However, the Agreement shall be signed with Licensor only with single point responsibility and payments can be made to Indian Affiliate of Licensor by the Owner in Indian Rupees based on certification of the invoices by the Licensor.

All Assignments shall be in terms so as not to prejudice the confidentiality obligations of the Licensor and Licensee.

ARTICLE 19 - INTERPRETATION OF CONTRACT

- 19.1 Notwithstanding the sub-division of the documents into separate sections and parts, every section / part of each shall be deemed to be supplementary to and complementary of every other section / part.
- 19.2 Where any section / portion of the section is repugnant to or at variance with any provisions of the other section / portion of the section then, the most stringent shall prevail.
- 19.3 Wherever it is mentioned in the terms / conditions / specifications that the Licensor shall perform certain work or provide certain facilities, it is understood that the Licensor shall do so at his own cost.

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ARTICLE 20 - VARIATION IN THE SERVICES

- 20.1 Owner may vary the Services to be performed by the Licensor and in such event shall be entitled to make Licensor to perform the Services as so varied and such variation shall in no way vitiate or invalidate the Contract. The charges for all such variation shall be computed and payable in accordance with rates as per SOP Form as applicable.
- 20.2 All such variations in the services shall be within the general scope of Services and all such changes desired by Owner which may involve additions, deletions or revisions to the Scope of Services shall be covered by a written document issued by Owner to the Licensor herein referred to as "Change Order" or "Variation Order".
- 20.3 Each Change Order shall set forth the changes in the Services to be performed by the Licensor and for the corresponding adjustment to the Completion Date, the Contract Price and the basis in which Licensor is to be compensated for the changes, as applicable.
- 20.4 No adjustment to the Completion Date or Contract price shall be made pursuant to this Contract except by issuance of a Change Order.
- 20.5 If LICENSEE requires LICENSOR to carry out variations in services which in LICENSOR'S opinion may affect LICENSOR'S ability to meet its guarantees under this agreement, LICENSOR may accordingly inform LICENSEE along with appropriate reasoning. However, in case LICENSEE still insists for the variations to be carried out, LICENSOR shall be relieved of its guarantees to the extent affected by the aforesaid variation.

ARTICLE 21 - PURCHASE / PRICE PREFERENCE AS PER GOVT. GUIDELINES

Not Applicable for selection of Licensors as it is NPV based evaluation

ARTICLE 22 - CONFIDENTIAL HANDLING OF INFORMATION

- 22.1 Title to Technical Data:
 - a) Title to all technical data including drawings, bills of material, flow diagrams, layout details, and specifications furnished to LICENSOR by OWNER shall remain with OWNER.
 - b) Title to all technical data including designs, drawings, bills of material, flow diagrams, layout details, specifications and any other data prepared by LICENSOR, shall remain with LICENSOR.
- 22.2 Both LICENSOR as well as the OWNER shall, during a period beginning at the date of finalization of Design Basis (from Zero Date) and continuing until fifteen (15) years after the date of disclosure of the Information in question.
 - a) not disclose any information to any Third Party;
 - b) use all appropriate means to preserve the secrecy of information.
- 22.3 These undertakings shall not apply to any information which, at the time it is received or obtained by LICENSOR or the OWNER
 - a) is lawfully known without binder of secrecy; or
 - b) is publicly available and shall cease to apply to any such Information which, after it is received or obtained, becomes publicly available through no fault of party receiving such information; or
 - c) is received or obtained without restriction on disclosure from a source free to disclose it other than OWNER or LICENSOR; or
 - d) which LICENSOR or the OWNER is required to disclose to any government agency, court, quasi-judicial or regulatory body or Parliament or other legal or constitutional authority that under any legal process requires LICENSOR or the OWNER to disclose such information provided that prior to such disclosure where it is practicable to do so, or if it is not practicable, then at the time of disclosure, written notice of the potential disclosure or actual disclosure as

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the case may be, shall be given to the other party.

- 22.4 Licensee may disclose Licensor's Technical Information to third parties necessary to build, maintain or operate the Unit, provided that:
- a) the information disclosed will be limited to the amount necessary for the third party to accomplish its part of building, maintaining or operating the Unit; and
 - b) such third party enters into a non-disclosure agreement with Licensor concerning Licensor's Technical Information.

Documents which are subject to the restrictions stated in a) and b) above are to be listed by the Licensor in their offer.

- 20.6 Despite the restrictions on disclosure in this Agreement, Licensee may disclose Licensor's Technical Information which are not subject to the restrictions stated by the Licensor in their offer, to third parties for the purpose of procurement, construction, operation and maintenance of the Unit.

ARTICLE 23 - GENERAL CONDITIONS

- 23.1 All documents from one party to another of whatever nature shall be submitted in English language by e-mail and/or post or both.

ARTICLE 24 – EXPORT OF TECHNICAL INFORMATION

- 24.1 LICENSEE shall not resell or re-export directly or indirectly the technical information or the work received from LICENSOR without prior written consent of LICENSOR. The technology will not be used, directly or indirectly, in any nuclear related uses, missile technology, or chemical or biological weapons applications unless specifically authorized by LICENSOR and, if required, by the applicable Governmental Authority. LICENSEE shall use the technical information for civil use only.

ARTICLE 25 – TAXES AND DUTIES:

As per attached **Annexure-I** to SCC

ARTICLE 26 – CLAUSES OF GCC NOT APPLICABLE IN THIS CONTRACT

Following clauses of the General Conditions of Contract (GCC) are not applicable in this contract. Clause Nos.- 2.3, 2.4, 26(b), 26(c), 33, 48, 50, 53, 54, 55, 56, 57, 58,59, 60,68, 69 ,87(iv),90 and 100.

Wherever, the name "Contractor" / "Consultant" is referred, please read it as "Licensor" / "Bidder".

ARTICLE 27 - INSURANCE

With respect to the Insurance taken by the parties as per their respective scope of Insurance(s) as stated in the Bidding Document, the parties shall all times indemnify and keep indemnified each other and its officers, servants, agents from and against all third party claims what so ever (including but not limited to property loss, damages, personal loss, injury or death of/or to property and/or the servants/agents arising out of any act or omission) and shall at his own cost and initiative at all times keep each other indemnified up to successful completion of the performance guarantee test run or the period as mentioned in Sub-Article 8.9 b) in case the PGTR could not be carried out due to the reasons solely attributable to the Licensee.

ARTICLE 28 - DELETION OF RISK PURCHASE CLAUSE OF GPC

Clause no. 21 of GPC (Risk Purchase Clause) stands deleted.

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ARTICLE 29 - CLARIFICATION FOR GCC AND GPC

GCC and GPC of BPCL is attached which shall be applicable. GCC is applicable for the Service portion of the Contract and GPC for supply portion of the contract.

ARTICLE 30 - CLARIFICATION ADDED FOR GCC CLAUSE 18.5

Following is added as clarification at the end of para of clause no18.5 of GCC: In the case of imports, the Supplier shall furnish the Performance Bank Guarantee in the format provided with tender document through the following:

- a) Branches of Indian scheduled banks operating in their Country.
- b) Foreign bank operating in their Country which is counter guaranteed by branches of Indian scheduled banks operating in their Country/ India.
- c) Indian branches of foreign banks.
- d) Foreign bank operating in their Country counter guaranteed by their Indian branch.

However, in respect of (c) and (d) above, the Indian branch of foreign banks should be recognized as scheduled bank by Reserve Bank of India. List of Banks for Submission of BG is attached as Annexure.

ARTICLE 31 - CLARIFICATION FOR SPC AND SCC

Special Purchase Conditions wherever referred shall also be read as Special Conditions of Contract (SCC).

ARTICLE 32 - CLARIFICATION ON SUSPENSION OF WORKS AS PER GCC CLAUSE 71

In connection with GCC clause 71, in case of suspension by owner in addition to extension of time, payment certified for work done until suspension and reimbursement of de-mobilization and remobilization costs for supervision service (provided licensors are mobilized at site during suspension) will be provided by owner.

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[FORMAT FOR PERMANENT ESTABLISHMENT (PE) CERTIFICATE]

ON THE LETTER HEAD

To assist with your compliance with domestic withholding tax obligation, we [name of entity] confirm and certify details as given below:

- i) We, [name of entity], are resident of the [name of the country]
- ii) We do not have business connection in India within the meaning of section 9(1)(i) of Income Tax Act, 1961

Or

We have a business connection in India, but is not connected with any contract with Bharat Petroleum Corporation Limited, within the meaning of section 9(1)(i) of Income Tax Act, 1961

[Include any one of above two statements]

- iii) We do not have permanent establishment in India as per article titled “permanent establishment” in Double Taxation Avoidance Agreement entered into between Government of India and the Government of [country of residence]
- iv) We are the beneficial owner in respect of the payment received/receivable from Bharat Petroleum Corporation Limited, India
- v) This certificate is valid for the Period for [calendar year/financial year]
- vi) If the status of permanent establishment/ business connection changes anytime in the said period, then revised certificate shall be provided suo-moto

For [name of the company]

Signature:

Name of Authorized Signatory:

Designation:

	SPECIAL CONDITIONS OF CONTRACT (Rev. 2) FOR LICENSOR SELECTION TENDERS OF GREENFIELD ANDHRA PRADESH REFINERY AND PETCHEM COMPLEX	

ON THE LETTER HEAD

Dear Sir,

This is to certify that

- (a) Whether M/s has any Permanent Establishment (PE) in India through which M/s.....is directly or indirectly carrying on activity of supply under PO No:.....placed by Client on M/s
YES/NO
- (b) Whether the remittance vide PO No: placed by Client on M/s is attributable to or connected with such Permanent Establishment (PE)
YES/NO
- (c) If the reply to Item no.(b) above is "Yes" the amount of Income comprised in such remittance which is liable to tax in India Amount in INR.....
- (d) If the reply to Item no.(b) above is "NO" the reasons in brief thereof.

Thanking you,

Yours truly,

(Stamp & Signature)

	SPECIAL CONDITIONS OF CONTRACT (Rev. 2) FOR LICENSOR SELECTION TENDERS OF GREENFIELD ANDHRA PRADESH REFINERY AND PETCHEM COMPLEX	

In case the Licensor does not have any Permanent Establishment in India within the meaning of Article 5 of the DTAA

ON THE LETTER HEAD

Subject : No Permanent Establishment Certificate
Ref : PO No : _____ Dt _____
Invoice No : _____ Dt: _____

Dear Sir,

This is to certify that M/s _____ is a tax resident of _____ and does not have any Permanent Establishment in India as per the provisions of Article 5 of the DTAA between India and _____ in respect of the services to be rendered under the captioned Agreement entered into with your company.

We also clarify that we do not carry on any business through any agent by a Permanent Establishment in India with regard to the above.

Yours truly,
For M/s

(Stamp & Signature)

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[TRC CERTIFICATE]

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

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

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FORMAT

FORM-10F ON THE LETTER HEAD

[See sub-rule (1) of rule 21AB]

Information to be provided under sub-section (5) of section 90 or sub-section (5) of section 90A of the Income-tax Act, 1961

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

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

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

Signature:

Name:

Address:

Permanent Account Number:

Verification

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

Verified today the day of.....

.....
Signature of the person providing the information

Place:

Notes:

a. * Delete whichever is not applicable

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

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Annexure-I to SCC

TAXES & DUTIES

(C113-Preparation of DFR, firming up of configuration, licensor selection, and obtaining environmental clearance for greenfield refinery cum petrochemical complex in AP-BPCL)

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A. Price basis w.r.t inclusion/exclusion of taxes and duties

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. In case of foreign bidders, bidders shall submit their prices on FOB international sea port of exit basis/CFR on destination port basis (INCOTERM 2020), unless otherwise stated in the bid document. FOB/CFR prices quoted shall be inclusive of all applicable taxes up to FOB international sea port of exit/CFR on destination port basis.
3. Transportation charges (if applicable) up to respective project site shall be exclusive of GST.
4. Site work prices, if applicable shall be inclusive of all taxes and duties except GST. 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 site work prices.
5. Prices of per diem supervision charges, training/AMC, HAZOP Study etc. (as applicable) shall be exclusive of GST. However, GST shall not be applicable on training provided at foreign bidder's work/training facilities in any territory other than India.

B. TAX CLAUSES

1. Goods and Services Tax

- a. The supplier/contractor will be liable to register with the respective tax authorities and to submit self-attested copy of such registration certificates and the supplier/contractor will be responsible for procurement of goods/services in its own registration (GSTN).
- b. Supplier/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 supplier/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.

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- 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 supplier/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 with hold the payment of GST.
- e. The supplier/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 supplier/contractor as per the provisions of Contract, then the supplier/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 supplier/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

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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 supplier/contractor bills at applicable rates and a certificate as per rules for tax so deducted shall be provided to supplier/contractor.
- k. The supplier/contractor will be under obligation for charging correct rate of tax as prescribed under the respective tax laws. Further the supplier/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. Owner prefers to deal with registered supplier/contractor of goods/services under GST. Therefore, bidders are requested to get themselves registered under GST, If not registered yet. However, in case any unregistered bidder is submitting bid, their prices will be loaded with applicable GST while evaluation of bid as per evaluation methodology of tender document. However, where Owner is entitled for input credit of GST, the same will be considered for evaluation of bid as per evaluation methodology of tender document.
- n. In case of foreign bidders, for supervision/site-work/training, services provided by foreign bidder at project site, GST shall be paid by Owner directly to appropriate Government Tax Authorities, under Reverse Charge Mechanism, if applicable and prices of such services will be loaded with applicable GST while evaluation of bid as per clause E (Evaluation methodology).
- o. 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.

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- p. In case of delay in supply/execution of contract, supplier/contractor shall be liable to raise invoices for reduced value as per Price Reduction Schedule (PRS) provision of the bidding document. In case the supplier/contractor raises invoices for full value, then supplier/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 supplier/contractor fails to submit invoices with reduced value or does not issue Credit Note as mentioned above, Owner shall release payment to the supplier/contractor after giving effect to the PRS clause with corresponding reduction in taxes from invoice(s) of supplier/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 supplier/contractor, the same shall be to the account of supplier/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.

- q. 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.
- r. In case of applicability of any recovery as per provisions of the contract, Owner shall raise Invoice on supplier/contractor after charging GST at applicable rates as per prevailing provisions of GST Laws.

2. IMPORT DUTIES

- a. Direct supplies by foreign suppliers where, client becomes consignee:
- Consignee shall be Owner, bill of entry shall be filed by Owner, all import duties, Social Welfare Surcharge, IGST and GST Compensation Cess etc. as applicable in India shall be paid by Owner.
- b. Imported supplies by Indian/ Foreign suppliers/Contractors as built in import content where goods are cleared by filing into Bill of Entry in the name of Owner
- High seas sale shall be effected between, supplier/contractor and Owner.
 - Bill of entry shall be filed in the name of Owner by supplier/contractor, all import duties, Social Welfare Surcharge, IGST and GST Compensation Cess etc. as applicable in India shall be discharged by Owner.
 - Custom duties, Social Welfare Surcharge, IGST, GST Compensation Cess, etc. as applicable in India on the imported

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- materials shall not be included in the quoted prices by the bidder. All harbour dues/ pilotage fees, port fees, wharfage, unloading costs, demurrage charges etc. incurred in India in respect of any imported goods shall be to supplier's/contractor's account.
- iv. Bidder to indicate CIF value of built-in import content and applicable merit rate, Social Welfare Surcharge on custom in the relevant price schedule.
 - v. 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
 - vi. If the total custom duties (BCD, SWS & IGST) paid or payable on the import of goods into India exceeds the total value thereof calculated as per the CIF value and rates indicated by supplier/contractor as above as increased or decreased for any increase or reduction in applicable rates or CIF valuation, the Supplier/contractor shall pay and bear and/or reimburse to the Owner such excess custom duties.
- c. Imported supplies by Indian suppliers as built in import content where Suppliers/Contractors will become consignee of the goods 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 supplier's/contractor's account.
 - ii. Bidder to indicate, in relevant price schedule, CIF value of built-in import content and applicable merit rate of basic 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

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- supplier/contractor shall be passed on to the Owner or it shall be recovered by the Owner from the supplier/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.
- d. 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 supplier/contractor, or otherwise on account of any breach of applicable laws in the course of the import of the goods and material by supplier/contractor, the supplier/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

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- 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.
- vii. In case custom duty rate as quoted by Foreign bidder is less than Actual rate applicable on due date of submission of last price bid and payment of custom duty is on Owner's Account, differential amount on account of above-mentioned rate variation will be recovered from Foreign bidder.

3. INCOME TAX

a. Foreign supervisors/suppliers/contractors

Prices of site work, contracts and other services of foreign supplier/contractor shall be gross of income tax i.e., inclusive of Indian income tax at the applicable prevailing rate as per Indian Income Tax Act and Rules there under.

Owner shall deduct withholding tax at source (TDS) as applicable while making payments against each invoice. Certificate for TDS shall be provided to the supplier/contractor.

In case foreign bidder quotes Prices of site work, contracts and other services "net of Income Tax" i.e., exclusive of Indian income tax, Owner shall deduct and deposit TDS as applicable after grossing up the sums due while making payments against each invoice at the applicable prevailing rate as per Indian Income Tax Act and Rules thereunder.

Foreign bidder shall furnish the information required in line with the prevalent provisions of Income tax act read with rules thereunder including but not limited to Tax residency certificate, Form 10F, No permanent establishment declaration, No business connection certificate, PAN in India if available.

Failing to provide above documents/information, tax will be withheld at rates

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applicable as per the provisions of Income Tax Act, 1961 read with rules thereunder and the benefit of reduced rates will not be given.

If the non-resident is unable to obtain & submit Tax Residency Certificate to the Owner within a reasonable time, the bidder should furnish Form 10F along with an undertaking to the effect that the bidder is a tax resident of (the specified country) and that they shall obtain and provide the tax residency certificate (TRC) to the Owner before 30 days of submission of first Invoice by them or within 3 months from the date of entering into contract whichever is earlier.

In case of contracts with term exceeding one financial year, the relevant documents like TRC, Form 10 F, No PE / Business Connection Certificate etc. as applicable, as per Income Tax Act, 1961 must be submitted at the beginning of each financial year and the Owner will not bear additional tax liability (if any) arising from non-submission of documents.

The bidder shall be liable to intimate the subsequent changes (if any) to the information submitted against any of the above particulars, along with full details.

In addition to the above particulars, the bidder should also provide any other information as may be required at a later stage for determining the taxability of the amount to be remitted to the non-residents.

In case, any additional tax liability arises on the Owner due to any action of bidder like delay in submission / non-submission of information / documents required as above or change in residential status post submission of documents or change in any document (like TRC, Form 10F etc.) after its submission shall be recovered from the supplier/contractor.

b. Indian resident supervisors/ suppliers/contractors

Prices for supply and services of Indian suppliers/ contractors shall be inclusive of income tax.

Tax shall be deducted at source (TDS) by Owner on all sums due to supplier/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 supplier/contractor evidencing the tax deducted or withheld and deposited by Owner on payments made to the supplier/contractor to enable the supplier/contractor to claim the credit of Tax deducted by Owner.

c. INCOME TAX (General Points):-

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- i. The supplier/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 supplier/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 supplier/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 supplier/contractor that prior to release of any payment due to the supplier/contractor under the Contract that the supplier/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 supplier/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 supplier/contractor and same would be reimbursed by the Owner against submission of Form-16A (TDS certificate).

C. INVOICING METHODOLOGY W.R.T. TAXATION

following invoicing methodology shall be followed :

1. In case of domestic / foreign PO's (Other than 2 below) , Invoice/E-Invoice shall be raised by the supplier/contractor in the name of Owner and consignee shall be Owner.
2. In case of package MR's (where title transfer or take over is envisaged to take place at site after completion of site work) and tenders, supplier/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 supplier/contractor, Invoice/E-Invoice shall be raised by supplier/contractor to Owner after charging GST.

D. APPLICABILITY OF TAX CREDIT

For the purpose of evaluation of bids, "Input Tax Credit" of GST up to the extent

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of 60% to be considered i.e. 40% GST amount to be loaded as cost for arriving at the “net evaluated cost.

E. EVALUATION METHODOLOGY W.R.T. TAXES

Refer Instructions to Bidders (ITB).

F. TAXATION TERMS FOR INDIAN SOURCED SUPPLIES (Applicable in case of foreign supplier)

Shall be the same as applicable for Indian bidders.

G. TAX IMPLICATION WHERE FABRICATION YARD IS OUTSIDE THE FACTORY PREMISES, WHEREVER APPLICABLE

In case of package MRs and tenders, since contractors/suppliers 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 factory premises will not attract any additional liability.

H. TAX IMPLICATION WHERE OWNER WILL ISSUE FREE ISSUE MATERIAL (FIM) TO CONTRACTORS/SUPPLIERS

Where Owner issues FIM's to suppliers/contractors, material will be released against delivery challan and such FIM shall be received back in factory premises as per provision of GST.

I. STATUTORY VARIATION (IN CASE OF MRS & TENDERS)

No variation on account of taxes and duties, statutory or otherwise, shall be payable to Supplier/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 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

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adjusted (increase/decrease) to/from the Supplier's/Contractor's invoices based on the documentary evidence.

Any increase in rate of BCD & SWS on materials imported after the contractual delivery/completion period (*) shall be to Supplier's/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 supplier/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 Supplier's/Contractor's name (i.e., for Indian Bidders) shall be to Supplier/Contractor account.

3. Any new output taxes, duties, cess, levies notified or imposed after the due date of submission of last price bid but upto 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 supplier/contractor, any new output taxes, duties, cess, levies notified or imposed after Time for Completion, defined as above, shall be to supplier's/Contractor's account.

J. 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 supplier/contractor shall be to supplier's/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.

*Contractual delivery/completion period shall include extended contractual delivery/completion period for the reasons attributable to Owner or due to Force Majeure condition.



**SPECIAL CONDITIONS OF CONTRACT
(Rev. 1) FOR LICENSOR SELECTION
TENDERS OF GREENFIELD ANDHRA
PRADESH REFINERY AND PETCHEM
COMPLEX**



Annexure-II to SCC

List of banks meeting the stipulated criteria as on 02.06.2025

Sr No.	Name of Bank	Category of Banks
1	AU Small Finance Bank Ltd	Indian Bank
2	Axis Bank Ltd	Indian Bank
3	Bank of Baroda	Indian Bank
4	Bank of India	Indian Bank
5	Bank of Maharashtra	Indian Bank
6	Canara Bank	Indian Bank
7	Federal Bank Ltd	Indian Bank
8	HDFC Bank Ltd	Indian Bank
9	ICICI Bank Ltd	Indian Bank
10	IDBI Bank Ltd	Indian Bank
11	IDFC First Bank Ltd	Indian Bank
12	Indian Bank	Indian Bank
13	Indian Overseas Bank	Indian Bank
14	Indusind Bank Ltd	Indian Bank
15	Karur Vysya Bank Ltd	Indian Bank
16	Kotak Mahindra bank Ltd	Indian Bank
17	Punjab National Bank	Indian Bank
18	State Bank of India	Indian Bank
19	UCO Bank	Indian Bank
20	Union Bank of India Ltd	Indian Bank
21	Abu Dhabi Commercial Bank PJSC	Foreign Bank
22	Bank of America NA	Foreign Bank
23	Bank of Nova Scotia	Foreign Bank
24	MUFG Bank Ltd	Foreign Bank
25	BNP Paribas SA	Foreign Bank
26	Shirhan Financial Group Co Ltd	Foreign Bank
27	Citibank NA	Foreign Bank
28	DBS Group Holdings Ltd	Foreign Bank
29	Hongkong & Shanghai Banking Co	Foreign Bank
30	JPMorgan Chase & Co	Foreign Bank
31	Mizuho Bank Ltd	Foreign Bank
32	Westpac Banking Corp	Foreign Bank
33	Industrial & Commercial Bank of China	Foreign Bank
34	Credit Agricole SA	Foreign Bank
35	Cooperative Rahobank UA	Foreign Bank
36	Doha Bank QPSC	Foreign Bank
37	Qatar National Bank QPSC	Foreign Bank
38	United Overseas Bank Ltd	Foreign Bank
39	KEB Hana Bank	Foreign Bank
40	Industrial Bank of Korea	Foreign Bank
41	First Abu Dhabi Bank PJSC	Foreign Bank
42	Emirates NBD Bank PJSC	Foreign Bank
43	NatWest Markets PLC	Foreign Bank
44	Bank of China Ltd	Foreign Bank
45	CTBC Bank Co Ltd	Foreign Bank

Note:

- The above list of banks is based on the credit rating as on date (Source: Bloomberg)
- In case of any discrepancy/subsequent upgrade in credit rating, user department can contact Treasury for clarification.

The following conditions shall be applicable for all Non Hydrocarbon procurement unless specifically mentioned in the Special Purchase Conditions.

I N D E X

1. DEFINITIONS
2. REFERENCE FOR DOCUMENTATION
3. RIGHT OF OWNER TO ACCEPT OR REJECT TENDER
4. LANGUAGE OF BID
5. PRICE
6. TAXES AND DUTIES
7. INSPECTION
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20. DELIVERY DATES AND PRICE REDUCTION SCHEDULE
21. RISK PURCHASE CLAUSE
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27. PATENTS & ROYALTIES
28. LIABILITY CLAUSE
29. LIMITATION OF LIABILITY FOR GOODS PROCUREMENT
30. COMPLIANCE OF REGULATIONS
31. REJECTION, REMOVAL OF REJECTED GOODS AND REPLACEMENT
32. NON-WAIVER
33. NEW & UNUSED MATERIAL
34. PURCHASE PREFERENCE CLAUSE
35. CANCELLATION
36. ANTI –COMPETITIVE AGREEMENTS/ABUSE OF DOMINANT POSITION
37. ASSIGNMENT
38. GOVERNING LAW
39. AMENDMENT
40. NOTICES
41. POLICY ON HOLIDAY LISTING
42. ORDER OF PRECEDENCE FOR PURCHASES
43. TERMINATION FOR CONVENIENCE
44. BUILDING AND OTHER CONSTRUCTION WORKERS CESS

GENERAL PURCHASE CONDITIONS

1. DEFINITIONS:

The following expressions used in these terms and conditions and in the purchase order shall have the meaning indicated against each of these:

- 1.1. **OWNER:** Owner means Bharat Petroleum Corporation Limited (a Government of India enterprise), a Company incorporated in India having its registered office at Bharat Bhavan, 4 & 6 Currimbhoy Road, Ballard Estate, Mumbai 400038 and shall include its successors and assigns (hereafter called BPCL as a short form).
- 1.2. **VENDOR:** Vendor means the person, firm or the Company/ Corporation to whom this Request for quotation (RFQ)/purchase order is issued and shall include its successors and assigns.
- 1.3. **INSPECTOR:** Person/ agency deputed by BPCL for carrying out inspection, checking/testing of items ordered and for certifying the items conforming to the purchase order specifications..
- 1.4. **GOODS/ MATERIALS:** means any of the articles, materials, machinery, equipments, supplies, drawing, data and other property and all services including but not limited to design, delivery, installation, inspection, testing and commissioning specified or required to complete the order.
- 1.5. **SITE/ LOCATION:** means any Site where BHARAT PETROLEUM CORPORATION LIMITED desires to receive materials any where in India as mentioned in RFQ.
- 1.6. **"RATE CONTRACT"** means the agreement for supply of goods/ materials between Owner and Vendor, for a fixed period of time (i.e till validity of Rate Contract, with no commitment of contractual quantity) on mutually agreed terms and conditions. The actual supply of goods/ materials shall take place only on issue of separate purchase orders for required quantity as and when required by Owner.

2. REFERENCE FOR DOCUMENTATION:

- 2.1. The number and date of Collective Request for Quotation (CRFQ) must appear on all correspondence before finalization of Rate Contract / Purchase Order.
- 2.2. After finalization of Contract / Purchase Order: The number and date of Rate Contract/ Purchase Order must appear on all correspondence, drawings, invoices, dispatch advices, (including shipping documents if applicable) packing list and on any documents or papers connected with this order.
- 2.3. In the case of imports, the relevant particulars of the import Licence shall be duly indicated in the invoice and shipping documents as well as on the packages or consignments.

3. RIGHT OF OWNER TO ACCEPT OR REJECT TENDER:

The right to accept the tender will rest with the Owner.

4. LANGUAGE:

The Bid and all supporting documentation and all correspondence whatsoever exchanged by Vendor and Owner, shall be in English language only. In case any of the supporting documents (either technical or financial) are not in English language, then the English translation copy of the same shall also be furnished duly certified, stamped and signed by local Chamber of Commerce of bidder's country or Indian embassy in bidder's country or their embassy in India.

5. PRICE:

Unless otherwise agreed to the terms of the RFQ, price shall be:

Firm and no escalation will be entertained on any ground, except on the ground of statutory levies applicable on the tendered items.

6. TAXES AND DUTIES:

All vendors shall have GST registration in the concerned State as applicable and vendor shall quote their GSTIN number in the quotation wherever required.

6.1 GST:

- 6.1.1. GST extra as applicable at the time of delivery within scheduled delivery period will be payable by BPCL against documentary evidence. Vendor shall mention in their offer, the percentage of GST applicable at present. Any upward variation in GST rates, beyond the contractual delivery period, shall be to vendor's account.
- 6.1.2. In case GST is not applicable at present: In case GST gets levied due to change in turnover of Vendor/Supplier, shall be borne by the vendor/supplier. If GST becomes applicable due to change in the law in future, the same will be borne by vendor subject to 6.1.1. In case of change in stand of vendor/supplier about applicable rate of GST towards higher side, the same will not be payable.
- 6.1.3. Owner shall take Input Tax Credit of the GST paid on the material supplied for both GST and cess component as applicable and accordingly GST / Cess should be quoted separately wherever applicable.

Vendor shall ask the transporter of the goods to hand over the copy of GST invoice (transporter's copy) at the time of delivery of goods at owner's site.

- 6.1.4 The vendor shall take steps viz. mention relevant GSTIN of BPCL in GST invoices and returns, 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 the OWNER to avail tax credit/s including input tax credit.

Deferment of GST Amounts shall be done for those vendors who have got instances of open mismatches due to non-compliance. Open mismatches refer to cases whereby OWNER could not claim the GST Input Tax Credit in the month of payment of invoice due to non-compliance/ delayed compliance by the VENDOR. Accordingly, Over and above any payment term mentioned in the tender including that mentioned in the GPC/GCC, payment to VENDOR by OWNER for the basic amount (i.e. amount excluding GST) shall be made as mentioned in GPC/GCC or as mentioned anywhere else in the tender as applicable. However, GST amount of the Invoices shall be paid only after the amount gets reflected in the return (GSTR-1 Return of outward supplies/GSTR- 3B) submitted by the vendor on GSTIN portal (GSTR 2B of OWNER) to the satisfaction of OWNER. Till such time GST amount with correct details is reflected in GSTIN portal to satisfaction of OWNER, amount shall be withheld by OWNER.

Over and above, VENDOR is also required to issue e-invoice if the same is applicable to the OWNER. In absence of GST e-invoice, any loss of Input Tax Credit to the OWNER shall be indemnified by the VENDOR.

Deferment of GST amounts to the vendors are subject to compliance of any applicable Act.

- 6.1.5 In case of vendors for whom deferment of GST amounts were not done, Any loss or non-availability of input tax credit by the OWNER due to non- compliance of applicable tax law including but not limited to GST laws in force or otherwise, on the part of VENDOR, an amount equivalent to any tax liability accruing to the OWNER and/or to the extent of any loss accrued to the OWNER due to the non-availability of input tax credit or any liability accrued to the OWNER shall either stand cancelled or deducted from the payment due to the VENDOR or shall be reimbursed by the VENDOR as the case may be till such default is either rectified or made good by the VENDOR and the OWNER is satisfied that it is in a position to claim valid input tax credit within the timelines as per applicable laws.
- 6.1.6 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 tax laws or rules or regulations thereof or otherwise due to default on the part of VENDOR shall be borne by the VENDOR. An amount equivalent to such cost, liability, dues, penalty, fees, and interest as the case may be shall be reimbursed by the VENDOR within 30 days. Any GST as may be applicable on such recovery of amount shall also be borne by VENDOR and same shall be collected by the OWNER.

6.2 FREIGHT:

- 6.2.1 Freight: Firm freight charges to be quoted as indicated in the Tender documents. Freight shall be payable after receipt of the Material(s) at the site, unless otherwise specified.

- 6.3. NEW STATUTORY LEVIES:** All new statutory levies leviable on sale of finished goods to owner, if applicable are payable extra by BPCL against documentary proof, within the contractual delivery period.

- 6.4 VARIATION IN TAXES/ DUTIES:** Any increase/decrease in all the above mentioned statutory levies on the date of delivery during the scheduled delivery period on finished materials will be on BPCL's account. Any upward variation in statutory levies after contractual delivery date shall be to vendor's account.

- 6.5 INCOME TAX (WITHHOLDING TAX):** In the case of avilment of services from Non Resident Vendors who are claiming benefits offered under the Double Taxation Avoidance Agreements signed by India with the Government of the other country (i.e. the country of the Vendor), such Non Resident Vendors are required to provide the Tax Residency Certificates at the time of submission of Bid documents. The Tax Residency Certificates shall contain the following details:

- a) Name of Vendor (assessee);
- b) Status (Individual, Company, firm etc.) of assessee;
- c) Nationality (in case of individual);
- d) Country or specified territory of incorporation or registration (in case of others);
- e) Assessee's tax identification number in the country or specified territory of residence or in case no such number, then, a unique number on the basis of which the person is identified by the Government of the country or the specified territory;
- f) Residential status for the purpose of tax;
- g) Period for which the certificate is applicable; and
- h) Address of the applicant for the period for which the certificate is applicable.

The Tax Residency Certificate shall be duly verified by the Government of the Country or the specified territory of the assessee of which the assessee claims to be a resident for the purposes of tax.

7. INSPECTION:

- 7.1. Materials shall be inspected by BPCL approved third party inspection agency if applicable before dispatch of materials. However, arranging and providing inspection facilities is entirely vendor's responsibility and in no way shall affect the delivery schedule.

- 7.2 Scope of Inspection shall be as per RFQ or as specified in the Special Purchase Conditions. Materials shall be inspected as per scope of inspection by TPIAs which are registered under "NABCB accredited bodies as per requirement of ISO/IEC 17020 as Type A" in QCI's NABCB website as on the date of Inspection of Goods. The link is as below:
http://nabcb.qci.org.in/accreditation/reg_bod_inspection_bodies.php

- 7.3. Unless otherwise specified, the inspection shall be carried out as per the relevant standards/ scope of inspection provided along with the Tender Enquiry/Purchase Order.

- 7.4. BPCL may, at its own expense, have its representative(s) witness any test or inspection. In order to enable BPCL's representative(s) to witness the tests/ inspections, BPCL will advise the Vendor in advance whether it intends to have its representative(s) be present at any of the inspections.

- 7.5. Even if the inspection and tests are fully carried out, the Vendor shall not be absolved from its

responsibilities to ensure that the Material(s), raw materials, components and other inputs are supplied strictly to conform and comply with all the requirements of the Contract at all stages, whether during manufacture and fabrication, or at the time of Delivery as on arrival at site and after its erection or start up or consumption, and during the defect liability period. The inspections and tests are merely intended to prima-facie satisfy BPCL that the Material(s) and the parts and components comply with the requirements of the Contract. The Vendor's responsibility shall also not be anyway reduced or discharged because BPCL or BPCL's representative(s) or Inspector(s) shall have examined, commented on the Vendor's drawings or specifications or shall have witnessed the tests or required any chemical or physical or other tests or shall have stamped or approved or certified any Material(s).

- 7.6. Although material approved by the Inspector(s), if on testing and inspection after receipt of the Material(s) at the location, any Material(s) are found not to be in strict conformity with the contractual requirements or specifications, BPCL shall have the right to reject the same and hold the Vendor liable for non-performance of the Contract.

8. SHIPPING:

- 8.1 **SEA SHIPMENT:** All shipment of materials shall be made by first class direct vessels as per procedure detailed hereunder. The Foreign Supplier shall arrange with Vessels Owners or Forwarding Agents for proper storage of the entire Cargo intended for the project in a specific manner so as to facilitate and to avoid any over carriage at the port of discharge. All shipment shall be under deck unless carriage on deck is unavoidable.

The bills of lading should be made out in favour of 'Bharat Petroleum Corporation Limited or order'.

All columns in the body of the Bill of Lading namely marks and nos., material description, weight particulars etc., should be uniform and accurate and such statements should be uniform in all the shipping documents. The freight particulars should mention the basis of freight tonnage, heavy lift charges, if any, surcharge, discount etc. clearly and separately. The net total freight payable shall be shown at the bottom.

SHIPPING DOCUMENTS: All documents viz. Bill of Lading, invoices, packing list, freight memos, country of origin certificates, test certificate, drawings and catalogues should be in English language.

In addition of the bill of lading which should be obtained in three stamped original plus as many copies as required, invoices, packing list, freight memos, (if the freight particulars are not shown in the bills of lading), country of origin certificate, test/ composition certificate, shall be made out against each shipment in as many number of copies as shown below.

The bill of lading, invoice and packing list specifically shall show uniformly the mark and numbers, contents case wise, country of origin, consignees name, port of destination and all other particulars as indicated under clause 2. The invoice shall show the unit rates and net total F.O.B. prices. Items packed separately should also be invoiced and the value shown accordingly. Packing list must show apart from other particulars actual contents in each case, net and gross weights and dimensions, and the total number of packages. All documents should be duly signed by the Vendor's authorised representatives.

In the case of FOB orders, shipping arrangements shall be made by the Chartering Wing of the Ministry of Surface Transport, New Delhi through their respective forwarding agents. The names and addresses of forwarding agents shall be as per Special Purchase Conditions. Supplier shall furnish to the respective agents the full details of consignments such as outside dimension, weights (both gross and net) No of packages, technical description and drawings, name of supplier, ports of loading, etc. 6-weeks notice shall be given by the supplier to enable the concerned agency to arrange shipping space.

The bill of lading shall indicate the following:

Shipper: Vendor's Name

Consignee: Bharat Petroleum Corporation Limited

In case of supplies from USA, Export Licences, if any required from the American Authorities shall be obtained by the U.S. Suppliers. If need be assistance for obtaining such export licences would be available from India Supply Mission at Washington.

- 8.2 AIRSHIPMENT:** In case of Airshipment, the materials shall be shipped through freight consolidator (approved by us). The airway bill shall be made out in favour of BHARAT PETROLEUM CORPORATION LIMITED.

TRANSMISSION OF SHIPPING DOCUMENTS for both modes of shipment viz. Sea and/or Air: Foreign Supplier shall obtain the shipping documents in seven complete sets including three original stamped copies of the Bill of Lading / Airway bill as quickly as possible after the shipment is made, and airmail/send scanned copies by e-mail as shown below so that they are received at least three weeks before the Vessels arrival or immediately in case of Air shipment. Foreign Supplier shall be fully responsible or any delay and/ or demurrage in clearance of the consignment at the port due to delay in transmittal of the shipping documents.

If in terms of letter or otherwise, the complete original set of documents are required to be sent to BPCL through Bank the distribution indicated below will confine to copies of documents only minus originals.

<u>Documents</u>	<u>BPCL</u>
Bill of Lading/Airway Bill	4 (including 1 original)
Invoice	4
Packing List	4
Freight Memo	4
Country of Origin Certificate	4
Third party inspection certificate	4
Drawing	4
Catalogue	4
Invoice of Third Party	4

for inspection charges whenever applicable.

- 9. INDIAN AGENT COMMISSION:**
Any offer through Indian agents will be considered only after authorization mentioning them as Indian agents, is received from Vendor. Indian agents commission if applicable will be payable only in Indian currency. Indian agents should be registered with Directorate General of Supplies and Disposals, Government of India and agency commission will be payable only after registration with DGS&D, New Delhi.
- 10. ORDER AWARD/ EVALUATION CRITERIA:**
Unless otherwise specified, Order award criteria will be on lowest quote landed price basis. Landed price will be summation of Basic Price, Packing & Forwarding Charges, GST, Freight, Inspection Charges, Supervision of Installation & Commissioning and other taxes & levies, loading etc., if any, reduced by Input tax Credits as applicable.
- 11. CONFIRMATION OF ORDER:**
The vendor shall acknowledge the receipt of the purchase order within 10 days of mailing the same. The vendor shall sign, stamp the acknowledgement copy of the purchase order and return the same to BPCL.

12. PAYMENT TERMS:

- 12.1. Unless otherwise specified, 100% payment shall be made within 30 days from date of receipt and acceptance of materials at Site against submission of Performance Bank Guarantee (PBG) / Insurance Surety Bond for 5% of basic order value if PBG is applicable for the tender. The eligible MSME bidders can avail Bill discounting facility as follows.
- 12.2. In the case of imports, payment will be made on submission of original documents directly to Owner (Telegraphic Transfer-TT) or through Bank (Cash against documents-CAD) or through Irrevocable Letter of Credit.
- 12.3. Unless otherwise mentioned, the specified documents (All documents listed below (one original and two copies) should be submitted to originator of P.O. (the name and contact details of whom are given in PO) and payments for despatches will be made by the originator of Purchase Order :
- a) Invoice
 - b) GST invoice
 - c) The Lorry Receipt of the consignment
 - d) Packing list for the consignment
 - e) Third Party Inspector's Certificate covering the invoiced Material(s)/ Release Note, wherever applicable
 - f) Manufacturers Test/Composition Certificate, wherever applicable
 - g) Drawing(s)/Catalogue(s) covering the Material(s), wherever applicable
 - h) Guarantee/Warranty Certificate(s), wherever applicable.
 - i) Original Receipt for other statutory levies as applicable.
 - j) Performance Bank Guarantee / Insurance Surety Bond as applicable.
- 12.4. The eligible MSME bidders can avail the discounting facility as follows: -

Trade Receivables Discounting System (TReDS) is an institutional mechanism set up in order to facilitate discounting of trade receivables of MSMEs from corporate buyers through invoice discounting by multiple financiers. Bharat Petroleum Corporation Limited (BPCL) is registered with TReDS platform of the aggregators M/s. Receivables Exchange of India Ltd (RXIL), M/s Invoice mart, M/s. M1 xchange, M/s C2treds and M/s DTX. The eligible MSME bidders can avail the discounting facility by registering either in one or multiple TReDS platform of the aggregators. It enables the sellers (MSMEs) to discount their invoices through the aggregators to the financiers at competitive rates thus unlocking their working capital swiftly.

13. GUARANTEE/ WARRANTY:

- 13.1. Materials shall be guaranteed against manufacturing defects, materials, workmanship and design for a period of 12 months from the date of commissioning or 18 months from the date of dispatch whichever is earlier. Warranty for replacement of material / accessories should be provided free of charges at our premises. The above guarantee/warranty will be without prejudice to the certificate of inspection or material receipt note issued by us in respect of the materials. In case the defect arises within the abovementioned Defect Liability Period (DLP) and the same is repaired/replaced, the DLP for the repaired/replaced job/item will be extended suitably so as to cover the original DLP. However, in no case, such extension will exceed 24 months from date of start of initial DLP.
- 13.2. All the materials including components and sub contracted items should be guaranteed by the vendor within the warranty period mentioned above. In the event of any defect in the material, the vendor will replace / repair the material at BPCL's concerned location at vendor's risk and cost on due notice.
- 13.3. In case, vendor does not replace / repair the material on due notice, rejected material will be sent to the

vendor on "Freight to pay" basis for free replacement. Material after rectification of defects shall be dispatched by the vendor on "Freight Paid" basis. Alternatively, BPCL reserves the right to have the material repaired / replaced at the locations concerned, at the vendor's risk, cost and responsibility.

- 13.4. The Vendor shall provide similar warrantee on the parts, components, fittings, accessories etc. so repaired and / or replaced.

14. PERFORMANCE BANK GUARANTEES / INSURANCE SURETY BOND:

- 14.1. Vendor will have to provide Performance Bank Guarantee / Insurance Surety Bond for 5% of the basic value of purchase order unless otherwise specified. This bank guarantee / Insurance Surety Bond shall be valid (shall remain in force) for guarantee period (as mentioned in the guarantee clause), with an invocation period of six months thereafter. In the case of Indigenous vendors, the Performance Bank Guarantee / Insurance Surety Bond shall be given on a non-judicial stamp paper of appropriate value (currently Rs 100). PBG format is as per Annexure-I / Annexure – II as applicable.

In case, PBG / Insurance Surety Bond is not provided by the Vendor, 5% of the basic value shall be retained in lieu of PBG / Insurance Surety Bond, till the expiry of guarantee / bond and claim period. In the case of imports, the Supplier shall furnish the Performance Bank Guarantee (as per Annexure-I) through the following:

- (a) Branches of Indian scheduled banks operating in their Country.
- (b) Foreign bank operating in their Country which is counter guaranteed by branches of Indian scheduled banks operating in their Country/ India.
- (c) Indian branches of foreign banks.
- (d) Foreign bank operating in their Country counter guaranteed by their Indian branch.

However, in respect of (c) and (d) above, the Indian branch of foreign banks should be recognized as scheduled bank by Reserve Bank of India.

- 14.2. If Vendor wants to submit the PBG / Insurance Surety Bond at Contract level to avoid multiple number of PBG / Insurance Surety Bond (i.e. PBG / Insurance Surety Bond issued against every purchase/ call off order) then the validity of PBG / Insurance Surety Bond will be calculated as mentioned below:

Validity of PBG / Insurance Surety Bond = Rate Contract Issue Date (Start Date of Rate Contract) + Rate Contract Period (validity of Rate Contract) + Contractual Delivery Period of material + Contractual Guarantee period + 6 month (for invocation / Claim).

- 14.3. Process for submitting Bank Guarantee / PBG under SFMS (Structured Financial Messaging System) mode as follows:

Vendors shall insist their Bank for issuance of SFMS Bank Guarantee for faster payments. Vendors shall provide BPCL's Bank Account No. & IFSC Code (Details given below) to their Bank as beneficiary at the time of application for Bank Guarantee in favor of BPCL. Issuing Bank shall issue the Bank Guarantee & send SFMS message to BPCL's Bank confirming the authenticity of Bank Guarantee who in turn shall send the confirmation to BPCL. Vendor should ensure the following for issue of E- bank guarantee:

- a. The issuing bank is on SFMS platform
- b. SFMS Message type used is 760 COV and SFMS Delivery report/ Message copy is sent along with original BG
- c. For BG amendment, message type 767COV is to be used.
- d. SFMS contains following details:
 - i. Beneficiary's bank name: ICICI Bank
 - ii. IFSC Code: ICIC0000393
 - iii. BPCL'S Customer ID: 8PCL583493800

- e. BG Issuing Bank should send the BG Issuance advice through SFMS to BPCL's designated Banker: ICICI Bank, Backbay Branch, Mumbai (IFSC: ICIC0000393).
- f. BG Issuance advice should mention applicable Unique Identifier Code (UIC) in row/ field number 7037 of SFMS Delivery Report.
- a. BPCL Location : Kharghar , Navi Mumbai
- b. Head office : Ballard Estate
- c. UIC : BPCL583493800
- g. The Original BG should be submitted along with print out of SFMS Delivery report from the BG Issuing Bank Branch.
- h. SFMS BG will help in faster verification of BGs and prompt release of payments to Vendors.

15. PACKING & MARKING:

15.1 PACKING:

- 15.1.1 Packing shall withstand the hazards normally encountered with the means of transport for the goods of this purchase order including loading and unloading operation both by crane and by pushing off.

In the case of imports, all equipments/ materials shall be suitably packed in weather proof, seaworthy/airworthy packing for ocean/air transport under tropical conditions and for rail or road or other appropriate transport in India. The packing shall be strong and efficient enough to ensure safe preservice upto the final point of destination.

Raw/Solid wood packaging material of imported items has to be appropriately treated & marked as per International Standard of Phytosanitary Measures (ISPM-15") for material originating from the contracting countries to the International Plant Protection Convention or the members of Food & Agriculture Organization. Material from non-contracting parties would have to be accompanied by a phytosanitary certificate of the treatment endorsed. The Custom Officer at Indian Port shall not release the material without appropriate compliance of the above provisions w.e.f. 01.11.2004.

- 15.1.2 The packing specification incorporated herein are supplementary to the internal and external packing methods and standards as per current general rules of J.R.A. Good Tariff Part-I. All packaging shall be done in such a manner as to reduce volume as much as possible.
- 15.1.3 Fragile articles should be packed with special packing materials depending on the type of Materials and the packing shall bear the words "HANDLE WITH CARE GLASS FRAGILE, DON'T ROLL THIS END UP. THIS END DOWN," to be indicated by arrow.
- 15.1.4 Chemicals in powder form, catalyst, refractories and like materials etc. shall be packed in drums, cans and tins only. However, Catalyst may be supplied in Jumbo bags.
- 15.1.5 The hazardous materials shall be packed in accordance with the applicable rules, regulations and tariff of all cognizant Government Authorities and other Governing bodies. It shall be the responsibility of the seller of hazardous materials to designate the material as hazardous and to identify each material by its proper commodity name and its hazardous material class code.
- 15.1.6 All packages requiring handling by crane should have sufficient space at appropriate place to put sling of suitable dia (strength). Iron/Steel angle should be provided at the place where sling marking are made to avoid damage to package/ equipment while lifting.
- 15.1.7 Item shipped in bundles must be securely tied with steel wire or strapping. Steel reinforcing rods, bars, pipes, structural members etc. shall be bundled in uniform lengths and the weight shall be within the breaking strength of the securing wire or strapping.

In the case of imports, for bundles the shipping marks shall be embossed on metal or similar tag and wired securely on each end.

- 15.1.8 All delicate surfaces on equipment/ materials should be carefully protected and painted with protective paint/compound and wrapped to prevent rusting and damage.
- 15.1.9 All mechanical and electrical equipment and other heavy articles shall be securely fastened to the case bottom and shall be blocked and braced to avoid any displacement/ shifting during transit.
- 15.1.10 Attachments and spare parts of equipment and all small pieces shall be packed separately in wooden cases with adequate protection inside the case and wherever possible should be sent along with the main equipment. Each item shall be suitably tagged with identification of main equipment, item denomination and reference number of respective assembly drawing. Each item of steel structure and furnaces shall be identified with two erection markings with minimum lettering height of 15mm. Such markings will be followed by the collection numbers in indelible ink/paint. A copy of the packing list shall accompany the materials in each package.
- 15.1.11 All protrusions shall be suitably protected by providing a cover comprising of tightly bolted wooden disc on the flanges. All nozzles, holes and openings and also all delicate surfaces shall be carefully protected against damage and bad weather. All manufactured surfaces shall be painted with rust proof paint.

In the case of imports, for bulk uniform material when packed in several cases, progressive serial numbers shall be indicated on each case.

- 15.1.12 Wherever required, equipment/ materials instruments shall be enveloped in polythene bags containing silicagel or similar dehydrating compound.
- 15.1.13 Pipes shall be packed as under:
- (a) Upto 50mm NB in wooden cases/ crates.
 - (b) Above 50mm NB and upto 100mm NB in bundles and should be strapped at minimum three places.
 - (c) Above 100mm NB in loose.
- 15.1.14 Pipes and tubes of stainless steel, copper etc. shall be packed in wooden cases irrespective of their sizes.
- 15.1.15 Pipes with threaded or flanged ends shall be protected with suitable caps covers, before packing. In the case of imports, all pipes and sheets shall be marked with strips bearing progressive no.
- 15.1.16 Detailed packing list in waterproof envelope shall be inserted in the package together with equipment/materials. One copy of the detailed packing list shall be fastened outside of the package in waterproof envelope and covered by metal cover.
- 15.1.17 The supplier shall be held liable for all damages or breakages to the goods due to the defective or insufficient packing as well as for corrosion due to insufficient protection.
- 15.1.18 Packaged equipment or materials showing damage defects or shortages resulting from improper packaging materials or packing procedures or having concealed damages or shortages, at the time of unpacking shall be to the supplier's account.

All packages which require special handling and transport should have their Centres of Gravity and the points at which they may be slung or gripped clearly indicated and marked "ATTENTION SPECIAL LOAD HANDLE WITH CARE" both in English/ Hindi Languages.

In the case of imports, a distinct colour splash in say red black around each package crate/ bundle shall be given for identification.

- 15.1.19 Along with the packed material, supplier should attach material list, manuals/instructions and also the Inspection certificate/ release note, wherever applicable.

15.2. **MARKING:** The following details to be written on the side face of packing:

- a) Purchase Order Number
- b) Consignee Name & Address
- c) Vendor Name
- d) Batch no with manufacturing date
- e) Procedure (in brief) for handling
- f) Date of dispatch etc.
- g) Expiry Date, if applicable

15.3 **IMPORTED ITEMS:** On three sides of the packages, the following marks shall appear, clearly visible, with indelible paint and on Vendor's care and expenses.

BHARAT PETROLEUM CORPORATION LIMITED

(With detailed address as given in Special Purchase Conditions)

From :

To : Bharat Petroleum Corporation Limited
With detailed address as given in Special Purchase Conditions)

Order No.:	Rev. No.:
Item :	
Equipment Nomenclature :	
Net weight :	Kgs.
Gross weight :	Kgs.
Case No. :	of Total cases:
Dimensions :	
Import License No. :	

NOTE:

Marking shall be bold - minimum letter height 5 cm. For every order and every shipment, packages must be marked with serial progressive numbering.

Top heavy containers shall be so marked either Top Heavy or Heavy Ends.

When packing material is clean and light coloured, a dark black stencil paint shall be acceptable. However, where packaging material is soiled or dark, a coat of flat zinc white paint shall be applied and allowed to dry before applying the specific markings.

In case of large equipments like vessels, heat exchangers, etc. the envelope containing the documents shall be fastened inside a shell connection, with an identifying arrow sign "documents" using indelible paint.

16. DELIVERY:

16.1. Unless otherwise mentioned, Vendor is requested to quote their best delivery schedule from the date of receipt of Purchase order.

16.2. Time being the essence of this contract, the delivery mentioned in the purchase order shall be strictly adhered to and no variation shall be permitted except with prior authorization in writing from the Owner. Goods should be delivered, securely packed and in good order and condition, at the place of delivery and within the time specified in the purchase order for their delivery.

- 16.3. The contractual delivery period is inclusive of all the lead time for engineering/ procurement of raw material, the manufacturing, inspection / testing, packing, transportation or any other activity whatsoever required to be accomplished for affecting the delivery at the required delivery point.
- 16.4. Unless otherwise specified, Material(s) shall not be despatched without prior inspection and/or testing and Release Order/Material(s) Acceptance Certificate issued by the Inspector(s).
- 16.5. BPCL shall have the right to advise any change in despatch point or destination in respect of any Material(s). Any extra expenditure incurred by the Vendor on this account supported by satisfactory documentary evidence, will be reimbursed to the Vendor by BPCL.
- 17. UNLOADING AND STACKING:**
Unloading and stacking will be arranged by BPCL. The Vendor shall send BPCL information of the proposed consignment well in advance by telegram/fax/e-mail/courier to enable BPCL to take necessary action.
- 18. TRANSIT INSURANCE:**
Unless otherwise mentioned,
- 18.1. Transit Insurance shall be covered by BPCL against its Mega Package Policy only where risk/reward has been transferred to BPCL.
- 18.2. In the case of imports, insurance against all marine and transit risk shall be covered under the Owner's marine policy. However, the Vendor shall ensure that in effecting shipments clear bill of lading/airway bill are obtained and the carrier's responsibility is fully retained on the Carriers so that the consignee's interests are fully secured and are in no way jeopardized.
- 18.3. The Vendor shall send BPCL information of the proposed consignment well in advance by fax/e-mail/courier to enable BPCL to take necessary action for the transit insurance of the consignment. Any failure by the Vendor to do so shall place the consignment at the Vendor's risk.
- 18.4. In the case of imports, as soon as any shipment is made, the Foreign Supplier shall send advance information by way of e-mail to Bharat Petroleum Corporation Limited, (with detailed address as given in Special Purchase Conditions and/or purchase order) giving particulars of the shipments, vessels name, port of shipment, bill of lading number and date, total FOB and freight value.
- 19. VALIDITY OF OFFER:**
The rates quoted against this tender shall be valid for a period of 90 Days from the date of opening of the tender unless otherwise specified in the Special Purchase Conditions.
- 20. DELIVERY DATES AND PRICE REDUCTION SCHEDULE:**
- 20.1. The time and date of Delivery of Material(s) as stipulated in the Contract shall be adhered to on the clear understanding that the Price(s) of the Material(s) has/have been fixed with reference to the said Delivery date(s).
- 20.2. If any delay is anticipated by the Vendor in the delivery of the Material(s) or any of them beyond the stipulated date(s) of Delivery, the Vendor shall forthwith inform BPCL in writing of such anticipated delay and of the steps being taken by the Vendor to remove or reduce the anticipated delay, and shall promptly keep BPCL informed of all subsequent developments.
- 20.3. The delivery period quoted must be realistic & specific. The inability of successful Vendors to execute orders in accordance with the agreed delivery schedule will entitle BPCL, at its options, to:

- 20.3.1. Accept delayed delivery at prices reduced by a sum equivalent to half percent (0.5%) of the basic value of any goods not delivered for every week of delay or part thereof, limited to a maximum of 5% of the total basic order value. LR date will be considered as delivery completion date for calculation of price reduction in the case of ex works contract. Date of receipt of materials at owner's premises shall be considered for calculation of price reduction for F.O.R destination contract.

In the case of imports, the contractual delivery date shall be considered from the date of Letter of Credit (L/C) or the date of L/C amendment because of Buyer's fault plus one week (to take care of transit time for receipt of L/C) plus the delivery schedule as indicated by the vendors.

In case of the shipment taking place on "Cash against documents", the contractual delivery shall be taken from the date of purchase order plus one week (to take care of transit time for receipt of order) plus delivery period.

Further the date of B/L or House airway bill shall be considered to find out the delay with respect to contractual delivery date. In case of FOB shipments if the vessel is not available then the intimation by vendors regarding readiness of the goods for the shipment shall be considered for calculating the delay if any. So vendor shall inform the readiness of material for shipment on FOB (Free on Board) basis/ FCA (Free on Carrier) basis.

- 20.3.2. Cancel the order in part or full and purchase such cancelled quantities from elsewhere on account at the risk and cost of the vendor, without prejudice to its right under 20.3.1 above in respect of goods delivered.

21. RISK PURCHASE CLAUSE:

BPCL reserves the right to curtail or cancel the order either in full or part thereof if the vendor fails to comply with the delivery schedule and other terms & conditions of the order. BPCL also reserves the right to procure the same or similar materials/equipment through other sources at vendor's entire risk, cost and consequences. Further, the vendor agrees that in case of procurement by the owner from other sources the differential amount paid by the owner shall be on account of the vendor together with any interest and other costs accrued thereon for such procurement.

22. FORCE MAJEURE

Circumstances leading to force majeure

- (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) Ionising 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, 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 or industrial disputes at a national or state-wide level in any country where Works are performed, and which affect an essential portion of the Works but excluding any industrial dispute which is specific to the performance of the Works or the Contract.

For the avoidance of doubt, inclement weather, third party breach, delay in supply of materials (other than

due to a nationwide transporters' strike) or commercial hardship shall not constitute a Force Majeure event.

- **Notification of Force Majeure**

Contractor shall notify within [10(ten)] days of becoming aware of or the date it ought to have become aware of the occurrence of an event of Force Majeure giving full particulars of the event of Force Majeure and the reasons for the event of Force Majeure preventing the Affected Party from, or delaying the Affected Party in performing its obligations under the Contract.

- **Right of either party to terminate**

If an event of Force Majeure occurs and its effect continues for a period of 180 (one hundred eighty days) or more in a continuous period of 365 (three hundred sixty five) days after notice has been given under this clause, either Party may terminate the Contract by issuing a written notice of 30 (thirty) days to the other Party.

- **Payment in case of termination due to Force Majeure**

The Contract Price attributable to the Works performed as at the date of the commencement of the relevant event of Force Majeure.

The Contractor has no entitlement and 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
- b) Any delay costs in any way incurred by the Contractor due to an event of Force Majeure. Time extension for such cases will be worked out appropriately.

23. DISPUTE RESOLUTION:

23.1 In the event of a dispute arising out of or in connection with this contract, including any question regarding its existence, validity or termination, the parties shall first seek settlement of that dispute by mediation in accordance with BPCL Mediation Scheme, 2025. The venue of mediation proceedings shall be at _____ (Region/HQ from where the tender has been floated). BPCL Mediation Scheme 2025 can be accessed at <https://www.bharatpetroleum.in/images/files/bpcl-mediation-scheme-2025.pdf>

23.2 If the dispute is not settled by mediation in terms of BPCL Mediation Scheme, 2025, then the dispute shall be referred for adjudication through a court of competent jurisdiction in India.

23.3 The governing law of the contract shall be the substantive laws of India.

23.4 Neither party shall be entitled for any pre-filing interest, i.e., from the date of cause of action till the date of filing of civil suit. Parties agree that any claim for any such interest shall not be considered and shall be void. The Civil Court/Commercial Court shall have no right to grant any pre-filing interest to either of the parties.

23.5 In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/Port Trusts inter se and also between CPSEs and Government Departments/Organisations (excluding disputes relating to Income Tax, Customs & Excise Departments*), such dispute or difference shall be taken up by either party for its resolution through AMRCD as mentioned in DPE OM no. 05/0003/2019-FTS-10937 dated 14th December, 2022 and the decision of AMRCD on the said dispute will be binding on both the parties.

(* The exclusion would also include disputes concerning GST, State level Sales Tax / VAT etc; though not mentioned explicitly).

24. INTEGRITY PACT (IP):

Vendors are requested to sign & return our pre-signed IP document, if applicable. This document is essential & binding. Vendor's failure to return the IP document duly signed along with Bid Document may result in the bid not being considered for further evaluation.

25. RECOVERY OF SUMS DUE:

Whenever, any claim against vendor for payment of a sum of money arises out of or under the contract, the owner shall be entitled to recover such sums from any sum then due or when at any time thereafter may become due from the vendor under this or any other contract with the owner and should this sum be not sufficient to cover the recoverable amount of claim(s), the vendor shall pay to BPCL on demand the balance remaining due.

26. CONFIDENTIALITY OF TECHNICAL INFORMATION:

Drawing, specifications and details shall be the property of the BPCL and shall be returned by the Vendor on demand. The Vendor shall not make use of drawing and specifications for any purpose at any time save and except for the purpose of BPCL. The Vendor shall not disclose the technical information furnished to or organized by the Vendor under or by virtue of or as a result of the implementation of the Purchase Order to any person, firm or body or corporate authority and shall make all endeavors to ensure that the technical information is kept CONFIDENTIAL. The technical information imparted and supplied to the vendor by BPCL shall at all time remain the absolute property of BPCL. Imparting of any confidential information by the Vendor will be breach of contract.

27. PATENTS & ROYALTIES:

The vendor shall fully indemnify BPCL and users of materials specified herein/supplied at all times, against any action, claim or demand, costs and expenses, arising from or incurred by reasons of any infringement or alleged infringement of any patent, registered design, trademark or name, copy right or any other protected rights in respect of any materials supplied or any arrangement, system or method of using, fixing or working used by the vendor. In the event of any claim or demand being made or action sought against BPCL in respect of any of the aforesaid matter, the vendor shall be notified thereof immediately and the vendor shall at his/its own expense with (if necessary) the assistance of BPCL (whose all expense shall be reimbursed by the vendor) conduct all negotiations for the settlement of the same and/or litigation which may arise thereof.

28. LIABILITY CLAUSE:

In case where it is necessary for employees or representatives of the Vendor to go upon the premises of owner, vendor agrees to assume the responsibility for the proper conduct of such employees/representatives while on said premises and to comply with all applicable Workmen's Compensation Law and other applicable Government Regulations and Ordinances and all plant rules and regulations particularly in regard to safety precautions and fire hazards. If this order requires vendor to furnish labour at site, such vendor's workmen or employees shall under no circumstances be deemed to be in owner's employment and vendor shall hold himself responsible for any claim or claims which they or their heirs, dependent or personal representatives, may have or make, for damages or compensation for anything done or committed to be done, in the course of carrying out the work covered by the purchase order, whether arising at owner's premises or elsewhere and agrees to indemnify the owner against any such claims, if made against the owner and all costs of proceedings, suit or actions which owner may incur or sustain in respect of the same.

29. LIMITATION OF LIABILITY FOR GOODS PROCUREMENT :

The aggregate total 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:

- (a) In the event of breach of any Applicable Law;
- (b) In the event of fraud, willful misconduct or illegal or unlawful acts, or gross negligence of the Contractor or any person acting on behalf of the Contractor; or
- (c) In the event of acts or omissions of the Contractor which are contrary to the most elementary rules of diligence which a conscientious Contractor would have followed in similar circumstances; or
- (d) In the event of any claim or loss or damage arising out of infringement of Intellectual Property; or
- (e) 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.

Neither Party shall be liable to the other Party for any kind of indirect or consequential loss or damage like, loss of use, loss of profit, loss of production or business interruption which is connected with any claim arising under the Contract.

30. COMPLIANCE OF REGULATIONS:

Vendor warrants that all goods/Materials covered by this order have been produced, sold, dispatched, delivered and furnished in strict compliance with all applicable laws, regulations, labour agreement, working condition and technical codes and statutory requirements as applicable from time to time. The vendor shall ensure compliance with the above and shall indemnify owner against any actions, damages, costs and expenses of any failure to comply as aforesaid.

31. REJECTION, REMOVAL OF REJECTED GOODS AND REPLACEMENT:

In case the testing and inspection at any stage by inspectors reveal that the equipment, materials and workmanship do not comply with specification and requirements, the same shall be removed by the vendor at his/its own expense and risk, within the time allowed by the owner. The owner shall be at liberty to dispose off such rejected goods in such manner as he may think appropriate. In the event the vendor fails to remove the rejected goods within the period as aforesaid, all expenses incurred by the owner for such disposal shall be to the account of the vendor. The freight paid by the owner, if any, on the inward journey of the rejected materials shall be reimbursed by the vendor to the owner before the rejected materials are removed by the vendor. The vendor will have to proceed with the replacement of the equipment or part of equipment without claiming any extra payment if so required by the owner. The time taken for replacement in such event will not be added to the contractual delivery period.

32. NON-WAIVER:

Failure of the Owner to insist upon any of the terms or conditions incorporated in the Purchase Order or failure or delay to exercise any rights or remedies herein, or by law or failure to properly notify Vendor in the event of breach, or the acceptance of or payment of any goods hereunder or approval of design shall not release the Vendor and shall not be deemed a waiver of any right of the Owner to insist upon the strict performance thereof or of any of its or their rights or remedies as to any such goods regardless of when such goods are shipped, received or accepted nor shall any purported oral modification or revision of the order by BPCL act as waiver of the terms hereof. Any waiver to be effective must be in writing. Any lone incident of waiver of any condition of this agreement by BPCL shall not be considered as a continuous waiver or waiver for other condition by BPCL.

33. NEW & UNUSED MATERIAL:

All the material supplied by the vendor shall be branded new, unused and of recent manufacture.

34. PURCHASE PREFERENCE CLAUSE:

Owner reserves its right to allow Public Sector Enterprises (Central/State), purchase preference as admissible/ applicable from time to time under the existing Govt. policy. Purchase preference to a PSE shall be decided based on the price quoted by PSE as compared to L1 Vendor at the time of evaluation of the price bid.

Owner reserves its right to allow Micro and Small Enterprises (MSEs), MSEs owned by Women Entrepreneurs and MSEs owned by Scheduled Caste (SC) or the Scheduled tribe (ST) entrepreneurs, purchase preference as admissible/applicable from time to time under the existing Govt. policy. Purchase preference to a MSE, a MSE owned by women entrepreneurs and a MSE owned by SC/ST entrepreneurs shall be decided based on the price quoted by the said MSEs as compared to L-1 Vendor at the time of evaluation of the price bid.

Bidders claiming purchase preference as MSE need to submit the following documents:

- Self-attested copy of all the pages of the EM-II certificate/Udyog Adhar Memorandum issued by the appropriate authorities mentioned in the Public procurement policy of MSEs-2012 and
- Vendor's declaration/affidavit in their organization/Company letter head, stating that, in the event of award of contract, all the ordered supplies shall be made from the unit for which MSE certificate has been submitted.

35. CANCELLATION:

35.1. BPCL reserves the right to cancel the contract/purchase order or any part thereof through a written notice to the vendor if:

35.1.1. The vendor fails to comply with the terms of this purchase order/contract.

35.1.2. The vendor becomes bankrupt or goes into liquidation.

35.1.3. The vendor fails to deliver the goods on time and/or replace the rejected goods promptly.

35.1.4. The vendor makes a general assignment for the benefit of creditors.

35.1.5. A receiver is appointed for any of the property owned by the vendor.

35.2. Upon receipt of the said cancellation notice, the vendor shall discontinue all work on the purchase order matters connected with it. BPCL in that event will be entitled to procure the requirement in the open market and recover excess payment over the vendor's agreed price if any, from the vendor and also reserving to itself the right to forfeit the security deposit if any, made by the vendor against the contract. The vendor is aware that the said goods are required by BPCL for the ultimate purpose of materials production and that non-delivery may cause loss of production and consequently loss of profit to the BPCL. In this-event of BPCL exercising the option to claim damages for non delivery other than by way of difference between the market price and the contract price, the vendor shall pay to BPCL, fair compensation to be agreed upon between BPCL and the vendor. The provision of this clause shall not prejudice the right of BPCL from invoking the provisions of price reduction clause mentioned in 20.3.1 as aforesaid.

36. ANTI –COMPETITIVE AGREEMENTS/ABUSE OF DOMINANT POSITION:

The Competition Act, 2002 as amended by the Competition (Amendment) Act, 2007 (the Act), prohibits anti- competitive practices and aims at fostering competition and at protecting Indian markets against anti-competitive practices by enterprises. The Act prohibits anti- competitive agreements, abuse of dominant position by enterprises, and regulates combinations (consisting of acquisition, acquiring of

control and M&A) wherever such agreements, abuse or combination causes, or is likely to cause, appreciable adverse effect on competition in markets in India. BPCL reserves the right to approach the Competition Commission established under the Act of Parliament and file information relating to anti-competitive agreements and abuse of dominant position. If such a situation arises, then Vendors are bound by the decision of the Competitive Commission and also subject to penalty and other provisions of the Competition Act.

37. ASSIGNMENT:

The Vendor does not have any right to assign his rights and obligations under these general purchase conditions without the prior written approval of BPCL.

38. GOVERNING LAW:

These General Purchase Conditions shall be governed by the Laws of India.

39. AMENDMENT:

Any amendment to these General Purchase Conditions can be made only in writing and with the mutual consent of the parties to these conditions.

40. NOTICES:

Any notices to be given hereunder by a Party to the other shall be in English and delivered by hand or sent by courier or facsimile to the other Party at the address or facsimile number stated below or such other address or number as may be notified by the relevant Party from time to time.

41. POLICY ON HOLIDAY LISTING:

The guidelines and procedures for Holiday Listing are available separately in BPCL website and shall be applicable in the context of all tenders floated and consequently all orders/ contracts / purchase orders. It can be accessed using the following link: <https://www.bharatpetroleum.in/pdf/Holiday-Listing-Policy-2024.pdf>

42. ORDER OF PRECEDENCE FOR PURCHASES :

1. Purchase Order
2. Detailed letter of Acceptance along with its enclosures
3. Letter of Award / Fax of Acceptance
4. Job Specifications (specific to particular job only)
5. Drawings
6. Special Purchase Conditions (SPC)
7. Technical Specifications
8. Instructions to Bidders
9. General Purchase Conditions (GPC)
10. Other Documents

Additionally, any variation or amendment / change order issued after signing of formal contract shall take precedence over respective clauses of the formal contract and its Annexures.

43. TERMINATION FOR CONVENIENCE:

The purchaser may, by written notice of 14 days sent to the seller, cancel the contract, in whole or part, at any time for his convenience. The notice of cancellation shall specify that cancellation is for the

purchaser's convenience, the extent to which performance of work under the contract is cancelled and the date upon which such cancellation becomes effective.

The goods that are complete and ready for shipment within 30 days after the seller's receipt of notice of cancellation shall be purchased by the purchaser at contract terms and prices. For the remaining goods, the purchaser may opt :-

- a. To have any portion completed and delivered at the contract terms and prices
- and / or
- b. To cancel the remainder and pay to the seller an agreed amount for partially completed goods and materials and parts previously procured by the seller.

44. BUILDING AND OTHER CONSTRUCTION WORKERS CESS:

a. Bidders to note that under Building and other Construction Workers Welfare Act (Re&CS) Act 1996, Cess is applicable to contracts executed outside Factory Area (e.g. construction of new industrial installation, office & residential buildings etc.) as per the provisions applicable under 'The Building and Other Construction Workers Welfare Cess Act 1996'.

b. The contractor must be registered with the concerned authorities under the Building and other Construction Workers" (RE&CS) Act, 1996 or in case of non-registration; the contractor should obtain registration within one month of the award of contract.

c. The contractor shall be responsible to comply with all provisions of the Building and Other Construction Workers" (RE&CS) Act, 1996, the Building and other Construction Workers" Welfare Cess Act, 1996, the Building and other Construction Workers" (RE&CS) Rules, 1998 and the Building and other Construction Workers Welfare Cess Rules, 1998.

d. Cess, as per the prevailing rate (presently 1%), shall be deducted at source from bills of the contractors by the Engineer-in-Charge and remitted to the "Secretary, Building and other Construction Workers Welfare Board" of the concerned State.

e. The contractor shall be responsible to submit final assessment return of the Cess amount to the assessing officer after adjusting the Cess deducted at source.

BPCL

VENDOR

Please sign & return all the pages of GPC as a token of your acceptance of all the terms & conditions as mentioned.

Annexure I

PERFORMANCE BANK GUARANTEE
(On Non-judicial paper for appropriate value)

To,
Bharat Petroleum Corporation Limited

Dear Sir,

In consideration of the Bharat Petroleum Corporation Limited, (hereinafter called 'the Company' which expression shall include its successors and assigns) having awarded to M/s. (Name)(Constitution).....(address) (hereinafter referred to as "The vendor" which expression shall wherever the subject or context so permits include its successors and assigns) a supply contract in terms interalia, of the Company's Purchase order No..... dated and the General and Special Purchase Conditions of the Company and upon the condition of vendor's furnishing security for the performance of the vendor's obligations and/or discharge of the vendor's liability under and / or in connection with the said supply contract upto a sum of Rs. (in figures).....Rs (in words) only amounting to 5% (five percent) of the total contract value.

We, (Name).....(constitution)(hereinafter called "the Bank" which expression shall include its successors and assigns) hereby jointly and severally undertake and guarantee to pay to the Company in ---- (Currency) forthwith on demand in writing and without protest or demur of any and all moneys any wise payable by the Vendor to the Company under in respect of or in connection with the said supply contract inclusive of all the Company's losses and expenses and other moneys anywise payable in respect to the above as specified in any notice of demand made by the Company to the Bank with reference to this Guarantee upto an aggregate limit of Rs(in figures).....Rs(in words) only.

AND the Bank hereby agrees with the Company that

- (i) This Guarantee/undertaking shall be a continuing guarantee and shall remain valid and irrevocable for all claims of the Company and liabilities of the vendor arising upto and until midnight of

This date shall be 6 months from the last date of guarantee period.

- (ii) This Guarantee/ Undertaking shall be in addition to any other guarantee or security of whatsoever that the Company may now or at any time otherwise have in relation to the vendor's obligation/liabilities under and /or connection with the said supply contract, and the Company shall have full authority to take recourse to or reinforce this security in preference to the other security(ies) at its sole discretion, and no failure on the part of the Company in enforcing or requiring enforcement of any other security shall have the effect of releasing the Bank from its liability hereunder.
- (iii) The Company shall be at liability without reference to the Bank and without effecting the full liability of the Bank hereunder to take any other security in respect of the vendor's obligations and /or liabilities under or in connection with the said supply contract and to vary the terms vis a vis the vendor of the said supply contract or to grant time and/ or indulgence to the vendor or to reduce or to increase or otherwise vary the prices of the total contract value or to release or to forbear from enforcement all or any of the obligations of the vendor

under the said supply contract and/ or the remedies of the Company under any other security(ies) now or hereafter held by the Company and no such dealing(s), variation(s), reduction(s), increase(s) or the indulgence(s) or arrangement(s) with the vendor or release or forbearance whatsoever shall have the effect of releasing the Bank from its full liability to the Company hereunder or of prejudicing rights of the Company against the Bank.

- (iv) This Guarantee /Undertaking shall not be determined by the liquidation or winding up or dissolution or change of constitution or insolvency of the vendor but shall in all respects and for all purposes be binding and operative until payment of all moneys payable to the Company in terms hereof.
- (v) The Bank hereby waives all rights at any time inconsistent with the terms of the Guarantee/ Undertaking and the obligations of the Bank in terms hereof shall not be anywhere affected or suspended by reason of any dispute or disputes having been raised by the vendor (whether or not pending before any Arbitrator, officer, Tribunal or Court) or any denial of liability by the vendor or any other order of communication whatsoever by the vendor stopping or preventing or purporting to stop or prevent any payment by the Bank to the Company in terms hereof.
- (vi) The amount stated in any notice of demand addressed by the Company to the Guarantor as liable to be paid to the Company by the vendor or as suffered or incurred by the Company on account of any losses or damages of costs, charges and or expenses shall as between the Bank and the Company be conclusive of the amount so liable to be paid to the Company or suffered or incurred by the Company, as the case may be and payable by the Guarantor to Company in terms hereof.

Yours faithfully,

(Signature)

NAME & DESIGNATION

NAME OF THE BANK

NOTES:

Annexure II

Form of Insurance Surety Bond towards Bid Security (EMD) / Performance Security
[To be stamped in accordance with Stamp Act of India]

Insurance Surety Bond No.

Date

To

[Bharat Petroleum Corporation Limited]

Dear Sirs,

In accordance with Invitation for Bids under your Tender No. & date.....,
M/s.....[Bidder's Name]..... having its Registered / Head Office at
..... (hereinafter called the 'Bidder') wish to participate / have been awarded [as the case may be] in the said tender for [Procurement description / Tender Title].

As an irrevocable Insurance Surety Bond against Bid Security (EMD) / Performance Security [as the case may be] for an amount of [EMD / Performance Security amount] and remain in full force for a period of (days) i.e. up to [Validity Date] from the Bid Due Date and with an additional claim period of(days) i.e. up to [Claim Period Validity Date] required to be submitted by the Bidder as a condition precedent for participation in the said bid / award of contract [as the case may be] which amount is liable to be forfeited on the happening of any contingencies as mentioned under the Bidding Documents / Contract / LoA.

We, the [Name of the Insurer] registered under IRDAI having our Head Office at
.....[Address of the Insurer] guarantee and undertake to pay immediately on demand by Bharat Petroleum Corporation Limited (hereinafter called the 'Beneficiary') the amount of [EMD / Performance Security amount] without any reservation, protest, demand and recourse. Any such demand made by the Beneficiary shall be conclusive and binding on us irrespective of any dispute or difference raised by the Bidder and / or any right / remedy available to the bidder in terms thereof.

This Insurance Surety Bond shall be unconditional as well as irrevocable and shall remain valid up to [Claim date]. If any further extension of this Insurance Surety Bond is required, the same shall be extended to such required period on receiving instructions from M/s [Bidder's Name] on whose behalf this Insurance Surety Bond is issued.

The Insurer declares that it has power to issue this Surety Bond and discharge the obligations contemplated herein, the undersigned is duly authorised and has full power to execute this Surety Bond for and on behalf of the Insurer.

The Surety Bond shall not be affected by any change in the constitution or winding up of the Bidder or the Insurer or any absorption, merger or amalgamation of the Bidder or the Insurer with any other person.

In witness where of the Insurer, through its authorised officer, has set its hand and stamp on this.....day of.....20.....at.....

.....
(Signature)

.....
(Name)

.....
(Designation with Insurer Stamp)

Contact Details & Address of Surety Insurer for verification:

Name (Official):

Branch Address:.....

Telephone No.:.....

Mobile No:.....

E-mail:.....

GENERAL CONDITIONS OF CONTRACT (GCC)



BHARAT PETROLEUM CORPORATION LIMITED

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GENERAL CONDITIONS OF CONTRACT

SECTION - I

DEFINITION OF TERMS

In the contract documents as herein defined where the context so admits, the following words and expressions will have following meanings :

- 1) "The Owner/Company/BPCL" means the Bharat Petroleum Corporation Limited, incorporated in India having its registered office at 4 & 6, Currimbhoy Road, Ballard Estate, Mumbai - 400 038 or their successors or assigns
- 2) "The Contractor" means the person or the persons, firm or Company whose tender has been accepted by the Owner and includes the Contractor's legal representative, his successor and permitted assigns.
- 3) The "Managing Director" shall mean the Chairman and Managing Director of the Bharat Petroleum Corporation Limited or his successor in office designated by the Owner.
- 4) The "Engineer-in-Charge" shall mean the person designated as such by the Owner and shall Include those who are expressly authorised by the Owner to act for and on his behalf for operation of this contract.
- 5) The "Work" shall mean the works to be executed in accordance with the contract or part thereof as the case may be and shall include extra, additional, altered or substituted works as required for purpose of the contract.
- 6) The "Permanent Work" means and includes works which will 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.
- 7) The "Construction Equipment" means all appliances, Tools/Tackles and equipment of whatsoever nature for the use in or for the execution, completion, operation or maintenance of the work unless intended to form part of the Permanent work.
- 8) The "Site" means the areas on which the permanent works are to be executed or carried out and any other places provided by the Owner for purpose of the contract.
- 9) The "Contract Document" means collectively the Tender Document. Designs. Drawings or Specifications, agreed variations, if any, and such other document constituting the tender and acceptance thereof.
- 10) The "Consultant" means the consulting engineers Nominated/appointed by the Owner for this Project / job.
- 11) The "Sub-Contractor" means any person or firm or Company (other than the Contractor) to whom any part of the work has been entrusted by the Contractor, with the written consent of the Engineer-in-Charge, and the legal personal representatives, successors and permitted assigns of such person, firm or company.
- 12) The "Contract" shall mean the Agreement between the Owner and the Contractor for the execution of the works including therein all contract documents.
- 13) The "Specification" shall mean the various technical specifications attached and referred to in the tender documents. It shall also include the latest editions, including all addenda/corrigenda, of relevant Indian Standard Specification, specifications of the other country published before entering into Contract.
- 14) The "Drawings" shall include maps, plans and tracings or prints thereof with any modifications approved in writing by the Engineer-in-Charge and such other drawings as may, from time to time, furnished or approved in writing by the Engineer-in-Charge.
- 15) The "Tender" means the tender submitted by the Contractor for acceptance by the Owner.
- 16) The "Alteration Order" means an order given in writing by the Engineer-in-Charge to effect additions to or deletion from and alterations in the works.
- 17) The "Completion Certificate" shall mean the certificate to be issued by the Engineer-in-Charge to the contractor when the works have been completed to his satisfaction.
- 18) The "Final Certificate" in relation to a work means the certificate issued by the Engineer-in-Charge after the period of liability is over for releasing the retention money/ PBG /Insurance Surety Bond .
- 19) The "Period of Liability" in relation to a work means the specified period during which the Contractor stands responsible for rectifying all defects that may appear in the works.

SECTION - II

GENERAL INFORMATION ABOUT SITE

2.1 LOCATION OF SITE & ACCESSIBILITY:

The site location is described in the Special Conditions of Contract. The intending tenderer should inspect the site and make himself familiar with site conditions and available facilities.

Entry into the BPCL areas is restricted depending on location/site. Only pass holders as also vehicles with special permits are permitted in such restricted areas. Inside the premises access to various work spots is also further regulated by permits issued for each area. Non-availability of access roads or permits for entry of vehicles/equipment to any specific area shall in no case be the cause to condone any delay in execution of works or be the cause for any claims or extra compensations.

2.2 SCOPE OF WORK

The scope of work is defined in the Special Conditions of Contract and specifications. The Contractor shall provide all necessary materials, equipments / Tools and Tackles / Supervision / labour etc. for the execution and maintenance of the work till completion unless otherwise mentioned in these tender documents. All materials that go with the work shall be approved by Engineer-in-Charge prior to procurement and use.

2.3 LAND FOR **CONTRACTOR'S** FIELD, GODOWN AND WORKSHOP:

The tenderer should visit the site and acquaint himself with site conditions, availability of water, electricity, approach roads, construction materials as per specifications, shelter for his staff, etc. since these are to be provided/arranged by the tenderer (unless otherwise specified) at his cost.

The owner will, at his discretion and convenience based on availability for the duration of the execution of the work, make available, land for construction of contractor's field office, go-downs, workshop and fabrication yard required for the execution of the contract. The contractor shall at his own cost construct all these temporary buildings and provide suitable water supply and sanitary arrangement approved by the Engineer-in-Charge.

On completion of the works undertaken by the Contractor, he shall remove all temporary works/ shed 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 material, dispose off 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 claim in respect of any such surplus materials disposed off as aforesaid. But the Owner reserves the right to ask the Contractor any time during the pendency of the contract to vacate the land by giving seven days notice on security reasons or on material interest otherwise.

2.4 SAFETY STANDARDS FOR TEMPORARY BUILDINGS

All temporary buildings, sheds, workshops, field stations etc. shall be constructed in conformation with the safety and security regulations of the owner as regards location and type of structure.

SECTION - III
GENERAL INSTRUCTION FOR THE TENDERER

3 SUBMISSION OF TENDER:

- 3.1 The quotation should be submitted only in the manner and the form prescribed in the Request For Quotation (RFQ)/Tender enquiry.
- 3.2 Addenda/Corrigenda to this tender document if issued must be signed and submitted along with the tender document. The tenderer should consider the Addenda/Corrigenda and should price the work based on revised quantities when amendments for quantities are issued in addenda.
- 3.3 Tenders should always be placed in double sealed covers, superscribing Tender No _____ Tender for _____ (name of job), Bharat Petroleum Corporation Limited, due for opening on _____
The full name, postal address and telegraphic address of the tenderer shall be written on the bottom left hand corner of the sealed cover. (This will not be applicable in the case of e-tenders) Tenders received in open condition (priced bid) are liable to be rejected.
- 3.4 Instructions for two part bidding
- i) The bid should be submitted in two parts viz.
 - a. Techno-commercial bid.
 - b. Price bid.
 - ii) Techno-commercial bid shall have the following information/details
 - a. Technical deviation if any.
 - b. Commercial deviation if any like extra taxes, duties etc.
 - c. Copy of price bid with prices blanked off.
 - d. Any other relevant information.
 - iii) Price Bid shall have only prices as per schedule of Rates.
 - iv) Techno-commercial bid and price bid shall be enclosed in two separate envelopes with the subject job, type of bid, bidders name super-scribed on top. Both these envelopes shall be sealed in a common envelope and submitted as specified above and in covering letter. (This will not be applicable in the case of e-tenders)

4 DOCUMENTS:

- 4.1 The tenders, as submitted shall include all documents/details asked for by BPCL in the RFQ/Tender enquiry.
- 4.2 All pages to be initialed:
- Wherever signed tender documents are submitted, all signatures in the documents shall be dated, as well as all the pages of the documents shall be initialed at the lower right hand corner and signed wherever required in the tender papers by the tenderer or by a person holding power of attorney authorizing him to sign on behalf of the tenderer before submission of tender. Tenders without signatures as stated above are liable to be rejected.
- 4.3 Rates to be in Figures and Words:
- The tenderer should quote the rates in English both in figures as well as in words. Offers received without the rates in figures and in words are liable for rejection. In case of discrepancy exists between the rate quoted in figures and in words, the rates quoted in words will prevail.
- 4.4 Corrections and Erasures:
- All corrections and alteration in the entries of tender papers will be signed in full by the tenderer with date. No erasures or over-writings are permissible.
In case of priced bids containing overwriting/cuttings/erasures in the quoted rates and in case these are not attested by the signatory of the bid, such priced bids are liable to be rejected without giving any further notice.
- 4.5 Signature of Tenderer:
- The tender shall contain the name, residence and place of business of person or persons making the tender and shall be signed by the tenderer with his usual signature with company stamp. Partnership firms shall furnish the full names of all partners in the tender. It should be signed in the partnership name by all the partners or by duly authorized representative followed by the name and designation of the person signing with company stamp.
Tender by Company or Corporation registered under the relevant companies act, shall be signed by the authorized representative and a power of attorney in that behalf shall accompany the tender. Transfer of tender documents issued to one intending tenderer to another is not permissible.

5 PURCHASE PREFERENCE:

Owner reserves its right to allow Public Sector Enterprises (Central/State), purchase preference as admissible/applicable from time to time under the existing Govt. policy. Purchase preference to a PSE shall be decided based on the price quoted by PSE as compared to L1 Vendor at the time of evaluation of the price bid.

Owner reserves its right to allow Micro and Small Enterprises (MSEs), MSEs owned by Women Entrepreneurs and MSEs owned by Scheduled Caste (SC) or the Scheduled tribe (ST) entrepreneurs, purchase preference as admissible/applicable from time to time under the existing Govt. policy. Purchase preference to a MSE, a MSE owned by women entrepreneurs and a MSE owned by SC/ST entrepreneurs shall be decided based on the price quoted by the said MSEs as compared to L1 Vendor at the time of evaluation of the price bid.

6 (a) EARNEST MONEY:

The tenderer must submit/ deposit earnest money, if specified in the RFQ/Tender enquiry, failing which the tender is liable to be rejected. Earnest Money Deposit shall be submitted in the form of crossed Demand Draft in favour of "Bharat Petroleum Corporation Ltd." / Electronic Funds Transfer to BPCL Bank Account / Bank Guarantee executed by any Scheduled Bank approved by Reserve Bank of India (as per Proforma provided in Annexure) / Insurance Surety Bond (as per Proforma provided in Annexure). Earnest Money Deposit (EMD) shall be valid for a period of 6 (Six) months from the due date of opening of Techno-commercial Bids and shall be submitted from any Indian Scheduled Commercial Bank / Indian Branch of Foreign Bank. EMD submitted by foreign vendors shall be in USD / EURO only. In case of limited tender, Earnest Money deposit (EMD) is not applicable for registered contractors of BPCL.

NOTE : Exemption of Bidding Document fee and EMD will be applicable for Micro and Small Enterprises (MSEs) registered with District Industries Centres (DIC) or Khadi and Village Industries Commission or Khadi and Village Industries Board or Coir Board or National Small Industries Corporation (NSIC) or Directorate of Handicraft and Handloom or MSEs having Udyog Aadhaar Memorandum or any other body specified by Ministry of Micro, Small and Medium Enterprises. Such bidder shall submit Self attested copy of the certificate, valid upto validity of the offer, indicating that their registration includes the items/works under tender. The registration certificate should remain valid during the period of the contract that may be entered into such successful bidder. Such tenderers should ensure validity of the Registration Certificate for the purpose.

NOTE: No interest shall be paid by the Owner on the earnest money deposit by the tenderer. The earnest money of the unsuccessful tenderer will be refunded after the completion of BQC evaluation / Technical Evaluation / Priced Bid Evaluation as applicable.

(b) CONVERSION OF EMD TO SECURITY DEPOSIT:

The earnest money deposit (EMD) of the contractor whose tender may be accepted, if paid in forms other than Bank Guarantee / Insurance Surety Bond, can be converted to security deposit for due performance of the contract if the contractor so desires. The "performance security deposit/retention money" vide clause 18 shall also be applicable limiting to a maximum of 10% of the contract value.

7 (a) BID VALIDITY:

Tender submitted by tenderers shall remain valid for acceptance for a period of four months from the date of opening of the tender (Technical Bid in the case of two bid). The tenderer shall not be entitled during the said period of four months, without the consent in writing of the Owner, to revoke, or cancel his tender or vary the tender given or any term thereof. In case of tenderer revoking or canceling his tender, varying any terms in regard thereof without the consent of Owner in writing, appropriate penal action will be taken by BPCL as deemed fit including putting the tenderer/contractor on 'Holiday listing'/'Delisting' barring the tenderer/contractor from participating in future tenders for an appropriate period from the date of revocation/cancellation/varying the terms. Further in the case of contractors who are not registered with BPCL, the earnest money deposited by him will be forfeited. Once the quotation is accepted the rates quoted shall be firm till the entire work is completed.

(b) LANGUAGE OF BID:

The Bid, all correspondence and documents relating to the bid, between Bidder and BPCL, shall be written in English language only. Any supporting document furnished by Bidder may be written in other language provided that this literature is accompanied by an authenticated English translation in which case, for purpose of interpretation of the Bid, the English translation shall govern.

8 ADDENDA / CORRIGENDA:

Addenda/ Corrigenda to the tender documents may be issued prior to the date of opening of the tenders to clarify documents or to effect modification in the design or tender terms. All addenda/corrigenda issued shall become part of tender Document.

9 RIGHT OF OWNER TO ACCEPT OR REJECT TENDER:

- 9.1 The right to accept the tender will rest with the Owner. The Owner, however, does not bind itself to accept the lowest tender, and reserves to itself the authority to reject any or all the tenders received without assigning any reason whatsoever.
- 9.2 The whole work may be split up between two or more contractors or accepted in part and not entirely if considered expedient.
- 9.3 Tenders in which any of the particulars and prescribed informations are missing or are incomplete in any respect and/or the prescribed conditions are not fulfilled are liable to be rejected.
- 9.4 Canvassing in connection with tenders is strictly prohibited and tenders submitted by the tenderer who resort to canvassing will be liable to rejection.
- 9.5 Tender containing uncalled remarks or any additional conditions are liable to be rejected.
- 10 (a) INTEGRITY PACT (IP):

Vendors are requested to sign & return our pre-signed IP document, if applicable. This document is essential & binding. Vendor's failure to return the IP document duly signed along with Bid Document may result in the bid not being considered for further evaluation.

(b) HOLIDAY LISTING:

The vendors / contractors are expected to adopt the ethics of highest standards and a very high degree of integrity, safety and quality consciousness, commitment and sincerity towards the work undertaken and dealing with BPCL in such matters. Also, while participating in the tender and performing the contracts, Contractors are required to meet certain performance criteria and adherence to the terms and conditions of the tender / contract. BPCL shall have the right to remove from the list of approved suppliers / contractors or to ban business dealings, if any agency has been found to have committed misconduct or fraud or poor performance or anything unethical not expected from a reputed agency. The guidelines and procedures for Holiday Listing as adopted by BPCL and available separately in BPCL website shall be applicable in the context of all tenders floated and consequently, all Orders / Contracts / Purchase Orders placed, by BPCL. It can be accessed using the following link: <https://www.bharatpetroleum.in/pdf/Holiday-Listing-Policy-2024.pdf>

(c) 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:

(i) 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.

(ii) Tax Residency Certificate (TRC)

TRC containing prescribed particulars as per the Annexure 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.

(iii) Form 10F

In addition to TRC, in order to claim the benefits of DTAA, bidder shall also submit additional information in form no. 10F as per Annexure. 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.

11 COLLECTION OF DATA **TENDERER'S** RESPONSIBILITY & TIME SCHEDULE:

The tenderer shall visit the site and acquaint himself fully of the site and no claims whatsoever will be entertained on the plea of ignorance or difficulties involved in execution of work or carriage of materials.

The time period allowed for carrying out the job shall be as shown in tender document. Request for revision for time schedule after tenders are opened will not be received for consideration.

12 RETIRED GOVERNMENTS OR COMPANY OFFICER:

No Engineer of Gazetted rank or other Gazetted Officer, employed in Engineering or Administrative duties in an Engineering Department of the States/Central Government or of the Owner is allowed to work as a Contractor for a period of two years after his retirement from Government service or from the employment of the Owner without the previous permission of the Owner. The contract, if awarded, is liable to be cancelled if either the 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 as aforesaid before submission of tender, or engagement in the Contractor's service as the case may be.

13 SIGNING OF THE CONTRACT:

The successful tenderer shall be required to execute an agreement in the proforma attached with tender enquiry within a period of one month of the receipt by him of the notification of acceptance of tender. The payment will not be processed till the time the agreement is executed.

14 (a) FIELD MANAGEMENT:

The field management will be the responsibility of the Engineer-in-Charge, who will be nominated by the Owner. The Engineer-in-Charge may also authorize his representatives to perform his duties and functions.

Coordination of Work - The Engineer-in-Charge shall coordinate the work of various agencies engaged at site to ensure minimum disruption of work carried out by different agencies. It shall be the responsibility of the contractor to plan and execute strictly in accordance with the site instructions to avoid hindrance to the works being executed by other agencies.

14 (b) CONSULTANCY CONTRACTS:

This General Conditions of Contract (GCC) will be binding for Consultancy jobs only to the extent of its applicability to the context of consultancy jobs.

SECTION - IV
INTERPRETATION OF CONTRACT DOCUMENTS

15 INTERPRETATION OF CONTRACT DOCUMENT:

- 15.1 Except if and to the extent otherwise provided by the Contract, the provisions of the General Conditions of Contract and special conditions shall prevail over those of any other documents forming part of the contract. Several documents forming the contract are to be taken as mutually explanatory. Should there be any discrepancy, inconsistency, error or omission in the contract or any of the matter may be referred to Engineer-in-Charge, who shall give his decisions and issue to the Contractor instructions directing in what manner the work is to be carried out. The decision of the Engineer-in-Charge shall be final and conclusive and the contractor shall carry out work in accordance with this decision.
- 15.2 Works shown upon the drawing but not mentioned in the specifications or described in the specification without being shown on the drawings shall nevertheless be held to be included in the same manner as if they had been specifically shown upon the drawings and described in the specifications.
- 15.3 Headings and marginal notes to the clauses of these General Conditions of Contract or to specifications or to any other tender document are solely for the purpose of giving a concise indication and not a summary of the content thereof, and they shall never be deemed to be part thereof or be used in the interpretation or construction thereof of the Contract.
- 16.4 Singular and Plural:
In these contract documents unless otherwise stated specifically, the singular shall include the plural and vice-versa wherever the context so requires. Words indicating persons shall include relevant incorporated companies/ registered as associations/ body of individual/ firm or partnership.

16 SPECIAL CONDITIONS OF CONTRACT:

- 16.1 Special Conditions of contract shall be read in conjunction with the General Conditions of Contracts, specification of work, Drawings and any other documents forming part of this contract wherever the context so requires.
- 16.2 Notwithstanding the sub-division of the documents into these separate sections and volumes every part of each shall be deemed to be supplementary to and complementary of every other part and shall be read with and into the contract so far as it may be practicable to do so.
- 16.3 Where any portion of the General Conditions of Contract is repugnant to or at variance with any provisions of the Special Conditions of Contract then, unless a different intention appears the provisions of the Special Conditions of Contract shall be deemed to over-ride the provision of the General Conditions of Contract and shall to the extent of such repugnance or variations, prevail.
- 16.4 Wherever it is mentioned in the specifications that the Contractor shall perform certain work or provide certain facilities, it is understood that the contractor shall do so at his own cost.
- 16.5 The materials, designs and workmanship shall satisfy the relevant Indian Standards, the Job specifications contained herein and codes referred to. Where the job specifications stipulate requirements in addition to those contained in the standard codes and specifications, these additional requirements shall also be satisfied.

17 CONTRACTOR TO OBTAIN HIS OWN INFORMATION:

The contractor in fixing rate shall for all purposes whatsoever be deemed to have him self independently obtained all necessary information for the purpose of preparing his tender. The contractor shall be deemed to have examined the Contract Documents, to have generally obtained his own information in all matters whatsoever that might affect the carrying out the works at the scheduled rates and to have satisfied himself to the sufficiency to his tender. Any error description of quantity or omission there from shall not vitiate the contract or release the Contractor from executing the work comprised in the contract according to drawing and specifications at the scheduled rates. He is deemed to have known the scope, nature and magnitude of the works and the requirements of materials and labour involved etc. and as to what all works he has to complete in accordance with the contract documents whatever be the defects, omissions or errors that may be found in the Contract Documents. The Contractor shall be deemed to have visited surrounding to have satisfied himself to the nature of all existing structures, if any, and also as to the nature and the conditions of the Railways, roads, bridges and culverts means of transport and communications, whether by land, water or air, and as to possible interruptions thereto and the access to and regress from the site, to have made enquiries, examined and satisfied himself as to the sites for obtaining sand, stones, bricks and other materials, the sites for disposal of surplus materials the available accommodation as to whatever required, depots and such other building as may be necessary for executing and completing the works, to have made local independent enquiries as to the sub-soil water and variations thereof, storms, prevailing winds, climate conditions and all other similar matters affecting these works. He is deemed to have acquainted himself as to his liability for payment of Government taxes, customs duty and other charges.

Any neglect or failure on the part of the Contractor in obtaining necessary and reliable information upon the foregoing or any other matters affecting the contract shall not relieve him from any risk or liabilities or the entire responsibility from completion of the works at the scheduled rates and time in strict accordance with the contract documents.

No verbal agreement or inference from conversation with any officer or employee of the owner either before or after the execution of the contract agreement shall in any way affect or modify any of the terms or obligations herein contained.

18 PERFORMANCE SECURITY DEPOSIT/RETENTION MONEY:

- 18.1 To ensure performance of the contract and due discharge of the contractual obligations, the successful contractor will have to provide security deposit of 10% of the basic value of contract unless otherwise specified in the Special Conditions of Contract. Amount received/retained towards this clause will be considered as security deposit. This Security deposit may be furnished in the form of an Account payee Demand Draft payable to BPCL or Bank Guarantee / Insurance Surety Bond in the prescribed format. The contractor shall have the option to adjust any Earnest Money Deposit- (EMD) if paid by demand draft towards security deposit if he so desires or otherwise if submitted by way of bank guarantee / Insurance Surety Bond the validity of the same to be extended suitably as advised by BPCL. In the case of security deposit submitted in the form of Bank guarantee / Insurance Surety Bond, the Bank Guarantee / Insurance Surety Bond shall be valid and remain in force till the contractual completion period (expiry of the defect liability period- refer clause-74, if applicable) and with a claim period of six months thereafter. The Bank Guarantee / Insurance Surety Bond shall be in the form prescribed. In case the successful contractor is not furnishing the performance security deposit as referred above on award of the job, the same shall be deducted from each running account bills at the rate of 10% of bill value till overall security deposit of 10% as mentioned above is collected. The security deposit will be retained till the successful completion of the work and thereafter till the expiry of the defect liability period (refer clause-74), if applicable. This retention money / Bank guarantee / Insurance Surety Bond held shall be released after the expiry of the defect liability period provided that any defects appearing during that period are corrected by the contractor and subject to Clause 18.2 below. In the case of value/rate/quantity contracts, the security deposit shall be based on individual release orders issued. In case of LSTK (Lump Sum Turnkey Contracts) / EPC: PBG / Insurance Surety Bond @ 10% within 15 days of notification of award. In case of Annual Rate Contracts (ARCs): Submission of PBG / Insurance Surety Bond @ 10% of Total Contract Value (TCV) or submission of initial security deposit @ 2.5% of TCV within 15 days of notification of award. In cases where only 2.5% of TCV has been submitted, 7.5% of individual release order shall be subsequently deducted from RA bills. Vendors/contractors shall be asked to submit the SD within 15 days from the date of notification of award and in the event of delay in submission of SD, the contract can be terminated. However, if termination of contract is not in the interest of the work/ BPCL, an additional time up to 30 days can be allowed for submission of SD depending on merits of each case, beyond which the contract may be terminated with subsequent actions following termination as per tender/procedure.
- 18.2 If the contractor/ sub-contractor or their employees shall break, deface or destroy any property belonging to the Owner or other agency during the execution of the contract, the same shall be made good by the Contractor at his own expenses and in default thereof, the Engineer-in-Charge may cause the same to be made good by other agencies and recover expenses from the contractor (for which the certificate of the Engineer-in-Charge shall be final). These expenses can be recovered from the security deposit/retention money if recovery from other sources is not possible.
- 18.3 All compensation or other sums of money payable by the contractor to the Owner under terms of this contract may be deducted from his security deposit/retention money or from any sums which may be or may become due to the contractor by the Owner on any account whatsoever and in the event of his security deposit/retention money being reduced by reasons of any such deductions. The contractor shall within ten days thereafter make good any sum or sums, which may have been deducted from his security Deposit/retention money. No interest shall be payable by the Owner from sum deposited as security deposit/retention money.
- 18.4 The security deposit shall be held by the Owner, as security for the due performance of the Contractor's obligations under the contract, provided that nothing herein stated shall make it incumbent upon the Owner to utilize the security deposit/retention money in preference to any other remedy which the Owner may have, nor shall be construed as confining the claims of the Owner against the contractor to the quantum of the Security Deposit/retention money.
- 18.5 The Bank guarantee if submitted shall be from any Indian scheduled bank or an international bank of repute having a branch in India or a corresponding banking relationship with an Indian scheduled bank. The security deposit/retention money shall be in Indian Rupee in the case of domestic bidders and in US Dollars/EUROS in the case of foreign bidders. In case of Insurance Surety Bond, the same shall be from the Insurance company as approved by Insurance Regulatory and Development Authority of India (IRDAI).
- 18.6 Process for submitting Bank Guarantee / PBG under SFMS (Structured Financial Messaging System) mode as follows:
- Vendors shall insist their Bank for issuance of SFMS Bank Guarantee for faster payments. Vendors shall provide BPCL's Bank Account No. & IFSC Code (Details given below) to their Bank as beneficiary at the time of application for Bank Guarantee in favor of BPCL. Issuing Bank shall issue the Bank Guarantee & send SFMS message to BPCL's Bank confirming the authenticity of Bank Guarantee who in turn shall send the confirmation to BPCL. Vendor should ensure the following for issue of E- bank guarantee:
- The issuing bank is on SFMS platform
 - SFMS Message type used is 760 COV and SFMS Delivery report/ Message copy is sent along with original BG
 - For BG amendment, message type 767COV is to be used.
 - SFMS contains following details:
 - Beneficiary's bank name: ICICI Bank
 - IFSC Code: ICIC0000393

- e. BG Issuing Bank should send the BG Issuance advice through SFMS to BPCL's designated Banker: ICICI Bank, Backbay Branch, Mumbai (IFSC: 1CIC0000393).
- f. BG Issuance advice should mention applicable Unique Identifier Code (UIC) in row/ field number 7037 of SFMS Delivery Report.
 - a. BPCL Location : Kharghar , Navi Mumbai
 - b. Head office : Ballard Estate
 - c. UIC : BPCL583493800
- g. The Original BG should be submitted along with print out of SFMS Delivery report from the BG Issuing Bank Branch.
- h. SFMS BG will help in faster verification of BGs and prompt release of payments to Vendors.

19 TIME OF PERFORMANCE:

- 19.1 The work covered by this contract shall be commenced as detailed in the purchase order or as per the instructions of the Engineer in charge and be completed in stages on or before the dates as mentioned in the time schedule of completion of work. The contractor should bear in mind that time is the essence of this agreement unless such time be extended pursuant to the provision of clause No. 21. Request for revision of Completion time after tenders are opened will not receive consideration.
- 19.2 Time Schedule of Completion: The general time schedule of completion is given in the tender document. Contractor should prepare a detailed monthly and weekly execution programme, jointly with the Engineer-in-Charge within two weeks of receipt of Letter of Intent or acceptance of tender. The work shall be executed strictly as per the time schedule given in this document. The period of completion given includes the time required for testing, rectifications, if any, retesting and completion in all respects to the entire satisfaction of the Engineer-in-Charge.

20 FORCE MAJEURE

Circumstances leading to force majeure

- (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) Ionising 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, 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 or industrial disputes at a national or state-wide level in any country where Works are performed, and which affect an essential portion of the Works but excluding any industrial dispute which is specific to the performance of the Works or the Contract.
- For the avoidance of doubt, inclement weather, third party breach, delay in supply of materials (other than due to a nationwide transporters' strike) or commercial hardship shall not constitute a Force Majeure event.

● Notification of Force Majeure

Contractor shall notify within [10(ten)] days of becoming aware of or the date it ought to have become aware of the occurrence of an event of Force Majeure giving full particulars of the event of Force Majeure and the reasons for the event of Force Majeure preventing the Affected Party from, or delaying the Affected Party in performing its obligations under the Contract.

● Right of either party to terminate

If an event of Force Majeure occurs and its effect continues for a period of 180 (one hundred eighty days) or more in a continuous period of 365 (three hundred sixty five) days after notice has been given under this clause, either Party may terminate the Contract by issuing a written notice of 30 (thirty) days to the other Party.

● Payment in case of termination due to Force Majeure

The Contract Price attributable to the Works performed as at the date of the commencement of the relevant event of Force Majeure.

The Contractor has no entitlement and 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

- b) Any delay costs in any way incurred by the Contractor due to an event of Force Majeure. Time extension for such cases will be worked out appropriately.
- 21 EXTENSION OF TIME:
- If the contractor shall desire an extension of the time for completion of the work on the grounds of his having been unavoidably hindered in its execution or on any other grounds, he shall apply in writing to the Engineer-in-Charge within two weeks of the date of hindrance on account of which he desires such extension as aforesaid, and the Engineer-in-Charge shall if in his opinion (which shall be final), reasonable grounds have been shown thereof, authorize such extension of time as may in his opinion be necessary or proper.
- In the event of extension of Time of the contract, if granted, the contractor shall be required to suitably extend the period of Bank Guarantee / Insurance Surety Bond if submitted, towards security Deposit/retention money suitably.
22. LIQUIDATED DAMAGES FOR DELAY:
- 22.1 Time is the essence of the contract. In case the contractor fails to complete the whole work within the stipulated period, he shall be liable to pay liquidated damages of 0.5% of the basic value of contract per week and or part thereof of the delay subject to a maximum of 5% of the value of the contract. The parties agree that this is a genuine pre- estimate of the loss/damage which will be suffered by the owner on account of delay on the part of the contractor and the said amount will be payable on demand without there being any proof of the actual loss or damages having been caused by such delay/breach. The owner shall be at liberty to adjust or deduct the said amount of liquidated damages from any amount due to the contractor including Security Deposit. In case where the concluded contract value is different from the original contract value due to the change orders/variation in executed quantities/extension of time, etc., the concluded contract value should be considered for recovery of Liquidated Damages for late delivery/delayed completion.
- 22.2 The owner shall be at liberty to deduct or retain from any amount payable to the contractor periodically, the proportionate or full amount of liquidated damages as the case may be for the delay periodically caused by the contractor.
- 23 SUM PAYABLE BY WAY OF COMPENSATION TO BE CONSIDERED AS REASONABLE COMPENSATION WITHOUT REFERENCE TO ACTUAL LOSS:
- All sums payable by way of compensation under any of the conditions shall be considered as reasonable compensation without reference to the actual loss or damage, which shall have been sustained by the Owner.
- 24 TERMINATION/OFFLOADING:
- 24.1 The contractor fully understands that timely completion of the work as per the schedule is of paramount necessity as otherwise it would lead to adversely affecting the schedules of other works/project with resultant financial and other losses to the Company/owner. In view of this, the contractor unconditionally agrees and binds himself to be liable for all the consequences for non-completion of the work within the stipulated time.
- 24.2 In case a situation is brought about by the contractor warranting termination/off-loading of the whole or any part of the work for any reason whatsoever, the Company/owner shall have the liberty and right to entrust/engage/award the work so terminated/off loaded at the risk and cost of the contractor to any other agency/contractor by adopting any mode of inviting tenders, i.e. open/limited/single party/negotiation basis etc. in order to ensure completion of the work as per the schedule or at the quickest possible time.
25. FORFEITURE OF SECURITY DEPOSIT:
- Whenever any claim against the Contractor for the payment of a sum of money arises out of or under the contract, the Owner shall be entitled to recover such sum by appropriating in part or whole, security deposit of the contractor, forming whole or part of such security being insufficient or if no security has been taken from the Contractor then the balance or the total sum recoverable, as the case may be, shall be deducted from any sum then due or which at any time thereafter may become due to the Contractor. The contractor shall pay to the owner on demand any balance remaining due.
- 26 ACTION WHEN WHOLE OF SECURITY DEPOSIT IS FORFEITED:
- In any case in which, under any clause or clauses of this contract, the contractor shall have forfeited the whole of his security deposit (whether paid in one sum or deducted by installment) or have committed a breach of any of the terms contained in this contract, the owner shall have power to adopt any of the following courses as he may deem best suited to his interest:
- a) To rescind the contract (of which rescission notice in writing to the contractor under the hand of the owner shall be conclusive evidence) in which case the security deposit of the contractor shall stand forfeited and be absolutely at the disposal of the Owner.
 - b) To employ labour paid by the owner and to supply materials to carry out the work any part of the work, debiting contractor with the labour cost of tools and plants and equipment charges, the cost of the materials for which a certificate of the Engineer-in-Charge shall be final and conclusive against the Contractor and 10% of costs as above to cover all departmental charges and crediting him with the value of the work done

in all respects in the manner and at the same rates as if it had been carried out by the Contractor under the term of his contract. The certificate of Engineer-in-Charge as to the value of the work done shall be final and conclusive against the contractor.

- c) To measure up the work of the contractor and to take such part thereof as shall be unexecuted out of his hand to give it to another contractor to complete in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor, if the whole work had been executed by him (of the amount of which excess, the certificate in writing of the Engineer-in-Charge shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him by the Owner under the contract or otherwise or from his security deposit or from the proceeds of sale thereof, of a sufficient part thereof.

In the event of any of the above course being adopted by the Owner, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any agreements or made any advances on account of or with a view to the execution of the work of the performance of the contract. In case the Contractor shall not be entitled to recover or be paid any sum for any work actually performed under this contract unless the Engineer-in-Charge will certify in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

27 CONTRACTOR REMAINS LIABLE TO PAY COMPENSATION IF ACTION NOT TAKEN UNDER CLAUSE 26:

In any case in which any of the powers conferred upon the owner by clause 26 thereof shall have become exercisable and the same had not been exercised, the non exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercised in the event of any further case of default by the contractor for which any clause of hereof he is declared liable to pay compensation amounting to the whole of his security deposit and the liability of the contractor for past and future compensation shall remain unaffected. In the event of the Owner putting in force the power under sub-clause (a), (b) or (c) vested in him under the proceeding clause he may, if he so desires takes possession of all or any tools and plants materials and stores in or upon the works or the site thereof belonging to the contractor or procured by him and intended to be used for the execution of the work or any part thereof paying or allowing for the same in account at the contract rates or in case of these not being applicable at current market rates to be certified by the Engineer-in-Charge whose certificate thereof shall be final otherwise the Engineer-in-Charge may give notice in writing to the contractor or his clerk of the works, supervisor or other authorized agent, requiring him to remove such tools, plant, materials or stores from the premises (within a time to be specified in such notice) and in the event of the contractor failing to comply with any such requisition, the Engineer-in-Charge may remove them at the contractors expense or sell them by auction or private sale on account of the contractor and at his risk in, all respects without any further notice as to the date, time or place of sale and the certificate of the Engineer-in-Charge as to the expense of any such removal and the amount of proceeds and any expenses of any such sale shall be final and conclusive against the contractor.

28 NO COMPENSATION FOR ALTERATION IN OR RESTRICTION OF WORK:

If at any time from the commencement of the work the owner shall for any reasons whatsoever, not require the whole or part thereof as specified in the tender to be carried out, the Engineer-in-Charge shall give notice in writing of the fact to the contractor, who shall have no claim to any payment or compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full, but which he did not derive in consequence of the full amount of the work not having been carried out, neither shall he have any claim for compensation by reason of any alterations having been made in the original specifications, drawings, designs and instructions which shall involve any curtailment of the work as originally contemplated.

29 CHANGES IN CONSTITUTION:

Where the contractor is a partnership firm, the 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 sub-contractor enters into any agreement with other parties, where under the reconstituted firm would have the right to carryout the work hereby undertaken by the contractor. In either case if prior approval as aforesaid is not obtained, the contract shall be deemed to have been allotted in contravention of clauses 35 hereof and the same action may be taken and, the same consequence shall ensue as provided in the said clause.

30 IF THE CONTRACTOR DIES

Without prejudice to any of the rights or remedies under his contract, if the contractor dies, the Owner shall have the option of terminating the contract without compensation to the contractor.

31 EMPLOYEES OF THE OWNER NOT INDIVIDUALLY LIABLE:

No director or official or employee of the Owner shall in any way be personally bound or liable for the acts or obligations of the Owner under the contract or answerable for any default or omission in the observance or performance of any of the acts, matters or things which are herein contained.

32 **OWNER NOT BOUND BY PERSONAL REPRESENTATIONS:**

The contractor shall not be entitled to any increase on the item rates of the contract or any other right or claim whatsoever by reason of representation, explanation or statement or alleged representation, promise or guarantees given or alleged to have been given to him by any person.

33 **CONTRACTOR'S OFFICE AT SITE:**

The contractor shall provide and maintain an office at the site, if space provided by the owner, for the accommodation of his agent and staff and such office shall be open at all reasonable hours to receive instruction, notices, or other communications.

34 **CONTRACTOR'S SUBORDINATE STAFF AND THEIR CONDUCTS:**

34.1 The contractor, on or after award of the work shall name and depute a qualified personnel having sufficient experience in carrying out work of similar nature to whom the equipments materials, if any, shall be issued and instructions for works given. The contractor shall also provide to the satisfaction of the Engineer-in-Charge sufficient and qualified staff to supervise the execution of the-works, competent sub-agents, supervisor and leading hands including those specially qualified by previous experience to supervise the type of works comprised in the contract in such manner as will ensure work of the best quality, expeditious working. Whenever in the opinion of the Engineer-in-Charge, additional properly qualified supervision staff is considered necessary, they shall be employed by the contractor without additional charges on account thereof. The Contractor shall ensure to the satisfaction of the Engineer-in- Charge that sub-contractors, if any shall provide competent and efficient supervision over the work entrusted to them.

34.2 If and whenever any of the Contractor's or sub-contractor's agents, sub-agents, assistants supervisor or other employees shall in the opinion of Engineer-in-Charge 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 Engineer-in-Charge, it is undesirable for administrative or any other reason for such person or persons to be employed in the works, the contractor, if so directed by the Engineer-in- Charge, shall at once remove such person or persons from employment thereon. Any person or persons so removed from the works shall not again be employed in connection with the works without the written permission of the Engineer-in-Charge. Any person so removed from the works shall be immediately replaced at the expense of the contractor by a qualified and competent substitute. Should the contractor be requested to repatriate any person removed from the works he shall do so and shall bear all costs in connection herewith.

34.3 The contractor shall be responsible for the proper behaviour of all the staff, supervisor, workmen and others 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 any employees 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 neighborhood and in the event of such employee so trespassing, the contractor shall be responsible therefore and relieve 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 none of their employees are ever engaged in any anti-national activities.

34.4 All contractor's personnel entering upon the Owner's premises shall be properly identified by badges issued by owner which must be worn all times on Owner's premises.

35 **SUB-LETTING OF WORK:**

Sub letting of contracts shall not be generally permitted. However owner may permit sub letting of work on specific cases subject to the following:-

- i) No part of the contract nor any share of interest there shall in any manner or degree be transferred assigned sublet by the contractor directly or indirectly to any firm or corporation whosoever except as provided for in the succeeding sub-clause, without the consent in writing of the Owner.
- ii) Sub Contractors for Temporary Works Etc.: - The Owner may give written consent to sub-contract for execution of any part of the works at the site, being entered into by the contractor provided each individual sub-contract is submitted to the Engineer-in-Charge before being entered into and is approved by him.
- iii) List of Sub-Contractors to be supplied: - At the commencement of every month the contractor shall furnish to the Engineer-in-Charge list of all sub-contractors or firms engaged by the contractor and working at the site during the previous month with particulars of the general nature of the sub-contract or works.
- iv) Contractor's Liability Not Limited By Sub-Contractors:- 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 be and 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 work had been done directly by the Contractor.
- v) Owner may Terminate Sub-Contracts:- 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 by written notice to the contractor request him to terminate such sub-contract and the contractor

- upon the receipt of such notice shall terminate such sub contract and the latter shall forthwith leave the works, failing which the owner shall have right to remove such sub-contractors from the Site.
- vi) No Remedy For Action Taken Under This Clause:- No action taken by the owner under the clause shall relieve the contractor of any of his liabilities under the contract or give rise to any right to compensation, extension of time or otherwise failing which, the owner shall have right to remove such sub-contractors from the Site.

36 POWER OF ENTRY:

If the contractor shall not commence the work in the manner previously described in the contract document or if he shall, at any time in the opinion of the Engineer-in-Charge.

- i. Fail to carryout the works in conformity with the contract documents, or
- ii. Fail to carryout the works in accordance with the time schedule, or
- iii. Substantially suspend work or the works for a period of Fourteen days without authority from the Engineer-in-Charge, or
- iv. Fail to carryout and execute the works to the satisfactions of the Engineer-in-Charge, or
- v. Fail to supply sufficient or suitable constructional equipments, temporary works, labour materials or things, or
- vi. Commit or suffer or permit any other breach of any of the provisions of the contract on his part to be performed or observed or persist in any of the above mentioned breaches of the contract for the fourteen days, after notice in writing shall have been given to the Contractor by the Engineer-in-Charge requiring such breach to be remedied, or
- vii. Abandon the works, or
- viii. During the continuance of the contract, become bankrupt, make any arrangement or composition with his creditors, or permit any execution to be levied or go into liquidation whether compulsory or voluntary not being merely a voluntary liquidation for the purpose of amalgamation or reconstruction.

Then in any such case, the Owner shall have the power to enter upon the works and take possession thereof and of the materials, temporary works, constructional equipment, and stock thereon, and to revoke the contractor's license to use the same, and to complete the works, by his agents, other contractor or workmen, or to re-let the same upon any terms and to such other person firm or corporation as the Owner in his absolute discretion may think proper to employ and for the purpose aforesaid to use or authorize the use of any materials, temporary works constructional equipment, and stock as aforesaid without making payment or allowances to the contractor for the said materials other than such as may be certified in writing by the Engineer-in-Charge to be reasonable, and without making any payment or allowance to the contractor for the use of the temporary said works, constructional equipments and stock or being liable for any loss of damage thereto, and if the Owner shall by reason of his taking possession of the works or of the works being completed by other contractors (due account being taken of any such extra work or works which may be omitted) then the amount of such excess as certified by the Engineer-in-Charge shall be deducted from any money which may be due for work done by the contractor under the contract and not paid for. Any deficiency shall forthwith be made good and paid to the Owner by the contractor and the Owner shall have power to sell in such manner and for such price as he may think fit all or any of the constructional equipment, materials etc. belonging to and to recoup and retain the said deficiency or any part thereof out of the proceeds of the sale.

37 CONTRACTORS RESPONSIBILITY WITH OTHER AGENCIES:

Without repugnance to any other condition, it shall be the responsibility of the contractor executing the work of civil construction, to work in close co-operation and co-ordinate the works with other contractors or their authorized representatives and the contractor will put up a joint scheme, showing the arrangements, with other contractors / agencies for carrying his portion of work to the Engineer-in-Charge, and get the approval. The contractor before finally submitting the schemes to the Engineer-in-Charge shall have the written agreement of the other agencies. The Engineer-in-Charge before communicating his approval of the scheme, with any required modifications shall get the final agreement of all the agencies, which shall be binding. No claim shall be entertained on account of the above. The contractor shall conform in all respects with the provisions of any statutory regulations, ordinances or by laws of any local or duly constituted authorities or public bodies which may be applicable from time to time to the works or any temporary works. The contractor shall keep the Owner Indemnified against all penalties and liabilities of every kind arising out of non-adherence to such statutes ordinances, laws, rules, regulations, etc.

38 OTHER AGENTS AT SITE:

The contractor shall have to execute the work in such place and condition where other agencies might also be engaged for other works such as site grading, filling and leveling, electrical and mechanical engineering works etc. No claim shall be entertained to works being executed in the above circumstances.

39 NOTICES:

Any notice hereunder may be served on the contractor or his duly authorized representative at the job site or may be served by registered mail direct to the address furnished by the Contractor. Proof of issue of any such notice could be conclusive of the contractor having been duly informed of all contents therein.

40 RIGHTS OF VARIOUS INTERESTS:

i) The Owner reserves the right to distribute the work between more than one contractor. The contractor shall co-operate and afford other contractors reasonable opportunity for access to the works for the carriage and storage of materials and execution of their works.

ii) Whenever the work being done by any department of the Owner or by other contractors employed by the Owner is contingent upon work covered by 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 work in general harmony.

41 RIGHT OF OWNER TO DETERMINE / TERMINATE CONTRACT

i) Owner shall, at any time be entitled to determine and terminate the contract, if in the opinion of the Owner the cessation of the work becomes necessary owing to paucity of funds or for any other cause whatsoever, in which case, the cost of approved materials at the site at current market rates as verified and approved by Engineer-in-Charge and of the value of the work done to date by the contractor shall be paid for in full at the rates specified in the contract. A notice in writing from the Owner to the contractor of such determination and termination and the reason thereof, shall be the conclusive proof of the fact that the contract has been so determined and terminated by the Owner.

ii) Should the contract be determined under sub-clause (i) of this clause and the contractor claims payments to compensate expenditure incurred by him in the expectation of completing the whole of the work, the Owner shall consider and admit such claim as are deemed fair and reasonable and are supported by vouchers to the satisfaction of the Engineer-in-Charge. The Owner's decision on the necessity and propriety of any such expenditure shall be final and conclusive and binding on the contractor.

42 TERMINATION FOR CONVENIENCE :

BPCL shall, in addition to any other right enabling it to terminate the contract, have the right to terminate the contract at any time by giving prior written notice of at least 14 days to the contractor. Such termination shall be without prejudice to the rights of the parties that have accrued on or before the date of termination of the contract.

If the contract is terminated under this provision, the contractor is entitled to be compensated as under:-

a. the contract price attributable to the works performed as at the date of termination

and

b. the reasonable costs incurred by the contractor for termination of subcontractors or the repatriation of the contractors' and subcontractors' employees

less

the aggregate of all previous payments allocated to the works.

Any sums due to BPCL from the contractor accruing prior to the date of termination will be deducted from the amount to be paid to the contractor under the contract.

If, as a result of any such deductions, there is a negative amount payable to the contractor, then the contractor must pay an amount equal to such negative sum to BPCL within 15 days of BPCL intimating the contractor.

43 PATENTS AND ROYALTIES:

43.1 The contractor, if licensed under any patent covering equipment, machinery, materials or compositions of matter to be used or supplied or methods and process to be practiced or employed in the performance of this contract, agrees to pay all royalties and licence fees which may be due with respect thereto. If any equipment, machinery, materials or composition matters, to be used or supplied or methods and process to be practised or employed in the performance of this contract, is covered by a patent under which contractor is not licensed then the contractor before supplying or using the equipment, machinery, materials, compositions method or processes shall obtain such licences, and pay such royalties and licence fees as may be necessary for performance of the contract. In the event, the contractor fails to pay any such royalties or obtain any such licence, any suit for infringement of such patents which is brought against the contractor or the Owner as a result of such failure will be defended by the contractor at his own expenses and the contractor will pay any damages and costs awarded in such suit. The contractor shall promptly notify the owner if the contractor has acquired knowledge of any patent under which a suit for infringement could be reasonably brought because of the use by the Owner of any equipment, machinery, materials, and process methods to be supplied hereunder. The contractor agrees to and does hereby grant to Owner, together with the right to extend the same to any of the subsidiaries of the Owner as irrevocable, royalty- free licence to use in any country, any invention made by the contractor or his employee in or as a result of the performance of the work under the contract.

The Owner shall indemnify and save harmless the contractor from any loss on account of claims on contractor for the contributory infringement of patent rights arising out and based upon the claim that the use by the Owner of the process included in the design prepared by the Owner and used in the operation of the plant infringes on any patent right with respect to any sub-contract entered into by contractor pursuant to the provisions of 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.

- 43.2 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.
- 43.3 Where so desired by Engineer-in-Charge, the contractor agrees to respect the secrecy of any document, drawings etc. issued to him for the execution of this contract, and restrict access to such documents, drawing etc. to the minimum and further, the contractor agrees to execute an individual SECRECY agreement from each or any person employed by contractor having access to such documents, drawings and to any other agency or individual, without the written approval by Engineer-in-Charge.
- 44 LIENS:
- 44.1 If, at any time, there should be evidence or any lien or claim for which the Owner might have become liable and which is chargeable to 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 remain unsettled after all payments are made, the contractor shall refund or pay to the Owner all moneys that the latter may be compelled to pay in discharging such lien or claim including all costs and reasonable expenses.
- 44.2 Contractor will not disclose details of the work to any person or persons except those engaged in its performance, and only to the extent required for the particular portion of the work being done.
Contractor will not give any items concerning details of the work to the press or a news disseminating agency without prior written approval from Engineer-in-Charge. Contractor shall not take any pictures on site without written approval of Engineer-in-Charge
- 45 OPERATION OF CONTRACT:
- 45.1 Law Governing:
Regardless of the place of contracting, place of performance or otherwise, this Agreement, and all amendments, modifications, alterations, or supplements, thereto shall be governed by the laws of India and respective state laws for the nature, validity and interpretation thereof.
- 45.2 Non-Waiver of Default:

Any failure by the Owner or Contractor at any time, or from time to time, to enforce or require the strict keeping and performance of any of the terms or conditions of this agreement, or to exercise a right hereunder, shall not constitute a waiver of such terms, conditions or rights, and shall not affect or impair same, or the right of the Owner or the Contractor, as the case may be at any time to avail itself of same.

SECTION - V

PERFORMANCE OF WORK

46 EXECUTION OF WORKS:

- 46.1 All the works shall be executed in strict conformity with the provisions of the contract documents and with such explanatory detailed drawings, specifications, and instructions as may be furnished from time to time to the contractor by the Engineer-in-Charge whether mentioned in the contract or not. The contractor shall be responsible for ensuring that works throughout are executed in the most substantial, proper and workman like manner with the quality of material and workmanship in strict accordance with the specifications following all safety requirements of BPCL and as stipulated in work permits as per the directions and to the entire satisfaction of the Engineer-in-Charge.
- 46.2 Wherever it is mentioned in the specifications that the Contractor shall perform certain work or provide certain facilities/materials, it is understood that the contractor shall do, so at his cost unless otherwise specified.
- 46.3 The materials, design and workmanship shall satisfy the relevant Indian Standards, the Job specification contained herein and codes referred to. Where the job specification stipulate requirements in addition to those contained in the standards codes and specifications, these additional requirements shall also be satisfied.

47 COORDINATION AND INSPECTION OF WORK:

The coordination and inspection of the day-to-day work under the contract shall be the responsibility of the Engineer-in-Charge. The written instructions regarding any particular job will be normally be passed by the Engineer-in-Charge or his authorized representative. A work order book / logbook will be maintained by the Contractor for each job in which the aforesaid written instructions will be entered. These will be signed by the contractor or his authorized representative by way of acknowledgment within 12 hours. The non maintaining of the order book or non signing by the contractor shall not preclude the contractor from complying with the instructions.

48 WORK IN MONSOON AND DEWATERING:

- 48.1 The completion of the work may entail working in the monsoon also. The contractor must maintain a minimum labour force as may be required for the job and plan and execute the construction and erection according to the prescribed schedule. No extra rate will be considered for such work in monsoon.
- 48.2 During monsoon and other period, it shall be the responsibility of the contractor to keep the construction work site free from water at his own cost.

49 WORK ON SUNDAYS AND HOLIDAYS:

For carrying out work on Sundays and Holidays if needed, the contractor will approach the Engineer-in-Charge or his representative at least two days in advance and obtain permission in writing. No special compensation on this account will be payable.

50 GENERAL CONDITIONS FOR CONSTRUCTION AND ERECTION WORK:

50.1 Place of Work:

The work has to be executed at specified premises as per the tender. Contractor should apprise himself of all the conditions prevailing in such 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.

The safety regulations to be complied with, by the contractor will also be provided along with the tender. No idle time wages or compensation for temporary stoppage of work or restrictions would be paid, and the rate quoted for the various items of work should cover the cost of all such contingencies and eventualities. Substantial structures and utilities exist both above ground and underground, adjacent to the work site. (The construction activity gets restrained by the existence of such structures and utilities). Special care is necessary in transportation, storage, working on equipments and other construction activities to protect the existing features and prevent damage to any facility. Necessary protective structures barricades etc. have to be erected at various places as directed by Engineer-in-Charge. No extra payment of such protective works will be made unless specially provided in the tender.

- 50.2 The working time or the time of work is 48 hours per week normally. Overtime work is permitted in cases of need and the Owner will not compensate the same. Shift working at 2 or 3 shifts per day may become necessary and the contractor should take this aspect into consideration for formulating his rates for quotation. No extra claims will be entertained by the Owner on this account.
- 50.3 The contractor must arrange for the placement of workers in such a way that the delayed completing of the work or any part thereof for any reasons whatsoever will not affect their proper employment. The Owner will not entertain any claim for idle time payment whatsoever.
- 50.4 The contractor shall submit to the Owner reports at regular intervals regarding the state and progress of work. The details and proforma of the report will mutually be agreed after the award of contract.

- 51 DRAWINGS TO BE SUPPLIED BY THE OWNER:
- 51.1 Where drawings are attached with tender, these shall be for the general guidance of the contractor to enable him to visualize the type of work contemplated and scope of work involved. The contractor will be deemed to have studied the drawings and formed an idea about the work involved.
- 51.2 Detailed working drawings on the basis of which actual execution of the work is to proceed will be furnished from time to time during the progress of the work. The contractor shall be deemed to have gone through the drawings supplied to him thoroughly and carefully and in conjunction with all other connected drawings and bring to the notice of the Engineer-in-Charge, discrepancies, if any, therein before actually carrying out the work.
- 51.3 Copies of all detailed working drawings relating to the works 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 contract. The drawings and other documents issued by the Owner shall be returned to the Owner on completion of the works. Reference is also invited to clause 43.2 and 43.3 above regarding drawings and other documents.
- 52 DRAWINGS TO BE SUPPLIED BY THE CONTRACTOR:
- 52.1 Where drawings/data are to be furnished by the contractor, they shall be as enumerated in the special conditions of contract, and shall be furnished within the specified time.
- 52.2 Where approval of drawings before manufacture / construction / fabrication has been specified, it shall be contractor's responsibility to have these drawings prepared as per the directions of Engineer-in-Charge and got approved before proceeding with manufacture construction / fabrication, as the case may be. Any changes that may have become necessary in these drawings during the execution of the work shall have to be carried out by the contractor to the satisfaction of Engineer-in-Charge at no extra cost. All final drawings shall bear the certification stamps duly signed by both the contractor and the Engineer-in-Charge.
- 52.3 A period of 3 weeks from the date of receipt shall be required normally for approval of drawings by the Engineer-in-Charge.
- 53 SETTING OUT WORKS:
- 53.1 The Engineer-in-Charge shall furnish the contractor with only the four corners of the work site and a level bench mark and the contractor shall set out the works and shall provide efficient staff for the purpose and shall be solely responsible for the accuracy of such setting out.
- 53.2 The contractor shall provide, fix and be responsible for the maintenance of all stacks, templates, level marks, profiles and other similar things and shall take all necessary precaution to prevent their removal or disturbance and shall be responsible for the consequence of such removal or disturbance should the same take place and 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 in setting out the work shall not relieve the contractor of any of his responsibilities.
- 53.3 Before beginning the works, the contractor shall at his own cost, provide all necessary reference and level posts, pegs, 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 his 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.
- 53.4 Pillars bearing geodetic marks located at the site of work under construction should be protected and fenced by the contractor.
- 53.5 On completion of works, the contractor must submit the geodetic documents according to which the work was carried out.
- 54 RESPONSIBILITY FOR LEVEL AND ALIGNMENT:
- The contractor shall be entirely and exclusively responsible for the horizontal and vertical alignment, the levels and correctness of every part of the work and shall rectify effectually any errors or imperfections therein. Such rectifications shall be carried out by the contractor, at his own cost, when instructions are issued to that effect by the Engineer-in-Charge.
- 55 MATERIALS TO BE SUPPLIED BY CONTRACTOR:
- 55.1 The contractor shall procure and provide the whole of the materials required for construction including tools, tackles, construction plant and equipment for the completion and maintenance of the works except the materials which will be issued by Owner and shall make his own arrangement for procuring such materials and for the transport thereof. The materials procured by the contractor shall be BPCL approved/specified quality.
- 55.2 All materials procured should meet the specifications given in the tender document. The Engineer-in-Charge may, at his discretion, ask for samples and test certificates for any batch of any material procured. Before procuring, the contractor should get the approval of Engineer-in-Charge for any material to be used for the works.
- 55.3 Manufacturer's certificate shall be submitted for all materials supplied by the contractor. If, however, in the opinion of the Engineer-in-Charge any tests are required to be conducted on the materials supplied by the contractor, these

will be arranged by the contractor promptly at his own cost.

56 MATERIALS SUPPLIED BY OWNER:

56.1 If the specifications of the work provides for the use of any materials of special description to be supplied from the Owner's stores, price for such material to be charged therefore as herein after mentioned being so far as practicable for the convenience of the contractor but not so as in any way to control the meaning or effect of the contract. The contractor shall be bound to purchase and shall be supplied such materials as are from time to time required to be used by him for the purpose of the contract only. The sums due from the contractor for the value of the actual materials supplied by the Owner will be recovered from the running account bill on the basis of the actual consumption of materials in the work covered and for which the running account bill has been prepared. After the completion of the works, however, the contractor has to account for the full quantity of materials supplied to him as per relevant clauses in this document.

56.2 The value of the materials as may be supplied to the contractor by the Owner will be debited to the contractor's account at the rates shown in the schedule of chargeable materials and if they are not entered in the schedule, they will be debited at cost price, which for the purpose of the contract shall include the cost of carriage and all other expenses whatsoever such as normal storage supervision charges which shall have been incurred in obtaining the same at the Owner's stores. All materials so supplied to the contractor shall remain the absolute property of the Owner and shall not be removed on any account from the site of the work, and shall be at all times open for inspection to the Engineer-in-Charge. Any such materials remaining unused at the time of completion or termination of the contract shall be returned to the Owner's stores or at a place as directed by the Engineer-in-Charge in perfectly good condition, at contractor's cost.

57 CONDITIONS FOR ISSUE OF MATERIALS:

- i) Materials specified to be issued by the Owner will be supplied to the contractor by the Owner from his stores/location. It shall be the responsibility of the contractor to take delivery of the materials and arrange for its loading, transport and unloading at the site of work at his own cost. The materials shall be issued between the working hours and as per the rules of the Owner framed from time to time.
- ii) The contractor shall bear all incidental charges for the storage and safe custody of materials at site after these have been issued to him.
- iii) Materials specified to be issued by the Owner shall be issued in standard sizes as obtained from the manufacturer.
- iv) The contractor shall construct suitable godown at the site of work for storing the materials safe against damage by rain, dampness, fire, theft etc. He shall also employ necessary watch and ward establishment for the purpose.
- v) It shall be duty of the contractor to inspect the material supplied to him at the time of taking delivery and satisfy himself that they are in good condition. After the materials have been delivered by the Owner, it shall be the responsibility of the contractor to keep them in good condition and if the materials are damaged or lost, at any time, they shall be repaired and/ or replaced by him at his own cost, according to the directions of the Engineer-in-Charge.
- vi) The Owner shall not be liable for delay in supply or non-supply of any materials which the Owner has undertaken to supply where such failure or delay is due to natural calamities, act of enemies, transport and procurement difficulties and any circumstances beyond the control of the Owner. In no case, the contractor shall be entitled to claim any compensation or loss suffered by him on this account.
- vii) It shall be the responsibility of the contractor to arrange in time all materials required for the works other than those to be supplied by the Owner. If, however, in the opinion of the Engineer-in-Charge the execution of the work is likely to be delayed due to the contractor's inability to make arrangements for supply of materials which normally he has to arrange for, the Engineer-in-Charge shall have the right, at his own discretion, to Issue such materials If available with the Owner or procure the materials from the market or elsewhere and the contractor will be bound to take such materials at the rates decided by the Engineer-in-Charge. This, however, does not in any way absolve the contractor from responsibility of making arrangements for the supply of such materials in part or in full, should such a situation occur, nor shall this, constitute a reason for the delay in the execution of the work.
- viii) None of the materials supplied to the contractor will be utilized by the contractor for manufacturing item, which can be obtained from standard manufacturer in finished form.
- ix) The contractor shall, if desired by the Engineer-in-Charge, be required to execute an indemnity bond for safe custody and accounting of all materials issued by the Owner.
- x) The contractor shall furnish to the Engineer-in-Charge sufficiently in advance a statement showing his requirements of the quantities of the materials to be supplied by the Owner and the time when the same will be required by him for the works, so as to enable the Engineer-in-Charge to make necessary arrangement for procurement and supply of the material.
- xi) A daily account of the materials issued by the Owner shall be maintained by the contractor indicating the daily receipt, consumption and balance in hand. This account shall be maintained in a manner prescribed by the Engineer-in-Charge along with all connected papers viz. requisition, issues etc. and shall be always available for inspection in the contractor's office at site.
- xii) The contractor should see that only the required quantities of materials are got issued. The contractor shall not be entitled to cartage and incidental charges for returning the surplus materials, if any, to the stores/location where from they were issued or to the place as directed by the Engineer-in-Charge.
- xiii) Materials/ Equipment supplied by Owner shall not be utilized for any other purpose(s) than issued for.

58 MATERIALS PROCURED WITH ASSISTANCE OF OWNER:

Notwithstanding anything contained to the contrary in any or all the clause of this document where any materials for the execution of the contract are procured with the assistance of Owner either by issue from Owner's stock or purchase made under orders or permits or licences issued by Government, the contractor shall hold the said materials as trustee for the Owner and use such materials economically and solely for the purpose of the contract and not dispose them off without the permission of the owner and return, if required by the Engineer-in-Charge, all surplus or unserviceable materials that may be left with him after the completion of the contract or at its termination for any reason, whatsoever on his being paid or credited such prices as the Engineer in-Charge shall determine having due regard to the condition of the materials. The price allowed to the contractor however, shall not exceed the amount charged to him excluding the storage charges if any. The decision of the Engineer-in- Charge shall be final and conclusive in such matters. In the event of breach of the aforesaid condition, the contractor shall in terms of the licenses or permits, and/or for criminal breach of trust, be liable to compensate the Owner a double rate or high rate, in the event of those materials at that time having higher rate or not being available in the market, then any other rate to be determined by the Engineer-in-Charge and his decision shall be final and conclusive.

59 MATERIALS OBTAINED FROMDISMANTLING:

If the contractor in the course of execution of the work is called upon to dismantle any part for reasons other than those stipulated in clauses 66 & 70 hereunder, the materials obtained in the work of dismantling etc. will be considered as the Owner's property and will be disposed off to the best advantage of the Owner.

60 ARTICLES OF VALUE FOUND:

All gold, silver and other materials, of any description and all precious stones, coins, treasure relies, antiquities and other similar things which shall be found in, under or upon the site, shall be property of the Owner and the 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 person indicated by the Owner.

61 DISCREPANCIES BETWEEN INSTRUCTIONS:

Should any discrepancy occur between the various instructions furnished to the contractor, his agents or staff or any doubt, arise as to the meaning of any such instructions or should there be any misunderstanding between the contractor's staff and the Engineer-in-Charge's staff, the contractor shall refer the matter immediately in writing to the Engineer-in-Charge whose decision thereon shall be final and conclusive and no claim for losses alleged to have been caused by such discrepancies between instructions, or doubts, or misunderstanding shall in any event be admissible.

62 ALTERATIONS IN SPECIFICATIONS AND DESIGNS AND EXTRA WORK:

A) The Engineer-in-Charge shall have power to make any alterations in, omissions from, additions to of substitutions for, the schedule of rates, the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work and the contractor shall be bound to carry out such altered / extra / new items of work in accordance with any instructions which may be given to him in writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall not invalidate the contract and any altered additional or substituted work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respect on which he agree to do the main work. The time for completion of work may be extended for the part of the particular job at the discretions of the Engineer-in-Charge, for only such alteration, additions or substitutions of the work, as he may consider as just and reasonable. The rates for such additional, altered or substituted work under this clause shall be worked out in accordance with the following provisions:

- a) If the rates for the additional, altered or substituted work are specified in the contract for the work, the contractor is bound to carry out the additional, altered or substituted work at the same rates as are specified in the contract.
- b) If the rates for the additional, altered or substituted work are not specifically provided in the contract for the work, the rates will be derived from the rates for similar class of works as specified in the contract for the work. The opinion of the Engineer-in-Charge as to whether the rates can be reasonably so derived from items in the contracts will be final and binding on the contractor.
- c) If the rates for the altered, additional or substituted work cannot be determined in the manner specified in sub-clause (a) and (b) above, then the contractor shall inform the Engineer-in-Charge of the rate which is his intention to charge for such class of work supported by analysis of the rate or rates claimed, and the Engineer-in-Charge shall determine the rates on the basis of the prevailing market rates of materials, labour cost at schedule of labour plus 10% to cover contractor's supervision, overheads and profit and pay the contractor accordingly. The opinion of the Engineer-in-Charge as to the current market rates of materials and the quantum of labour involved per unit of measurement will be final and binding on the contractor.

- d) Provisions, contained in sub-clause (a) to (c) above shall not, however, apply:

Where the value of alterations / additions / deletions or substitutions exceeds beyond plus or minus 25% of the estimated contract value (i.e. quoted item rates of contractor shall hold good for variations etc. within plus or minus 25% of estimated contract value)

- B) In the event and as a result of such alternatives / additions / substitutions / deletion, the scope of contract work exceed the value stipulated in the contract by more than the limits given in clause (d) above, the Contractor shall claim revision of the rates supported by the proper analysis in respect of such items for quantities in excess of the above limits, notwithstanding the fact that the rates for such items exist in the tender for the main work or can be derived in accordance with the provision of sub-clause (b) of Clause 62 A, and the Engineer-in-Charge may revise their rates having regard to the prevailing market rates, and the contractor shall be paid in accordance with the rates so fixed. But, under no circumstances the contractor shall suspend / stop / slowdown the work on the plea of non-settlement of rates of items falling under this clause.

63 VARIATION IN CONTRACT VALUE :

Compensation for Reduction in Contract value due to change in quantity:

- Upto & inclusive of (-) 25% of Total Contract Value (TCV): No cost compensation.
- Beyond (-) 25% of TCV: Cost compensation @ 10% of reduction in the contract value from (-) 25% of TCV (i.e. 75% of TCV).

Discount to be obtained for Increase in contract value due to change in quantity:

- Upto & inclusive of (+) 50% of TCV: No discount.
- Beyond (+) 50% of TCV: Reduction @ 10% of increase in the contract value beyond (+) 50% of TCV.

64 ACTION WHERE NO SPECIFICATIONS ISSUED:

In case of any class of work for which there is no such specification given by the Owner in the tender documents, such work shall be carried out in accordance with Indian Standard Specifications and if the Indian Standard Specifications do not cover the same work should be carried out as per standard Engineering Practice subject to the approval of the Engineer-in-Charge.

65 ABNORMAL RATES:

The contractor is expected to quote rate for each item after analysis of cost involved for the completion of item/work, considering all specifications and conditions of contract. This will avoid loss of profit or gain, in case of curtailment or change of specification for any item. In case it is noticed that the rates for any item, quoted by the tenderer are unusually high or unusually low, it will be sufficient cause for the rejection of the tender unless the Owner is convinced about the reasonableness of the rates on scrutiny of the analysis for such rate to be furnished by the tenderer on demand.

66 INSPECTION OF WORK:

- 66.1 The Engineer-in-Charge will have full power and authority to inspect the works at any time wherever in progress either on the Site or at the contractor's premises / workshop where situated premises /workshops of any person, firm or corporation where work in connect with the contract may be in hand or where materials are being or are to be supplied, and the contractor shall afford or procure for the Engineer-in-Charge every facility and assistance to carry out such Inspection. The contractor shall at all time during the usual working hours and at all other time for which reasonable notice of the intention of the Engineer in-Charge or his representative to visit the works have been given to the contractor, either himself be present to receive order and instructions or post a responsible agent duly accredited in writing for the purpose. Orders given to the contractor's agent shall be considered to have the same force as if they had been given to the contractor himself. The contractor shall give not less than seven days, notice in writing to the Engineer-in-Charge before covering up or placing any work beyond reach of inspection and measurement any work in order that the same may be inspected and measured. In the event of breach of above the same shall be uncovered at contractor's expense carrying out such measurement or inspection.
- 66.2 No materials shall be dispatched by the contractor before obtaining the approval of Engineer-in-Charge in writing. The contractor is to provide at all times during the progress of the work and the maintenance period, proper means of access with ladders, gangways, etc. and the necessary attendance to move and adopt as directed for inspection or measurement of the works by the Engine in-Charge.

67 ASSISTANCE TO THE ENGINEERS:

The contractor shall make available to the Engineer-in-Charge, free of cost necessary instruments and assistance in checking of setting out of works and taking measurement of work.

68 TESTS FOR QUALITY OF WORKS:

68.1 All workmanship shall be of the respective kinds described in the contract documents and in accordance with the instructions of the Engineer-in-Charge and shall be subjected from time to time to such test at contractor's cost as the Engineer-in-Charge may direct at place of manufacture or fabrication or on the site or at all or any such places. The contractor shall provide assistance, instruments, labour and materials as are normally required for examining, measuring and testing any workmanship as may be selected and required the Engineer-in-Charge.

68.2 All the tests necessary in connection with the execution of the work as decided by Engineer-in-Charge shall be carried out at the field testing laboratory of the Owner by paying the charges as decided by the Owner from time to time. In case of non-availability of test facility with the Owner, the required test shall be carried out at the cost of contractor at government or any other testing laboratory as directed by Engineer-in-Charge.

68.3 If any tests are required to be carried out in connection with the work or materials workmanship not supplied by the contractor, such tests shall be carried out by the contractor as per the instructions of Engineer-in-Charge and cost of such tests shall be reimbursed by the Owner.

69 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 the work. Such samples shall be submitted before the work is commenced and in ample time to permit tests and examinations thereof. All materials furnished and finishing applied in actual work shall be fully identical to the approval samples.

70 ACTION AND COMPENSATION IN CASE OF BAD WORK:

If it shall appear to the Engineer-in-Charge that any work has been executed with unsound, imperfect or unskilled workmanship or with materials of any inferior description, or that any materials or articles provided by the contractor for the execution of the work are unsound or of a quality inferior to that contracted for, or otherwise not in accordance with the contract, the contractor shall on demand in writing from the Engineer-in-Charge or his authorised representative, specifying the work, materials or articles complained of, notwithstanding that the same have been inadvertently passed, certified and paid for forthwith shall rectify or remove and reconstruct the works specified and provide other proper and suitable materials or articles at his own charge and cost, and in the event of failure to do so within a period to be specified by the Engineer-in-Charge in his demand aforesaid, the contractor shall be liable to pay compensation at the rate of one percentage of the estimated cost of the whole work, for every week limited to a maximum of 10 per cent of the estimated cost of the whole work, while his failure to do so shall continue and in the case of any such failure the Engineer-in-Charge may on expiry of notice period rectify or remove and re-execute the work or remove and replace with others, the materials or articles complained of as the case may be at the risk and expenses of the contractors in all respects. The decision of the Engineer-in-Charge as to any question arising under this clause shall be final and conclusive.

71 SUSPENSION OF WORKS:

The contractor shall, if ordered in writing by the Engineer-in-Charge or his representative, temporarily suspend the works or any part thereof for such period and such time as so ordered and shall not, after receiving such written order, proceed with the work therein ordered to be suspended, until he shall have received a written order to proceed therewith. The contractor shall not be entitled to claim/ compensation for any loss or damage sustained by him by reason of temporary suspension of the works aforesaid. An extension of time for completion, corresponding with the delay caused by any such suspension of the works as aforesaid will be granted to the contractor, should he apply for the same, provided that suspension was not consequent to any default or failure on the part of the contractor.

72 OWNER MAY DO PART OF WORK:

Upon failure of the contractor to comply with any instructions given in accordance with the provisions of the contract, the owner has the alternative right, instead of assuming charge for entire work to place additional labour force, tools, equipments and materials on such parts of the work, as the owner may designate or also engage another contractor to carry out the work. In such cases, the owner shall deduct from the amount which otherwise might become due to the contractor, the cost of such work and materials with ten percent added to cover all departmental charges and should the total amount thereof exceed the amount due to the contractor, the contractor shall pay the difference to the owner.

73 POSSESSION PRIOR TO COMPLETION:

The Engineer-in-Charge shall have the right to take possession of or use any completed or partially completed work or part of the work. Such possessions or use shall not be deemed to be an acceptance of any work completed in accordance with the contract agreement. If such prior possession or use by the Engineer-in-Charge delays the progress of work, suitable adjustment in the time of completion will be made and contract agreement shall be deemed to be modified accordingly.

- 74 PERIOD OF LIABILITY FROM THE DATE OF COMPLETION OF WORK:
- 74.1 The contractor shall guarantee the installation/site work for a period of 12 (twelve) Months from the date of completion of work, unless otherwise specified. Any damage that may lie undiscovered at the time of issue of completion certificate, connected in any way with the equipment or materials supplied by him or in the workmanship shall be rectified or replaced by the contractor at his own expense as deemed necessary by the Engineer-in-Charge or in default, the Engineer-in-Charge may cause the same made good by other workmen and deduct expenses (for which the certificate of Engineer-in-Charge shall be final) from any sums that may be then or at any time thereafter, become due to the contractor or from his security deposit. In case the defect arises within the abovementioned Defect Liability Period (DLP) and the same is repaired/replaced, the DLP for the repaired/replaced job/item will be extended suitably so as to cover the original DLP. However, in no case, such extension will exceed 24 months from date of start of initial DLP.
- 74.2 If the contractor feels that any variation in work or in quality of materials or proportions would be beneficial or necessary to fulfill the guarantee called for, he shall bring this to the notice of the Engineer-in-Charge in writing. The work will not be considered as complete and taken over by the Owner until all the temporary works etc., constructed by the contractor is removed and work site cleaned to the satisfaction of Engineer-in-Charge.
- 74.3 Care of Works:
- From the commencement to completion of works, the contractor shall take full responsibility for the care of all works including all temporary works, and in case any damage, loss or injury happens to the works or to any part thereof or to any temporary work, from any cause whatsoever, he shall at own cost repair and make good the same, so that at completion, the work shall be in good order and in conformity in every respect with the requirements of the contract and the Engineer-in-Charge's instructions.
- 74.4 Effects prior to taking over:
- If at any time, before the work is taken over, the Engineer-in-Charge shall
- Decide that any work done or materials used by the contractor or any sub-contractor is defective or not in accordance with the contract or that the works or any portion thereof are defective or do not fulfill the requirements of contract (all such matters being herein after called 'Defects' in this clause) and
 - As soon as reasonably practicable, notice given to the contractor in writing of the said decisions specifying particulars of the defects alleged to exist or to have occurred, then the contractor shall at his own expenses and with all speed make good the defects so specified.
- In the case contractor shall fail to do so, the Owner may take, at the cost of the contractor, such steps as may in all circumstances, be reasonable to make good such defects. The expenditure, so incurred by the Owner shall be recovered from the amount due to the contractor. The decision of the Engineer-in-Charge with regard to the amount be recovered from the contractor will be final and binding on the contractor. As soon as the works have been completed in accordance with the contract (except in minor respects that do not affect their use for the purpose for which they are intended and except for maintenance thereof provided in clause 74.1) and have passed the tests on completion, the Engineer-in-Charge shall issue a certificate (hereinafter called completion certificate) in which he shall certify the date on which the work have been so completed and have passed the said tests and the Owner shall be deemed to have taken over the works on the date so certified. If the works have been divided into various groups in the contract, the Owner shall be entitled to take over any group or groups before the other or others and thereupon the Engineer-in-Charge shall issue a completion certificate which will however, be for such group or groups as taken over only.
- 74.5 Defects after taking over:
- In order that the contractor could obtain a completion certificate, he shall make good with all possible speed, any defect arising from the defective materials supplied by the Contractor or workmanship or any act of omission of the contract that may have been noticed or developed after the works or group of the works has been taken over. The period allowed for carrying out such work will be normally one month. If any defect be not remedied within a reasonable time, the Owner may proceed to do the work at the contractor's risk and expense and deduct from the final bill such amount as may be decided by the Owner. If by reason of any default on the part of the contractor a completion certificate has not been issued in respect of every portion of the work within one month after the date fixed by the contract for the completion of the works, the Owner shall be at his liberty to use the works or any portion thereof in respect of which a completion certificate has been issued provided that the works or the portion thereof so used as aforesaid shall be afforded reasonable opportunity for completing these works for the issue of completion certificate.
- 74.6 The Security Deposit/retention money deducted / furnished as per clause 18 of GCC shall be retained for the period of liability as given in clause 74.1 above. This Retention amount / Bank Guarantee / Insurance Surety Bond furnished against Security Deposit / retention money shall be released only on expiry of the period of liability and also based on the certification of the Engineer-in-charge that no defect/damage has been reported / observed during the stipulated period of liability for the contract.
- 74.7 Performance of contractor shall be evaluated on each job by Engineer-in-Charge and recorded. Review of performance will be carried out at appropriate intervals by BPCL.

SECTION VI

BILLS / MEASUREMENT / PAYMENT

75 SCHEDULE OF RATES AND PAYMENTS:

i) Contractor's Remuneration

The price to be paid by the Owner to contractor for the whole of the work to be done and the performance of all the obligations undertaken by the contractor under the contract documents shall be ascertained by the application of the respective item rates (the inclusive nature of which is more particularly defined by way of application but not of limitation, with the succeeding sub-clause of this clause) and payment to be made accordingly for the work actually executed and approved by the Engineer-in-Charge. The sum so ascertained shall (excepting only as and to the extent expressly provided herein) constitute the sole and inclusive remuneration of the contractor under the contract and no further payment whatsoever shall be or become due or payable to the contractor under the contract.

ii) Schedule of rates to be inclusive:

The prices/rates quoted by the contractor shall remain firm till the issue of final completion certificate and shall not be subject to escalation. Schedule of rates shall be deemed to include and cover all costs, expense and liabilities of every description and all risk of every kind to be taken in executing, completing and handing over the work to the Owner by the Contractor. The Contractor shall be deemed to have known the nature, scope, magnitude and the extent of the works and materials required, though the contract document may not fully and precisely furnish them. He shall make such provision in the item rates as he may consider necessary to cover the cost of such items of work and materials as may be reasonable and necessary to complete the works. The opinion of the Engineer-in-Charge as to the items of work which are necessary and reasonable for completion of work shall be final and binding on the contractor, although the same may not be shown on or described specially in contract documents.

Generality of this present provision shall not be deemed to cut down or limit in any way because in certain cases it may and in other cases it may not be expressly stated that the contractor shall do or perform a work or supply articles or perform services at his own cost or without addition of payment or without extra charges or words to the same effect or that it may be stated or not stated that the same are included in and covered by the schedule of rates.

iii) Schedule of Rates to Cover Constructional Equipments, Materials, Labour etc.

Without in any way limiting the provisions of the preceding sub-clause the schedule of rates shall be deemed to include and cover the cost of all constructional equipment, temporary work (except as provided for herein), pumps, materials, labour, the insurance, fuel, stores and appliances to be supplied by the contractor and other matters in connection with each item in the schedule of rates and the execution of the works or any portion thereof, finished, complete in every respect and maintained as shown or described in the contract documents or may be ordered in writing during the continuance of this contract.

iv) Schedule of Rates to cover Royalties, Rents and Claims:

The Schedule of Rates shall be deemed to include and cover the cost of all royalties and fees for the articles and processes, protected by letters, or otherwise incorporated in or used in connection with the works, also all royalties, rents and other payments in connection with obtaining materials of whatsoever kind for the works and shall include an indemnity to the Owner which the contractor hereby gives against all actions, proceedings, claims damages, costs and expenses arising from the incorporation in or use on the works of a such articles, processes or materials, Octroi or other municipal or local Board charges levied on materials, equipment or machineries to be brought to site for use on work shall be borne by the contractor.

v) Schedule of Rates to Cover Taxes and Duties:

No claim or exemption or reduction of customs duties, GST, quarry or any port dues, transport charges, stamp duties or Central or States Government or Local Body or Municipal Taxes or duties, taxes or charges (from or of any other body), whatsoever, will be granted or obtained, all of which expenses shall be deemed to be included in and covered by the Schedule of Rates. Contractor shall also obtain and pay for all permits, or other privileges necessary to complete work.

vi) Schedule of Rates to cover Risk of Delay:

The schedule of Rates shall be deemed to include and cover the risk of all possibilities of delay and interference with the contractors conduct of work which occur from any cause including orders of owner in the exercises of his powers and on account of extension of time granted due to various reasons and for all other possible or probable cause of delay.

vii) Schedule of Rates cannot be altered:

For work under unit rate basis, no alteration will be allowed in the schedule of Rates by reason of work or any part of them being modified, altered, extended, diminished or omitted. The schedule of Rates are fully Inclusive rates

which have been fixed by the contractor and agreed to the Owner and cannot be altered.

For lumpsum contract, the payment will be made according to the work actually carried out for which purpose an item wise or workwise, Schedule of rates shall be furnished, suitable for evaluating the value of work done and preparing running account bills.

76 PROCEDURE FOR MEASUREMENT / BILLING OF WORK IN PROGRESS:

i) Measurements:

All measurements shall be in metric system. All the works in progress will be jointly measured by the representative of the Engineer-in-Charge and the Contractor's authorised agent progressively. Such measurement will be got recorded in the measurement book by the Engineer-in-Charge or his authorised representative and signed in token of accepted by the contractor or his authorised representative.

For the purpose of taking joint measurement the contractor's representative shall be bound to be present whenever required by the Engineer-in-Charge. If, however, he absents for any reason whatsoever the measurement will be taken by the Engineer-in-Charge or his representative and this will be deemed to be correct and binding on the contractor.

ii) Billing:

The contractor will submit a bill to the Engineer-in-Charge of the work giving abstract and detailed measurements for the various items executed during a month, before the expiry of the 1st week of the succeeding month. The Engineer-in-Charge shall take or cause to be taken the requisite measurements for the purpose of having the same verified and the claim, as far as admissible, adjusted, if possible, before the expiry of 10 days from presentation of the bill.

iii) Dispute in Mode of Measurements:

In case of any dispute as to the mode of measurement not covered by the contract to be adopted for any item of work, mode of measurement as per latest Indian Standard Specifications shall be followed.

77 LUMPSUMS IN TENDER:

For the items in tender where it includes lumpsum in respect of parts of work, the contractor shall be entitled to payment in respect of the items at the same rates as are payable under this contract for such items, or if part of the work in question is not in the opinion of the Engineer-in-Charge capable of measurement of determination, the owner may at his discretion pay the lumpsum amount entered in the tender or a percentage thereof and the certificate in writing of the Engineer-in-Charge shall be final and conclusive against the contractor with regards to any sum or sums payable to him under the provisions of the clause.

78 RUNNING ACCOUNT PAYMENTS TO BE REGARDED AS ADVANCES:

All running account payments shall be regarded as payment by way of advance against the final payment only and not as payments for work actually done and completed and shall not preclude the requiring of bad, unsound and imperfect, or unskilled work to be removed and taken away and reconstructed or re-erected or be considered as an admission of the due performance of the contract, or any part thereof in this respect, or of the accruing of any claim by the contractor, nor shall it conclude, determine or affect in any way the powers of the Owner under these conditions or any of them as to the final settlement and the adjustments of the accounts or otherwise, or in any other way vary or affect the contract.

The final bill shall be submitted by the contractor within one month of the date of physical completion of the work, and settled immediately but not later than 60 days otherwise the Engineer-in-charge's certificate of the measurement and of total amount payable for the work accordingly shall be final and binding on all parties. 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.

79 EXTRA WORK:

Should the contractor consider that he is entitled to any extra payment for extra job carried out whatsoever in respect of the works, he shall forthwith give notice in writing to the Engineer-in-Charge that he claims extra payment for the extra work. Such notice shall be given to the Engineer-in-Charge within one week from the ordering of any extra work or happening of any event, upon which the contractor bases such claims, and such notice shall contain full particulars of the nature of such claim with full details and amount claimed. Failure on part of the contractor to put forward any claim with the necessary particulars as above within the time above specified shall be an absolute waiver thereof. No omission by the owner to reject any such claim and no delay in dealing therewith shall be waiver by the owner of any rights in respect thereof.

80 PAYMENT OF **CONTRACTOR'S**BILL:

Generally no payment shall be made for works estimated to cost less than Rs. 50,000/- till the whole of the work shall have been completed. But in case of works estimate to cost more than Rs. 50,000/- the contractor on submitting the bill thereof be entitled to receive a monthly payment proportion to the part thereof approved and passed by the

Engineer-in-Charge, whose certificate of such approval and passing of the sum so payable shall be final and conclusive against the contractor. This payment will be made after making necessary deductions as stipulated elsewhere in the contract document for materials, security deposit or any moneys due to the Owner etc.

75% payment of the Running Account bill (RA bill) shall be released within 15 calendar days of receipt of RA bill duly certified by Engineer-in-charge (EIC) and the balance payment shall be released within 30 days of receipt of RA bill by EIC after detailed scrutiny.

81 CONCLUSION OF CONTRACT:

In a situation where the L1 bidder is not lowest for some specific line items and the L1/L2 parity is likely to be affected during the execution of the contract, due to variation in quantities of individual line items in contract based on site conditions, then the final payment could be restricted to ensure that the overall total payment of the executed work does not exceed the overall amount that would have been payable to the then L1 as per the latter's quoted rates.

82 MODE OF PAYMENT:

Payment will be made to the contractor normally through NEFT mode.

82A Bill discounting through TreDs

The eligible MSME bidders can avail discounting Facility as follows:

Trade Receivables Discounting System (TReDS) is an institutional mechanism set up in order to facilitate discounting of trade receivables of MSMEs from corporate buyers through invoice discounting by multiple financiers. Bharat Petroleum Corporation Limited (BPCL) is registered with TReDS platform of the aggregators M/s. Receivables Exchange of India Ltd (RXIL), M/s Invoice mart, M/s. M1 xchange, M/s C2trede and M/s DTX. The eligible MSME bidders can avail the discounting facility by registering either in one or multiple TReDS platform of the aggregators. It enables the sellers (MSMEs) to discount their invoices through the aggregators to the financiers at competitive rates thus unlocking their working capital swiftly.

83 COMPLETION CERTIFICATE:

83.1 Application for Completion Certificate:

When the contractor fulfills his obligation under clause 74.4, he shall be eligible to apply for completion certificate. The contractor may apply for separate completion certificate respect of each such portion of the work by submitting the completion documents along with such application for completion certificate.

The Engineer-in-Charge shall normally issue to the contractor the completion certificate within one month after receiving an application therefore from the contractor after verifying from the completion documents and satisfying himself that the work has been completed in accordance with and as set out in the construction and erection drawings and the contract documents.

The contractor, after obtaining the completion certificate is eligible to present the final bill for the work executed by him under the terms of contract.

83.2 Completion Certificate:

The contractor shall be furnished with a certificate by the Engineer-in-Charge of such completion, but no certificate shall be given nor shall the work be deemed to have been executed until all scaffolding surplus materials and rubbish is cleared off the site completely or until the work shall have been measured by the Engineer-in-Charge whose measurement shall be binding and conclusive. The work will not be considered complete and taken over by the Owner, until all the temporary works, labour and staff colonies etc. constructed are removed and the work site cleaned of all debris etc., as described in clause in 83.3 below and to the satisfaction of the Engineer-in-Charge.

If the contractor shall fail to comply with the requirements of this clause on or before the date fixed for the completion of the work, the Engineer-in-Charge may at the expenses of the contractor remove such scaffolding, surplus materials and rubbish and dispose off the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall forthwith pay the amount of all expenses so incurred and shall have no claim in respect of any such scaffolding or surplus materials as aforesaid except for any sum actually realised by the sale thereof.

83.3 Clearing the site:

Cart away all debris generated from the work and dispose it off without giving rise to any complaints from local, municipal or government authorities. Metal scraps or any other scrap including wooden packing materials shall be disposed as instructed by the Engineer-in-Charge or as follows:

- a) All unused scrap steel bar/ structural steel sections/pipe materials etc., (Free issue by owner) shall be the property of the owner and the same shall be returned by the contractor category-wise at their own cost to Owner's store. The weighment slip issued by the Warehouse (in original) is required to be attached along with the final bill/ material reconciliation statement. In case, the material is supplied by the contractor, as per their scope of work, the scrap material generated out of the same should be taken out at their own cost before the settlement of the final bill.

- b) Insulation material (either issued by owner to the contractor or supplied by contractor) shall be kept in the area allocated by owner. During the insulation activities, the contractor should keep the work area clean on day-to-day basis. On completion of insulation job, all debris/packing should be taken out to the designated location or as directed by the Engineer in charge for disposal at their own cost before the settlement of the final bill.
- 83.4 The financial implication of above, if any, should be taken care of in the quoted rates; and no separate claim shall be entertained on this account. The final bill of the contractor shall be linked with the area cleaning in all respects, including removal of shuttering material, disposal of debris/scrap etc. to the entire satisfaction of Engineer-in- Charge.
- 84 FINAL DECISION AND FINAL CERTIFICATE:
- Upon Expiry of the period of liability and subject to the Engineer-in-Charge being satisfied that the works have been duly maintained by the contractor during monsoon or such period as herein before provided in clause 74 and that the contractor has in all respect duly made up any subsidence and performed all his obligations under the contract, the Engineer-in-Charge shall (without prejudice to the rights of the Owner to retain the provisions of relevant clause hereof) give a certificate herein referred to as the final certificate to that effect. The contractor shall not be considered to have fulfilled the whole of his obligations under the contract until Final Certificate have been given by the Engineer-in-Charge notwithstanding any previous entry upon the work and taking possession, working or using of the same or any part thereof by the owner.
- 85 CERTIFICATE FOR PAYMENTS AND EVIDENCE OF COMPLETION:
- Except the final certificate, no other certificate or payments against a certificate or on general account shall be taken to be an admission by the Owner of the due performance of the contract or any part thereof or occupancy or validity of any claim by the contractor.

SECTION VII

TAXES/DUTIES/INSURANCE

86. TAXES AND DUTIES:

The contractor agrees to and does hereby accept full and exclusive liability for the payment of any and all taxes, duties, etc. now in force or hereafter Imposed, increased or modified, from time to time in respect of work and materials and all contributions and taxes for unemployment compensation, insurance and old age pensions or annuities now or hereafter imposed by any Central or State Government authorities which are imposed with respect to or covered by the wages, salaries, or other compensations paid to the persons employed by the contractor and the contractor shall be responsible for the compliance with all obligations and restrictions imposed by the Labour Law or any other law affecting employer - employee relationship and the contractor further agrees to comply and secure the compliance by all sub-contractors, with all applicable Central, State, Municipal and local laws and regulations and requirements of any Central, State or Local Government agency or authority. Contractor further agrees to defend, indemnify and hold harmless from any liability or penalty which may be Imposed by the Central, State or Local Authority by reason of any violation by contractor or sub-contractor of such laws, regulations or requirements and also from all claims, suits or proceeding that may be brought against the Owner arising under, growing out of, or by reason of the work provided for by this contract by third parties, or by Central or State Government authority or any administrative sub-division thereof.

- 86.1 The vendor shall take steps viz. mention relevant GSTIN of BPCL in GST invoices and returns, 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 the OWNER to avail tax credit/s including input tax credit.

Deferment of GST Amounts shall be done for those vendors who have got instances of open mismatches due to non-compliance. Open mismatches refer to cases whereby OWNER could not claim the GST Input Tax Credit in the month of payment of invoice due to non-compliance/ delayed compliance by the VENDOR. Accordingly, Over and above any payment term mentioned in the tender including that mentioned in the GPC/GCC, payment to VENDOR by OWNER for the basic amount (i.e. amount excluding GST) shall be made as mentioned in GPC/GCC or as mentioned anywhere else in the tender as applicable. However, GST amount of the Invoices shall be paid only after the amount gets reflected in the return (GSTR-1 Return of outward supplies/GSTR-3B) submitted by the vendor on GSTIN portal (GSTR 2B of OWNER) to the satisfaction of OWNER. Till such time GST amount with correct details is reflected in GSTIN portal to satisfaction of OWNER, amount shall be withheld by OWNER.

Over and above, VENDOR is also required to issue e-invoice if the same is applicable to the OWNER. In absence of GST e-invoice, any loss of Input Tax Credit to the OWNER shall be indemnified by the VENDOR. Deferment of GST amounts to the vendors are subject to compliance of any applicable Act.

- 86.2 In case of vendors for whom deferment of GST amounts were not done, any loss or non-availability of input tax credit by the OWNER due to non-compliance of applicable tax law including but not limited to GST laws in force or otherwise, on the part of VENDOR, an amount equivalent to any tax liability accruing to the OWNER and/or to the extent of any loss accrued to the OWNER due to the non-availability of input tax credit or any liability accrued to the OWNER shall either stand cancelled or deducted from the payment due to the VENDOR or shall be reimbursed by the VENDOR as the case may be till such default is either rectified or made good by the VENDOR and the OWNER is satisfied that it is in a position to claim valid input tax credit within the timelines as per applicable laws.
- 86.3 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 tax laws or rules or regulations thereof or otherwise due to default on the part of VENDOR shall be borne by the VENDOR. An amount equivalent to such cost, liability, dues, penalty, fees, and interest as the case may be shall be reimbursed by the VENDOR within 30 days. Any GST as may be applicable on such recovery of amount shall also be borne by VENDOR and same shall be collected by the OWNER.

87 INSURANCE:

Contractor shall at his own expenses carry and maintain insurance with reputable insurance companies to the satisfaction of the Owner as follows:

- i) Employees State Insurance Act:

The Contractor agrees to and does hereby accept full and exclusive liability for the compliance with all obligations imposed by the Employees State Insurance Act, 1948, and the contractor further agrees to defend, indemnify and hold Owner harmless from any liability or penalty which may be imposed by the Central, State or Local Authority by reason of any asserted violation by contractor or sub-contractor, of the Employee State Act, 1948 and also from all claims suits or proceedings that may be brought against the Owner arising under, growing out of or by reason of the work provided for by this contract whether brought by employees of the contractor, by third parties or by Central or State Government authority or any political sub-division thereof.

The contractor agrees to filing, with the Employees State Insurance Corporation, the Declaration Forms and all forms which may be required in respect of the contractor's or sub-contractor's employees whose aggregate remuneration as fixed by the concerned authorities and who are employed in the work provided for or those covered

by ESI Act under any amendment to the Act from time to time. The contractor shall deduct and secure the agreement of the sub-contractor to deduct the employee's contribution as per the first schedule of the Employee State Insurance Act from wages and affix the Employee's contribution Cards at Wages payment intervals. The contractor shall remit and secure the agreement of the sub-contractor to remit to the authorized bank, Employee's State Insurance Corporation Account, the Employee's contribution as required by the Act. The contractor agrees to maintain all Cards and records as required under the Act in respect of employees and the payments and the contractor shall secure the agreement of the subcontractor to maintain such records. Any expenses incurred for the contribution, making contribution or maintaining records shall be to the contractor's or sub-contractor's account.

The Owner shall retain such sum as may necessary, from the total contract value until contractor shall furnish satisfactory proof that all contributions as required by the Employees State Insurance Act, 1948, have been paid.

ii) Workman's Compensation and Employee's Liability Insurance:

Insurance shall be effected for all the Contractor's employees engaged in the performs of this contract, if any of the work is sublet, the contractor shall require the sub-contractor to provide workman's compensation and employer's liability Insurance for the latter's employees if such employees are not covered under the contractors insurance.

iii) Any other Insurance Required Under Law or Regulations or by Owner:

Owner shall cover Project Material and Equipments under and over all Marine-cum-Erection Insurance Policy. Contractor shall carry and maintain any and all other insurance which be required under any law or regulation from time to time. He shall also carry and main any other insurance which may be required by the Owner.

iv) Automobile Liability Insurance:

Contractor shall take out an Automobile Liability Insurance to cover all risks to Owner for each of his vehicles plying on works of this contract and these insurance shall be valid for the total contract period. No extra payments will be made for this insurance. Owner shall not be liable for any damage or loss not made good by the insurance company, should such damage or loss result from unauthorised use of the vehicle.

88. DAMAGE TO PROPERTY:

- i) Contractor shall be responsible for making good, to the satisfaction of the Owner any loss of and any damage to all structures and properties belonging to the Owner or being executed or procured or being procured by the Owner or of other agencies within the premise all the work of the Owner, if such loss or damage is due to fault and/or the negligence willful acts or omission of contractor, his employees, agents, representative or \ sub-contractor.
- ii) The contractor shall indemnify and keep the Owner harmless of all claims for damage to property other than Owner's property arising under or by reason of this agreement if such claims results from the fault and/or negligence or willful acts or omission of contractor, his employees, agents, representatives or sub-contractors.

SECTION VIII
LABOUR LAWS AND OTHER REGULATIONS

89 LABOUR LAWS:

- i) No labour below the age of eighteen years shall be employed on the work.
- ii) The contractor shall not pay less than what is provided under the Minimum Wages Act for the applicable trade or category of workman to the worker engaged by him on the work and also ensure that any sub-contractors engaged by him also pay not below the applicable minimum wages under the Act and hold the company, indemnified in respect of any claims that may arise in respect or non-compliance with this requirements.
- iii) The contractor shall observe all the formalities required under the provisions of the contract labour (Regulation and abolition) Act 1970 and the rules made thereunder and as may be amended from time to time. He shall pay the required deposit under the Act Appropriate to the number of workmen to be employed by him or through sub-contractor and get him self registered under the Act. He shall produce the certificate of registration granted by the Govt. authority under the Act to the company before commencement of work. The company recognises only the contractor and not his sub-contractors under the provisions of the Act. The contractor will have to submit daily a list of his employees, who will be entering the Company's premises for the work awarded. He will also keep his wage register available at all times as close to the work site as possible and produce the same for inspection whenever required by designated Company officials. If the company so desires, a deposit may be taken from the Contractor to be refunded only after the Company is satisfied that all the workmen employed by the contractor have been fully paid for the period of work in Company's premises at least at rates equal to or better than wages provided for under the Minimum Wages Act.
- iv) The Contractor will comply with the provisions of the employee's Provident Fund Act and the Family Pension Fund Act as may be applicable and as amended from time to time. Contractor shall obtain their own provident fund account number. Offer of the contractor who does not have provident fund account will be liable for rejection.
- v) The Contractor will comply with the provisions of the Payment of Gratuity Act 1972 as may be applicable and as amended from time to time.

90 IMPLEMENTATION OF APPRENTICES ACT 1961:

The Contractor shall comply with provisions of the Apprentices Act 1961 and the Rules/orders issued thereunder from time to time. If he fails to do so, his failure will be breach of the contract and the Engineer-in-Charge may, at his discretion, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provision of the act.

91 CONTRACTOR TO INDEMNIFY THEOWNER:

- i) The contractor shall indemnify the owner and every member, officer and employee of the Owner, also the Engineer-in-Charge and his staff against all actions, proceedings, claims, demands, costs, and expenses whatsoever arising out of or in connection with the matters referred to in clause 86 and all actions/ proceedings, claims, demands, costs and expenses which may be made against the Owner for or in respect of or arising out of any failure by the contractor in the performance of his obligations under the contract documents. The 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 or injury to any workmen or other person in the employment of the contractor or his sub-contractor and contractor shall indemnify and keep indemnified the Owner against all such damages and compensations and against all claims, damage, proceedings, costs, charges and expenses whatsoever, thereof or in relation thereto.

- ii) Payment of Claims and Damages:

Should the Owner have to pay any money in respect of such claims or demands as aforesaid the amount so paid and the costs incurred by the Owner shall be charged to and paid the Contractor and the contractor shall not be at liberty to dispute or question the rig of the Owner to make such payments notwithstanding the same may have been made without his consent or authority or in law or otherwise to the country.

In every case to which by virtue of the provisions of Section 12, sub-section (I) of workmen's compensation Act 1923 or other applicable provisions of workmen's Compensation Act any other Act, the Owner is obliged to pay compensation to a workmen employed by contractor in execution of the works, the Owner will recover from the contractor the amount of compensation so paid and without prejudice to the rights of Owner under Section 12 sub-section (2) of the said Act. Owner shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due to the contractor whether under the contract or otherwise. The Owner shall not be bound to contest any clime made under Section

12, sub-section (I) of the said Act except on the written request of contractor and upon his giving to the Owner full security for all costs for which the Owner might become liable on consequence of contesting such claims.

iii) Employment Liability:

- a) The contractor shall be solely and exclusively responsible for engaging or employing persons for the execution of work. All employees engaged by the contractor shall be on his/ their payroll and paid by him/ them. All disputes or differences between the contractor and his/ their employees shall be settled by him/ them. Owner has absolutely no liability whatsoever concerning the employees of the contractor. The contractor shall indemnify owner against all loss or damage or liability arising out of or in the course of his/ their employees. The contractor shall make regular and full payment of wages without giving any complaint by any employee of the contractor or his sub-contractor regarding non-payment of wages/ salaries or other dues. Owner reserves the right to make such payments directly, to such employee or sub-contractor of the contractor and recover the amount in full from the bills of Contractor, and the contractor shall not claim any compensation or reimbursement thereof. The Contractor shall comply with the Minimum Wages Act applicable to the area with regard to payment of wages of his employees and also of employees of his sub-contractor.
- b) The Contractor shall advise in writing to all of his employees and the employees of his sub-contractor as follows:
It is fully understood that your appointment and/ or deployment is only in connection with the owner and it does not give you any right of claim for employment by owner.

92 (a) HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS:

In respect of all labour directly employed in the works for performance of the contractor's part this agreement, the contractor shall comply with or cause to be complied with all the rules and regulations of the local sanitary and other authorities or as framed by the Owner from time to time for the protection of health and sanitary arrangements for all workers.

(b) MEDICAL FITNESS CERTIFICATION :

Contractor shall follow guidelines for medical fitness certification of workers employed for working at height more than 30 metres using temporary structures.

93 SAFETY REGULATIONS:

- i) In respect of all labour, directly or indirectly employed In the work for the performance of contractor's part of this agreement, the contractor shall at his own expenses arrange for all safety provisions as per safety codes of C.P.W.D. Indian Standard Institution, the Electricity Act, The Mines Act and any such other acts as applicable.
- ii) The Contractor shall ensure that he, his sub-contractor and his, or their personnel or representatives shall comply with all Fire / Safety regulations issued from time to time by the Company or otherwise howsoever and should any injury resulting in death or not or loss / or damage due to Fire to any property or a portion thereof, occurred as a result of failure to comply with such regulations, the contractor shall be held responsible for the consequences thereof and shall keep the company harmless and indemnified.

94 DISPUTE RESOLUTION:

- i) In the event of a dispute arising out of or in connection with this contract, including any question regarding its existence, validity or termination, the parties shall first seek settlement of that dispute by mediation in accordance with BPCL Mediation Scheme, 2025. The venue of mediation proceedings shall be at _____ (Region/HQ from where the tender has been floated). BPCL Mediation Scheme 2025 can be accessed at <https://www.bharatpetroleum.in/images/files/bpcl-mediation-scheme-2025.pdf>
- ii) If the dispute is not settled by mediation in terms of BPCL Mediation Scheme, 2025, then the dispute shall be referred for adjudication through a court of competent jurisdiction in India.
- iii) The governing law of the contract shall be the substantive laws of India.
- iv) Neither party shall be entitled for any pre-filing interest, i.e., from the date of cause of action till the date of filing of civil suit. Parties agree that any claim for any such interest shall not be considered and shall be void. The Civil Court/Commercial Court shall have no right to grant any pre-filing interest to either of the parties.
- v) In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/Port Trusts inter se and also

between CPSEs and Government Departments/Organisations (excluding disputes relating to Income Tax, Customs & Excise Departments*), such dispute or difference shall be taken up by either party for its resolution through AMRCD as mentioned in DPE OM no. 05/0003/2019-FTS-10937 dated 14th December, 2022 and the decision of AMRCD on the said dispute will be binding on both the parties.

(* The exclusion would also include disputes concerning GST, State level Sales Tax / VAT etc; though not mentioned explicitly).

95 JURISDICTION:

The contractor shall be governed by the Laws in force in INDIA. The contractor hereby submits to the jurisdiction of the Courts situated at Mumbai/(Ernakulam-in the case of Kochi Refinery), for the purpose of actions and proceedings arising out of the contract and the courts at Mumbai/(Ernakulam-in the case of Kochi Refinery), only will have jurisdiction to hear and decide such actions and proceedings.

96 ORDER OF PRECEDENCE FOR WORKS / SERVICES CONTRACTS:

1. Contract Agreement (in GCC)
2. Detailed letter of Acceptance along with its enclosures
3. Letter of Award / Fax of Acceptance
4. Job Specifications (specific to particular job only)
5. Drawings
6. Special Conditions of Contract (SCC)
7. Technical Specifications
8. Instructions to Bidders
9. General Conditions of Contract (GCC)
10. Other Documents

Additionally, any variation or amendment / change order issued after signing of formal contract shall take precedence over respective clauses of the formal contract and its Annexures.

97 LIMITATION OF LIABILITY

The aggregate total 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:

- (a) In the event of breach of any Applicable Law;
- (b) In the event of fraud, willful misconduct or illegal or unlawful acts, or gross negligence of the Contractor or any person acting on behalf of the Contractor; or
- (c) In the event of acts or omissions of the Contractor which are contrary to the most elementary rules of diligence which a conscientious Contractor would have followed in similar circumstances; or
- (d) In the event of any claim or loss or damage arising out of infringement of Intellectual Property; or
- (e) 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. Neither Party shall be liable to the other Party for any kind of indirect or consequential loss or damage like, loss of use, loss of profit, loss of production or business interruption which is connected with any claim arising under the Contract.

98 POLICE VERIFICATION OF CONTRACT STAFF AND TRANSPORT CREW AT LOCATION:

The Contract staff should submit the following documents for enabling them to enter the location:

- i) Police verification certificate issued by the police (PVC)
- ii) Photocopy of Aadhaar Card (Original to be cross checked)
- iii) Assurance certificate from the Vendor / Contractor /transporter

99 NUISANCE:

The contractor shall not at any time do, cause or permit any nuisance on site or do anything which shall cause unnecessary disturbance or inconvenience to Corporation, tenants or occupiers of other properties near the site and to the general public.

100 BUILDING AND OTHER CONSTRUCTION WORKERS CESS:

- i) Bidders to note that under Building and other Construction Workers Welfare Act (Re&CS) Act 1996, Cess is applicable to contracts executed outside Factory Area (e.g. construction of new industrial installation, office & residential buildings etc.) as per the provisions applicable under 'The Building and Other Construction Workers Welfare Cess Act 1996'.
- ii) The contractor must be registered with the concerned authorities under the Building and other Construction Workers" (RE&CS) Act, 1996 or in case of non-registration; the contractor should obtain registration within one month of the award of contract.
- iii) The contractor shall be responsible to comply with all provisions of the Building and Other Construction Workers" (RE&CS) Act, 1996, the Building and other Construction Workers" Welfare Cess Act, 1996, the Building and other Construction Workers" (RE&CS) Rules, 1998 and the Building and other Construction Workers Welfare Cess Rules, 1998.
- iv) Cess, as per the prevailing rate (presently 1%), shall be deducted at source from bills of the contractors by the Engineer-in-Charge and remitted to the "Secretary, Building and other Construction Workers Welfare Board" of the concerned State.
- v) The contractor shall be responsible to submit final assessment return of the Cess amount to the assessing officer after adjusting the Cess deducted at source.

SECTION - IX

MEMORANDUM OF AGREEMENT

An agreement made this _____ day _____ of _____ 20 between BHARAT PETROLEUM CORPORATION LIMITED a Company Incorporated in India and having its registered office at Ballard Estate, Mumbai, (herein after referred to as 'the Company' which expression shall include its heirs, legal representatives, successors and permitted assignees) of the one part, and

(herein after referred to as "The Contractor" which expression shall include its heirs, legal representatives, successors and permitted assignees) of the other part, whereby it is agreed:-

1. The Contractor shall carry out and complete the work as mentioned in the Purchase order/Contract No. dated _____, (hereinafter referred to as "the work") for the Company at its specified site to its complete satisfaction in accordance with the specifications, schedule of rates and plans attached as per Purchase order/Contract and with the instructions given from time to time, by the Company's authorized engineer under whose supervision the work shall be-executed. The parties hereto agree that this agreement shall be effective from the date of the aforesaid Purchase Order/Contract.
2. Inspection of site: The Contractor has been given an opportunity before or at the time of the entrusting of the work to him of making an inspection of the site to set at rest any doubt he may have had about the difficulties attending his offer, and any difficulties which may be met with by him in the course of the execution of the work shall neither relieve him from fulfilling the terms of this Agreement, nor entitled him to claim extra payment or an extension of the period stipulated for the completion of the work, except where it will be agreed by the Company's authorized Engineer that such difficulties could not have been foreseen.
3. Supply of Labour and Materials: The Contractor shall furnish all labour, materials, equipment or tools necessary for the construction of the work, except such materials, equipment or tools as will be supplied by the Company and are detailed in Purchase order/Contract. The contractor will assume full responsibility for the protection and safety of the work during its construction. The details and dimensions shown on the said plans referred to in the Purchase order/Contract shall be strictly adhered to by the contractor and no alterations shall be made therein unless previous sanction thereto has been given in writing by the Company.
 - (a) The Contractor shall prepare detailed and shop drawings and any other data required.
 - (b) All materials supplied by the Contractor shall be of the best quality. The Contractor shall at his own cost arrange for and/or carry out any test of materials, which the Company's authorized Engineer may require.
 - (c) The Contractor shall at the request of the Company's authorized Engineer immediately dismiss from the work any person employed thereon who, in the opinion of the Company's authorized Engineer, is unsuitable or incompetent or who, has been guilty of misconduct, and such person shall not again be employed or allowed on the works without the permission of the Company, in writing.
4. E. & O. E. No advantage is to be taken either by the Company or the Contractor of any clerical error or mistake, which may occur in the specification, schedule of rates, plans, tender or any other papers supplied to or by the contractor in connection with the work.
5. Damage on account of Incomplete work: The Contractor shall commence the work and shall complete the work as mentioned in Purchase order/Contract failing which the Contractor shall pay or allow to the Company to recover as liquidated damages, at the rate of minimum 0.5% per week of delay or part there of up to a maximum of 5% of the total contract value, if Liquidated damages clause is made applicable in the contract. Such damages may be deducted by the Company from any amount due to the contractor; otherwise they shall be recoverable by lawful means.
6. a) Determination of the Agreement: The company shall, at any time, be entitled to determine and terminate the contract, if in the opinion of the company, the cessation of the work becomes necessary owing to paucity of funds or for any other cause whatsoever. On such determination / termination, the cost of approved materials,

brought by the contractor and lying at the site, at current market rates as verified and approved by company's engineer and of the value of the work done to date by the contractor shall be paid for in full at the rate specified in the contract. A notice in writing from the company to the contractor of such determination and termination and reasons therefore shall be the conclusive proof of the fact that the contract has been so determined and terminated by the company.

Should the contract be determined as above and the contractor claims payment to compensate expenditure incurred by him in the expectation of completing the work, the company shall consider and admit such claim as are deemed fair and reasonable and are supported by the vouchers to satisfaction of the engineer-in-charge. The company's decision on the necessity and propriety of such expenditure shall be final and conclusive and binding on the contractor.

The contractor shall not be entitled to get any possible loss of profit that he could have earned had the contract been not determined / terminated under the above clauses of this article.

b) Termination/Offloading: The contractor fully understands that timely completion of the work as per the schedule is of paramount necessity as otherwise it would lead to adversely affecting the schedules of other works/project with resultant financial and other losses to the Company. In view of this, the contractor unconditionally agrees and binds himself to be liable for all the consequences for non-completion of the work within the stipulated time.

In case a situation is brought about by the contractor warranting termination/off-loading of the whole or any part of the work for any reason whatsoever, the Company shall have the liberty and right to entrust/engage/award the work so terminated off loaded at the risk and cost of the contractor to any other agency/contractor by adopting any mode of inviting tenders, i.e. open/limited/single party/negotiation basis etc. in order to ensure completion of the work as per the schedule or at the quickest possible time.

7. Defective Work / Materials: If the work done by the Contractor or any part thereof shall be found defective in workmanship or by reason of bad or inferior materials used, then in such case he shall at his own risk and cost without delay, demolish all such defective work and rebuild or replace the same in a satisfactory manner. The Company may, if necessary, at the cost and risk of the Contractor, temporarily stop all other activities by the Contractor in connection with the work until such time as the defective work has been rebuilt or replaced at the Contractor's cost. In case of default on the part of the contractor to remove defective work and rebuild or replace the same without delay and in a manner satisfactory to the Company, the Company shall be entitled to employ another Contractor or its own workman to carry out the removal and rebuilding or replacing at the risk and cost of the contractor.
8. Substitution of Contractor : If the Company finds it necessary to employ a person or persons for the purposes provided in clauses 6 (b) and 7 above, then the Company may deduct and retain from out of the sums due to the contractor all such amounts as they may require to pay or to reimburse themselves there from in respect of the costs and expenses which they have incurred in completing the work and or in removing defective work and rebuilding or replacing the same in a manner satisfactory to the Company and if such amounts be more than the sums due or thereafter becoming due to the Contractor, than the balance, shall be a debt recoverable from the Contractor by the Company. The Contractor shall not in any manner do or cause to be done any act, matter or things whatsoever to prevent the person or persons so employed by the Company from removing defective work and re-building or replacing the same in a manner satisfactory to the Company and/or from, completing the work in the manner aforesaid.
9. Removal of Material: On the Determination of the Agreement as referred to in Clause 6, the Contractor shall at his own risk and cost remove from site within Seven days all his materials, equipment and tools. It is agreed that in case of such determination the company shall be entitled to purchase from the Contractor such materials as will be approved by the Authorized Engineer of the Company at the prices then current. If the Contractor does not remove the other materials, equipment and tools which he has been asked to remove within the time prescribed as aforesaid, the Company may remove and sell the same holding the proceeds less the cost of storage, removal and sale to the credit of the Contractor. Should Company incur any loss in respect of the sale, it shall be entitled to recover same from the Contractor.
10. Inspection of work: Inspection will be made periodically during the progress of the work by the authorized Engineer of the Company and all work performed must be of acceptable quality of which the said Engineer-in-Charge will be the sole judge.
11. Supervision: The Contractor shall during the whole time the work is in progress, employ one or more competent and technical English speaking Supervisors acceptable to the Company's authorized Engineer, one of whom at least shall be in constant attendance at the site while persons are at work there. Any directions, explanations, instructions, or notices in connection with the work given by the Company's authorized Engineer to these Supervisors shall be deemed to have been given to the Contractor.

12. Payment: The Company, in consideration of the contractor carrying out and completing the said work at the Company's said site, to the satisfaction of the Company, shall pay the contractor as per the said schedule of Rates, subject to deductions, retentions and abatements, if any to be made therefrom in accordance with the provisions of this Agreement. During the progress of the work and provided the work is progressing according to the time-table laid down to the contractor, the contractor shall be entitled once a month to receive advance payment on the above mentioned sum proportionate to such part of the work as shall have been executed during the preceding month but only after such part of the work as has been executed has been inspected and approved by the Company's authorized Engineer. From such interim payments each time 10% will be withheld as Security deposit and this 10% will be paid to the Contractor after the defect liability period, provided that any defects appearing during that period are corrected by him. OR
- 100% payment will be made on the basis of actual executed quantities after satisfactory completion and due certification by BPCL Engineer-in-charge. In lieu of 10% Retention money towards Security deposit, contractor shall submit bank guarantee / Insurance Surety Bond of equivalent amount of retention money (10% of contract value) before submission of 1st Running Account (RA) bill valid for defects liability period specified. Further, the Bank Guarantee / Insurance Surety Bond shall have a claim period of six months beyond the date of expiry, and the same shall be mentioned clearly in the Bank Guarantee / Insurance Surety Bond.
13. Defects after Completion: Any defects which may appear within the defect liability period specified shall, upon the directions in writing of the Company and within such reasonable time as shall be specified therein be amended and made good by the Contractor, at his own cost unless the Company shall decide that the Contractor will be paid for such amending and making good, and in case of default on the Contractor's part, the Company may amend and make good or have amended and made good such defects and all damages, losses and expenses consequent thereon, incidental to those shall be borne by the Contractor and such damages, losses and expenses shall be recoverable from him by the Company or may be deducted by the Company from any moneys due to or thereafter becoming due to the Contractor. Alternatively, the Company may, in lieu of such amending and making good by the Contractor elect to deduct from any moneys due or thereafter becoming due to the Contractor a sum to be determined by the Company sufficient to cover the cost of amending and making good such defects, and in the event of the amount withheld in accordance with Clause 12 being insufficient, recover the balance from the Contractor together with any expenses the Company may have incurred in connection with such recovery. Should any defective work have been done or bad inferior materials supplied by any Sub-Contractor employed on the work, has been approved by the Company as provided in Clause 15, the Contractor shall be liable to amend and make good in the same manner as if such work or materials had been done or supplied by the Contractor. The Contractor shall remain liable under this Clause notwithstanding the signing by the Company's authorized Engineer of any certificate or the passing of any account.
14. Alterations: The Company reserves the right at any time to alter any quantities of any item indicated in the Purchase order/Contract, in which case the total amount payable to the Contractor shall be less or higher, proportionate with the reduction or increase in quantity of such item, allowance for which will be made at the Contractor's agreed rates.
15. Subletting Agreement: The Contractor shall not sublet or assign the work or any part thereof to another party without the written consent of the company and no such subletting or assignment shall relieve the contractor from the full and entire responsibility of his obligation under this Agreement.
16. Cancellation: The Company shall at any and all times during the period stipulated for the work, has the right forthwith to cancel this agreement by giving written notice thereof to the Contractor and in such case the Contractor shall be paid for such part of the work as has been executed by him up to the date of cancellation, on the basis of schedule of rates as per Purchase order/Contract and shall be reimbursed by the Company for the cost and expenses incurred by him but which would now be wasted as a direct consequence of the cancellation of the Agreement.
17. Workmen's Compensation Liability: The Contractor shall hold the Company harmless and indemnified from and against all claims, costs and charges for which the Company shall be liable under the Workmen's Compensation Act, 1923 and any amendments thereof and the expenses to which it shall be put thereunder, both in respect of personal injuries (within the meaning of the said Act) to the employees and servants of the Contractor or Sub-Contractors, (if any), arising out of, or occasioned during the currency of this agreement through the acts or omissions, whether due to negligence or not of the Contractor, Sub-Contractor and/or Company and/or their respective servants and employees and also in respect of the personal injuries (within the meaning of the said Act) to the servants and employees of the Company arising out of, or occasioned through the acts and omissions whether due to negligence or not of the Contractor, Sub-Contractor and or their servants and employees in carrying out any of the provisions of this Agreement. This indemnity shall be in addition to and not in lieu of any indemnity to which the Company shall be entitled in law. The Contractor shall at his own expense effect and

maintain, until the completion of the work, with an approved office a Policy of Insurance in the joint names of the Company and the Contractor, against such risks and deposit such Policy or policies with the Company from time to time during the currency of this Agreement. The Contractor shall be responsible for anything not included in the Insurance Policies above referred to and also for all other damage to person or property arising out of or incidental to the negligent or defective carrying out of this agreement and shall keep the Company harmless and indemnified. He shall also indemnify the Company in respect of any costs, charges or expenses arising out of any claim or proceedings and also in respect of any award of compensation or damages arising therefrom. The Company shall be entitled to deduct the amount of any damages compensation costs, charges and expenses arising or accruing from or in respect of any such claim or damages from any sum or sums due or thereafter becoming due to the Contractor.

18. Safety Regulation: The Contractor shall ensure that he/his Sub-Contractor and his, or their personnel or representatives shall comply with all safety regulations issued from time to time by the Company or otherwise howsoever and should any injury resulting in death or not or damage to any property occur as result of failure to comply with such regulations the Contractor shall be held responsible for the consequences thereof, shall keep the Company harmless and indemnified.

19. Dispute Resolution:

19.1 In the event of a dispute arising out of or in connection with this contract, including any question regarding its existence, validity or termination, the parties shall first seek settlement of that dispute by mediation in accordance with BPCL Mediation Scheme, 2025. The venue of mediation proceedings shall be at _____ (Region/HQ from where the tender has been floated). BPCL Mediation Scheme 2025 can be accessed at <https://www.bharatpetroleum.in/images/files/bpcl-mediation-scheme-2025.pdf>

19.2 If the dispute is not settled by mediation in terms of BPCL Mediation Scheme, 2025, then the dispute shall be referred for adjudication through a court of competent jurisdiction in India.

19.3 The governing law of the contract shall be the substantive laws of India.

19.4 Neither party shall be entitled for any pre-filing interest, i.e., from the date of cause of action till the date of filing of civil suit. Parties agree that any claim for any such interest shall not be considered and shall be void. The Civil Court/Commercial Court shall have no right to grant any pre-filing interest to either of the parties.

19.5 In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/Port Trusts inter se and also between CPSEs and Government Departments/Organisations (excluding disputes relating to Income Tax, Customs & Excise Departments*), such dispute or difference shall be taken up by either party for its resolution through AMRCD as mentioned in DPE OM no. 05/0003/2019-FTS-10937 dated 14th December, 2022 and the decision of AMRCD on the said dispute will be binding on both the parties.

(* The exclusion would also include disputes concerning GST, State level Sales Tax / VAT etc; though not mentioned explicitly)."

20. Jurisdiction:

The contractor shall be governed by the Laws in force in INDIA. The contractor hereby submits to the jurisdiction of the Courts situated at Mumbai/(Ernakulam-in the case of Kochi Refinery), for the purpose of actions and proceedings arising out of the contract and the courts at Mumbai/(Ernakulam-in the case of Kochi Refinery), only will have jurisdiction to hear and decide such actions and proceedings.

21. Minimum Wages:

The Contractor, his executors and administrators (and in the case of a Limited Company, its successors and assigns) shall hold the Company harmless and indemnified from and against all claims, costs and charges, for which the Company shall be liable under the Minimum Wages Act, 1948, the Contract Labour (Regulation and Abolition) Act, 1970 and any amendments or modifications thereof, and all expenses it shall be put thereunder through the acts or omissions whether willful or not on the part of the Contractor. This indemnity shall be in addition to and not in lieu of, any indemnity to which the Company shall be entitled in law.

22. Employees State Insurance: This Contractor hereby admits that he is fully aware of his responsibilities under the

Employees State Insurance Act, 1948, as an immediate employer of the employees engaged by him for the execution of this contract which he agrees to discharge. The Contractor acknowledge the statutory right of the company (as a Principle Employer) to recover the amount of the contributions, paid by it in the first instance in respect of the employees employed by or through him (the Contractor), as well as the employee's contribution, if any, either by deduction from any amount payable to him by the Company under any contract or as debt payable by him to the Company.

In witness where of the said contracting parties have set their hands.

Witness _____
For Bharat Petroleum Corporation Ltd.

For Bharat Petroleum Corporation Ltd.

Witness _____
Contractor's witness - Signature
Name & Address:-

Contractor's Signature
Name & Address:-

PROFORMA OF BANK GUARANTEE

(On non-judicial paper of appropriate value)

FOR EARNEST MONEY / SECURITY DEPOSIT TOWARDS PERFORMANCE

To

Bharat Petroleum Corporation Ltd.

Dear Sirs,

M/s. _____ have taken tender for the work _____ CRFQ No/PO
No

_____ for Bharat Petroleum Corporation Ltd.

The tender Conditions of Contract provide that the Contractor shall pay a sum of Rs. _____ (Rupees _____) as earnest money/security deposit in the form therein mentioned. The form of payment of earnest money/security deposit includes guarantee executed by Scheduled Bank, undertaking full responsibility to indemnify Bharat Petroleum Corporation Ltd. in case of default.

The said _____ have approached us and at their request and in consideration of the premises we _____ having our office at _____ have agreed to give such guarantee as hereinafter mentioned.

1. We _____ hereby undertake and agree with you that if default shall be made by M/s. _____ in performing any of the terms and conditions of the tender or in payment of any money payable to Bharat Petroleum Corporation Ltd. We shall on demand pay to you in such matter as to you may direct the said amount of Rupees _____ only or such portion thereof not exceeding the said sum as you may from time to time require.
2. You will have the full liberty without reference to us and without effecting this guarantee postpones for any time or from time to time the exercise of any of the powers and rights conferred on you under the contract with the said _____ and to enforce or to for bear from endorsing any power of rights or by reason of time being given to the said which under law relating to the sureties would but for provision have the effect of releasing us.
3. Your right to recover the said sum of Rs. _____ (Rupees _____) from us in manner aforesaid will not be affected or suspended by reason of the fact that any dispute or disputes have been raised by the said M/s. _____ and/or that any dispute or disputes are pending before any officer, tribunal or court.
4. The guarantee herein contained shall not be determined or affected by the liquidation or winding up, dissolution or change of constitution or insolvency of the said _____ but shall in all respects and for all purposes be binding operative units payment of all money due to you in respect of such liabilities is paid.
5. Our liability under this guarantee is restricted to Rupees _____. Our guarantees shall remain in force until _____ unless a suit or action to enforce a claim under _____ Guarantee is filed against us within six months from _____ (which is date of expiry of guarantee) all our rights under the said guarantee shall be forfeited and shall be relieved and discharged from all liabilities thereunder.
6. We have power to issue this guarantee in your favour under Memorandum and Articles of Association and the undersigned has full power to do under the Power of Attorney dated _____ granted to him by the Bank.

Yours faithfully

_____ Bank by its Constituted Attorney Signature of a person duly authorized to sign on behalf of the bank.

Proforma of Insurance Surety Bond towards Bid Security (EMD) / Performance Security
[To be stamped in accordance with Stamp Act of India]

Insurance Surety Bond No.

Date

To

[Bharat Petroleum Corporation Limited]

Dear Sirs,

In accordance with Invitation for Bids under your Tender No. & date....., M/s.....[Bidder's Name].....
having its Registered / Head Office at (hereinafter called the 'Bidder') wish to participate / have been
awarded [as the case may be] in the said tender for [Procurement description / Tender Title].

As an irrevocable Insurance Surety Bond against Bid Security (EMD) / Performance Security [as the case may be] for an amount of
..... [EMD / Performance Security amount] and remain in full force for a period of (days) i.e. up to [Validity
Date] from the Bid Due Date and with an additional claim period of(days) i.e. up to [Claim Period Validity Date] required to be submitted
by the Bidder as a condition precedent for participation in the said bid / award of contract [as the case may be] which amount is liable to be forfeited
on the happening of any contingencies as mentioned under the Bidding Documents / Contract / LoA.

We, the [Name of the Insurer] registered under IRDAI having our Head Office at[Address of the Insurer]
guarantee and undertake to pay immediately on demand by Bharat Petroleum Corporation Limited (hereinafter called the 'Beneficiary') the amount
of [EMD / Performance Security amount] without any reservation, protest, demand and recourse. Any such demand made
by the Beneficiary shall be conclusive and binding on us irrespective of any dispute or difference raised by the Bidder and / or any right / remedy
available to the bidder in terms thereof.

This Insurance Surety Bond shall be unconditional as well as irrevocable and shall remain valid up to [Claim date]. If any further extension
of this Insurance Surety Bond is required, the same shall be extended to such required period on receiving instructions from M/s
..... [Bidder's Name] on whose behalf this Insurance Surety Bond is issued.

The Insurer declares that it has power to issue this Surety Bond and discharge the obligations contemplated herein, the undersigned is duly authorised
and has full power to execute this Surety Bond for and on behalf of the Insurer.

The Surety Bond shall not be affected by any change in the constitution or winding up of the Bidder or the Insurer or any absorption, merger or
amalgamation of the Bidder or the Insurer with any other person.

In witness where of the Insurer, through its authorised officer, has set its hand and stamp on
this.....day of.....20.....at.....

.....
(Signature)
.....
(Name)
.....
(Designation with Insurer Stamp)

Contact Details & Address of Surety Insurer for verification:

Name (Official):

Branch Address:.....

Telephone No.:.....

Mobile No:.....

E-mail:.....

TAX RESIDENCY CERTIFICATE

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

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

FORM NO. 10 F

[See sub-rule (1) of rule 21AB of the Income-tax Act, 1961]

Information to be provided under sub-section (5) of section 90 or sub-section (5) of section 90A of the Income-tax Act, 1961

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

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

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

Signature: _____

Name: _____

Address: _____

Permanent Account Number : _____

Verification

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

Verified today the _____ day of _____

Signature of the person providing the information

Place: _____

Notes:

1. * Delete whichever is not applicable.

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

BHARAT PETROLEUM CORPORATION LTD

ACKNOWLEDGEMENT

We, M/s. _____ having office at _____ received the copy of GENERAL CONDITIONS OF CONTRACT and confirm our acceptance to all the terms and conditions as mentioned herein in this General Conditions of Contract and we are hereby returning this copy of Acknowledgement duly signed.

For & on behalf of M/s. _____

Signature :

Name : _____

Designation : _____

(Seal / Stamp)

Place :

Date :



**BHARAT PETROLEUM CORPORATION LIMITED
SOCIAL MEDIA POLICY FOR BUSINESS PARTNERS**

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TERMS AND CONDITIONS FOR ACCEPTABLE USE OF SOCIAL MEDIA BY BUSINESS PARTNERS

1. OBJECTIVE

Social media has become part of everyday life and a means of communication and sharing information with others. Every organization recognises the benefits that social media tools can provide, and also reckons the challenges it brings.

These terms and conditions ("**Social Media T&Cs**") seek to provide clear guidance on acceptable standards of conduct and practices to be followed by the Business Partners (*as defined below*) of Bharat Petroleum Corporation Limited ("**Corporation**"), in the usage of social media tools during and post their association with the Corporation. These terms and conditions are intended to protect and safeguard *inter alia* the interests and reputation of the Corporation, in the access, use of or participation on Social Media (*as defined below*) platforms by such constituents.

It is important to maintain the highest degree of professional standard that is associated with the Corporation's name, brand and reputation. Constituents must constantly be aware of the risk of damaging the Corporation's name or reputation in public forums. These terms and conditions should be adhered to by each constituent at all times and should be read harmoniously and in conjunction with the terms of their engagement with the Corporation, as well as other applicable policies and directions issued by Corporation, from time to time, including the Relevant Documents (*as defined below*).

1.1. Social Media

Social Media includes any web or mobile based platform that enables an individual or agency to communicate interactively and enables exchange of user generated content. The term "**Social Media**" describes internet-based technologies and practices that people use to share opinions, insights, experiences and perspectives. It may be internal (housed within the Constituent's technology infrastructure and open for use only by the Constituents) or public (widely available to the population of internet users).

These terms and conditions are applicable equally to a wide range of websites and mobile phone / tablet applications, including the following:

- (a) Social Networking sites, for example - Facebook, Twitter, and LinkedIn.
- (b) Media Sharing sites, for example - Instagram, Snapchat, YouTube
- (c) Discussion forums, for example - Reddit, Quora, Digg, Glassdoor
- (d) Content Curation network, for example - Pinterest, Flipboard

- (e) Blogging and Publishing sites, for example - WordPress, Tumblr, Medium including blogs
- (f) Interest-based network, for example - Goodreads, Houzz
- (g) Information sharing sites, such as Wikipedia
- (h) Opinion sites (e.g. Yahoo! Answers)
- (i) Any other social media platform/s

1.2. Scope and Applicability

These Social Media T&Cs are applicable to all Business Partners (*as defined below*), including any prospective partners of the Corporation (the “**Constituents**”).

The Social Media T&Cs provides a framework for the usage of Social Media by the Constituents and non-conformance with these Social Media T&Cs or any other applicable policy or directions issued by the Corporation as may be relevant to the Constituents, may result in penalties ranging from financial to legal liabilities, as set out under the respective contractual understanding between each Business Partner and the Corporation.

1.3. Relevant Documents

These Social Media T&Cs have been formulated in line with the Framework & Guidelines for Use of Social Media for Government Organizations, issued by the Department of Electronics and Information Technology, Ministry of Communications & Information Technology, Government of India.

In addition, these Social Media T&Cs must be read in conjunction with the underlying contract documents including the following documents (collectively, the “**Relevant Documents**”), as may be applicable to each Constituent:

- (a) General Conditions of Contract for vendors (relevant clauses are placed at Annexure I);
- (b) Transportation Contract Agreement Bulk LPG Transportation Contract By Road (relevant clauses are placed at Annexure II);
- (c) PCVO, Retail and Lubes Transport guidelines.

2. CONTENT GUIDELINES

This section seeks to set out the guidelines for content management as well as administration rights of all official Business Partner Social Media accounts and ensure accountability of the authorised representatives of such Business Partner.

The following guidelines on content sharing (“**Content Guidelines**”) must be followed, in relation to all content created, posted or shared on Social Media:

- (a) All post and other content shared via Social Media shall abide by applicable laws, including the Information Technology Act, 2000 and rules made thereunder, as amended.
- (b) The content posted or shared through official Social Media accounts, shall be relevant, engaging and in line with the Corporation's brand and communication strategy, whether in the form of text, images, gifs, videos, etc.
- (c) The Constituents shall be mindful of content and the tone associated with it. A negative tonality, sarcasm, dry humour, pun, memes, etc. should be avoided to steer clear from any controversy.
- (d) The Constituents shall be careful and ensure that any content posted or shared through the official Social Media accounts does not bring disrepute to the Corporation. Opinion or comments on political observations, religious beliefs, gender biases, etc. must be avoided while operating official Social Media accounts. In the use of official Social Media accounts, the Constituents shall refrain from forwarding or sharing any videos or images or messages, which are considered inappropriate or any content that is considered offensive, obscene or derogatory in nature.
- (e) The Constituents shall be cognizant of concerns regarding confidentiality and disclosure requirements, and must at all times, adhere to the Relevant Documents as well as these terms and conditions, to understand what shall be disclosed on a public platform. For instance any communication marked as "privileged" or "restricted" or "confidential" or "not for circulation" should not be shared on Social Media. The Constituents are absolutely prohibited from disclosing commercially sensitive, anticompetitive, private or confidential information. If unsure whether the information that is proposed to be shared falls within one of these categories, authorised representatives of the Constituent may discuss with the concerned official as designated by the Corporation.
- (f) The Constituents shall ensure that any references to the Corporation or its employees, or other customers, partners and vendors do not contravene any non-disclosure agreements. The Constituents shall avoid disclosure of any information pertaining to any employee / vendor / customer or individual associated with the Corporation, without their prior consent.
- (g) The Constituents shall be vigilant about tagging, mentions and conversations around the Corporation. If it notices any customer complaint, dealer/ distributor/ vendor grievances, media story etc., the same may be flagged to the official channels of the Corporation and will be responded to by authorized personnel within the Corporation.
- (h) In the operation of official Social Media accounts, the Constituents shall be cognizant of maintaining professional etiquette for all interactions and shall not initiate or engage in discussions which may be characterised as showcasing a personal opinion such as political or religious beliefs. In

addition, official Social Media accounts should not share any content or comment that may be viewed as colouring the relations between the Corporation and the Government of India or any Ministry / Department of the Central or State Governments.

- (i) The Constituents, particularly in the use of official Social Media accounts, shall only post original content, which is free of any copyright infringement or plagiarism. To ensure the reputation and principles of the Corporation are safeguarded, all Constituents must avoid posting content that violates the law, infringes the intellectual property rights of the Corporation and its group companies or of any individual or organization. Any inadvertent posts, which violates these principles, must be removed / deleted immediately upon becoming aware of the implications as set out in these guidelines.

As responsible business partners of the Corporation, the following points must be strictly observed and followed by the Constituents:

- (i) Text, photos, images, musical work in any form, video clips, movie clips, or any other content for which the Constituent does not own copyright, must not be used in any form, and in particular for official purposes to promote any activities related to the Corporation, without obtaining consent from the copyright owner. If the copyright owner for such work cannot be identified or if the consent for use of such work is not provided by the copyright owner, the work must not be used by the Constituent.
- (ii) Capturing photographs and/or videos of the Corporation's offices, facilities, and other establishments (within or outside) or customer sites is strictly prohibited. Any such illegal images and/or videos of the Corporation's establishments, offices, facilities and factories or other sites and whether directly emailing or otherwise circulating such content via Social Media posts on the Internet, shall attract legal consequences. Official visual materials may be availed from the Corporation and can be requested through email, to the relevant State / Territory team.
- (iii) Creation, sharing and/or distribution of videos which make use of unlicensed music is strictly prohibited.
- (iv) Unauthorized videos of any events hosted by the Corporation, whether within or outside the Corporation's premises that may be captured by Constituents shall not be shared/distributed on Social Media.
- (v) All Constituents must take due care to protect the Corporation's copyright and intellectual property within and outside the organization.

- (j) The authorised personnel operating official Social Media accounts of respective Business Partner shall not post unverified news, or news from dubious 'sources', that may project the Corporation in a negative light.
- (k) The admins operating official Social Media accounts shall clearly state the source and give due disclaimers while quoting any third-party content through such Social Media accounts.
- (l) Additionally, content on official Business Partner Social Media Accounts shall be limited to the coverage of activities related to the business only. However, these accounts can re-share / retweet the posts of Corporation's official Social Media accounts, subject to the veracity of such accounts.

3. ACCEPTABLE USAGE OF SOCIAL MEDIA BY BUSINESS PARTNERS

The following guidelines are applicable to vendors, suppliers and other contractors of the Corporation ("**Business Partners**"), and these are intended to supplement, and do not to replace the terms and conditions or any other agreement or guidelines (including the applicable provisions set out under Annexure I or II of these Social Media T&Cs), which are currently in place to regulate the conduct of such Business Partners:

- (a) Business Partners have the discretion to decide whether their Social Media accounts will be used for personal or professional purposes. However, in any event, whether such Social Media accounts are used for official purposes or personal purposes, to the extent that they declare their affiliation with the Corporation in any way, it is deemed that they will abide by these terms and conditions read with the applicable contractual provisions and the Framework & Guidelines for Use of Social Media for Government Organizations, issued by the Department of Electronics and Information Technology, Ministry of Communications & Information Technology, Government of India.
- (b) Only official Business Partners accounts are eligible to declare their association with the Corporation or using any content owned by or belonging to the Corporation, including logo, product specifications, product pictures, product catalogues, etc. Such accounts may only post content that are official in nature and reasonably expected to promote the activities specific to its business. Such official Business Partner Social Media account shall be akin to a professional page to promote business interactions and shall not post any content which may showcase the account as expressing opinion on ancillary matters which are not in furtherance of the objective set out under the Relevant Documents, such as posts related to entertainment industry, or political views etc. However, such affiliation or use of Corporation's content, such as logo, product pictures etc. is only limited to use by official Social Media accounts of such Business Partner, and will not, at any time, be used by any authorised or other personnel of such Business Partner, in the operation of a personal Social Media account.

- (c) Every Business Partner's official or personal (individual) Social Media account is prohibited from posting / circulating any official communication / document or disclosing any business-related or other confidential information, pertaining to the Corporation, in accordance with the Relevant Documents.
- (d) Each Business Partner Social Media account, particularly those accounts which have been permitted to acknowledge their association with the Corporation, has an obligation to exercise caution in the posting or sharing of content on Social Media, and shall undertake adequate diligence prior to posting any content. In particular, such accounts shall be fully cognizant of posting or providing traction to any 'fake news' and shall refrain from posting or sharing unlawful, controversial or unverified news, or news from dubious 'sources', particularly in relation to the Corporation and the Central / State Governments.
- (e) The Business Partner Social Media account which are maintained for official purposes, shall refrain from engaging in unlawful or inappropriate posts or sharing any content that may be defamatory or may have the effect of downplaying the Corporation's business or competitors. In addition, such account should also not post or share content using derogatory language or is likely to demean sentiments of anyone with whom they engage in any public communication using Social Media.
- (f) Business Partners using Social Media for official purposes and especially those accounts that have been approved by the Corporation, shall maintain professional and proper etiquette in online interaction via Social Media and shall not engage in inappropriate behaviour. Such inappropriate behaviour includes but may not be limited to posting, sharing or endorsing in any form, any content which may be considered as:
 - (i) Divisive, unethical or unlawful at the workplace;
 - (ii) False, or derogatory, or amounting to bullying, trolling, intimidating, or harassing including using offensive, defamatory, threatening, discriminating, obscene or insulting language;
 - (iii) A misrepresentation of the Corporation, such as creating any unofficial groups or networks (whether intentional or unintentional) using the Corporation's name, logo, or email address;
 - (iv) Compromising the confidentiality (of the Constituents and/or the Corporation's information), or creating a conflict of interest;
 - (v) Disclosing commercially sensitive, anticompetitive, or information which is marked as restricted for internal circulation within the Corporation;
 - (vi) Misleading and misrepresentative, such as creating or endorsing any video channel / account representing the Corporation or any specific Business Unit, or otherwise posting or sharing any content owned by the

Corporation, unless such content has been posted on verifiable official Social Media accounts of the Corporation;

- (vii) Amounting to pornographic material (that is, writing, pictures, films and video clips of a sexually explicit nature) or content that could be considered as offensive, obscene or criminal; or
- (viii) Creating or likely to create any liability (whether criminal or civil, for the Corporation).

Where evidence of misuse or inappropriate behaviour is brought to the notice of the Corporation, the Corporation may undertake a more detailed investigation in accordance with its procedures, which may involve the examination and disclosure of records by those nominated to undertake the investigation and any witnesses involved in the investigation. If necessary, action may be taken against such Business Partner under the respective contractual agreement and in case required, such information may be handed to authorities in connection with the investigation.

- (g) Any violation of these Social Media T&Cs shall be treated as violation of General Conditions of Contract of the Corporation and may invite action by the Corporation as deemed fit, based on the sole discretion of the Corporation.
- (h) The Corporation has a zero-tolerance policy for any complaints that may be brought to its notice via Business Partner Social Media accounts. In the event the Business Partner or its associates *etc.* are dissatisfied with the Corporation, or have any unresolved query or grievance against the Corporation or any individual who is in the employment or association of the Corporation, the Business Partner or such person associated with it must reach out to the designated official and follow the hierarchy established within the Corporation. All such communication must follow the formal processes that are available as per contractual agreement with the Corporation. In the event the Business Partner, whether by itself or its employee or associate publishes any such information on Social Media or discloses details of any complaint or dispute with the Corporation on a public forum through Social Media, it will be in breach of the terms of these T&Cs and its agreement with the Corporation, and the Corporation will have the right to pursue such legal remedies as may be appropriate and available under law.
- (i) Upon termination or expiry of the Relevant Document / underlying contractual agreement between the Corporation and the Business Partner, the Business Partner shall ensure that all references and posts which disclose any affiliation with the Corporation has been scrubbed from the Business Partner's Social Media account and a formal written declaration to this effect must be provided to the Corporation, within 7 days of such termination or expiry.

4. ENFORCEABILITY AND COMPLIANCE

- 4.1. These Social Media T&Cs are construed to be a part of the Relevant Documents and form an integral part of the contractual understanding between the Corporation and the Business Partner.
- 4.2. Any violation of the Social Media T&Cs shall be treated as violation of respective contractual understanding between the Corporation and the Business Partner, and may invite appropriate action by the Corporation as deemed fit.
- 4.3. The Business Partner agrees and understands that all activities of the Business Partner's official Social Media Account is subject to monitoring and periodic audits by the Corporation, if required.
- 4.4. The Business Partner will provide its written acknowledgement to these Social Media T&Cs, in the form set out in Annexure III, failing which the Corporation may take such action as may be necessary to ensure compliance with these terms and conditions.
- 4.5. The concerned official of the Corporation shall be responsible for reviewing the compliance of these Social Media T&Cs as may be required to ensure that it meets legal requirements and reflects best practice.

ANNEXURE I

GENERAL CONDITIONS OF CONTRACT FOR VENDORS

Clause 34: Contractor's Subordinate Staff and Their Conducts:

34.2 *If and whenever any of the Contractor's or sub-contractor's agents, sub-agents, assistants supervisor or other employees shall in the opinion of Engineer-in-Charge 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 Engineer-in-Charge, it is undesirable for administrative or any other reason for such person or persons to be employed in the works, the contractor, if so directed by the Engineer-in-Charge, shall at once remove such person or persons from employment thereon. Any person or persons so removed from the works shall not again be employed in connection with the works without the written permission of the Engineer-in-Charge. Any person so removed from the works shall be immediately replaced at the expense of the contractor by a qualified and competent substitute. Should the contractor be requested to repatriate any person removed from the works he shall do so and shall bear all costs in connection herewith.*

34.3 *The contractor shall be responsible for the proper behaviour of all the staff, supervisor, workmen and others 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 any employees 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 the event of such employee so trespassing, the contractor shall be responsible therefore and relieve 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 none of their employees are ever engaged in any anti-national activities.*

Clause 44: Liens

44.2 *Contractor will not disclose details of the work to any person or persons except those engaged in its performance, and only to the extent required for the particular portion of the work being done. Contractor will not give any items concerning details of the work to the press or a news disseminating agency without prior written approval from Engineer-in-Charge. Contractor shall not take any pictures on site without written approval of Engineer-in-Charge.*

ANNEXURE II

TRANSPORTATION CONTRACT AGREEMENT FOR BULK LPG TRANSPORTATION CONTRACT BY ROAD

Clause 28:

(a) The Transporter shall remain at all times liable to the Corporation for any loss or damage caused to any building, plant machinery or the property of the Corporation due to careless, negligent, inexperienced act or default of the Transporter, their agents, representative or employees. The Corporation shall be entitled to deduct from the amounts payable to the Transporter under this Agreement or otherwise the loss or damages so suffered.

(b) The Transporter will be liable for any loss and/or injury to Corporation's employee due to careless, negligent, wrongful act or default of the Transporter, his/their representatives or employees in carrying out the job under this contract.

Clause 38:

All terms & conditions stipulated in the Guidelines for Bidders, Tender Terms & Conditions, Declarations, Agreement, Industry Bulk LPG Transport Discipline Guidelines and other documents furnished with the Tender and related correspondence shall form part of the contract. The Corporations are entitled to frame and implement the Policy(ies) applicable to Transporters, and to modify and amend the same from time to time, and that the Policy(ies) as framed, amended and modified would be binding on the Transporters, immediately upon being communicated to them.

Clauses from Transportation Agreement of Retail and MAK Lubricants

ANNEUXRE III

FORMAT OF ACKNOWLEDGEMENT

To,

[insert details to whom such acknowledgement may be addressed]

[in the case of an individual or sole proprietorship] I am
_____, an inhabitant of _____ and carrying on
business of _____

OR

We are *[insert names of all partners of firm]* carrying on business at
_____ in partnership
under the firm name and style of M/s.

OR

[insert name of Limited Company or a Co-operative Society / Trust Co-operative]
incorporated under the laws of India and having its Registered Office at

I / We have entered into a *[insert name of agreement]* dated *[insert date]*
("Agreement") for the *[insert purpose]*, with Bharat Petroleum Corporation Limited
("BPCL").

In furtherance thereof, we have been provided with a copy of the Terms and
Conditions for Acceptable Use of Social Media by Business Partners, issued by
the Corporation.

I / We have read and understood BPCL's Terms and Conditions for Acceptable
Use of Social Media by Business Partners and agree to abide by it.

I / We understand that any violation of the above conditions may result in
disciplinary action, or termination or revocation of the Agreement.

In acknowledgement thereof, please see below our acceptance of the Terms and
Conditions for Acceptable Use of Social Media by Business Partners, issued by
the Corporation, duly signed and acknowledged by *[insert name]*, in the capacity
of our authorised representative.

A copy of such authorisation is also attached for your record.

(Signature & seal)

Name:

Designation:

Date:

 Bharat Petroleum <i>energising lives</i>	SCHEDULE OF PRICES STYRENE BUTADIENE RUBBER (SBR) UNIT FOR BPCL-ANDHRA PRADESH REFINERY AND PETROCHEMICAL PROJECT AT ANDHRA PRADESH (AP), INDIA	
<u>SCHEDULE OF PRICES [SOP]</u>		
SUPPLY OF KNOW-HOW / LICENSE, BASIC ENGINEERING DESIGN PACKAGE (BEDP), PROPRIETARY CATALYST, PROPRIETARY ITEMS, IF ANY AND OTHER RELATED SERVICES FOR STYRENE BUTADIENE RUBBER (SBR) UNIT		
BIDDING DOCUMENT NO.	LT/C113-000-LA-T-8521/1025	

		SCHEDULE OF PRICES			
		STYRENE BUTADIENE RUBBER (SBR) UNIT FOR BPCL-ANDHRA PRADESH REFINERY AND PETROCHEMICAL PROJECT AT ANDHRA PRADESH (AP), INDIA			
Name of Work:		SUPPLY OF KNOW-HOW / LICENSE, BASIC ENGINEERING DESIGN PACKAGE (BEDP), PROPRIETARY CATALYST, PROPRIETARY ITEMS, IF ANY AND OTHER RELATED SERVICES FOR STYRENE BUTADIENE RUBBER (SBR) UNIT			
BIDDING DOCUMENT NO.		LT/C113-000-LA-T-8521/1025			
<u>SCHEDULE OF PRICES [SOP]</u> <u>CONTENTS</u>					
Sl. No.	Sl. No.	DESCRIPTION			
1	FORM – B1	FEES TOWARDS LICENSE, BASIC ENGINEERING DESIGN PACKAGE (BEDP)			
2	FORM – B2	PRICES FOR MANDATORY SERVICES			
3	FORM – B2A	MANDATORY SERVICES (BREAK-UP OF MAN-DAYS)			
4	FORM – B3	PRICES FOR TRAINING			
5	FORM – B4	SCHEDULE OF PERSONNEL RATES – ADDITIONAL SERVICES			
6	FORM – B5	PRICES FOR SUPPLY OF PROPRIETARY ITEMS / EQUIPMENT			
7	FORM – B5A	DETAILS OF BUILT-IN-CIF VALUE OF IMPORT CONTENT FOR SUPPLY OF PROPRIETARY ITEMS/ EQUIPMENT (to be consigned to OWNER)			
8	FORM – B6	SUPPLY OF FIRST CHARGE OF CATALYSTS, CHEMICALS, ADSORBENTS, ABSORBENTS, ADDITIVES (As applicable)			
9	FORM – B7	ESCALATION RATE			
10	FORM – B8	Deleted			
11	FORM – B9	DEPUTATION OF LICENSOR'S PERSONNEL [For Mandatory Services and Additional Services]			
Note :		BIDDERS ARE REQUIRED TO SUBMIT THEIR PRICES IN ALL FORMS OF SOP PROVIDED EXCEL FORMAT(i.e. FORM B1 TO FORM B9)			

	SCHEDULE OF PRICES STYRENE BUTADIENE RUBBER (SBR) UNIT FOR BPCL-ANDHRA PRADESH REFINERY AND PETROCHEMICAL PROJECT AT ANDHRA PRADESH (AP), INDIA		
Name of Work:	SUPPLY OF KNOW-HOW / LICENSE, BASIC ENGINEERING DESIGN PACKAGE (BEDP), PROPRIETARY CATALYST, PROPRIETARY ITEMS, IF ANY AND OTHER RELATED SERVICES FOR STYRENE BUTADIENE RUBBER (SBR) UNIT		
BIDDING DOCUMENT NO.	LT/C113-000-LA-T-8521/1025		
Name of Bidder:			
<u>Preamble to Schedule of Prices</u>			
1	Currency of Quote and Payment:		
	a)	a) Bidder (Indian as well as Foreign) shall quote the prices for materials and services to be imported in India in INR/USD/EURO. Bidder can quote their prices in INR and / or in any one of the Foreign Currency as indicated above. Currency once quoted shall not be permitted to be changed.	
	b)	b) Bidders shall quote the price for materials and services to be procured from India in Indian Rupees (INR) only.	
	c)	No other currencies shall be allowed other than Indian Rupees or US Dollar or Euro as stated above.	
	d)	Payment to the Foreign Bidder shall be made in currency of quote. Payment to Indian sources Services/Supplies of Foreign Licensor can be released directly to Indian Subsidiary of Licensor against invoices raised by Indian Subsidiary to Owner duly endorsed by the Foreign Licensor.	
	e)	Payment to the Indian Bidder shall be made in Indian Rupees only.	
2	Bidder to submit firm price based on complete scope of work for supply of Know-How/ License, basic design engineering package, Detail Engineering (If applicable), proprietary items, Catalyst, Mandatory and Additional Services, Training etc. as per format included in the Bidding document. The Licensor's offer shall be complete in all respects, free from ambiguity and shall be submitted together with requisite information and FORMs as per bidding document.		
3	Bidder shall specify "QUOTED IN PRICE PART" or "NOT QUOTED", as the case may be in unpriced bid in all FORMs of SOP.		
4	Bidder must clearly specify the Currency of Quote as applicable in the various FORMs in respective column(s). In case, currency is not specifically mentioned, the single currency shall be considered in USD for evaluation and payment purpose (in case of foreign bidder) and in INR (in case of Indian bidder)		
5	All Prices quoted in all FORMs shall be inclusive of all non-Indian taxes. For detail of taxes and duties refer Special Conditions of Contract.		
6	The Prices quoted should be inclusive of Indian Income Taxes (withholding tax). For details of Taxes and duties refer Special Conditions of Contract.		
7	The shaded column in respective Form(s) of SOP shall not be filled up with Price.		

SIGN AND STAMP OF BIDDER

		SCHEDULE OF PRICES				
		STYRENE BUTADIENE RUBBER (SBR) UNIT FOR BPCL- ANDHRA PRADESH REFINERY AND PETROCHEMICAL PROJECT AT ANDHRA PRADESH (AP), INDIA				
Name of Work:		SUPPLY OF KNOW-HOW / LICENSE, BASIC ENGINEERING DESIGN PACKAGE (BEDP), PROPRIETARY CATALYST, PROPRIETARY ITEMS, IF ANY AND OTHER RELATED SERVICES FOR STYRENE BUTADIENE RUBBER (SBR) UNIT				
BIDDING DOCUMENT NO.		LT/C113-000-LA-T-8521/1025				
Name of Bidder:						
FORM - B1						
<u>FEES TOWARDS LICENSE, BASIC ENGINEERING DESIGN PACKAGE (BEDP)</u>						
SL. NO.	ITEM DESCRIPTION	UNIT	(AMOUNT OF FOREIGN COMPONENT) IN USD / EURO (Bidder to indicate any one currency)		(AMOUNT OF INDIAN COMPONENT) IN INDIAN RUPEES (INR)	
			IN FIGURE	IN WORDS	IN FIGURE	IN WORDS
1	License fee for grant of license for STYRENE BUTADIENE RUBBER (SBR) UNIT complete in all respects in accordance with provisions of Bidding Document and its amendments on Lump-sum basis	LUMPSUM				
2	Fee for preparation and supply of Basic Engineering Design Package for STYRENE BUTADIENE RUBBER (SBR) UNIT complete in all respects in accordance with provisions of Bidding Document and its amendments on Lump-sum basis.	LUMPSUM				
3	Detail Engineering fees for Scope of work as defined in the Bidding Document on Lump Sum basis. (Note-3)	LUMPSUM				
TOTAL AMOUNT (i.e. 1+2+3 above)						

NOTES:

1. The above prices shall remain firm till execution of work and no escalation shall be payable.

2. Basic Engineering Design Package Fee should include all works as per the scope of BEDP, as per Technical Specifications, amendments issued and provisions of the bidding document. LICENSOR shall confirm the schedule for the supply of the Complete Basic Engineering Design Package as indicated in the Technical Specifications.

3. In case Bidder wants to essentially include detailed design/engineered datasheets/specifications/drawings for any process equipment/facilities which is considered essential by the LICENSOR for meeting process performance guarantees, the same shall be included in Bidder's firm scope of work as part of BEDP deliverables and the fee for such detailed engineering activity shall be quoted. This requirement is over and above those deliverables for the proprietary items defined in technical specifications for which Bidder would anyway be giving requisite details/specifications as part of his standard BEDP.

SIGN AND STAMP OF BIDDER

	SCHEDULE OF PRICES					
	STYRENE BUTADIENE RUBBER (SBR) UNIT FOR BPCL-ANDHRA PRADESH REFINERY AND PETROCHEMICAL PROJECT AT ANDHRA PRADESH (AP), INDIA					
Name of Work:		SUPPLY OF KNOW-HOW / LICENSE, BASIC ENGINEERING DESIGN PACKAGE (BEDP), PROPRIETARY CATALYST, PROPRIETARY ITEMS, IF ANY AND OTHER RELATED SERVICES FOR STYRENE BUTADIENE RUBBER (SBR) UNIT				
BIDDING DOCUMENT NO.		LT/C113-000-LA-T-8521/1025				
Name of Bidder:						
FORM - B2						
PRICES FOR MANDATORY SERVICES						
SL. NO.	ITEM DESCRIPTION	UNIT	AMOUNT OF FOREIGN COMPONENT IN USD / EURO (Bidder to indicate any one currency)		AMOUNT OF INDIAN COMPONENT IN INDIAN RUPEES (INR)	
			IN FIGURE	IN WORDS	IN FIGURE	IN WORDS
1.	Mandatory Services for items listed below in accordance with provisions of Bidding Document and its amendments, considering 500 mandays (inclusive of travel time and Sunday as holiday).					
	a) Assistance during pre-commissioning/ commissioning activities at project site.					
	b) Conducting performance guarantee test runs at project site.					
	c) Assistance during catalyst loading at project site.					
	d) HAZOP & SIL studies during detail engineering stage at Owner / Consultant office.					
	e) 3D model review (30%, 60% and 90%) at Owner / Contractor's office.					
	f) P & ID walkthrough after mechanical completion including all towers internal inspection, inspection of critical equipment like furnace, reactor, vessels, compressor, extruder, powder/pellet handling, bagging etc required for achieving guaranteed yields.					
	g) Participation in Factory Acceptance Test (FAT)					
	h) Review and Approval of detailed engineering documents including fabrication drawing and vendor data for critical equipments.					
	i) Assistance during installation of proprietary items / equipments at project site.					
1.1	By Licensor Personnel (Deputed from Licensor's Office Outside India of the Bidder) for providing above mandatory Services	LUMPSUM				
1.2	By Licensor's Personnel deputed from Licensor's Indian Office (Subsidiary of Licensor company) (Only for the services permissible as per provisions of Bidding Document) / Indian Bidder	LUMPSUM				
TOTAL AMOUNT (i.e. 1.1 + 1.2 above)						

Notes:

- The above prices shall remain firm & valid as per provisions of Bidding Document subject to escalation for each calendar year as per FORM – B7.
- In case the actual number of Man-days utilized for the above Mandatory Services is lower or higher than 500, the lumpsum amount quoted shall be prorated based on the actual number of Man-days to arrive at the amount payable and payment shall be made accordingly.
- The quoted Lumpsum prices shall be inclusive of all costs, overhead and profit, transportation, living allowance, communication, taxes etc.(Except GST in India) but exclusive of airfare (Local and International via shortest route), accommodation at Project Site and Transportation from Place of accommodation to work place and back. For details and exclusions refer Notes of FORM B9.
- Bidder to specify the break-up of 500 Man-days (inclusive of travel time and Sunday as holiday) for Licensor Personnel services from Home office and from India respectively in the Un-priced Part in Form-B2A.
- Lumpsum amount quoted by bidder for 500 Man-days (inclusive of travel time and Sunday as holiday) shall be considered for evaluation. However, to derive the per diem rate, lumpsum amount quoted shall be prorated based on the estimated 500 Man-days.
- Licensor personnel shall have to work 48 hours a week, i.e. 8 hours per day with Sunday as holiday. No additional payment shall be made for the Licensor's personnel for the above services (Refer Form B9 for details). However, in case of exigencies of work, Licensor's personnel will be required to put in extra man hours and payments shall be made accordingly, refer notes in Form B2A for details.
- Travelling Time (to & fro) for each personnel shall be upto Two (2) mandays for personnel coming from Outside India and One (1) Manday for the personnel coming within India

	SCHEDULE OF PRICES STYRENE BUTADIENE RUBBER (SBR) UNIT FOR BPCL-ANDHRA PRADESH REFINERY AND PETROCHEMICAL PROJECT AT ANDHRA PRADESH (AP), INDIA	
Name of Work:	SUPPLY OF KNOW-HOW / LICENSE, BASIC ENGINEERING DESIGN PACKAGE (BEDP), PROPRIETARY CATALYST, PROPRIETARY ITEMS, IF ANY AND OTHER RELATED SERVICES FOR STYRENE BUTADIENE RUBBER (SBR) UNIT	
BIDDING DOCUMENT NO.	LT/C113-000-LA-T-8521/1025	
Name of Bidder:		

FORM - B2A

MANDATORY SERVICES (BREAK-UP OF MAN-DAYS) – THIS SHEET IS TO BE SUBMITTED ALONG WITH TECHNICAL BID

Sl. No.	Item Description	Number {Break up of 500 Man-days (inclusive of travel time and Sunday as holiday), respectively for Licensor's personnel from home office and from India}
1	Mandatory Services:	
	a) Assistance during pre-commissioning/ commissioning activities at project site.	
	b) Conducting performance guarantee test runs at project site.	
	c) Assistance during catalyst loading at project site.	
	d) HAZOP & SIL studies during detail engineering stage at Owner / Consultant office.	
	e) 3D model review (30%, 60% and 90%) at Owner / Contractor's office.	
	f) P & ID walkthrough after mechanical completion including all towers internal inspection, inspection of critical equipment like furnace, reactor, vessels, compressor, extruder, powder/pellet handling, bagging etc required for achieving guaranteed yields.	
	g) Participation in Factory Acceptance Test (FAT)	
	h) Review and Approval of detailed engineering documents including fabrication drawing and vendor data for critical equipments.	
	i) Assistance during installation of proprietary items / equipments at project site.	
1.1	By Licensor Personnel (Deputed from Licensor's Office Outside India of the Bidder) for providing above mandatory Services	
1.2	By Licensor's Personnel deputed from Licensor's Indian Office (Subsidiary of Licensor company) (Only for the services permissible as per provisions of Bidding Document) / Indian Bidder	

1. The following shall be considered for payment of Licensor personnel deployment:

i.) The per diem rates derived from lumpsum amount quoted in FORM B2 shall be applicable for workweeks (Monday till Saturday) of 8 hours each (6 days of 8 hours each). In case of exigencies, payment shall be done as per below:

a) For services rendered on Sunday of 8 hours each, payment shall be done at the double of per-diem rate derived from Lumpsum price quoted in FORM B2.

b) For services rendered beyond eight hours, payment shall be done based on prorated hourly basis to be derived from per Diem rate for the corresponding day as mentioned under Form-B2. This overtime charges per hour shall be applicable for working for extra hours on any day i.e. Monday to Sunday.

SCHEDULE OF PRICES

SIGN AND STAMP OF BIDDER

	SCHEDULE OF PRICES	
	STYRENE BUTADIENE RUBBER (SBR) UNIT FOR BPCL-ANDHRA PRADESH REFINERY AND PETROCHEMICAL PROJECT AT ANDHRA PRADESH (AP), INDIA	
Name of Work:	SUPPLY OF KNOW-HOW / LICENSE, BASIC ENGINEERING DESIGN PACKAGE (BEDP), PROPRIETARY CATALYST, PROPRIETARY ITEMS, IF ANY AND OTHER RELATED SERVICES FOR STYRENE BUTADIENE RUBBER (SBR) UNIT	
BIDDING DOCUMENT NO.	LT/C113-000-LA-T-8521/1025	
Name of Bidder:		

FORM - B3

PRICES FOR TRAINING						
SL. NO.	ITEM DESCRIPTION	UNIT	AMOUNT OF FOREIGN COMPONENT IN USD / EURO (Bidder to indicate any one currency)		AMOUNT OF INDIAN COMPONENT IN INDIAN RUPEES (INR)	
			IN FIGURE	IN WORDS	IN FIGURE	IN WORDS
1	Bidder shall provide Training to Owner's personnel on process design, operation, maintenance, analytical procedures, product & applications training etc. as indicated below as per requirements of Bidding Document and its amendments (Lumpsum amount).					
1.1	Five (5) working days Theoretical training at bidder's office/facilities for two batches of 5 persons each.	LUMPSUM				
1.2	Industrial training in a substantially similar operating plant selected by BIDDER for up to fifteen (15) persons for three (3) weeks (15 working days).	LUMPSUM				
1.3	One week classroom training for maximum thirty (30) persons at Owner's office/plant.	LUMPSUM				
1.4	One week product & applications training at Owner's facilities for up to 10 persons.	LUMPSUM				
1.5	Laboratory analysis training to chemists for one week class room training at Owner's office/plant up to ten (10) persons.	LUMPSUM				
TOTAL AMOUNT (i.e. 1.1+1.2 +1.3+1.4+1.5 above)						
Notes :						
1. The above prices shall remain firm & valid as per provisions of Bidding Document subject to escalation for each calendar year as per FORM – B7. 2. Above amount shall be inclusive of all costs, overhead, profits, transportation (airfare & local), accommodation, living allowance, communication, taxes (except GST), etc. for Licensor's personnel and also inclusive of fees to be paid to plant Owner towards practical training at Industrial plant. 3. Expenses for travel, boarding, lodging, and sustenance of the trainees / LICENSEE's personnel at the place of training will be borne by the LICENSEE 4. In case of any change in number of personnel or duration of the training, the above quoted lump-sum rate would be prorated to arrive at the amount payable.						

SIGN AND STAMP OF BIDDER

	SCHEDULE OF PRICES	
	STYRENE BUTADIENE RUBBER (SBR) UNIT FOR BPCL-ANDHRA PRADESH REFINERY AND PETROCHEMICAL PROJECT AT ANDHRA PRADESH (AP), INDIA	
Name of Work:	SUPPLY OF KNOW-HOW / LICENSE, BASIC ENGINEERING DESIGN PACKAGE (BEDP), PROPRIETARY CATALYST, PROPRIETARY ITEMS, IF ANY AND OTHER RELATED SERVICES FOR STYRENE BUTADIENE RUBBER (SBR) UNIT	
BIDDING DOCUMENT NO.	LT/C113-000-LA-T-8521/1025	
Name of Bidder:		

FORM - B4

SCHEDULE OF PERSONNEL RATES – ADDITIONAL SERVICES

Sl. No.	Item Description	AMOUNT (PER MAN-DAYS)		CURRENCY
		IN FIGURE	IN WORDS	
1	Additional Services (PERSONNEL RATES FOR SERVICES RENDERED)			
1.1	At Licensor's Office (Per Manday) By Licensor Personnel (Deputed from Licensor's office)			
1.1.1	Engineering a) Development of APC Strategies b) Development of specification for process simulators Any other activity/ service related to project implementation			IN USD / EURO/INR (Bidder to indicate any one currency)
1.1.2	Inspection a) Procurement/ Inspection/ expediting of critical equipment b) Supervision during construction c) Inspection at vendor's shop floor/ prequalification of vendors Any other activity/ service related to project implementation			IN USD / EURO/INR (Bidder to indicate any one currency)
1.2	At Owner's/Consultant's/Vendor's office In India (Per Manday) By Licensor Personnel (Deputed from Licensor's office)			
1.2.1	Engineering a) Development of APC Strategies b) Development of specification for process simulators Any other activity/ service related to project implementation			IN USD / EURO/INR (Bidder to indicate any one currency)
1.2.2	Inspection a) Procurement/ Inspection/ expediting of critical equipment b) Supervision during construction c) Inspection at vendor's shop floor/ prequalification of vendors Any other activity/ service related to project implementation			IN USD / EURO/ INR (Bidder to indicate any one currency)

Notes :

- The above prices shall remain firm & valid as per provisions of Bidding Document subject to escalation for each calendar year as per FORM – B7.
- Per Diem rates shall be furnished for Licensors personnel involved in rendering Additional Services in accordance with the provisions of Bidding Document and its amendments. Please refer to sections on Additional Services of Technical Specifications and subsequent amendments, if any, for details.
- Single rates applicable for each of the service categories- Engineering and Inspection Activities shall be quoted.
- For the purpose of evaluation total of 150 man-days inclusive of travel time and Sunday as holiday shall be considered and the break-up shall be as under:
a. Engineering: 50 man-days at Licensor's office and 50 man-days at Owner's/Consultant's/Vendor's office in India. b. Inspection: 20 man-days at Licensor's office and 30 man-days at Owner's/Consultant's/Vendor's office in India.
- The quoted prices per mandays shall be inclusive of all costs, overhead and profit, transportation, living allowance, communication, taxes etc.(Except GST in India) but exclusive of airfare (Local and International via shortest route), accommodation at Project Site and Transportation from Place of accommodation to work place and back. For details and exclusions refer Notes of FORM B9.
- The following shall be considered for payment of Licensor personnel deployment:
i.) The rate as furnished in FORM B4 shall be applicable for workweeks (Monday till Saturday) of 8 hours each (6 days of 8 hours each). In case of exigencies, payment shall be done as per below:
a) For services rendered on Sunday of 8 hours each, payment shall be done at the double of per-diem rate provided in FORM-B4.
b) For services rendered beyond eight hours, payment shall be done based on prorated hourly basis to be derived from per Diem rate for the corresponding day as mentioned under Form-B4. This overtime charges per hour shall be applicable for working for extra hours on any day i.e. Monday to Sunday.
- Travelling Time (to & fro) for each personnel shall be upto Two (2) mandays for personnel coming from Outside India and One (1) Manday for the personnel coming within India.

SCHEDULE OF PRICES

SIGN AND STAMP OF BIDDER

	SCHEDULE OF PRICES	
	STYRENE BUTADIENE RUBBER (SBR) UNIT FOR BPCL-ANDHRA PRADESH REFINERY AND PETROCHEMICAL PROJECT AT ANDHRA PRADESH (AP), INDIA	
Name of Work:	SUPPLY OF KNOW-HOW / LICENSE, BASIC ENGINEERING DESIGN PACKAGE (BEDP), PROPRIETARY CATALYST, PROPRIETARY ITEMS, IF ANY AND OTHER RELATED SERVICES FOR STYRENE BUTADIENE RUBBER (SBR) UNIT	
BIDDING DOCUMENT NO.	LT/C113-000-LA-T-8521/1025	
Name of Bidder:		

FORM – B5

PRICES FOR SUPPLY OF PROPRIETARY ITEMS/ EQUIPMENT(Note-9)

S.No.	ITEM DESCRIPTION	UNIT	AMOUNT OF FOREIGN COMPONENT IN USD / EURO (Bidder to indicate any one currency)		FREIGHT IN PERCENTAGE (As per requirement in Note7 below)	Harmonized System of Nomenclature (HSN) code	Country of origin	AMOUNT OF INDIAN COMPONENT IN INDIAN RUPEES (INR)		FREIGHT upto Refinery Site in PERCENTAGE (Refer Note7 below)
			IN FIGURE	IN WORDS	IN PERCENTAGE (OF QUOTED FOB PRICE)			IN FIGURE	IN WORDS	IN PERCENTAGE (OF QUOTED FCA/ FOT despatch point price)
1	Supply of proprietary items/Equipment, if any, on FOB Port of shipment for Foreign component (Inco terms 2020) and FCA INCOTerms 2020 (FOT Despatch Point) for Indian component, in accordance with provisions of Bidding Document – On Lump Sum basis.									
	Description of Item/ equipment	Quantity (Nos.)								
(I)		LUMPSUM			____%					____%
(II)		LUMPSUM			____%					____%
(III)		LUMPSUM			____%					____%
(IV)		LUMPSUM			____%					____%
(V)		LUMPSUM			____%					____%
TOTAL AMOUNT		LUMPSUM								

Notes :

- The above prices shall remain firm & valid as per provisions of Bidding Document subject to escalation for each calendar year as per FORM – B7.
- Prices of mandatory spares, if required/commissioning spares shall be included in the price of proprietary items/equipment.
- Prices for Spares for 2 years of operation shall not be included in the Prices for Supply of Proprietary Items/equipment.
- Item wise price list of spares for 2 years of operation (not included in the proprietary equipment/items' pricing), if applicable, shall also be furnished along with the Priced Bid and shall be valid for 12 months after placement of order of proprietary equipment/ items. These price list of spares shall not be considered for priced bid evaluation. However, Licensee reserves the right to place the order to the Licensor on a later date within the validity period.
- Delivery schedule of Proprietary items/ equipment from placement of order shall be firm.
- Bidder to list proprietary items/equipment, furnishing item description, quantity, unit price and firm delivery schedule in the Priced Part. Licensor may add new rows for nos. Proprietary equipment/item as applicable. Bidder shall submit the unpriced copy of the same blanking out the price in the unpriced part for evaluation.
- Port of Entry in India for all imported items/equipments shall be considered as Chennai, Tamil Nadu for Seaport and Vijayawada, Andhra Pradesh for Airport. Bidder shall quote freight in % of FOB port of Exit basis for foreign supplied items from FOB port of exit to port of Entry in India. BPCL reserves the right of converting the Purchase Order on CFR / CPT Destination basis, based on freight charges quoted extra and to ask the bidder to arrange shipment through their own Freight Forwarder at the quoted freight rates. If Bidder has not quoted the freight charges separately, loading shall be done @ 5% OR the highest Freight percentage quoted by other bidders, whichever is higher.
- The order for proprietary equipment/items shall be placed separately on the above price and delivery period within validity period as mentioned in NOTE-1 above. The other commercial terms shall be finalised with the supplier of proprietary equipment/items at the time of placement of order, except the terms and conditions already agreed against this bidding document.
- Bidder to furnish list of Proprietary items/equipments required for the unit.

10. Bidder to indicate details of HSN code and Country of Origin to ascertain applicable rate of Customs Duty.

11. For imported supplies as built in import content (only cases where goods are cleared by filing Bill of Entry in the name of Owner and are directly consigned to Owner's project location), bidder to quote Supply Price (FOT Dispatch Point prices) in this Form B5, excluding Custom and Custom related duties for these items. Bidder shall provide break-up i.e. CIF value of such Items (included in Supply price) along with the applicable Custom and Custom related duties in attached Annexure- B5A. It may be noted that provisions of clause no. B.2.b. OF ANNEXURE -I TO SCC (TAXES AND DUTIES) shall be applicable for these items. The Custom and Custom related duties for these Items shall be loaded during Price Evaluation.

SCHEDULE OF PRICES

SIGN AND STAMP OF BIDDER

	SCHEDULE OF PRICES										
	STYRENE BUTADIENE RUBBER (SBR) UNIT FOR BPCL-ANDHRA PRADESH REFINERY AND PETROCHEMICAL PROJECT AT ANDHRA PRADESH (AP), INDIA										
Name of Work:		SUPPLY OF KNOW-HOW / LICENSE, BASIC ENGINEERING DESIGN PACKAGE (BEDP), PROPRIETARY CATALYST, PROPRIETARY ITEMS, IF ANY AND OTHER RELATED SERVICES FOR STYRENE BUTADIENE RUBBER (SBR) UNIT									
BIDDING DOCUMENT NO.		LT/C113-000-LA-T-8521/1025									
Name of Bidder:											

FORM – B5A

DETAILS OF BUILT-IN-CIF VALUE OF IMPORT CONTENT FOR SUPPLY OF PROPRIETARY ITEMS/ EQUIPMENT (to be consigned to OWNER)

ITEMWISE BREAK-UP OF BUILT-IN-CIF VALUE OF IMPORT CONTENT (INCLUDED IN SUPPLY PRICE), ITEM DETAILS OF IMPORT CONTENT AND RATES OF IMPORTS DUTY CONSIDERED AND EXCLUDED FROM QUOTED SUPPLY PRICES UNDER PRICE SCHEDULE [FORM A IN LINE WITH B.2. b OF ANNEXURE - I TO SCC\(TAXES AND DUTIES\)](#)

DESCRIPTION				CIF value of Import Content (in INR) included in quoted FCA INCOTerms 2020 (FOT Despatch Point) price		RATE OF CUSTOMS DUTY NOT INCLUDED IN QUOTED FOT DESPATCH POINT PRICES				
For Item no./ Sl. No. as per price schedule format	Description of Imported items	Unit of Measurement	Qty			HSN CODE	BASIC CUSTOMS DUTY (%)	SOCIAL WELFARE SURCHARGE ON CUSTOMS DUTY (%)	IGST (%)	TOTAL CUSTOM DUTY (%)
				Rate in Figures	Rate in Words					
1	2	3	4	5	6	7	8	9	10	11
TOTAL CIF VALUE										

Note:

1	This Format (Format 5A) is applicable for imported supplies as built in import content (only cases where goods are cleared by filing Bill of Entry in the name of Owner and are directly consigned to Owner's project location).
2	In case of variation/ wrong assesment of Import Duties, the provisions of clause B 2 c) v) and vi) of Annexure- I to SCC shall be applicable.
3	The Import Duties as indicated above shall be considered for Price Evaluation in line with Annexure -I to SCC.
4	The Built In CIF value indicated in Sl. No. 5/6 is included in Supply Price (FOT Despatch Point Price).
5	Custom and Custom related duties indicated in Sl. No. 8, 9, 10 and 11 above are not included in Supply Price (FOT Depatch Point prices)

SIGN AND STAMP OF BIDDER

SCHEDULE OF PRICES

	SCHEDULE OF PRICES	
	STYRENE BUTADIENE RUBBER (SBR) UNIT FOR BPCL-ANDHRA PRADESH REFINERY AND PETROCHEMICAL PROJECT AT ANDHRA PRADESH (AP), INDIA	
Name of Work:	SUPPLY OF KNOW-HOW / LICENSE, BASIC ENGINEERING DESIGN PACKAGE (BEDP), PROPRIETARY CATALYST, PROPRIETARY ITEMS, IF ANY AND OTHER RELATED SERVICES FOR STYRENE BUTADIENE RUBBER (SBR) UNIT	
BIDDING DOCUMENT NO.	LT/C113-000-LA-T-8521/1025	
Name of Bidder:		

FORM- B6

**SUPPLY OF FIRST CHARGE OF PROPRIETARY CATALYSTS/ PROPRIETARY CHEMICALS/
PROPRIETARY ADSORBENTS/ PROPRIETARY ABSORBENTS/ PROPRIETARY ADDITIVES/ PROPRIETARY SOLVENTS (As applicable)**

SI No	Name of Catalyst / Co-catalyst/Absorbent/ Adsorbent / Chemical / Additive/ Solvent	Base (In Kg)	Metals		Sub Total (col 3+col 4B)	5% handling/ contingency losses [(col 3+col 4B) x 0.05]	Total including handling loss (Col 5+Col 6)	Total Qty rounded off to the next higher Barrel/ Drum/ Bag Size including handling/contingency losses (In Kg)	Total base in the quantity indicated in column 8 (In Kg)	Total metal in the quantity indicated in column 8 (in Kg)	Unit Rate of Base Catalyst / Co-catalyst/Absorbent/ Adsorbent / Chemical / Additive/ Solvent (per Kg) (Currency to be indicated...)	Cost of Base Catalyst / Co-catalyst/Absorbent/ Adsorbent / Chemical / Additive/ Solvent (Col 9 x Col 11)	Freight (as per requirement in Note-20) (in terms of % applicable on Cost of Base Catalyst as quoted at Column 12) (This quoted Freight [Ocean/Air] shall be considered as Total freight charges for base Catalyst as well as corresponding metals)	Harmonized System of Nomenclature (HSN) code	Country of origin	Deleted
			4A Name	4B Quantity (In Kg)												
1	2	3	4A Name	4B Quantity (In Kg)	5	6	7	8	9	10	11	12	13	14	15	16
Catalysts/ Absorbents/ Adsorbents/ Chemicals/Additive/Solvents																
i.													___%			
ii.													___%			
iii.													___%			
iv.													___%			
v.													___%			
vi.													___%			
vii.													___%			
viii.													___%			
ix.													___%			

Notes:

- Licensor may add/delete the rows for nos. of proprietary Catalyst and Proprietary Adsorbents/ Absorbents/ Chemicals/ Additives/ Solvents as per applicability in their technology.
- The above prices shall remain firm & valid as per provisions of Bidding Document subject to escalation for each calendar year as per FORM – B7. .
- Delivery schedule shall be firm and valid till completion of the project.
- The cost of all proprietary Catalyst/ proprietaryAdsorbents/ proprietary Absorbents/ proprietary Chemicals/ proprietaryAdditives/ proprietary Solvents requiring make up during normal operation shall include supply of quantity required for initial fill and for twelve months of operation and first charge of all proprietary fixed bed Catalysts/ proprietary Adsorbents/ proprietary Absorbents/ proprietary Chemicals/ proprietary Additives/ proprietary Solvents and shall be provided in non-returnable suitable sealed packing that will prevent loss, damage, deterioration or corruption of these items during ocean, air, rail and truck travel, handling and storage. The Licensor shall describe the type of packing and details of drum / barrel / bag / containers in its bid. The Licensor shall also confirm that the packing is suitable for transit and handling and for long term storage at Project site. The Proprietary Catalysts/ Proprietary Adsorbents/ Proprietary Absorbents/ Proprietary Chemicals/ Additives/ Proprietary Solvents supplied in drums/bags should be palletized for dispatch.
- Quantities of proprietary Catalysts/ Adsorbents/ Absorbents/ Chemicals/ Additives/ Solvents specified by Licensor in SOP shall be considered as guarantee numbers.
- Quantity quoted in column 3, 4B and 5 shall be inclusive of all manufacturing losses.
- (Quantity under column 9) + (quantity under column 10) shall be equal to quantity under column 8.
- Cost of total base Catalyst (column 12) = Qty. of supply of first charge of total base Catalyst (Kg) (column 9) X Unit Rate of Base Catalyst (column 11) quoted by Licensor in USD/EURO/INR. Cost of total base Catalysts/ Adsorbents/ Absorbents shall exclude the cost of metals against which the Price variation is required, as applicable, but shall be inclusive of all elements associated with Catalysts/ Adsorbents/ Absorbents processing, all conversion charges, processing cost, service charges for procurement of metals, as applicable, etc. Metals against which the Price variation is required, as applicable, and their quantity shall be mentioned separately in respective columns of Form-B6.
- Price for Catalyst shall be as follows:
Catalyst Price = Cost of total base Catalyst + Cost of metals, as applicable

10. Quantity quoted shall be inclusive of minimum 5% for Handling/ contingency towards loss/ spillage. This 5% is besides losses mentioned in note-6 above. However, bidder should provide rounded-off quantity nearest to barrel / drum/ bag size in the priced bid and the same shall be considered for evaluation.

11. The cost of metals against which the Price variation is required, as applicable, is the cost of metals listed in the Catalysts/ Adsorbents/ Absorbents and is equal to metal content (in Kg) X cost of metals, as applicable, in USD / EURO/INR (per Kg)

12. Bidder to indicate "Unit Rate of base Catalyst in USD/EURO/INR" only.

13 Bidder to specify metals in SOP against which they want prices as per LME index (OR CRU Ryan Notes, if specific metal is not available in LME) and exclude prices of such metals from the price of the base Catalyst/ Chemical/ Adsorbent/ Absorbent / Additive etc. Bidder shall include cost of all other metals (if any) in their cost of base Catalyst/ Chemical/ Adsorbent/ Absorbent / Additive. LME index reference is to be considered for NPV calculation and ordering. In case, specific metal price is not available in LME website, the metal price in CRU RYAN Notes shall be considered]

14. The other metal prices [i.e. Other than Precious Metal & Molybdenum] for Ordering shall be based upon three months' average price ending the month prior to Ordering. However, for evaluation/ NPV calculation, latest available published prices of metals [other than Molybdenum] (For Catalyst, Chemicals, Adsorbents, Absorbents, Additives, as applicable) prior to the date of price bid opening shall be considered from LME website. An average of AM & PM published prices in US\$ shall be considered in NPV evaluation. No escalation for metal prices shall be considered for the requirement in subsequent years. In case, specific metal price is not available in LME website, the metal price in CRU RYAN Notes shall be considered.

15. For Molybdenum (wherever applicable), the Floor rate shall be indicated by the Bidder in Sl. No. 16 below alongwith a support Letter from their supplier. This floor price indicated by Bidder shall be used for evaluation of Price/NPV calculation. However, for Ordering, either floor price or published Index Price, whichever is "Higher" shall be considered. Published Index Price shall be 3 Months' average price, ending the month prior to the ordering

16. Floor Price of Molybdenum/Kg (To be indicated in Unprice copy of Price Bid alongwith support Letter from their Supplier.

17. Procurement methodology of Precious metal (i.e. Platinum, Palladium, Silver & Gold) is attached in Bidding Document.

18. Bidder to note that only the name of the Catalyst (as per column 2 above) and Name of Metal(as per column 4A) along with their quantities shall be submitted in the Unpriced Bid.

19. Bidder to list all proprietary catalyst/ Adsorbents/ Absorbents/ Chemicals/ Additives/ Solvents in accordance with provision of bidding document furnishing item description, quantity, unit rate, price in the Price part. Bidder shall submit the unpriced copy of the same blanking out the price in the unpriced part for evaluation.

20. Bidder shall quote unit prices for supply of all Catalyst/ Adsorbents/ Absorbents/ Chemicals/ Additives/ Solvents on FOB Port of Shipment for foreign component (Inco terms 2020) and FOT dispatch point basis for Indian component. Bidder shall quote freight in % of FOB port of Exit basis for foreign supplied items from FOB port of exit to port of Entry in India (i.e. Chennai, Tamil Nadu for Seaport and Vijayawada, Andhra Pradesh for Airport) and Road freight in % of FOT dispatch point price for Indian supplied items in this Form. BPCL reserves the right of converting the Purchase Order on CFR / CPT Destination basis, based on freight charges quoted extra and to ask the bidder to arrange shipment through their own Freight Forwarder at the quoted freight rates. If Bidder has not quoted the freight charges separately, loading shall be done @5% OR the highest Freight percentage quoted by other bidders, whichever is higher.

Bidder to note that the quoted freight charges (ocean / inland, as applicable) in column 13 shall be considered as Total freight charges for transportation of base Catalyst as well as corresponding metals no additional Freight Charges will be payable for transportation of metal(s).

21.The order for Proprietary Catalyst and Adsorbents/ Absorbents/ Chemicals shall be placed separately on the above price and delivery period within validity period as mentioned in NOTE-2 above. The other commercial terms shall be finalised with the supplier of Proprietary Catalyst and Adsorbents/ Absorbents/ Chemicals at the time of placement of order, except the terms and conditions already agreed against this bidding document.

22. DELETED.

23. Bidder to indicate details of HSN code and Country of Origin to ascertain applicable rate of Customs Duty.

24. For imported supplies as built in import content (only cases where goods are cleared by filing Bill of Entry in the name of Owner and are directly consigned to Owner's project location), bidder to quote Supply Price (FOT Dispatch Point prices) in this Form B5, excluding Custom and Custom related duties for these items. Bidder shall provide break-up i.e. CIF value of such Items (included in Supply price) along with the applicable Custom and Custom related duties in attached Annexure- B5A. It may be noted that provisions of clause no. B.2.b. OF ANNEXURE -I TO SCC (TAXES AND DUTIES) shall be applicable for these items. The Custom and Custom related duties for these items shall be loaded during Price Evaluation.

25. DELETED.

SIGN AND STAMP OF BIDDER

SCHEDULE OF PRICES

	SCHEDULE OF PRICES	
	STYRENE BUTADIENE RUBBER (SBR) UNIT FOR BPCL-ANDHRA PRADESH REFINERY AND PETROCHEMICAL PROJECT AT ANDHRA PRADESH (AP), INDIA	
Name of Work:	SUPPLY OF KNOW-HOW / LICENSE, BASIC ENGINEERING DESIGN PACKAGE (BEDP), PROPRIETARY CATALYST, PROPRIETARY ITEMS, IF ANY AND OTHER RELATED SERVICES FOR STYRENE BUTADIENE RUBBER (SBR) UNIT	
BIDDING DOCUMENT NO.	LT/C113-000-LA-T-8521/1025	
Name of Bidder:		

FORM – B7

ESCALATION RATE

Sl. No.	Year	Rate of Escalation in Percentage for prices specified in (in figures as well as in words)				
		FORM - B2 (Mandatory services)	FORM - B3 (Training)	FORM - B4 (Personnel rates- Additional services)	FORM – B5 (Proprietary equipment's / items)	FORM – B6 (Supply of first charge of Catalysts, chemicals, adsorbents, absorbents additives/ solvents)
1.	2027 (for balance year after Bid Validity till 31.12.2027)					
2.	2028					
3.	2029					
4.	2030					
5.	2031					
6.	2032					

NOTES:

1. Rate of Escalation shall be indicated in terms of percentage in figures as well as in words. In case any percentage is not mentioned, then it will be construed that the prices in FORM -B2 to FORM –B6 are valid and firm up to **31.12.2032**

2. The above escalation rate shall be considered for computation of NPV. It is explained that if any escalation percentage is mentioned in 2027, then it automatically applies to 2028. It means, the percentage mentioned in 2028 shall be in addition to the price already increased during 2027 as a result of percentage mentioned in 2027. Similar provisions shall be applicable for subsequent years also.

Example:

Base Price : 1000 valid up to Bid Validity say 31.12.2026
Escalation for 2027 : 2%
Escalation for 2028 : 1%
Escalation for 2029 : 1%

Escalation for 2030 : 1%
Escalation for 2031 : 1%
Escalation for 2032 : 1%
Price in 2026 : 1000
Price in 2027 : 1000 X 1.02
Price in 2028 : 1000 X 1.02 X 1.01
Price in 2029 : 1000 X 1.02 X 1.01 X 1.01
Price in 2030 : 1000 X 1.02 X 1.01 X 1.01 X 1.01
Price in 2031 : 1000 X 1.02 X 1.01 X 1.01 X 1.01 X 1.01
Price in 2032 : 1000 X 1.02 X 1.01 X 1.01 X 1.01 X 1.01 X 1.01

SIGN AND STAMP OF BIDDER

SCHEDULE OF PRICES

	SCHEDULE OF PRICES	
Name of Work:	STYRENE BUTADIENE RUBBER (SBR) UNIT FOR BPCL-ANDHRA PRADESH REFINERY AND PETROCHEMICAL PROJECT AT ANDHRA PRADESH (AP), INDIA	
BIDDING DOCUMENT	LT/C113-000-LA-T-8521/1025	
Name of Bidder:		
FORM-B9		
<u>DEPUTATION OF LICENSOR'S PERSONNEL [FOR MANDATORY, ADDITIONAL SERVICES]</u>		
1.1 DEPUTATION OF LICENSOR'S PERSONNEL FROM ITS OFFICE OUTSIDE INDIA (i) For each person deputed in India by LICENSOR from its office outside India, for services in connection with the LICENSED Unit for which LICENSEE is liable to pay as per terms and conditions, the LICENSEE shall only reimburse/arrange the following: a) Round Trip Air Ticket from LICENSOR's designated Office to Indian airport nearest to LICENSEE's Refinery Site. Owner shall reimburse Air Ticket at actuals based on Round Trip Business Class Airfare (in case Travel duration is more than 8 Hours) and Economy Class (in case Travel duration is less than 8 Hours) from Travel Outside to India and Round trip only. Economy Class for Travel within India to the nearest Airport of Project Site. b) Accommodation at Project Site and Transportation from Place of accommodation to work place and back. (ii) No additional Living allowance over & above the Lumpsum Price (or) per diem rate for Mandatory and Additional services respectively as quoted by Bidder would be admissible. No other incidental expense over & above the Lumpsum Price or per diem rate as quoted by bidder for Mandatory and Additional Services would be admissible. (iii) LICENSOR shall not, unless otherwise specifically permitted by the LICENSEE, permit any of LICENSOR's personnel to stay in India for more than 6 (six) months and shall replace any or all of its engineers who remain continuously in India prior to their completing a 6 (six) months stay in India. LICENSOR will give LICENSEE not less than 15 (Fifteen) days prior written notice of its intention to replace any of its engineers. Replacement shall be arranged in such a manner as not to prejudice the LICENSOR's responsibility of testing and commissioning the UNIT and proving the LICENSOR's guarantees.		

(iv) Deputation of any LICENSOR's personnel (including replacements) shall be subject to the LICENSEE approving the qualifications and bio-data of the person(s) proposed. Notwithstanding such approval, the LICENSEE may for reason(s) which the LICENSEE shall not be bound to disclose, require the replacement of any LICENSOR's personnel.

(v) LICENSOR shall be exclusively responsible to pay and bear the cost including all kind of Transportation of repatriating and replacing any LICENSOR's personnel who is unable to continue because of death, injury or sickness. In case of replacement of person due to death, injury or sickness, the actual arrival of replacement at Site shall be considered for the purpose of calculating mandays.

2.1 DEPUTATION OF LICENSOR'S PERSONNEL FROM ITS OFFICE IN INDIA

(i) For each person deputed by the LICENSOR from its office in India for services in connection with the LICENSED Unit for which LICENSEE is liable to pay as per terms and conditions, the LICENSEE shall reimburse/arrange the following:

a) Round Trip Air Ticket from LICENSOR's designated Office to Indian airport nearest to LICENSEE's Refinery Site. Owner shall reimburse Round trip Economy Class Travel within India to the nearest Airport of Project Site.

b) Accomodation at Project Site and Transportation from Place of accomodation to work place and back.

(ii)

No additional Living allowance over & above the Lumpsum Price (or) per diem rate for Mandatory and Additional services respectively as quoted by Bidder would be admissible. No other incidental expense over & above the Lumpsum Price or per diem rate as quoted by bidder for Mandatory and Additional Services would be admissible.

3.1 Office Space shall be provided.

4.1 PER DIEM charges payable for LICENSOR's personnel shall commence with the commencement of the journey from the airport located nearest to licensor's office by shortest route to the location of deployment, and shall terminate with the termination of the return International journey. For each delegation of a person maximum of two mandays (to & fro) for personnel coming from Outside India and One Manday (To & fro) for personnel coming from within India as transit period or actual whichever is lower shall be considered.

5.1 Although the LICENSEE may as a courtesy permit LICENSOR's personnel to be treated at any medical facility provided by the LICENSEE, the LICENSEE undertakes no obligation to provide any medical assistance or treatment to LICENSOR's personnel or to bear any medical, hospitalization, treatment or any other expenses incurred by the LICENSOR's personnel during deputation, and any courtesy medical facilities provided at any LICENSEE facility shall be without any attendant obligation on the LICENSEE and its personnel relative thereto, including for negligence or incompetence, and these terms shall constitute a complete and absolute waiver and discharge by the LICENSEE and any personnel deputed by it of any rights and causes of action of the LICENSEE / personnel against the OWNER or its personnel relative thereto, and an indemnity against all contrary claims and actions.

SIGN AND STAMP OF BIDDER

SECTION – II

TECHNICAL SECTION

**TECHNICAL SPECIFICATIONS
FOR
SUPPLY OF KNOW-HOW / LICENSE, BASIC ENGINEERING DESIGN
PACKAGE (BEDP), PROPRIETARY CATALYST, PROPRIETARY
ITEMS, IF ANY AND OTHER RELATED SERVICES FOR
STYRENE BUTADIENE RUBBER (SBR) UNIT
FOR
ANDHRA PRADESH REFINERY AND PETROCHEMICAL PROJECT
OF
BHARAT PETROLEUM CORPORATION LIMITED (BPCL)**

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Rev. No.	Date	Purpose	Prepared by	Reviewed by	Approved by

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1.0 INTRODUCTION

1.1 PROJECT OVERVIEW

Bharat Petroleum Corporation Limited (BPCL) is planning to set up a Andhra Pradesh Refinery and Petrochemical Complex, Andhra Pradesh (AP), India with an envisaged refining capacity of 9 MMTPA and an ethylene production capacity of 1.5 MMTPA, producing both transportation fuels and petrochemical products. The major objectives of the project are:

- Production of fuel/refinery products and Petrochemicals
- Production of fuels conforming to BS VI specifications as minimum
- Maximize Petrochemical including niche petrochemicals production in line with market demand.

The following major units/facilities are proposed to be set up in the complex.

- CDU/VDU
- VGO-HDT
- DHDT
- MS BLOCK
- DCU
- PFCC
- FCC GTU
- Ethylene Cracker and Associated Units (ECU Block) include Ethylene cracker to produce Polymer grade Ethylene, Polymer grade Propylene and Hydrogen, Butadiene Extraction Unit (BdEU), Pyrolysis Gasoline Hydrogenation unit (PGHU), Benzene Toluene Xylenes (BTX) Extraction and Separation, Raw C4 olefins Hydrogenation, Refinery Off Gas Treatment section
- Low Density Polyethylene (LDPE)
- Linear Low-Density Polyethylene (LLDPE)/ High Density Polyethylene (HDPE) Swing Unit
- HDPE
- Polypropylene Unit (PP)
- Butene-1 Unit (BU)
- SBR Unit
- PVC Unit
- VCM Unit
- Phenol Unit
- Cumene Unit
- Chlor-Alkali
- HGU
- Sulphur block (including SRU, ARU, SWS)
- Utility & Offsites consisting of Steam, Power, Desalination, Cooling water, Instrument Air/ Plant Air, N₂, tankages and other important facilities required for a Petrochemical complex
- Effluent treatment, Flare system and other waste disposal facilities This Petrochemical Complex will also have required infrastructure, utilities and offsites facilities to support smooth operation of the complex.

M/s Engineers India Limited (EIL) has been engaged by BPCL for the Technology Evaluation and Licensor selection for its Andhra Pradesh Refinery and Petrochemical Complex, Andhra Pradesh (AP), India. M/s EIL's scope for the project includes technology identification, short listing and evaluation of technology licensors, detailed project cost estimation, economic evaluation of the project and so forth.

This document constitutes Technical Specifications of bidding document for inviting firm techno-commercial proposals from the LICENSORS of **Styrene Butadiene Rubber Unit** for supply of technology Know-how / License, Basic Engineering Design Package (BEDP) as detailed under Annexure 1.0, catalyst, proprietary items, if any, and other related services for evaluation of the technologies and selection of Licensor for the proposed unit. BIDDER to propose design to produce two trains of **Emulsion SBR (eSBR)**, each with a design production capacity of **75 KTPA**, and one train of **Solution SBR (sSBR)** with a design production capacity of **40 KTPA** as per specification provided in section 2.8 with optimum overall investment cost in addition to the following:

- Optimize Feed to the unit
- Lowest Capex
- Meeting high standards of safety, environment and quality
- High reliability
- Easy to start-up, operate and maintain
- Safe normal and emergency shutdown
- Optimum operating cost
- Optimum footprint & layout
- Best in class energy efficient design
- Implementation of state-of-the-art facilities to ensure Q1D1 performance
- Incorporation of Net Zero capabilities

Based on the License, Basic Engineering Design Packages (BEDP) and other related services supplied/provided by BIDDER(s), LICENSEE/ OWNER intends to proceed to the next stages of detailed engineering, procurement, construction and operation.

1.2 SCOPE

This document defines Bharat Petroleum Corporation Limited (BPCL) requirements for the process engineering design of a proposed Styrene Butadiene Rubber Unit (SBR)) to be designed to achieve a total of 190 KTPA production comprising of two trains of **Emulsion SBR (eSBR)**, each with a design capacity of **75 KTPA**, and one train of **Solution SBR (sSBR)** with a design capacity of **40 KTPA** of SBR product as per specification provided in section 2.8, based on 8000 hours of operation per annum at Ramayapatnam, Andhra Pradesh (AP), India.

Following units/ sections coming within the unit complex shall form part of the bidder's scope of work and services:

- ESBR train based on **Cold Emulsion Polymerization Process** Including Feed Purification Section, Polymerization Section, Monomer Recovery Section, Chemical and Additives Preparation Section, Refrigeration Section, Waste Gas/Waste water Treatment Section, Separation & Drying Section and Storage, Blending & Finishing Section, etc. As applicable.
- sSBR train shall be designed on the basis of the Solution Polymerization

Process carried out in batch-type reactors.

The following sections describe the product specifications and identify the information required from the BIDDER for the purposes of comparative evaluation. However, BIDDER is encouraged to offer suggestions for improvement if any, based on their technology and experience

The Basic Engineering Design Package (BEDP) will use the site conditions provided in the Annexure 6.0 (Basic Engineering Design Data) and as provided by owner during kick-off meeting with the selected bidder. The BIDDER shall prepare the BEDP after award of contract, but the cost to prepare the BEDP and technical assistance during EPC/EPCM phase as described in Section 2.0 and 3.0 shall be included with bidder proposal.

Owner will appoint technically competent Consultant/ Contractor for carrying out Front-end Engineering/ Detailed Engineering based on the BEDP, which would be developed by the BIDDER. It is necessary that the BIDDER shall allow the Owner to share the related information contained in the Basic Engineering Package with such Consultants for the needed purpose after signing required secrecy agreement. BIDDER will furnish to Owner and Owner's Consultant a reasonable amount of general consultation/clarification, while using the inputs provided by the BIDDER for carrying out detailed engineering of the unit.

It is understood that this Request for Proposal (RFP) shall not create any obligations contractual or otherwise between BIDDER and OWNER (BPCL). Also, neither BPCL nor M/s EIL shall be liable for any costs incurred by BIDDER in preparation and submission of a proposal.

The required contents of the BIDDER proposal are described in Sections 6.0

The execution mode for the proposed SBR unit shall be finalized by BPCL post selection of the Bidder. BPCL remains open to execute the project under a Joint Venture (JV) mode with the selected Bidder. Accordingly, the Bidder is requested to express willingness to participate in the JV mode in the Bid submission.

2.0 BASIS FOR TECHNICAL PROPOSAL

Following sections shall be the basis for the technical proposal from the BIDDER.

2.1 PROCESSING OBJECTIVE

The unit scope is a grassroot Styrene Butadiene Rubber Unit to be designed with a total design capacity of 190 KTPA based on 8000 operating hour per annum comprising of two trains of Emulsion SBR (eSBR), each with a design production capacity of 75 KTPA, and one train of batch type Solution SBR (sSBR) with a design production capacity of 40 KTPA.

The Styrene Butadiene Rubber (SBR) product shall conform to the specification provided in section 2.8 Table 2.8.2A & 2.8.2B. The capacity stated above are inclusive of off spec.(low value) products produced during grade transition from one product to another.

The eSBR production trains shall be designed based on the Cold Emulsion Polymerization Process, ensuring the capability to manufacture the specified grades of

emulsion styrene-butadiene rubber. In parallel, the sSBR train shall be designed on the basis of the Solution Polymerization Process carried out in batch-type reactors, providing the flexibility to produce solution styrene-butadiene rubber grades with precise control over molecular weight distribution and microstructure

Feed will be polymerized to produce different SBR grades in the proposed SBR Unit.

By-products and waste from the unit, if any, should be minimized. In case, there are any by-products, Licensor to specify quantity and recommend application and disposal method of such by-product produced from the unit.

The plant offered in the proposal shall be based on the same technology as the reference plant submitted by the Licensor for qualification purpose.

The feed stocks available for achieving the aforementioned unit capacity shall be as per section 2.7 of this document.

The SBR Unit shall be designed with below consideration

- Design with state-of-the-art Technology
- Maximizing product yield
- Minimizing generation of the transition product
- Energy Optimization
- Minimum down-time of polymerization due to fouling of exchangers, lines, pumps, reactor hotspot etc. Higher overall unit availability
- Safe operation (normal operations, start-up, shutdown and emergency)
- Modular Design optimizing available space and reduction of construction time may be considered wherever feasible but consideration to be given for ease of maintenance.
- The unit design shall incorporate state-of-art environmental control strategies to ensure that the impact of this unit on the environment is minimized

2.2 DEFINITION OF BATTERY LIMITS

For the purpose of this technical specification, battery limit of Styrene Butadiene Rubber Unit shall mean all sections of the unit having two trains of eSBR each with a production capacity of 75 KTPA, and one train of batch type sSBR with a production capacity of 40 KTPA to produce SBR products of desired specifications in baled and packed condition. Current proposal flowsheet for SBR unit has shown below:

Fig.2.2.1 Block Flow Diagram-eSBR Plant

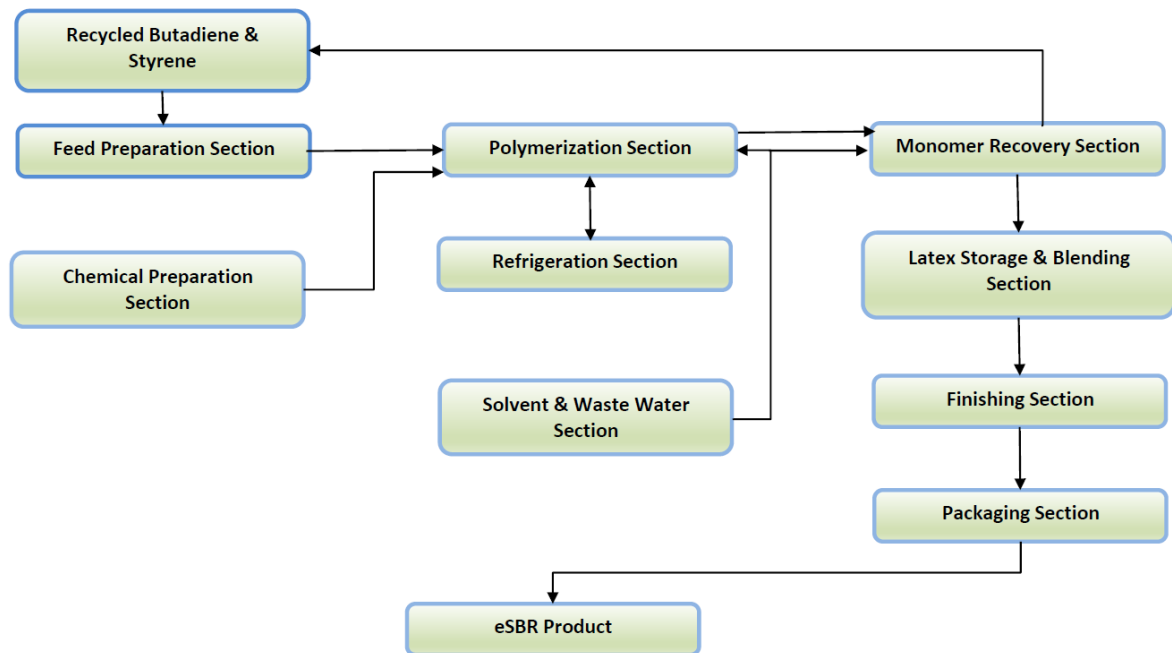
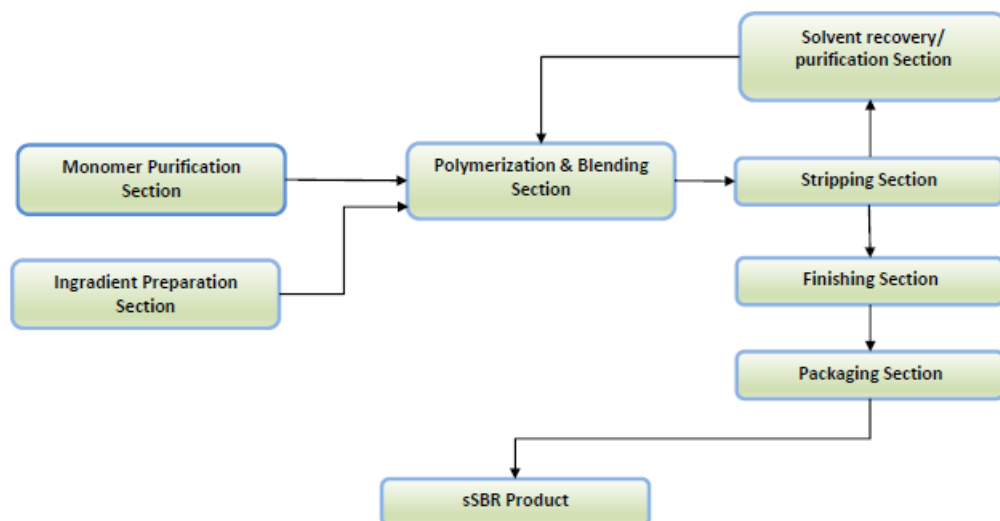


Fig.2.2.2 Block Flow Diagram-Batch type sSBR Plant



Note:

Integration of common process sections between eSBR and sSBR units shall be duly considered during the preparation of the Basic Design Engineering Package (BDEP) as applicable. While considering the optimization between the trains, it should be ensured that any upset, emergency, shutdown/startup or maintenance activity in one train must not affect the other operating train in any respect.

The facilities under SBR Plant, as a minimum shall include the following sections, all of which (except if it is found that any particular section / facility listed below is not required or is not relevant for the offered technology) shall be within the scope of LICENSOR's design without any exception.

1. All processing facilities as needed to meet the process objectives and guarantees, conforming to the design basis and other considerations specified in this document meeting guaranteed product yields and qualities.
2. The eSBR production trains shall be designed based on Cold Emulsion Polymerization process and the batch type sSBR train shall be designed on the basis of the Solution Polymerization Process carried out in batch type reactors and shall include the processing sections as specified in clause 1.2 above.
3. Facilities for receiving and storage for Styrene, 1,3 Butadiene and Extender Oil as feed from OSBL (as applicable).
4. Feed handling/ treatment facility including treaters & filters, etc if any.
5. Feed purification treater beds (if required) in site regeneration facilities, type of regeneration facilities shall be closed loop, wherever possible.
6. Facilities for Catalyst/ adsorbent/ absorbent Loading and Unloading, if applicable.
7. Facilities for preparation, dilution, storage and injection of dosing of Catalyst(s)/ Additives/ Chemical(s)/ Solvent(s)/ Oxidants/Initiators / Inhibitors/Modifiers/Acid and caustic etc., if any and similar items required if any, within the battery limit.
8. All instrumentation required for normal operation, handling emergencies and shutdown along with advance control strategies.
9. Any special facilities required for smooth/ safe start-up/ operation/ shutdown of the unit, if required.
10. Facilities for spent caustic handling, regeneration, storage & disposal if applicable.
11. Facilities for in-plant steam generation and superheating, if any.
12. Collection and treatment facilities for effluents generated within the unit during normal operation and shutdown and emergency condition of the Plant. Treated effluent will be connected with the facility provided by LICENSEE outside the battery limit. The proposed central effluent treatment facility (others scope) for liquid effluents will be designed only for reduction of oils, phenols, sulfides, BOD and adjustment of pH. Licensor should indicate and summarizes gases, liquid and solid effluents generated (flow rate, composition, during normal & emergencies and to indicate in Annexure-6).
13. Facilities for incineration of Unutilized by-product, gaseous effluents (which are not routed to Flare header) & heat recovery, if any.
14. Neutralization/ passivation facilities if required.
15. Facilities for refrigeration and chilled water system required for Feed/ Product/ Intermediate stream cooling requirement, if any
16. Necessary facilities required for environment protection and occupational safety

related to process unit.

17. Facilities for corrosion monitoring and control (if required).
18. Facilities required for water treatment within ISBL. Cooling water treatment to be excluded as it will be part of the cooling Tower system. However, Tempered water (if used in the unit) treatment is covered under the scope.
19. Facilities for Storing, blending and Finishing of latex to bales.
20. Packaging facilities for the product.
21. Storage facilities for the Product complying with safety requirements.
22. All processing facilities including feed preparation to meet guaranteed product qualities and capacity.
23. Collection facilities for effluents generated within the unit during normal operation, shutdown, catalyst/ adsorbent/ adsorbent regeneration and its treatment. This will be hooked up to the facility provided by LICENSEE outside the battery limit.
24. Detailed specifications of all the Laboratory facilities and measurement methods, required for estimation of desired Feed qualities and desired & guaranteed Product qualities including impurities are to be provided by Licensor. Recommended laboratory test procedures, Licensor's own procedures if different from ASTM methods, frequency of analysis, parameters to be analyzed for feed streams, products & intermediates also to be provided by Licensor.
25. Diluent / solvent recovery, storage and recycling including facilities to receive fresh make-up and treatment and disposal of off-spec material at battery limit, if any.
26. ISBL flare collection / knock out drum, Licensor shall provide segregated flare systems for dry and wet flare loads. Ammonia scrubber and release stack for handling emergency ammonia release, if applicable
27. The system shall consist of the Flare Headers and Knock-Out drum with heating arrangement (vaporizer to vaporize liquid associated with relief discharge), if required. Also for the dry flare header vapour super heater shall be included (if required) so as to ensure at least +5 °C for common flare discharge from the unit under all relief conditions.
28. BIDDER shall provide flare load summary (mitigated and unmitigated).
29. ISBL Closed blow down and pump out system.
30. Steam and condensate recovery system.
31. Cooling water pressure boosting system as required for serving the heat exchangers located at very high elevation.
32. Handling of solid and organic liquid effluents including need for primary treatment, if desired, to enable effluent discharged from Effluent Treatment Plant (ETP) to meet discharge standards of liquid effluents as per Central Pollution Control Board (CPCB) and Ministry of Environment, Forest and Climate Change (MoEFCC) mentioned in Annexure 6.0 (BEDD).
33. Collection/discharge of gaseous effluent after necessary treatment, if such treatment is envisaged. Quality of gaseous effluent shall meet effluent standard specified in Annexure 6.0 (BEDD).
34. Details of necessary equipment / instruments /space /utilities and other

requirements for Quality Control & Quality Assurance Laboratories.

35. Advance Process Control (APC) implementation strategy / philosophy
36. Specification for special firefighting and safety system as necessary.
37. Any special facility and raw material/ chemicals required for smooth/safe start up, operation and shutdown of the unit.
38. Facilities for carrying out on-stream and shutdown maintenance
39. Facilities for safeguarding process systems/catalysts.
40. Facilities for heat integration for improving energy optimization.
41. For emergency / start-up, steam will be supplied from OSBL complex network. Bidder to indicate flow and desired level of emergency/start-up steam to be generated and facilities to be included in the Unit B/L only. The B/L conditions for steam are also defined elsewhere in the document.
42. The BIDDER shall also specify the system for collection, removal, handling, and storage/disposal of rubber from effluent pits, along with facilities for handling and reprocessing of off-spec products, wherever applicable..
43. Any other requirement for smooth/safe start-up, operation and shutdown of the unit/units to be considered within the scope of the bidder.
44. Tempered water and chilled water system, if any.

Equipment list, PFD, P&ID and bidder's scope of design (Annexure-1) shall cover all the above system.

BIDDER shall specify minimum storage requirements for feedstock and intermediate products for ISBL and OSBL.

The following utility, infrastructure and offsite facility is not included in the bidder's scope:

- Off-site feed and product storage tanks (as per OWNER's defined capacity) and dispatch and packaging of product
- OSBL Flare System / Incinerator / Flare gas recovery
- Fuel Gas/ Fuel Oil system
- Bulk chemical storage
- Common utility and offsite systems such as Power, Steam, Cooling water, Potable water, Raw water, DM water, Common Waste water Treatment system, Fire Protection System, Instrument air/Plant air & N2 system. The above-mentioned utility system will be tied up to the bidder's facilities at the battery limits as per Annexure.6 (BEDD). Any boosting of their pressure or conditioning, as required for the licensor's process shall be in the scope of the bidder.

BIDDER shall specify minimum storage requirements for feedstock and intermediate products.

2.2.1 PLANT CONFIGURATION/OPTIMIZATION FOR EACH TRAIN:

The Unit will be designed to process 1,3-Butadiene, Styrene Monomer and extender oil as applicable, with quality as defined in Clause 2.7.1, to produce the eSBR and sSBR grades listed in Table 2.8.1A & 2.8.1B. The facility shall comprise two trains of eSBR, each with a production capacity of 75 KTPA, and one train of batch type sSBR with a production capacity of 40 KTPA.

eSBR train Design Case:

The eSBR trains should be designed to produce all the listed eSBR grades in Table 2.8.1A as well as grades not listed above but available commercially under the license by bidder. However, to arrive at the design capacity of the unit, grade SBR 1723 and/or SBR 1783 and/or any equivalent oil extended eSBR grade to be considered as the design grades with an annual production capacity of 75 KTPA (~9.38 ton/hr finished rubber) per train, considering 8,000 operating hours per annum.

sSBR train Design case:

Likewise, the batch type sSBR trains should be designed to produce all the listed sSBR grades in table 2.8.1B as well as grades not listed above but available commercially under the license by bidder. However, to arrive at the design capacity of the unit, any oil extended grade from the table 2.8.1B or any equivalent sSBR oil extended grade with a guaranteed product throughput of 5 ton/hr to be considered as the design grades with an annual production capacity of 40 KTPA, considering 8,000 operating hours per annum.

BIDDER to specify and guarantee the production capacity of all the above listed eSBR and sSBR grades considering the design constraints, if any.

LICENSOR must also specify any other critical quality, which may have to be kept in mind while running the unit on feeds other than the design feed.

2.2.2 By-products and waste from the SBR Unit, if any, should be minimized. In case there are any by-products, LICENSOR to specify quantity, quality and recommend applications of such by-products produced from the Unit.

2.2.3 Bidder to optimize each train facilities considering below.

1. The Bidder shall optimize the configuration of SBR trains to minimize capital (CAPEX) and operating (OPEX) expenditure while ensuring the following design and operational criteria are fulfilled.
2. Common Battery Limit (B.L.) for SBR trains and common raw materials handling, purification systems.
3. Catalyst handling & feeding systems must be designed and configured to enable simultaneous feeding & operation of same or different catalyst type to each train. The system design shall ensure that catalyst changeovers, storage and transfer, and operation in one train do not impact or interrupt the operation of the other train(s) with different catalyst system, maintaining full operational flexibility and grade integrity across the trains.

4. Chemical handling & feeding systems must be designed and configured to enable simultaneous feeding & operation of same or different chemical type to each train. The system design shall ensure that chemical changeovers, storage and transfer, operation in one train do not impact or interrupt the operation of the other train with different chemical system, maintaining full operational flexibility and grade integrity across all the trains.
5. Rubber conveying to baling package (if applicable), Rubber handling & storage and packaging sections must be kept independent for each train.
6. All other utilities and facilities can be optimized jointly by the licensor where technically and economically feasible.
7. Proper isolation facility for utilities and raw materials etc. in each train for emergency shutdown, start-up, independent operation, and independent PGTR of all the trains shall be provided.

2.3 UNIT CAPACITY & OPERATION PERFORMANCE

- A. The Styrene Butadiene Rubber Unit should be designed to have design capacity of 190 KTPA of SBR product (refer clause 2.2.1 for detailed design criteria), and the unit should be able to achieve the desired quantities as minimum as per the grade slate mentioned in Table 2.8.1 A & 2.8.1 B and as per specification mentioned in Table 2.8.2 A & 2.8.2 B. The capacity stated here is inclusive of off spec. (low value) products produced during transition from one grade to another.

Above capacity shall be achieved in two trains of eSBR, each with a production capacity of 75 KTPA, and one train of batch type sSBR with a production capacity of 40 KTPA, considering 8000 operating hours per annum.

- B. Unit shall be highly energy efficient as per best industrial practices mentioned below:
- Operational Availability (without turnarounds)
 - Production of Prime Grades
 - Low Operating expenditure (OPEX)
 - Low Catalyst, Chemicals and utility consumption
 - Best Safety Record
 - Energy Intensity Index
 - The unit shall be designed to have facilities for best-in-class energy performance in line with Major Industry Benchmarks.

BIDDER shall recommend novel approaches to reduce energy consumption within or between units to boost overall facility energy efficiency.

2.4 ON-STREAM FACTOR

The unit shall be designed for an on-stream factor (operating hours) of 8000 hours per annum towards arriving at the hourly processing rate but the unit design and engineering practices advised shall allow a minimum uninterrupted operating cycle of 4 years between turnarounds with units operating continuously at 100% capacity. i.e., $4 \times 365 = 1460$ operating days at design feed rate corresponding to 8000 hrs/annum.

BIDDER to include any additional facility to achieve minimum 4 years of uninterrupted operation as part of proposed scheme.

Strategies deployed by the Licensor for meeting the above turnaround time requirement shall be specifically listed in the proposal.

2.5 TURNDOWN CAPABILITY

The unit shall be capable of a guaranteed turndown (minimum operable hydraulic capacity) while making on-specification product. As a minimum, Turndown ratio of 50% of design capacity throughput in terms of SBR production is desired.

However, BIDDER shall indicate the lowest achievable turn down ratio for each main equipment/section and overall for the unit, without any adverse impact on product quality, yields & investment, as part of the proposal. The plant shall be able to operate in a stable manner, producing on-specification products when operating between minimum turndown capacity and 100% of design throughput. Licensor has to ensure that the above range of operation is achieved only through DCS intervention of plant operator.

2.6 OVER DESIGN PHILOSOPHY

BIDDER shall indicate over design philosophy followed for broad equipment specifications in the bid specifically for each category of equipment.

Bidder in their proposal shall indicate the over design margin considered in each section of SBR unit and associated facilities over the design case production for achieving the flexibility of operation.

During Kick off Meeting, in case any specific margin is required for unit/ specific equipment, the same will be addressed on case to case basis without any price implications

2.7 FEED CHARACTERISTICS

The specifications of the feed streams to the SBR unit for the design case are given in Tables 2.7.1, 2.7.2, and 2.7.3 below. BIDDER shall provide pre-treatment as required, for any of the impurities that may be necessary for their specific technology, as per their experience with below listed feed compositions.

BIDDER is also requested to provide the desired 1,3 Butadiene and Styrene Monomer tolerance limits, particularly w.r.t. impurities in Proposal and BEDP.

Bidder to also provide the impact of variations in the feed and of impurities on the product yield, product quality, catalyst consumption and plant on-stream factor in Proposal and BEDP.

In case bidder's technology requires any co-monomer other than the specified, the same shall have to be procured from outside. Accordingly, BIDDER shall provide complete information, including technical specifications, grade wise consumption, indicative cost of procurement, names of suppliers etc., in their proposal for evaluation purpose.

Test methods mentioned in tables 2.7.1, 2.7.2 and 2.7.3 below are to be verified and updated by BIDDER."

2.7.1 1,3 BUTADIENE MONOMER SPECIFICATIONS

The design feed for the SBR Unit shall be 1,3 Butadiene Monomer from the Ethylene Cracker Unit and or Off-site storage having following specification.

Table 2.7.1: Feed 1,3 Butadiene Monomer Specifications

Component	Unit	Specification	Test Method
1,3Butadiene	%wt	99.5 (min)	ASTM D-2593
1,2Butadiene	ppm wt	<10	ASTM D-2593
Peroxide (as H ₂ O ₂)	ppm wt	<2	ASTM D-5799
C ₅ HC	ppm wt	<10	ASTM D-2593
Solvent	ppm wt	<5	BASF
Butanes	%wt	<0.5	ASTM D-2593
Methyl Acetylenes	ppm wt	<5	ASTM D-2593
Ethyl Acetylenes	ppm wt	<5	ASTM D-2593
Vinyl Acetylenes	ppm wt	<5	ASTM D-2593
Methyl, Ethyl, Vinyl Acetylene	ppm wt	<10	ASTM D-2593
Diethyl Acetylene	ppm wt	<50	ASTM D-2593
Propadiene	ppm wt	<10	ASTM D-2593
Butadiene Dimer	ppm wt	<50	BASF
Sulphur as H ₂ S	ppm wt	<2	ASTM D-6667
Carbonyls(asCH ₃ CHO)	ppm wt	<50	BASF
Non-volatile excl. inhibitor	ppm wt	<50	BASF
Inhibitor	ppm wt	<50	ASTM D-1157
O ₂ vapour phase	%vol	<0.05	BASF
Dimethylamine	ppm wt	<1	-
Amine as NH ₃	ppm wt	<1	ASTM D-4629
Alcohol & Ethers asCH ₃ OH	ppm wt	<10	BASF
Pentadiene	ppm wt	<5	ASTM D-2593
Water	ppm wt	<100	-

2.7.2 STYRENE MONOMER SPECIFICATIONS

The monomer for the SBR Unit, Styrene Monomer shall be sourced from open market and supplied from Off-site storage having following specification:

Table 2.7.2: Styrene Monomer Specifications

Sr No	Parameters	Unit	Value	ASTM Method
1	Purity	% Wt Min	99.7	ASTM D 5135
2	Colour	Pt/Co Max	<= 15	ASTM D 5386
3	Refractive index @27°C	Min	1.5426	
4	Freezing point	(°C) Min	-30.79	
5	Relative Density @27°C/27°C		0.9024- 0.9038	ASTM D 4052
6	Aldehyde (as Benzaldehyde)	ppmw Max	200	ASTM D 2199
7	Inhibitor	ppmw Max	15-50	ASTM D 4590
8	Peroxides (as H2O2)	ppmw Max	100	ASTM D 2340
9	Ethyl Benzene	ppmw Max	500	ASTM D 5135
10	Benzene	ppmw Max	1	ASTM D 5135
11	Polymer	ppmw Max	10	ASTM D 2121A
12	Sulfur	ppmw Max	30	ASTM D 5623
13	Chlorides	ppmw Max	50	ASTM D 5808
14	Alpha methyl styrene	ppmw Max	500	ASTM D 5135
15	Water	ppmw Max	200	ASTM E203
16	Phenyl Acetylene	ppmw	<= 100	ASTM D 5135
17	C8-C9 Aromatics	ppmw Max	400	ASTM D 5135

2.7.3 EXTENDER OIL SPECIFICATIONS

The Extender Oil for the SBR Unit, shall be sourced from open market and supplied from Off-site storage having following specification:

Table 2.7.3 TDAE Extender Oil Specification (Note-1)

TDAE Extender Oil Specification			
Characteristic	Test Method	Unit	Value
Appearance			Dark Brown viscous liquid free from extraneous matter
Refraction Index @ 20 deg C	ASTM D1747		1.52-1.54
Density @ 15 Deg C	ASTM D-1298	Kg/M3	940-970
Aniline point	ASTM D-611	Deg C	60-75
Pour point	ASTM D-97	Deg C	30(Max)
Flash Point(COC)	ASTM D-93	Deg C	240(Min)
Viscosity@ 100 Deg C	ASTM D-445	cSt	17-22
V.G.C. (Viscosity gravity Constant)	ASTM D-2501	cSt	0.86-0.94
Composition -Aromatic Carbon -Naphthenic Carbon -Paraffin Carbon	ASTM D-2140	% % %	25-30 31 Typical. Value 44 Typical. Value
Sulphur Content	ASTM D-2622	%	3(Max)
Glass Transit temperature	ASTM E-1356	Deg C	(-)-53/(-)-45
Water	ASTM D-6304	%	0.5 (Max)
Polycyclic aromatic DMSO Extr.	IP346	%(m/m)	2.9(Max)

Note:

- For reference purpose, since various other types of oils may be used for different grades in the grade slate and as applicable to the specific technology. Licensors to provide specifications of other types of oils used such as DAE, RAE, SRAE, Napthenic oil, MES etc.

2.8 DESIGN PRODUCT SPECIFICATIONS

2.8.1 STYRENE BUTADIENE RUBBER PRODUCT TYPES:

The proposed Styrene Butadiene Rubber (SBR) unit shall be designed with the following configuration and capabilities:

- Two trains of eSBR, each with a production capacity of 75 KTPA (based on design grades SBR 1723 and/or SBR 1783 and/or any equivalent grade), and one train of batch type sSBR with a production capacity of 40 KTPA based on the oil extended grades from the table 2.8.1B or any equivalent sSBR oil extended grade to achieve a total capacity of 190 KTPA of SBR final products.
- Though the above oil extended grades are considered as design grades to arrive at the design capacity of the unit, however the trains to be designed to produce all the dry and oil extended eSBR and sSBR grades listed in Table 2.8.1A & 2.8.1B. Bidder to report and guarantee the capacity of the unit achievable for each of the grades.
- The unit shall be capable of producing guaranteed design specification of SBR grades as mentioned in table 2.8.2A and 2.8.2B below.
- For eSBR, the Bidder is required to propose equivalent grade names for the grades mentioned in Tables 2.8.1A & 2.8.2A ensuring that the proposed grades match both the specifications and the applications provided. The grades offered must be commercially accepted & marketable.
- For sSBR, the bidder must propose equivalent grade names corresponding to the applications and specifications for the grades listed in Table 2.8.1B & 2.8.2B. Six different grades are to be proposed, each meeting one of the six specified applications. As with eSBR, the proposed sSBR grades must be commercially accepted & marketable.
- The grade slate of the eSBR and sSBR units as mentioned in Table 2.8.1A and Table 2.8.1B, respectively shall be considered the target grade slate of the units.
- The Bidder shall report and guarantee the annual grade slate for each of the eSBR and sSBR trains, keeping the product split the same as per the referenced tables. Though the design capacity of the plant will be based on the highest throughput grades, unit must be capable to achieve total annual production quantity given in table 2.8.1A and 2.8.1B, based on 8000 hours of operation.
- Bidder's offer shall be evaluated based on the guaranteed annual grade slate of the plant offered in the Bid.

Bidder to note that the guaranteed grade slate shall not be less than 137 KTPA for the two trains of eSBR together and shall not be less than 30 KTPA for the sSBR train.

Table 2.8.1A eSBR Product Grade Slates & Application

	eSBR Product Grade & Type	Applications	Production Percentage Per Year	Expected Production per year in KTPA For 2 Trains
1	Non-oil, cold polymerized	Tires (tread, sidewall blends), footwear soles,	20	30
	SBR 1500	Mechanical goods, Conveyor belts		
2	Non-oil, cold polymerized	Adhesives, carpet backing,	20	30
	SBR 1502	Latex compounding, shoe soles, Tires, Mechanical goods		
3	Oil-extended, cold polymerized	Tire treads, conveyor belts, molded goods	15	22.5
	SBR 1712			
4	Oil-extended, cold polymerized	Passenger car and light truck tire treads and sidewalls, hoses,	15	22.5
	SBR 1723	conveyor belts, footwear soles,		
		Mechanical rubber goods		
5	Oil-extended, cold polymerized	High-performance radial tire treads,	25	37.5
	SBR 1739	belt covers, molded and automotive rubber parts		
6	Oil-extended, cold polymerized	Green tire treads, eco-friendly rubber goods,	5	7.5
	SBR 1783	conveyor belts, retread compounds, Hoses		
		Total	100	150 (Note-5)

Notes:

- 2) Unit configuration should be flexible enough to allow production of grades as detailed in table above and should ensure that minimum off-grade material is generated during the grade transitions. Licensor to suggest whether the offgrade material can be reprocessed in the unit and the maximum percentage of reprocessing.
- 3) As the production of the above grades will be driven by market demand and may vary in the future, the LICENSOR shall incorporate an adequate design margin to accommodate grade-wise distribution variations of up to $\pm 20\%$ in quantity for each train, while ensuring that the overall annual production capacity of each train is maintained.
- 4) Licensor shall provide equivalent SBR grades for each train in the technical offer.
- 5) The product slate given above is for the unit. The same shall be obtained in equal proportion from either of the train.
- 6) Total based on eSBR design capacity. Actual production number may be lower for some grades, but the total quantity must not be less than 137 KTPA.

Table 2.8.1B sSBR Product Grade Slates & Application

Sl. No.	Family	Code (Note-3)	Mooney Viscosity (ML 100°C)	Bound Styrene (%)	Vinyl Content (%)	Oil Content (phr)	% share	Expected Production per year in KTPA for One Train
1	Dry	A	63 +/- 4	27 +/- 1	57.5 +/- 3	-	55	22
2		B	67 +/- 4	21 +/- 1	63 +/- 3	-	23	9.2
3		C	62 +/- 4	15 +/- 1	55 +/- 3	-	2	0.8
4		D	70 +/- 4	15 +/- 1	30 +/- 2	-	1	0.4
5	Oil Extended	E	50 +/- 4	25 +/- 1	50 +/- 2	37.5 +/- 2	12	4.8
6		F	62 +/- 4	39 +/- 2	48 +/- 2	37.5 +/- 2	7	2.8
		TOTAL					100	40

Notes:

1. The notes provided for Table 2.8.1A shall be considered equally applicable to 2.8.1B sSBR also.
2. The total quantity in the 'Expected Quantity' column adds up to 40KT but based on grade mix % of dry and OE grades the actual quantity may be less. But no less than ~30KTPA will be acceptable. Bidder to maximize the quantity and guarantee the same.
3. Based on their applications, each grade is assigned a nomenclature code (A, B, C, D, E & F). The corresponding details are tabulated below:

Code	Family	Application
A	Dry	1) Fuel efficient summer tire 2) For Silica/Carbon Formulation, Medium Tg, Good Rolling Resistance/Strength Balance 3) Tg = -24 C
B		1) Typical application is for tire tread by mixing with NR, BR and any other rubber 2) Compatible with silica, as well as carbon black, so many advantage characteristics are observed in silica compound for tire tread such as increasing bound rubber, good filler dispersion, higher wet traction, lower rolling resistance, lower heat build-up and lower mill shrinkage 3) It is functionalized to improve silica affinity
C		Tires, vibration insulators; best performance for silica application; low styrene type for all season tyres
D		1) Provides outstanding winter performance/rolling resistance balance for fuel efficient tire treads based on silica and/or carbon black. 2) The medium vinyl microstructure makes grade applicable in winter tires as well as low Tg blend component in summer and all-season tires. The material can also be used in high-quality technical rubber articles 3) Tg = -62 C
E	Oil Extended	Performance, High performance tire; Tg = -28 C
F		The tread rubber for high performance tire

Table 2.8.2 A eSBR Product Specification

eSBR Product Specification								
Main Properties	Test Method	Unit	Typical Values					
			SBR 1500	SBR 1502	SBR 1712	SBR 1723	SBR 1739	SBR 1783
Mooney Viscosity ML 1+4(100 °C)	ASTM D 1646	MU	52+/- 4	52+/- 4	50+/- 4	50+/- 4	52+/- 4	50+/- 4
Oil content	ASTM D 5774	phr	-	-	37.5	37.5	37.5	37.5
Oil Content (wt%)	ASTM D 5774	% wt	-	-	27.3 ± 2	27.3 ± 2	27.3 ± 2	27.3 ± 2
Bound Styrene	ASTM D 5775	% wt	23.5+/- 1	23.5+/- 1	23.5+/- 1	23.5+/- 1	40+/- 2	23.5+/- 1
Organic Acid	ASTM D 5774	% wt (max)	6+/- 1	6+/- 1	5+/- 0.7	5+/- 0.7	5+/- 0.7	5+/- 0.7
Soap	ASTM D 5774	% wt (max)	0.3	0.3	0.4	0.4	0.4	0.4
Volatile matter	ASTM D 5668	% wt (max)	0.75	0.75	0.75	0.75	0.75	0.75
Ash	ASTM D 5667	% wt (max)	0.5	0.5	0.5	0.5	0.5	0.5
Tensile Strength	*	*	*	*	*	*	*	*
Modulus @300%	*	*	*	*	*	*	*	*
Ultimate Elongation	*	*	*	*	*	*	*	*

Note: “*” Bidder to provide

Notes:

1. The product to be free from any nitrosating agent and is essentially free from pre-formed nitrosamines and nitrosable substances.
2. BIDDER shall indicate equivalent test method or advise alternate internationally recognized test method.

3. The above-tabulated parameters are indicative; BIDDER may suggest any revision in the given values/ranges of the parameters. Bidders may add any other parameter as required.

Table 2.8.2B sSBR Product Specification

Sr. No.	Family	Application	Mooney Viscosity (ML 100°C)	Bound Styrene (%)	Vinyl Content (%)	Oil Content (phr)	Oil Content %	Tg	Volatile matter	Any other parameter
1	Dry	A	*	*	*	*	*	*	*	*
2		B	*	*	*	*	*	*	*	*
3		C	*	*	*	*	*	*	*	*
4		D	*	*	*	*	*	*	*	*
5	Oil Extended	E	*	*	*	*	*	*	*	*
6		F	*	*	*	*	*	*	*	*

* - Bidder to provide

Note:

- The product properties not specified in 2.8.2B are to be provided by the Bidder.
- Based on their applications, each grade is assigned a nomenclature code (A, B, C, D, E & F). The corresponding details are tabulated above in table 2.8.1B.

2.8.2 OFF-SPEC. PRODUCT GENERATION:

BIDDER to make sure that the off spec generated during normal operation/ start-up shut down shall be reprocessed in the unit. Off spec generated shall be stored in off-spec storage. Facilities for reprocessing of off-spec product within the unit to be provided.

2.8.3 TRANSITION TIMES & OFF-SPEC. PRODUCT GENERATION:

- For Train-1, Train-2 of eSBR and train 1 of sSBR, the BIDDER shall design and propose the optimum grade sequence, covering all proposed grades and end-user applications specified in Tables 2.8.1A and Table 2.8.2A over a 30-day period, with the objective of minimizing off-spec production while producing the specified quantity of SBR (inclusive of off-spec/transition material generated).
- The BIDDER shall determine the transition material generated from this sequence and report the annual transition material generated from each train of unit.
- The BIDDER shall report the transition time for changeover from one grade to another, along with the quantity of off-spec (transition) material generated for each changeover, in accordance with the grade distribution share for the SBR Unit indicated in Table 2.8.1A and Table 2.8.2A above. The guaranteed grade change over information shall be provided for each train separately in a tabulated format consistent with Annexure 3.0 "Technical Information and Guarantees," Table IIIA: Grade Transition Time and Off-Spec/Transition Production.
- The BIDDER shall report the corresponding grade-wise quantities of on-spec products generated during the above 30-day period. This guaranteed information shall be provided for each train separately, in a tabulated format consistent with Annexure 3.0 "Technical Information and Guarantees," Table IIIB: On-Spec Grade Production Time and Quantity.
- Grade change over sequence provided in table-III A & III B of Annexure-3 shall be considered for design and evaluation of technologies.
- Licenser to optimize the grade change over schedule for a 30-day cycle and furnish the above details.
- The quantities of on-spec and off-spec products generated for each grade during the 30-day period when prorated to 8000 hours should match the value indicated against the grade.
- Number of hours of on-spec and off spec product generation in rows 'A' of tables IIIA & IIIB of Annexure-3 should add up to 720 hours (24x30) considering 30 days grade change over.
- Quantities of on-spec and off-spec products generated in rows 'B' of tables IIIA & IIIB of Annexure-3 should add up to 75 KTPA for each train of eSBR and 40 KTPA for batch type sSBR.
- Transition material produced while transitioning from a grade will be considered as transition material of that grade.

- Guaranteed unit capacity for individual grades will be fixed in such a manner that the flexibility of product slate as mentioned in clause 2.8
- No blending of off spec material shall be considered while reporting actual off spec production.
- BIDDER shall mention details of change of catalyst and or change of chemicals required if any for grade transition.
- BIDDER shall design the unit (all trains) to produce various grades of products with minimum generation of off spec (transition) material.
- BIDDER shall note that transition times for grade changeover shall be used from within the available total stream hours of 8000 in a year.

2.8.4 SPECIAL GRADES / PRODUCT:

LICENSOR to indicate all the special grades of eSBR & sSBR is possible to be made in the unit. Niche product or high value grades with their intended applications may be highlighted in their proposal.

2.9 OTHER CO-PRODUCT/ BY- PRODUCT STREAMS

a. Purge and Recycle Stream:

The purge gas or recycle gas containing monomer is to be handled within the unit boundary for styrene and 1,3 Butadiene monomer recovery, as no dedicated monomer recovery facility has been considered in the OSBL scope. Accordingly, monomer recovery is to be maximized within the unit to the extent feasible.

In the event that residual waste gas post monomer recovery cannot be processed within the unit and must be routed to an external facility for disposal, the Bidder is required to provide the following details for such stream(s):

- Flowrate
- Composition
- Temperature
- Pressure
- Preferred disposal mode (e.g., flare, incineration, etc.)

b. Other Co-product /By-product:

BIDDER shall indicate and tabulate other Co-product/ Byproduct & its end use as applicable.

2.10 UNIT OPTIMISATION CRITERIA

2.10.1 PRICES FOR FEED, PRODUCTS AND UTILITIES

BIDDER is to propose optimization measures to conserve energy, to minimize capital investment and operating cost, minimize emissions and waste effluents.

1. Variable frequency Drives/ Capacity Control Schemes to be considered for compressors, pumps, air coolers, agitators, mixers, feeders (as applicable) etc. with highly varying loads as applicable.
2. Special exchanger and fractionators should be able to handle highly varying loads
3. Design and duty optimization for cold box, chilling section special exchanger and fractionator reboilers and condensers.
4. Integration opportunities with other technologies that can result in potential savings.

For the purpose of unit optimization / energy optimization, the prices for feed, products and utilities shall be considered as per table given below:

Table 2.10.1: Feed/Products Price

Sr. No.	Feed/Products	Prices (INR/MT)
	Feed	
1.	1, 3 Butadiene Monomer	101007
2.	Styrene Monomer	104884
	Product-eSBR Grades	
1.	Dry SBR grade	158137
2.	Oil extended SBR grade	148352
3.	Off spec eSBR grade	121813
	Product-sSBR Grades	
1.	Dry SBR grade	189932
2.	Oil extended SBR grade	186935
3.	Off spec sSBR grade	151490

Table 2.10.2: Utility Price

Sr. No.	Utility	Price	Unit
1.	Power import	7.51	Rs. /kWh
2.	VHP Steam import	2,888	Rs./MT
3.	HP Steam Import	2,717	Rs./MT
4.	MP Steam Import	2,585	Rs./MT
5.	LP Steam Import	2,464	Rs./MT
6.	HP Steam Export	2,309	Rs./MT
7.	MP Steam Export	0	Rs./MT
8.	LP Steam Export	0	Rs./MT
9.	Recirculating Cooling Water	4.21	Rs/KL

Sr. No.	Utility	Price	Unit
10.	DM water	143	Rs/m3
11.	Nitrogen	5.32	Rs/Nm3
12.	Instrument Air	1.52	Rs/Nm3
13.	Plant Air	1.26	Rs/Nm3
14.	Treated Water	120	Rs/m3
15.	Fuel Gas (*)	59,863	Rs./MT
16.	RLNG	59,863	Rs./MT
17.	Boiler Feed water	520	Rs./MT

(*) Fuel Gas calorific value (NCV) considered same as RLNG = 11800 Kcal/Kg.
Note:

1. For operating and design conditions of utilities, refer Annexure 6.0 (BEDD)

2.10.2 PLANT LIFE

Plant equipment design life shall be considered as given in Annexure 6.0 (Basic Engineering Design Data (BEDD)).

2.11 BATTERY LIMIT CONDITIONS FOR PROCESS STREAMS

Typical unit design Conditions for all incoming and outgoing streams at the battery limits shall be as per Table 2.11.1 below. BIDDER may add new streams (both incoming/outgoing) as required by the offered technology. Battery limit conditions of feed/product streams are to be finalized during kick off meeting after award of BEDP/Licensing Contract.

Table- 2.11.1 Battery limit conditions for process streams (at grade)

Sr. No.	Streams	Pressure (Kg/cm ² g) (Note 6)	Temp (°C)	State	Source/Destination
Incoming Streams					
1	1,3 Butadiene Monomer	7	Ambient	Liquid	OSBL tank/ECU
2	Styrene Co-monomer	6	Ambient	Liquid	OSBL Tank
3	Extender Oil	4	Ambient	Liquid	Over-the fence/ Road Tanker
Outgoing Streams					
1	SBR product	-	By Licensor	Rubber (solid)	Warehouse
2	Off Gases	"B"	"B"	Gas	To Incinerator or Flare/or any other destination as suggested by the bidder
3	Waste Water	B	B	Liquid	To ETP

Sr. No.	Streams	Pressure (Kg/cm ² g) (Note 6)	Temp (°C)	State	Source/Destination
4	Reject streams (if any)	B	B	B	B

Notes:

“B” BIDDER to specify pressure, temperature conditions (Min/Nor/Max) at SBR Unit battery limit

- Following details to be adopted for SBR bagging facilities:
 - Product is finished 35kg bale and stored in wooden or returnable metal crates
- Mechanical design conditions of above mentioned incoming streams shall be finalized at the time of design.
- BIDDER shall accept revisions to the above Battery Limit conditions, if any, during design basis meeting without any cost and schedule implications.
- In case there is some additional incoming and outgoing stream based on bidder's requirement, same shall be considered during design basis finalization.
- Battery limit conditions specified shall be finalized at the time of design with selected bidder.
- BIDDER to confirm the pressure required at battery limit of the unit.

2.12 BATTERY LIMIT CONDITIONS FOR UTILITIES

Battery limit condition and specification for utilities shall be considered as given in Annexure 6.0, Basic Engineering Design Data (BEDD).

2.13 CATALYSTS, CO-CATALYSTS, ADSORBENTS, ABSORBENTS, ADDITIVES, SOLVENTS & CHEMICALS / (AS APPLICABLE)

- 2.13.1** Unit shall include all facilities for receiving, unloading and loading of catalysts, co-catalysts, adsorbents, additives, solvent and chemicals, if any as well as space within ISBL for all such operations. Unit design shall include all facilities for the preparation, storage and injection of required catalysts, adsorbents, absorbents, additives and chemicals. Working storage/ spare volumes provided shall ensure smooth start-up, normal operations and shutdown of unit.
- 2.13.2** BIDDER shall provide adequate definition including physical and chemical properties, life, quality, type, yield etc. as applicable of catalysts, co-catalysts, adsorbents, absorbents, additives, solvents and chemicals. Chemical injection requirements such as normal and maximum dosing rates, delivery pressure and temperature are to be specified for the production of all products listed in Section 2.8.
- 2.13.3** BIDDER shall clearly indicate the name and suppliers of Catalyst/ Co-catalyst/ Adsorbents/ Additives/ Absorbent/ chemicals to be used in unit. BIDDER to furnish necessary specification adequate for procurement of the same. In order to have competitive bidding at least two suppliers should be identified for each Catalyst/ Adsorbents/ Additives/ Absorbent/ solvent/ chemical. Proprietary Catalyst/ Adsorbents/ Additives/ Absorbent/ chemicals/solvent if any, has to be indicated

separately.

2.13.4 Details of non-proprietary catalyst, Co-catalyst, Adsorbent, absorbent, additives, solvent and chemicals including name, function, annual consumption, storage, handling instructions requirements, etc. shall be provided in the proposal. List of vendors for specialty chemicals if any, is also to be provided.

2.13.5 BIDDER to note that no changes in name, type of catalyst, quantity of catalysts, co-catalyst, , adsorbents/absorbents, additives, solvent, chemicals, shall be permitted post award. In case the actual catalysts/ co-catalysts / adsorbents/absorbents / resins / chemicals quantities required during execution (in line with NIT specification) exceeds than the quantities quoted in the price bid, BIDDER shall supply the additional quantity of catalysts, adsorbents/absorbents / resins / chemicals free of cost.

2.13.6 In case of any Catalyst/solvents/additives/chemicals, etc., the total quantity of first fill and makeup rate to be defined in proposal.

2.13.7 All the Proprietary Catalysts/Co-catalyst/additive/ s/adsorbents /absorbent /solvents/ Chemicals to be guaranteed, and their guaranteed consumptions/Value to be provided in Annexure-3.

The quantities and prices of these Proprietary Catalysts, Co-catalysts, Additives, , Adsorbents, Absorbents, Solvents, and Chemicals shall be provided in the schedule of Price (SOP).

The quantities mentioned in SOP shall be based on the guaranteed consumptions/values specified in Annexure-3.

2.13.8 BIDDER shall advise on details of treatment/ neutralization before unloading of spent catalyst/co-catalyst/ adsorbent/ absorbent/additives/ solvent/chemicals and the method/equipment specification for safe disposal for these entities as per safety and environment aspects.

2.13.9 For fixed catalyst, absorbent and adsorbent ultimate life shall be guaranteed as 4 years minimum with uninterrupted unit operation at design capacity. All the hardware including reactor system and catalyst system etc. shall be designed for minimum 4 years ($4 \times 365 \times 24 = 35040$ hours) of uninterrupted operation cycle at 100% capacity.

2.13.10 Chemical passivation requirements shall be identified and suggestions provided for disposal of passivation effluent based on experience.

2.13.11 BIDDER will make recommendations regarding the storage conditions required for storing of all catalyst and chemicals in ISBL and OSBL area and mention the shelf life. BIDDER shall also indicate typical composition and provide the purchase specifications of each catalyst/ co-catalyst/chemical/solvent/additive/adsorbent etc used in unit for procurement by OWNER.

For each of the catalyst/ co-catalyst/chemical/solvent/additive/adsorbent etc, the BIDDER shall specify:

- Recommended storage conditions, including temperature, humidity, ventilation, segregation, and fire/explosion safety requirements
- Shelf life under specified storage conditions, with manufacturing and expiry dates

- Special handling precautions and revalidation/retesting guidelines, if applicable
- All information shall be in accordance with the manufacturer's specifications, safety data sheets (MSDS), and applicable regulations.

2.13.12 BIDDER to include following storage requirement within unit battery limits:

- BIDDER to include ISBL storage of catalyst to be based on 1 month's usage (Minimum).
- Storage for Additives/Chemicals to be considered for one Month.
- Requirement of ISBL storage tank for extender oil to be confirmed by the bidder.
- BIDDER shall be flexible to receive the catalysts, chemicals, solvent from common OSBL facility of the plant.

2.13.13 During the life of the unit, if so desired by OWNER, the BIDDER shall either specify another mutually acceptable catalyst or make available another catalyst, which is of no greater cost and of no less functional efficiency than the originally specified Catalyst.

2.13.14 No in-situ regeneration of Catalyst/co-catalyst/Resins or any other item (e.g. modules) offering catalyst function beyond the ultimate life shall be considered.

2.13.15 In case Bidder provides list of mandatory suppliers for catalyst/ co-catalysts/ Resins/ adsorbents/ absorbents/ Additive/solvent/ chemical or any other items (e.g. modules) offering catalyst function necessary for meeting their performance guarantee, then Bidder shall provide list of two or more than two suppliers for each mandatory item.

2.13.16 All Catalyst / Adsorbent /Absorbent/ Additive / Solvent / Chemical quantity reported by BIDDER shall include 5% quantity towards handling losses.

- Catalyst / Co-catalyst /Adsorbent / Additive / Solvent / Chemical quantity quoted in technical proposal shall be rounded off on the higher side to the nearest barrel/ drum size.
- The percent of metal quoted by Bidder shall include the handling loss of metals during manufacturing of catalyst.
- Barrel/drum size of each type of Catalyst/ co-catalysts/Resin to be indicated by Bidder.

2.13.17 Catalyst/ co-catalysts/ Resin or any other item (e.g. modules) offering catalyst function quantity shall be offered for the controlling of the design cases (including design margins if applicable) in bidder's scope of supply.

2.13.18 For dosing chemicals, BIDDER shall provide firm recommendations for chemicals to be dosed from at least two manufacturers along with their respective dosing rates. While specifying dosing chemical, the exact dosing chemical name will be mentioned and the term "or equivalent" will not be used since only BIDDER can establish suitability of chemical for dosing (i.e. its equivalence with another recommended chemical)

2.14 SPECIFIC PROCESS DESIGN GUIDELINES FOR UNIT DESIGN

- 2.14.1** Double mechanical seal pumps shall be considered for loop containing benzene service (if applicable).
- 2.14.2** The Scope of Work does not include the storage facility (In OSBL), however, the BIDDER shall advise on storage requirements to ensure operability and maintainability of the plant.
- Any day tanks, surge tanks and inventory tanks critical for plant operation/reliability shall be identified and considered as a part of bidder's package. LICENSOR to also specify storage, handling, and reprocessing facilities for any off-spec products.
- 2.14.3** Process scheme shall include in-built facilities for safeguarding the process system / catalyst in any type of emergency/ failure. Details of online analysers required during operation, for best plant performance, shall also be furnished.
- 2.14.4** BIDDER to recommend the type of drive preferred for pumps based on the criticality of the process streams and safety considerations. Continuously operating pumps shall be generally motor driven with 100 % spare.
- 2.14.5** SIL-3 rated safety instrumented shutdown systems (SIS's) for mitigating flare load shall be considered in the process design by BIDDER. Failure of one largest flare load mitigation measure shall be considered for determining the unit's mitigated flare load.
- 2.14.6** Utility requirement / steam generation under different operating and emergency condition shall be indicated with expected duration.
- 2.14.7** BIDDER to consider stacked column as applicable. While suggesting stacked columns, maintenance ease and flexibility also to be taken in to consideration.
- 2.14.8** BIDDER shall specify critical qualities, which have to be kept in mind while running the unit on any other feed other than design case feed.
- 2.14.9** In case BIDDER desires to use any equipment other than fired heater for heating, for e.g. Hot Oil System, then the associated facility consisting of hot oil heater system including heater, pump, surge vessel, tank, Filters etc. shall also be specified in the proposal as part of bidder's scope of design. Type of hot oil to be used along with its initial fill quantity shall also be specified in the proposal.
- 2.14.10** BIDDER has to identify and provide spare equipments, based on the BIDDER's recommendation/experience and whenever needed for reason such as equipment being more prone to failure /frequent maintenance during plant operation. To increase the reliability of the plant and to meet the requirement of uninterrupted operation of unit for minimum 4 years if any spare reactor or any other additional hardware is required, Licensor shall provide the same in its design.
- 2.14.11** BIDDER shall indicate the estimated flare load (mitigated and unmitigated) under different emergency situations/ failure/shutdown ((i.e. global utility failures etc.) scenario. The method/basis of calculating the maximum flare load shall be given.
- 2.14.12** Both air-cooling and water-cooling are acceptable but BIDDER to maximize air-cooling and shall advise optimum coolers for the process based on climatic conditions as mentioned in the Annexure 6.0, Basic Engineering Design Data (BEDD).

- 2.14.13** Vertical shell and tube exchangers in non-fouling services shall be maximized.
- 2.14.14** BIDDER shall use suggested fouling factors in Basic Engineering Design Data, Annexure 6.0, towards preliminary sizing of heat exchangers in the plant, for the proposal.
- 2.14.15** During BEDP stage, fouling factors for process streams shall be decided by designer based on past experience and good design practices. However, Owner's overriding considerations towards fouling factors for specific units or process streams shall be the basis of specifications, if spelt out in respective unit design basis at BEDP stage.
- 2.14.16** Due to plot constraint, BIDDER to consider maximum modularization and shop fabrication during unit design.
- 2.14.17** BIDDER shall consider the below mentioned ODC (Over Dimensional Consignment) and OWC (over weight consignment) requirements for equipment / construction module:

Sr. No.	Description	Criteria
1	Maximum Length	125 meters
2	Maximum width	16 meters
3	Maximum weight	2500 MT
4	Maximum Height	16 meters (including all nozzle projections)

Bidders to note that the above-mentioned dimensions are the tentative maximum for single-piece heavy equipment.

Dimensions and weight limits specified above are applicable for equipment envisaged to be transported to site in a single piece and which do not require site welding. Equipment such as reactor/vessel with dimensions more than any of the above may be site fabricated.

BIDDER to identify all such equipment's / modular structure specifically while proposing an optimal design in techno-commercial offer.

- 2.14.18** Advance process control system/ strategies shall be followed and provided by BIDDER as part of BEDP scope highlighting tangible benefits. BIDDER to include / indicate the primary elements required for advanced process control so that the same can be installed at later date, if required so that provisions can be made during construction phase itself to accommodate any future changes. All field instruments shall be compatible with SMART HART type.
- 2.14.19** BIDDER shall indicate the Safety Integrity Level (SIL) for each Safety Instrumented System (SIS) in the design of the unit. Systems shall be designed for appropriate SIL rating required as per accepted international practices/ standards. Minimum SIL requirement of each Safety Instrumented System (SIS) shall be identified by BIDDER at the BEDP stage.
- 2.14.20** Any treatment facility for continuous or intermittent gaseous vents shall be provided by the BIDDER, if required and is to be included in the scope before discharging to atmosphere/flare header.
- 2.14.21** The BEDP provided by the BIDDER shall comply to the statutory Indian Boiler

Regulations (IBR). IBR requirements shall be informed to the BIDDER during design basis finalization stage.

2.14.22 ADSORBENT BEDS :

- In case Adsorbent beds are considered for treatment of process streams, which has to be regenerated, the beds shall be sized for a suitable period as per global best design practice. Adsorbent beds requiring replacement shall be sized considering a minimum run length of 4 years before replacement. However, BIDDER to include any additional facility, like lead/lag configuration, to achieve minimum 4 years of uninterrupted operation as part of the proposed scheme.
- The BIDDER shall provide detailed procedures for activation, regeneration, and deactivation of adsorbent beds. The activation procedure shall include temperature, pressure, inert gas requirements, and criteria for completion. Regeneration steps shall cover heating, purging, cooling, and related operating parameters such as gas type, flow rate, and temperature/pressure etc. The BIDDER shall define regeneration frequency and initiation criteria (e.g., breakthrough or pressure drop), along with safe handling of off-gas streams. Deactivation shall include end-of-life indicators, unloading methods, and disposal in line with environmental norms. Expected adsorbent life, storage requirements, and replacement guidelines shall also be provided. All procedures must comply with manufacturer's recommendations, safety standards, and statutory regulation.

2.14.23 BIDDER to comply all technical specification as minimum specified in NIT and further consider/include any applicable specification based on their experience and best practices followed in the polymer industry.

2.14.24 BIDDER shall provide/share any Technological Development/New Generation Catalyst/Chemicals even after BEDP issued if any during implementation phase for Owner's review and implementation.

2.14.25 All Surface condensers (if any) shall be designed preferably for 5 °C approach.

2.14.26 Any hydrocarbon/non-hydrocarbon liquid drains generated in the unit will be collected within the process unit. All facilities required for this shall be considered within the unit design scope of Bidder.

2.14.27 Owner's consultant and / or PMC inputs/ suggestions shall be suitably taken care of by BIDDER during BEDP preparation. The input/ suggestions will be mainly related to energy optimization, inter-unit heat integration, reliability, minimize utility consumption, minimize chemical consumption, lower opex etc

2.14.28 BIDDER shall permit participation of representative of Owner's consultant and / or PMC during preparation of BEDP in bidder's office for review of drawing/documents etc.

2.14.29 BIDDER shall indicate in the offer requirements for start-up and also inform any specific type of storage recommended for feed stream, product, catalyst, chemical, additive etc.

2.14.30 BIDDER to design the unit (Process & Equipment) for maximum energy efficiency.

2.14.31 Emissions norm to be considered for heater flue gases and any gaseous vent to atm

is specified in Annexure 6.0, section 8. Bidder's design shall comply with the same.

- 2.14.32** BIDDER to provide preliminary equipment layout along with the proposal showing key items of equipment for similar unit capacity. BIDDER to confirm in the offer that all inside battery limit facilities can be accommodated in identified plot area mentioned in Section 6.5. BIDDER to keep provision for future expansions in the proposed plot plan.
- 2.14.33** Special safety requirements such as Hydrocarbon / Hydrogen/ H₂S etc. leak detectors and snuffing rings around leak prone flanges, etc., shall be indicated, wherever necessary.
- 2.14.34** For compressor outlet and other associated coolers, only water coolers shall be considered. In case specifying an anti-surge cooler becomes necessary, the same too shall be specified as water cooled exchanger. Compressor anti surge circuit shall be sized for handling compressor rated capacity as per prevailing practices.
- 2.14.35** BIDDER shall indicate the requirement of emergency power for the unit and also the single largest load on emergency power. BIDDER to also indicate the re-acceleration requirement and auto- start requirement, if any, for the electric motor drives.
- 2.14.36** The material of construction for the cooling water side of exchangers handling cooling water based on corrosion from cooling water shall either be brass or carbon steel. This decision shall be informed to the BIDDER at the time of kick-off meeting. However, for proposed purpose, BIDDER to consider their standard material selection for the above service.
- 2.14.37** All PSV lines to be routed to closed system but no connection to OSBL flare directly. BIDDER to define suitable facility within their scope of supply in the proposal.
- 2.14.38** Booster Nitrogen Compressor supplying high-pressure nitrogen during normal or emergency purpose, shall be within bidder's scope.
- 2.14.39** No captive generation of power is allowed inside the unit.
- 2.14.40** Licensor to consider integrated turbine compressor control or equivalent.
- 2.14.41** Plant hydraulics will be based on dense loading catalyst. However, the reactor volume shall be based on sock loading if applicable.
- 2.14.42** All stages of Compressors shall be provided with individual Suction KOD.
- 2.14.43** All Spare equipment's/package's to be listed in equipment specifications. Bidder shall provide information sufficient enough for carrying out the costing.
- 2.14.44** Bidder to provide tag no. and specifications of Desuperheaters (Maximum steam flow, maximum BFW injection rate, MOC of desuperheater, design temperature and design pressure etc.) used in the plant.
- 2.14.45** Bidder to provide tag no. and specifications of Silencers (flow rate, design pressure, design temperature, MOC) used in the plant.
- 2.14.46** Condensate after stabilization only shall be exported from the unit. Licensor to include the facilities for Condensate stabilization, in case the condensate is generated at different levels.

- 2.14.47** Any treatment facility for continuous or intermittent gaseous vents shall be provided by the LICENSOR and is to be included in the scope before discharging to atmosphere/ flare header. The discharge to atmosphere should meet standards for air quality laid by Central and state pollution control board.
- 2.14.48** LICENSOR shall indicate overdesign philosophy followed for broad equipment specifications in the bid specifically for each type of equipment. Owner's design margin (if any) will be specified during design basis finalization of BEDP.
- 2.14.49** Licensor to consider the Intelligent PID database and Work Break down structure provided by Owner.
- 2.14.50** Licensor to consider Piping Material Specification provided by Owner for BEDP preparation. In case Licensor proceeds ahead with BEDP with their own PMS, Licensor to provide their PMS along with Equivalent Owner PMS in BEDP deliverables.
- 2.14.51** Licensor to provide Editable copies (excel/Word) for entire BEDP. In case BEDP document is revised multiple times, the editable shall essentially be provided with the updated editable Index.
- 2.14.52** Licensor to provide Editable Index of all BEDP documents like PFD, PID, Equipment PDS, Instrument PDS etc.
- 2.14.53** Bidder to provide a detailed cleaning procedure for addressing reactor and line choking caused by polymer lumps plants. The procedure shall cover safe isolation and depressurization, followed by mechanical ,high pressure water jetting and/or chemical cleaning of reactors for polymer lumps removal, transfer lines, filters, any other equipment etc. The bidder shall also outline preventive measures and recommended good engineering practices to minimize occurrences, ensuring operational reliability and safety compliance.
- 2.14.54** In order to have some flexibility of operation, the unit will allow reprocessing of some off spec products. All affected sections of the unit will be specified considering the above. This reprocessing capacity shall be kept at maximum 10% of the unit's product capacity. All affected sections of the unit, including, storage, and its downstream sections will be specified considering the above.
- 2.14.55** any refrigeration system is required in SBR Unit, the Licensor shall provide the complete specifications of all equipment in the refrigeration system for the costing purposes. Moreover, Bidder to indicate at least two different refrigerants that can be utilized in the package

2.14.56 RUBBER BALING, CONVEYING & FINISHING FACILITY

Requirement/facilities mentioned below is for each train.

FINISHING LINES

- Baling configuration

Finishing Line Configuration – eSBR and sSBR Units

- **eSBR Trains**

- Each train of 75 KTPA capacity shall consist of two finishing lines
- Each finishing line shall be designed to deliver 175–180 bales per hour, resulting in 350 bales/hr per train.

- **sSBR Train**

- The sSBR finishing section configuration to be provided by the bidder.

- **Bale Specifications**

- Each bale shall weigh 35 kg.
- Dimensions: 680 mm (L) × 350 mm (W) × 210 mm (H).
- Wrapping: 2–3 mm thick polyethylene film and PE+Paper bag packaging as applicable.
- Storage: Bales shall be stored in crates, each crate holding 30 bales (6 bales/layer × 5 layers).

- **Design Considerations**

- The baling line capacity mentioned above corresponds to the maximum design throughput; however, the actual operating speed shall be determined by the Bidder based on plant throughput.
- The finishing line configuration as specified shall be considered by the Bidder in preparing bids.
- Line specifications shall be provided in the equipment list, enabling the Consultant to estimate the CAPEX of the unit.
- In addition to the above, the Bidder may propose a better and optimized alternative configuration based on experience. The final configuration shall be mutually decided and agreed upon with the Client at the Kick-off Meeting stage.

PRODUCT WAREHOUSE

- Product Warehouse will be designed for storage of material for 21 days production.
- Warehouse will be designed for multistage stacking of Crates.

Note:

BIDDER can suggest advanced and most suitable rubber storage, finishing line and packaging philosophy for efficient operation.

For storage of scrap rubber to be considered in plant layout.

2.14.57 Special designs of heat exchangers such as high flux, helix etc. to be maximized to minimize the number of shells.

2.14.58 BIDDER to design the unit (Process & Equipment) for maximum energy efficiency.

Design shall include waste heat recovery from hot flue gases etc. Process heating / recovery from process streams to be maximized. Steam export to refinery, if unavoidable shall be HP steam only.

- 2.14.59** Utility requirements/steam generation under different emergency conditions shall be indicated with expected duration.
- 2.14.60** BIDDER to maximise condensate recycle within the unit.
- 2.14.61** For any regeneration activity at intermediate period, closed loop nitrogen system to be included in the proposal wherever possible.
- 2.14.62** Any high-pressure nitrogen requirement for normal or emergency purpose, which requires having nitrogen compressor, shall be within bidder's scope.
- 2.14.63** BIDDER to indicate any incinerable material (if any) and furnish the necessary information such as expected composition along with its quantity, flow rate (Maximum, Minimum & Normal along with operating conditions) or any other information which may be required for design of incinerator.
- 2.14.64** No steam export at any pressure level (i.e. VHP, HP, MP & LP Steam) from unit is preferred.
- 2.14.65** Bidder to provide adequate latex storage and blending capacity for each train to sustain plant operation in case of any disturbance at finishing section.
- 2.14.66** Offspec storage for holding transition material during Grade Change Over (GCO) and shutdown/startup to be considered in design as applicable.
- 2.14.67** Extender oil unloading/storage/charging facility to be considered in design.

2.15 SAFETY AND ENVIRONMENTAL ASPECTS

- 2.15.1** Basic Engineering Design Packages (BEDP) shall incorporate various safety features in design in line with international safety standard and design practices. BIDDER shall furnish brief write-up in the proposal highlighting such safety features. BIDDER shall provide the Technology Specific Health, Safety, Environment guideline.
- 2.15.2** BIDDER shall include following safety features as a minimum in the design:
- Catalyst, Co-catalyst, and other adsorbents, additives, solvents and chemicals handling procedure
 - Equipment isolation philosophy
 - Any other safety specification, which BIDDER deems necessary.
 - BIDDER to provide the list of non-compatible Hazardous chemicals, if any is being used in the unit and its storage, handling and disposal guidelines. (chemical interaction matrix)
 - Major / critical emergencies faced in similar design and license plants with Root

Cause Analysis to be shared.

- Necessary interlocks and automation to enhance operational safety.
- Special safety requirements such as leak detectors, snuffing rings around leak prone flanges and online analysers required during operation, decoking etc.
- Provision for H₂S and hydrocarbon detectors in the platform where operators will be required to approach during operation/ maintenance.
- Special fire fighting and safety system as necessary.
- Measures for handling emergency shutdown
- Preliminary Fire and Gas detector philosophy indicating Nos., type and location of F&G detector.
- The BIDDER shall provide preliminary hazardous area classification drawings for both gas and dust in accordance with applicable standards. The classification shall identify zones for gas, for dust based on release type, material properties, and ventilation conditions.

2.15.3 The Central Pollution Control Board (CPCB), state pollution board, Minimum National Standards (MINAS) and other applicable local standards in addition to any international standards being followed by BIDDER and Environmental Clearance (EC) and Consent to Establish (CTE) requirements applicable to this Unit, for environmental discharges of solids, liquids and gaseous streams shall be followed as a minimum. The same has been provided in Annexure 6, section 8.

2.15.4 Design shall incorporate latest features of Environment Protection & Occupational Safety.

2.15.5 BIDDER shall furnish brief write-up in the proposal highlighting environmental control.

2.15.6 BIDDER to provide information regarding quantity & quality of continuous & intermittent gaseous, liquid and solid effluents generated during operation, start-up, shutdown and emergency shutdown etc. from the unit including the duration & rate of intermittent streams. Recommendation for effective and proven treatment method is to be submitted along with the offer.

2.15.7 Proper facilities for handling & disposal of solid effluent and hazardous waste, if any shall form a part of ISBL facilities. BIDDER shall indicate quantity, composition and disposal methods for solid effluents.

2.15.8 The central effluent treatment facility at the petrochemical complex will be designed only for reduction of oils, phenols, sulfides, BOD and adjustment of pH. Any additional pollutants generated in the process other than this, may please be indicated. Recommendation for effective and proven treatment method is to be submitted along with the offer.

2.15.9 Primary treatment (pre-treatment) of liquid effluent to be considered by the BIDDER inside battery limit, if necessary, so that final discharge effluent from ETP after the ETP treatment detailed above, is able to meet tolerance limits specified in Annexure-6.0, BEDD and has to be used for horticulture, fire water, cooling water make-up etc.

- 2.15.10** Any treatment facility for continuous or intermittent gaseous vents shall be provided by the BIDDER and is to be included in BIDDER scope before discharging to atmosphere/ flare header. The discharge to atmosphere should meet standards for ambient air quality laid by Central and State Pollution Control Board as specified in Annexure-6.0.
- 2.15.11** Release of liquid and gaseous streams to the atmosphere is not permitted. In case of operational upset, all pressure relief valves handling flammable components are discharged into a closed system for safe disposal. For this purpose, common closed blow down (CBD) vessels with suitable facility for slop pumping will be located inside the battery limit. Also, a common flare knock out drum (KOD) with suitable condensate pumping provision will be considered within the unit battery limit. Design of CBD system with drum & associated pumping system and Flare KOD with associated pumping system are in BIDDER scope of work. BIDDER to confirm the destination of discharge of CBD. Owner prefers to have minimum number of underground systems. Bidder to minimize the underground systems and suggest the philosophy accordingly.
- 2.15.12** Definition/design of collection and treatment facilities for all process effluents liquids, gases and solids generated during normal operation as well as during start- ups and shutdowns shall be provided by BIDDER.
- 2.15.13** In case, some of the effluents produced in the bidder's process need incineration as the mode of disposal, the same shall be included in the bidder's scope. BIDDER shall provide necessary details as part of proposal and shall furnish complete specifications for the procurement of such during BEDP stage.
- 2.15.14** It is specifically clarified that land filling as an option for disposal of any solid waste or hazardous waste is not acceptable. In case the solid waste cannot be avoided, BIDDER shall design/specify suitable storage facility (15 days basis) for safe handling and evacuation of such waste. BIDDER shall note cost of such facility shall be considered as part of plant capital cost.
- 2.15.15** Disposal streams containing pyrophoric substances are to be clearly mentioned with the method of disposal by BIDDER, if any.
- 2.15.16** The liquid & solvent waste generated during Catalyst or adsorbent regeneration/ solution preparation before dosing, or during any such operations within ISBL also needs to be defined in totality by BIDDER.
- 2.15.17** The unit design shall incorporate state of art environment control strategies. The impact on the environment from the proposed process unit shall be minimized to the maximum extent possible. BIDDER design shall ensure the same.
- 2.15.18** The low NOx burner and other latest technology for lowering emission in flue gases shall be adopted.
- 2.15.19** Owner wants to adopt strategies for reduction of GHG (incl. CO₂) and use of renewable energy. At present, no penalties / evaluation criteria have been considered in this document. However, BIDDER to consider best in class designs enabling reduction of GHG emission in their design. Further, BIDDER is required to take a holistic view of the entire complex in addition to this unit. BIDDER is required to give a propose scheme on various GHG & CO₂ emission reduction measures which would be considered by the bidder in the proposed design (e.g. enhanced heat recovery,

change of steam drives to motor drives, etc.) and have proven track record. BIDDER is also required to provide the Specific CO₂ Emission (tCO₂e per ton of SBR production) for their design, in their proposal.

- 2.15.20** Bidder to provide a separate section in their proposal for their recommended strategies including usage of green Hydrogen for process units for reduction of GHG (inc. CO₂). Bidder shall also provide a roadmap to achieve BPCL's target of being Carbon neutral by 2040.

BPCL/EIL shall review bidders' proposal and accordingly may consider the requirements like space, utility etc. during BEDP preparation stage so that it can be suitably implemented later.

- 2.15.21** Bidder to note that fugitive emission of benzene containing hydrocarbon from process unit causes health hazards to personnel working in the pant area. Bidder to consider suitable measures for reduction of fugitive emissions through valves and flanges located in hydrocarbon services with benzene content above 1 wt. %.

2.16 BASIS/CRITERIA FOR PERFORMANCE GUARANTEES

For the purpose of reporting estimated and guaranteed values for utility/ energy consumptions, following criteria shall be used by BIDDERS to ensure uniform basis for evaluation. For any other type of equipment/ driver application not covered below, the assumed efficiency shall be reported by BIDDER. However actual guarantees shall be adjusted based on selected equipment/ driver efficiencies at the time of performance guarantee test run (PGTR).

Efficiencies

Major Compressors

Centrifugal Compressor: Polytropic Efficiency	77 %
Expander-Compressor (Expander Wheel Isentropic Efficiency):	79 %
Expander-Compressor (Compressor Wheel Polytropic Efficiency):	75 %
Reciprocating compressor: Adiabatic Efficiency	85%
Mechanical and Seal Losses	1 %

Pump Efficiencies

Large Pumps (above 161 kW) , Efficiency	60 %
Medium Pumps (50 kW - 160 kW), Efficiency	50 %
Small Pumps (below 50 kW), Efficiency	35 %

Electric Motor Efficiencies

Large Motors (above 161 kW), Efficiency	95 %
Small Motors (below 160 kW), Efficiency	90 %

Steam Turbine Efficiency

For Major Compressors	
Extraction	77 %
Condensation	79 %
For Pumps	
For BFW Pump	45 %
For other pumps	25 %

Notes:

Bidder to follow the above-mentioned efficiencies for sizing the equipment.

2.17 GENERAL

- 2.17.1** The offer shall primarily be based on Design Capacity & Design Feed and product cases mentioned earlier. However, Owner reserves the right to make reasonable changes ($\pm 10\%$) in plant capacity, composition of feedstock, properties of feed components etc. for design case, utility specifications and battery limit conditions of process streams. These changes, if made, will be accepted by BIDDER without any cost or schedule implications.
- 2.17.2** List of Design Standards to be followed with respect to BEDP preparation would be advised at the time of finalizing the basis of design. Whenever Bidder's own engineering standards are to be necessarily followed with respect to equipment design, piping design, instrumentation design etc., the same shall be issued to owner at no extra cost.
- 2.17.3** All data, as relevant to bidder's scope for this unit, required for approval of the plant from concerned Authorities to be provided by BIDDER during implementation.
- 2.17.4** Complete Basic Engineering Design Data (BEDB Part B) will be furnished during finalization of design basis in the kick-off meeting. BIDDER has to comply to all requirements of this document in his design.
- 2.17.5** Visit to Reference units: Owner at its own option may visit any of the reference units referred by the bidder in their offer and Bidder's Pilot plant facilities as applicable. Owner shall verify all the submitted information by bidder during the said visit. If any discrepancy is found in the information collected by Owner during site visit of any reference unit vis-à-vis the information submitted by bidder in their offer, the bidder's offer shall be liable for rejection.
- 2.17.6** If required by Licensee/Owner, BIDDER shall provide samples of the products from his reference plant for testing & analysis.
- 2.17.7** During BEDP preparation by the Licensor, close coordination with Owner and PMC representatives is required for expediting the LLI items engineering and Procurement activities.

3.0 SCOPE OF BIDDER'S SERVICES & SUPPLIES

The scope of services & supplies to be provided by the selected LICENSOR/BIDDER shall be as follows.

3.1 GRANT OF TECHNOLOGY KNOWHOW/LICENSE

BIDDER shall provide the Owner with BEDP with state-of-the-art technology suitable for detail engineering, procuring the equipment, constructing, operating & maintaining SBR Unit. The technology should be commercially proven and capable of producing, as a minimum, desired requirements as indicated in relevant sections for the unit

Upon selection, the same technology provider/ providers as defined in the bid will supply Know-how/ License, Basic Engineering Design Package (BEDP), proprietary catalysts/adsorbent/Solvent etc. and other related services for these Associated Units.

However, the single point responsibility for supply of Know-how/ License, Basic Engineering Design Package (BEDP), proprietary catalysts/adsorbent/Solvent etc and other related services for entire SBR unit lies with the bidder.

3.2 SUPPLY OF BEDP

3.2.1 Preparation and supply of Basic Engineering Design Package (BEDP) that will have all information and documents necessary for a reputed engineering contractor to perform the residual basic engineering, detailed engineering, procurement and construction of the SBR unit as defined above in Item-2 (Basis for Technical Proposal). Such technical information and process book shall be in English language using metric system of measurements and shall contain, but not limited to, items defined in Annexure 1.0(Scope of Basic Engineering Design Package).

3.2.2 BIDDER to note that no change in equipment specification (number, size, configuration) shall be permitted during BEDP preparation after Bidder's selection unless it is warranted due to change in technical specifications of NIT by owner.

3.2.3 Owner will appoint technically competent Consultant/ Contractor for carrying out BEDP review / Project Management /Front-end Engineering/ Detailed Engineering based on the BEDP, which would be developed by the Bidder. It is necessary that the BIDDER shall allow the Owner to share the related information contained in the Basic Engineering Design Package with such Consultants /Contractor for the needed purpose after signing required secrecy agreement. BIDDER will furnish to Owner and Owner's Consultant / Contractor a reasonable amount of general consultation/ clarification, while using the inputs provided by the BIDDER in the BEDP for carrying out detail engineering of the unit without any cost implication. Owner's Consultant's and PMC's inputs/ suggestion shall be suitably taken care of by Bidder during BEDP preparation. The inputs/suggestion will be mainly related to energy optimisation, inter unit heat integration, reliability etc.

3.2.4 In case BIDDER wants to essentially include detailed design/engineered datasheets/specifications/drawings for any process equipment/facilities which is considered essential by the BIDDER for meeting process performance guarantees, the same shall be included in bidder's firm scope of work as part of BEDP deliverables and the fee for such detailed engineering activity shall be quoted as part of BEDP fees. This requirement is over and above those deliverables for the proprietary items

for which Bidder would anyway be giving requisite details/specification as part of his standard BEDP. However, all related performance guarantee based on Bidder's design for such equipment /facilities shall be provided by BIDDER.

- 3.2.5** BIDDER shall review and approve detailed engineering documents, including fabrication drawings/ data of vendors of critical equipment to the extent BIDDER deems necessary for meeting process performance guarantees. BIDDER shall furnish list of documents /drawings requiring their approval/ review for this purpose in their offer. The charges, if any, on this account have to be included in fees for the BEDP. BIDDER to note that no extra payment shall be made for these services separately. Any clarification or queries raised by Owner/Consultant/Contractor during the course of detailed engineering on BEDP shall be provided or responded by BIDDER without any additional cost.
- 3.2.6** BIDDER to confirm that P&IDs included as part of BEDP has undergone an internal HAZOP and BIDDER shall ensure that the design of the unit is safe for operation.
- 3.2.7** BIDDER shall identify the special equipment, which are unique for the relevant unit and provide complete design specifications for the same in BEDP.
- 3.2.8** BIDDER shall provide complete specifications of Long Lead Items (LLI)/ major equipment in sufficient detail so that procurement action can be initiated for the same at the earliest. BIDDER shall provide a list of such long lead items in the proposal. This would facilitate Owner to initiate procurement of this LLI/ major equipment prior to the complete BEDP delivery to save on project execution time. List of such LLI/ major equipment will be informed during Project Kick-Off Meeting (KOM) after evaluation of BIDDER's offer. During BEDP Phase, close co-ordination with Owner and PMC representative is required for expediting the LLI Engineering and Procurement activities.
- 3.2.9** BIDDER may have a preference towards providing services on their own where such services are deemed to be utilizing bidder's exclusive knowledge, Bidder's proprietary engineering software or practices, etc., and directly influencing plant safety and reliability and to meet the guarantee requirements. The cost of such exclusive services is to be included in the fees towards BEDP.
- 3.2.10** BIDDER will agree to participate in the following meetings at Owner's/Consultant's office as and when required by Owner :
- a. Commercial/Technical meeting on the offer
 - b. Finalization of Agreement
 - c. Design Basis finalization meeting
 - d. Review meeting on Process Flow Diagrams (PFDs) and layout submitted by BIDDER
- In addition to the above, Licensor shall participate in the following meetings:
- Piping & Instrumentation Diagram (P&ID) review meeting at LICENSOR's office.
 - HAZOP & SIL studies during detail engineering stage at Owner/Consultant office.
 - 3D model review at Owner/Consultant office.
 - Participation in FAT (Factory Acceptance Testing) at vendor shop/office.
- All the expenses on account of attending aforesaid meetings are to be borne by BIDDER.
- 3.2.11** BIDDER shall provide the list of mandatory and recommended vendors for major

equipments along with BDEP.

- 3.2.12** BIDDER shall permit participation of representatives of the Owner/ Owner's Engineer/Consultant/PMC during the preparation of BEDP in bidder's office for review of drawings/ documents, (including, but not limited to Heat and Material Balance, PFD, P&ID, Product Specifications and Key Equipment Drawing). Participation from Owner / Owner's Consultant / PMC shall be during review of PFD, Equipment layout, LLI equipment, P&ID and other BEDP documents.

BIDDER shall provide required facilities for performance of job and logistics shall not be limited to space / internet / telephone / printing etc.

Tentative schedule shall be as follows:

Activity	Location	No of Attendees	Schedule in working days
Kick-off Meeting	Owner/ Consultant's office	BIDDER to decide	3-4 days
PFD and Layout	Owner's office	BIDDER to decide	5 days
P&ID review	Licensors's office	BIDDER to decide	15 days
BEDP Review	Owner/Consultant's Office	BIDDER to decide	5 days

- 3.2.13** BIDDER shall quote lump-sum fee for grant of know-how and BEDP separately as per the schedule of prices included in the bidding document.
- 3.2.14** Fees for all services for supply of BEDP, including, but not limited to, items listed under clauses 3.2.1 to 3.2.13 above, shall be included in the BEDP fee quoted by BIDDER.
- 3.2.15** If required by Owner/Licensee, BIDDER shall provide samples of the products from his reference plant for testing & analysis.

3.3 SUPPLY OF PROPRIETARY CATALYSTS/ ADSORBENTS/ SOLVENTS/ CHEMICALS/ ADDITIVES ETC.

- 3.3.1** BIDDER shall supply first charge of Proprietary catalyst/Resins/ adsorbents/ absorbents/ solvent/ chemical/additive or any other items (e.g. modules) offering catalyst function and include it's cost in Schedule of Prices (SOP) form B6.
- 3.3.2** BIDDER shall specify clearly the proprietary catalysts/ resins/adsorbents/ absorbents/additives/ solvents chemicals, if any, required in the process. The proprietary catalysts/resins/ adsorbents/absorbents additives/ solvents chemicals etc. is defined as the catalysts/ adsorbents/ additives/ solvents chemicals for which, manufacturing and supply shall be exclusively by the BIDDER.
- 3.3.3** In case of single source mandatory supplier, for catalyst/ Resins/ adsorbents/ absorbents/ solvent/ chemical or any other items (e.g. modules) offering catalyst function, Bidder shall consider it as proprietary and include its cost in Schedule of Prices (SOP) form B6.
- 3.3.4** For Proprietary catalyst/Resins/ adsorbents/ absorbents/ solvent/ chemical/additive requiring make up during operation, quantity required for initial fill and twelve (12) months operation shall be supplied by bidder.
- 3.3.5** For proprietary Catalysts, Co-Catalysts, Additives, Solvents & Chemicals, which are

required to be filled in the system initially, the initial fill shall be the quantity sufficient for filling the inventory of their system.

- 3.3.6** The quantity of above catalysts/ adsorbents/additives/solvents chemicals should be firm and no variation in this quantity will be allowed after selection of LICENSOR for the design feed cases specified in this document. Further, BIDDER has to supply special equipment for catalyst loading, if required.
- 3.3.7** OWNER shall enter into catalyst-supply agreement (for Proprietary catalyst/ Resins adsorbents/ absorbents/ solvent/ chemical or any other items (e.g. modules) offering catalyst function) for the purpose of meeting performance guarantees with BIDDER only. BIDDER shall indicate typical composition and Purchase specifications along with typical delivery time of each catalyst for future procurement by OWNER.
- 3.3.8** BIDDER shall quote the firm price with minimum validity as requested in the schedule of prices for the first charge and twelve months of operation for continuous make-up (if required) of each of the Proprietary catalyst/ Resins /adsorbents/ absorbents/ solvent/ chemical (including handling / contingency losses and rounded off to the nearest higher drum / barrel) along with escalation rate applicable after expiry of validity of quoted price in the offer. BIDDER shall quote the price as per schedule of price (SOP) and provision included therein with mention of port of origin, delivery schedule, along with formalities for transportation/clearance etc. Owner reserve the right to order for extra quantity of catalyst(s) as per the unit cost of the catalyst(s) quoted by the BIDDER.
- 3.3.9** In case fixed bed catalyst / adsorbent are supplied as part of proprietary item, then the evaluation of the offer shall be done considering catalyst / adsorbent ultimate life specified.
- 3.3.10** The OWNER shall have the option, at its sole discretion, to change over to bidder's latest commercially proven catalyst/adsorbent (other than the catalyst/adsorbent offered at the time of signing the Agreement). Further, in the event that the OWNER desires to use catalyst/adsorbent from a third party, the BIDDER (at the request of the OWNER) shall furnish such information as is reasonably required by the Supplier of the new catalyst/adsorbent to select a suitable catalyst / adsorbent for the change over to the new catalyst/adsorbent, subject to a suitable non- disclosure agreement being signed by the new catalyst/adsorbent supplier.
- 3.3.11** OWNER has the exclusive right to dispose of, recycle or salvage the spent catalyst/adsorbent at the end of the ultimate life of the catalyst/adsorbent in any manner OWNER chooses without hazard to health or environment for which the BIDDER shall furnish to the OWNER upon request, instruction for suitable disposal of the catalyst/adsorbent.
- 3.3.12** For dense loading of fixed bed catalyst / adsorbent in the reactor / vessel, if applicable, BIDDER shall furnish list of recommended vendors for Dense loading Machine at site and related technical advisor at mutually agreed date. The technical advisor will be responsible for supervising/regulating operation of loading machine.
- 3.3.13** The BIDDER undertakes that during the life of the UNIT, if so desired by the Owner, the BIDDER shall either specify another mutually acceptable catalyst/adsorbent source or alternatively make available catalyst/adsorbent, and of no less functional efficiency than the originally specified catalyst/ adsorbent.

- 3.3.14** BIDDER shall indicate different types of catalyst(s) / adsorbent(s) requirement (including margin on handling losses as agreed basis on prorated basis at the time of purchase) in volume indicating loading density, cost per unit volume for each type of catalyst / adsorbent.
- 3.3.15** BIDDER shall indicate typical composition and Purchase specifications of each catalyst/ Solvent for procurement by OWNER.
- 3.3.16** BIDDER shall provide the budgetary quotes for all the non-proprietary catalyst/solvents/additives/ adsorbents/absorbents and chemicals along with the supplier names required for the plant operation in the technical offer.

3.4 PROPRIETARY ITEMS.

- 3.4.1** BIDDER shall specify clearly the proprietary items (other than Proprietary catalyst/Resins adsorbents/ absorbents/ solvent/ chemical) if any, required in the process, and the cost thereof, separately. The proprietary item is defined as the item for which specification, engineering, manufacturing and supply shall be exclusively by the BIDDER. BIDDER shall provide justification/basis for such items to be proprietary in nature. Proprietary items supply shall preferably be minimized.
- 3.4.2** BIDDER shall quote the firm price with minimum validity as requested in schedule of price for such proprietary items along with escalation rate applicable after expiry of validity of quoted price in the offer. In case of supply of any proprietary item by BIDDER, the BIDDER shall indicate the quoted cost as per schedule of price (SOP) and provision included therein with mention of port of origin, delivery schedule, scope of BIDDER in supply and installation of the item along with other formalities for transport/clearances etc.
- 3.4.3** In case BIDDER has specified single source / single recommended vendor for procurement of any items, the same shall be listed in the proposal. BIDDER shall also provide justification for such recommendation.
- 3.4.4** BIDDER shall clearly specify the items, if any used in the process for which proprietary design is by the BIDDER. BIDDER shall provide specification, engineering documents and manufacturing specifications for such items along with recommended vendors, if any as part of BEDP. The cost of such services is to be included in the fees towards BEDP.

3.5 MANDATORY SERVICES

- 3.5.1** BIDDER shall carry out/participate for the following minimum mandatory services. Any additional mandatory services that the BIDDER deems necessary for fulfilling the guarantees offered and other responsibilities shall be informed by the BIDDER in his offer.
- HAZOP & SIL studies during detail engineering stage at Owner / Consultant office.
 - 3D model review (30%, 60% and 90%) at Owner / Contractor's office.
 - Review and Approval of detailed engineering documents including fabrication drawing and vendor data for critical equipments. List of such equipment shall be specified in BEDP.
 - Participation in Factory Acceptance Test (FAT)

- e) P&ID walkthrough after mechanical completion including all towers internal inspection, inspection of critical equipment like furnace, reactor, vessels, compressorblending/storage tanks, rubber finishing , printing/packaging and storage etc. required for achieving guaranteed yields.
- f) Assistance during catalyst loading at project site.
- g) Assistance during installation of proprietary items / equipments at project site.
- h) Assistance during pre-commissioning/ commissioning activities at project site.
- i) Conducting performance guarantee test runs at project site.

3.5.2 BIDDER shall furnish in their offer a list of all mandatory services.

3.5.3 BIDDER shall send persons with complete know how of the process and knowledge as well as expertise on the project requirements for review meetings and activities specified above.

3.5.4 BIDDER shall carry out performance guarantee test run. The guarantee test run shall be conducted on design capacity within one year from the commissioning of the plant. BIDDER to submit the performance guarantee test run report. Format for the report will be agreed with selected BIDDER. Performance guarantee test run may or may not be conducted immediately after commissioning of the unit. Date for conducting the guarantee test run will be decided by Owner and informed to BIDDER for making necessary arrangements including deputing of their personnel to project site.

3.5.5 BIDDER shall quote lump sum fee for the above mandatory services considering 500 man-days as per schedule of price (SOP) and provision included therein.

3.5.6 In case the actual number of man-days utilized for the above Mandatory Services is more or less than 500, the lump sum amount quoted shall be prorated based on the actual number of man-days to arrive at the amount payable and payment shall be made accordingly.

3.6 **MANDATORY ENGINEERING/ DOCUMENT REVIEW (IF REQUIRED)**

BIDDER shall identify the mandatory engineering, mandatory review of documents and design required to be carried by BIDDER during EPC phase to meet the guarantee or performance parameter of the unit. The charges, if any, on this account have to be included in fees for the BEDP

3.7 **ADDITIONAL SERVICES**

3.7.1 BIDDER shall extend assistance through expert personnel with sufficient experience and knowledge for the following activities (under the service categories indicated) during detailed engineering, procurement, construction, if and as required by the Owner:

Engineering:

- a. Development of APC Strategies
- b. Development of specifications for process simulators

Any other activity/service related to the project implementation

Inspection:

- a. Procurement/ Inspection/ Expediting of critical equipment
- b. Supervision during construction
- c. Inspection at vendor's shop floor/ prequalification of vendors

Any other activity/service related to the project implementation.

- 3.7.2** BIDDER shall render assistance for Detailed Engineering to Engineering Contractor/Consultant in India, including model review, if any.
- 3.7.3** BIDDER shall quote personnel rates for bidder's personnel for rendering the above Additional Services at Owner's /Consultant's places as well as at bidder's office as per the Schedule of Prices and the provisions included there in. An estimated 150 man-days including travel time shall be considered for Additional Services for evaluation.
- 3.7.4** Single rates applicable for bidder's personnel for each of the following service categories shall be quoted. (number of days at bidder's office+number of days in Owner/ Consultant's/Vendor's office considered against each for evaluation are indicated):
- a) Engineering(50+50)
 - b) Inspection(20+30)
- 3.7.5** BIDDER shall quote Man-day rate for services rendered at bidder's office, which shall be inclusive of all expenses (including travel expenses, if any). Documentary evidence is to be furnished by the BIDDER for services carried out in the bidder's office.
- 3.7.6** BIDDER may provide information & necessary support for Regulatory compliances to cater to the global markets. All Grades proposed, to have contents that will meet the regulatory compliance of end usage applications worldwide.

3.8 TRAINING

- 3.8.1** BIDDER shall provide Training to Owner's personnel on process design, operation, maintenance, analytical procedures and product & applications training etc. as indicated below:
- a. Five (5) working days Theoretical training at bidder's office/facilities for two batches of 5 persons each
 - b. Industrial training in a substantially similar operating plant selected by BIDDER for up to fifteen (15) persons for three weeks (15 working days)
 - c. One week classroom training for maximum thirty (30) persons at Owner's office/plant
 - d. One week product & applications training at Owner's facilities for up to 10 persons
 - e. Laboratory analysis training to chemists for one week class room training at Owner's office/plant up to ten (10) persons.
- 3.8.2** BIDDER shall quote separately for above training fee with item-wise break-up as per schedule of prices. The quoted fees must be inclusive of any fees payable by BIDDER to the OWNERS of the operating plants where the training is to be imparted and expenses for travelling and living etc. for BIDDER's personnel supervising the theoretical and

practical training programs. No additional payment will be made for BIDDER's personnel in this regard.

3.9 DELIVERABLES & TIME SCHEDULE

- 3.9.1** BIDDER shall agree to carry out services and deliver complete BEDP and other deliverables as per schedule given at Annexure-2.0. BIDDER shall comply with the schedule indicated in the technical proposal.
- 3.9.2** BIDDER shall indicate shortest possible time schedule, which should be assured, for supply of proprietary catalyst/ chemicals and hardware items if any, in their technical proposal. BIDDER to note that the quoted delivery schedule from date of order placement shall be valid till the completion of the Project.

4.0 GUARANTEES AND LIABILITIES

BIDDER shall be required to fulfill the guarantees as detailed below and liabilities will apply in case of failure to meet the guarantees. BIDDER shall furnish the guarantees conforming to the design specifications given in this document as per the format given in Annexure-3.0, along with the technical proposal.

4.1 PROCESS PERFORMANCE GUARANTEES

While providing the guarantees, BIDDER to note that it is essential to meet minimum product quality as defined in item below. No deviation against this would be accepted. BIDDER will be required to take all necessary corrective measures, if required, at their own expense to meet the product qualities & other parameters as defined in item below.

The BIDDER shall furnish the following guarantees indicating, but not limited to, the following parameters, in tabular form (as indicated in various formats provided in Annexure- 3.0), for product slate defined under clause 2.8.

Table 4.1: Guarantee parameters

Sr. No.	Description	Guarantees
1.	Unit Capacity: Capacity in Tonnes per Hour and KTPA of SBR production for various types of SBR Grades.	As indicated in Annexure-3.0 <i>Performance Guarantee, Table IVA and IVB.</i>
	Unit Capacity: Capacity in KTPA of SBR	As per Annexure 3.0, Performance Guarantee Table-I
2.	Specific consumption of feed, catalyst, co-catalyst, , solvent chemicals and additives and other input material.	<i>As per Annexure 3.0, Performance Guarantee, Table VA & VB</i>
3.	Off-spec and on spec product Generation	<i>As per Annexure 3.0, Performance Guarantee, Table IIIA and IIIB.</i>
4.	Product Quality	<i>As per Annexure 3.0, Performance Guarantee, Table IIA & IIB</i>
5.	Catalyst/Co-catalyst/Solvents/Additives/ Chemical details(initial fill, quantity and life)	<i>As per Annexure 3.0, Performance Guarantee, Table VIIA, and Table VIIB.</i>
6.	Utility guarantees for the following: I. Consumption of steam (HP/ MP/ LP) II. Generation of steam (HP /MP/ LP). III. DM water Consumption(m3/hr) IV. Electrical Power (KWh). V. Re-Circulating Water, m3/hr	<i>As per Annexure 3.0, Performance Guarantee, Table VIA & VIB.</i>
7	Turndown ratio: Minimum requirement of 50% of design capacity in terms of SBR Product.	<i>As per Annexure 3.0, Performance Guarantee, Table VI.</i>

NOTES

1. Process guarantees shall be indicated for all grades of production.
2. For establishing the above performance guarantees, test runs will be conducted with feeds having substantially similar characteristics as those of design feeds.
3. BIDDER to provide correlation/s for predicting unit performances with respect to feed processing rate, product yield pattern, product quality, utility consumption, reactor operating conditions etc., in case the feed stock quality is different with respect to critical parameters from the design feed stocks. The same shall be furnished along with bid. In that case after consultation and mutual agreement with OWNER, a new guarantee equivalent to the guarantee mentioned above shall be established before conducting the test run.

4.1.1 Catalyst/adsorbent/absorbent Quantity and Life Guarantees

Bidder shall specify firm guaranteed quantity of first charge of each of the catalyst/adsorbent/absorbent (both proprietary and non-proprietary) separately for various sections of SBR Unit, clearly giving metal contents separately, as applicable and shall specify guaranteed first cycle life, subsequent cycle length (after regeneration) and ultimate life for each of these. Bidder shall specify and guarantee the ultimate life for each of these catalyst/Adsorbent/absorbents in Annexure-3.0.

Catalyst regeneration at the end of first cycle length, if recommended, shall be carried out as per LICENSOR's procedures in the presence of LICENSOR's representatives, if so desired by LICENSEE

4.1.2 Guarantees of Solvents/Chemicals/Additives

Bidder shall specify firm quantities annual consumption and initial fill quantity of Solvents/Chemicals/Additives.

4.1.3 Guarantee on Utilities import /export

BIDDER shall specify firm hourly rate of import and export of utilities (Steam, Electric power, Cooling water, etc.) along with the guaranteed specification of Utilities grade wise.

4.1.4 Guarantee on Unit Turndown capacity

BIDDER shall specify turndown capacity of SBR unit in terms of SBR Product, as per Turndown scenarios defined under clause 2.5.

4.2 MINIMUM ACCEPTABLE PERFORMANCE GUARANTEES CRITERIA

The minimum performance guarantees are defined below to the process guarantees as per 4.1 above for the purpose of fixing the limits for acceptance of the unit performance beyond which the maximum liability as per clause 4.4 shall be applicable.

I. Unit capacity in TPH for various grades

Minimum performance guarantee (TPH): $0.95 \times$ Guaranteed capacity for respective grade

II. Main Catalyst/Chemicals consumption for various grades

Minimum performance guarantee for each of catalyst / chemicals: (Guaranteed Consumption for each of catalyst / chemicals for respective grades) *1.1 kg/T-SBR

III. Raw material consumption for various grades

Feed consumption (each of 1,3 Butadiene, Styrene and Extender Oil) per ton of SBR Product beyond an excess of 2% over the guaranteed consumption figure in Kg of Feed (each of 1,3 Butadiene, Styrene and Extender Oil) required per MT of SBR Product.

IV. Utilities consumption

a. Steam consumption at battery limit (as applicable) (HP,MP,LP) for various grades

Minimum performance guarantee: (Guaranteed Consumption * 1.1) kg/Ton of SBR for respective grade.

b. Electric power for various grades

Minimum performance guarantee: (Guaranteed Consumption * 1.1) KWH/Ton of SBR for respective grade

V. Product Quality

SBR Product quality: Meeting grade wise product quality guarantees for all SBR Product Grades as mentioned in Table 2.8.1B & Table 2.8.2B. Other Guarantee Parameter specified by BIDDER throughout the guaranteed cycle length.

4.3 TEST RUN, PROOF OF GUARANTEES

4.3.1

Prior to a test run, detailed methods to be used in the test run shall be agreed upon in writing between BIDDER and OWNER. These methods shall be in accordance with normal practice, and will include methods for measuring various process streams by calibrated measuring devices, methods for calibrating such measuring devices, methods for sampling and analysing process streams, as well as methods for evaluating the results of the measurements and analysis. Furthermore, acceptable tolerance for all results shall be agreed.

4.3.2

The Performance Guarantee test run (PGTR) shall commence when the unit is operating under stable conditions.

- The PGTR will be conducted for each train separately or jointly, depending on the plant-commissioning plan.
- Each PGTR must demonstrate a continuous 72-hour run for each grade to evaluate performance in consecutive hours or as per a mutually agreed arrangement.
- For the Performance Guarantee Test Run (PGTR), the Licensee will conduct the test for all grades or for part, selected grades specified in the design basis section 2.8; for all the trains.to verify that each grade meets the guaranteed performance requirements.
- Production sequence shall be decided by Owner/Licensee 6 months prior to

PGTR.

- Based on mutually agreed and jointly collected measurements during the test run, BIDDER AND OWNER shall evaluate the results of the test run to confirm conformity with the performance guarantees.

4.3.3 The UNIT shall be deemed to have passed a successful test run, if during the test run, the UNIT has performed as guaranteed and the guarantees specified in this document and proposed by BIDDER have been successfully fulfilled.

4.3.4 If during a test run, the UNIT fails to perform as guaranteed for reason attributable to bidder. The BIDDER shall as soon as possible investigate the reasons for such failure and suggest modifications to the UNIT or its operation as the BIDDER may deem necessary for enabling the UNIT to perform as guaranteed. BIDDER will perform corrective engineering and shall incur the entire expenditure related to this corrective engineering to achieve satisfactory results without any limit related to corrective engineering and bidder services. The BIDDER shall reimburse to OWNER the resultant cost caused by this re-engineering leading to replacement of non-proprietary hardware and re-engineering/re-design by detail engineering contractor other than required for implementation. This cost shall be limited to Overall Aggregate Liability. The OWNER shall, as promptly as is reasonably feasible in the circumstances carry out any modifications of the unit, which may be suggested by the BIDDER. A test run shall be re-conducted for the modified UNIT.

4.3.5 If necessary, the foregoing procedure will be repeated at least three (3) times within a period of 12 (twelve) months from the date of commencement of remedial actions, and the BIDDER shall at its own costs and expense in all respects continue to perform such engineering, supplies and /or modification as are necessary to ensure that the UNIT performs to meet the performance guarantees given in this document.

4.3.6 The BIDDER shall pay and bear the cost of deputing its personnel for witnessing and supervising modifications and repeat test runs.

4.4 LIABILITIES /COMPENSATION FOR NOT MEETING MINIMUM GUARANTEES

4.4.1 If, in spite of best efforts by the BIDDER, the Unit fails to meet any of the minimum guarantees of any grade in any train as defined in section 4.2, the LICENSOR shall as, LICENSEE's sole remedy, refund to LICENSEE 100% of Overall Aggregate liability as defined in commercial terms & conditions.

4.5 LIABILITIES/ COMPENSATION FOR NOT MEETING PERFORMANCE GUARANTEES

4.5.1 In case the Performance Guarantees as per clause 4.1 above are not met during test run(s), even after requisite number of tests, due to the reasons solely attributable to the BIDDER, the BIDDER shall take all steps to modify the plant at his own expense within a reasonable time and ensure that the guarantees are fully met.

4.5.2 Subject to meeting the minimum performance guarantees as per para 4.2 above, if the unit fails to meet the guaranteed performance values as per 4.1 above, even after the proposed modifications, the Bidder shall allow by way of price adjustment/ payments of liabilities for such failure as per clause 4.5.3 and 4.5.5.

4.5.3 If, after the minimum guarantees have been met, the Unit fails to meet the values guaranteed in the performance guarantees, and the BIDDER declares its inability to further improve the Unit to meet such guarantees, the LICENSOR shall allow the LICENSEE by way of price adjustment, a price discount (i.e. licensor's liability) as specified in the table below in section 4.5.5, subject to a maximum of 100% Overall Aggregate liability as specified in commercial terms and conditions. The liability are on a sliding scale over a range of performance.

4.5.4 Bidder to note that the limit of Overall Aggregate liability is excluding the liability on Proprietary fixed bed catalyst and proprietary items as defined in clause 4.5.6 and 4.5.7.

4.5.5 Liabilities/Price Discount Formulae:

It is categorically clarified here that price discount formulae given below will be applied only to those parameters for which the plant has failed to meet performance guarantees. It will not apply to those parameters which have met or bettered the performance guarantee. This means that no credit for exceeding performance guarantees will be given.

a) UNIT CAPACITY:

Liability: BIDDER shall meet 100% plant capacity for the respective product grade and shall be fully liable to execute necessary modifications in the plant at no cost to the owner if the plant fails to meet the same. In case of failure to meet the guarantee (after meeting the minimum process guarantee) for any of the guarantee test even after the proposed modifications, the BIDDER shall be liable to pay liquidated damages/compensation as detailed below.

$$PDC_i = \frac{1}{T} \times \left(\frac{(C_{G,i} - C_{A,i})}{C_{G,i}} \right) \times OAL \times 0.5$$

Where:

PDC _i =	Price Discount for each final test run (i = 1 to T)
T =	Number of different grades for which test runs are performed.
OAL =	Overall Aggregate Liability as defined elsewhere in bidding document
C _{G,i} =	Guaranteed unit capacity (MT/hr) during test run i
C _{A,i} =	Actual demonstrated throughput (MT/hr) during test run i

The total Price Discount for failure to meet throughput Performance Guarantees is:

$$PDC = \sum_{i=1}^T PDC_i$$

b) CONSUMPTION OF RAW MATERIALS :

Liability: BIDDER shall not exceed 100% of raw material (each of 1,3 Butadiene, Styrene and Extender Oil) consumption guaranteed for the respective product grade and shall be fully liable to execute necessary modifications in the plant at no cost to the owner if the plant exceeds the offered consumption guarantee. In case of failure to meet the guarantee (after meeting the minimum process guarantees for (each of 1,3 Butadiene, styrene and Extender Oil) for any of the guarantee test even after the proposed modifications, the BIDDER shall be liable to pay liquidated damages/compensation as detailed below.

$$PDM_i = \frac{1}{T} \times \left(\frac{(M_{A,i} - M_{G,i})}{M_{G,i}} \right) \times OAL \times 0.5$$

Where:

PDM _i =	Price Discount for each final test run (i = 1 to T)
T =	Number of different grades for which test runs are performed.
OAL =	Overall Aggregate Liability as defined elsewhere in bidding document
M _{G,i} =	Guaranteed Consumption of Raw Materials (each of 1,3 Butadiene, Styrene and Extender Oil) during test run I, kg/MT
M _{A,i} =	Actual demonstrated Consumption of Raw Materials (each of 1,3 Butadiene, Styrene and Extender Oil) during test run I, kg/MT

The total Price Discount for failure to meet throughput Performance Guarantees is:

$$PDM = \sum_{i=1}^T PDM_i$$

c) UTILITIES CONSUMPTION

Bidder to provide separate guaranteed specific consumption for HP steam, MP steam, LP steam, electric power, Cooling Water and DM Water in Annexure-3.0

Liability: BIDDER shall not exceed 100% of each utility guaranteed (HP/MP/LP Steam, Electric power, Cooling Water and DM Water) consumption guaranteed for the respective product grade and shall be fully liable to execute necessary modifications in the plant at no cost to the owner if the plant exceeds the offered

consumption guarantee. In case of failure to meet the guarantee (after meeting the minimum process guarantees for utilities) for any of the guarantee test even after the proposed modifications, the BIDDER shall be liable to pay liquidated damages/compensation as detailed below.

$$PDU_i = \frac{1}{T} \times \left(\frac{(UC_{A,i} - UC_{G,i})}{UC_{G,i}} \right) \times OAL \times 0.2$$

Where:

PDU _i =	Price Discount for each final test run (i = 1 to T)
T =	Number of different grades for which test runs are performed.
OAL =	Overall Aggregate Liability as defined elsewhere in bidding document
UC _{G,i} =	Guaranteed utility consumption (individual values for electricity, steam , cooling water & DM Water) during test run i
UC _{A,i} =	Actual demonstrated utility consumption (individual values for electricity, steam , cooling water & DM Water) during test run i

The price discount shall be calculated for each utility and shall be added to obtain total price discount for utility consumption:

$$PDU = \sum_{i=1}^T PDU_i$$

d) CONSUMPTION OF CATALYST AND CO-CATALYST

Liability: BIDDER shall not exceed 100% of catalyst and co-catalyst consumption guaranteed for the respective product grade and shall be fully liable to execute necessary modifications in the plant at no cost to the owner if the plant exceeds the offered consumption guarantee. In case of failure to meet the guarantee (after meeting the minimum process guarantee for catalyst)) for any of the guarantee test even after the proposed modifications, the BIDDER shall be liable to pay liquidated damages/compensation as detailed below.

$$PDZNi = \frac{1}{T} \times \left(\frac{(ZN_{A,i} - ZN_{G,i})}{ZN_{G,i}} \right) \times OAL \times 0.25$$

Where:

PDZNi =	Price Discount for each final test run (i = 1 to T)
T =	Number of different grades for which test runs are performed.
OAL =	Overall Aggregate Liability as defined elsewhere in bidding document
ZN _{G,i} =	Guaranteed catalyst, co-catalyst and consumption during test run i
ZN _{A,i} =	Actual demonstrated catalyst, co-catalyst and consumption during test run i

The total Price Discount for failure to meet catalyst and co-catalyst consumption Performance Guarantees is:

$$PDZN = \sum_{i=1}^T PDZN_i$$

e) OFF-SPEC. PRODUCT GENERATION:

Liability: BIDDER shall not exceed 100% of off-spec. product quantity guaranteed for respective product grade (i.e. grade from which transition is being made) and shall be fully liable to execute necessary modifications in the plant at no cost to the owner if the plant exceeds the offered production guarantee. In case of failure to meet the guarantee for any of the guarantee test even after the proposed modifications, the BIDDER shall be liable to pay liquidated damages/compensation as detailed below.

$$PDTRI = \frac{1}{T} \times \left(\frac{(TR_{A,i} - TR_{G,i})}{TR_{G,i}} \right) \times OAL \times 0.1$$

Where:

PDTRI =	Price Discount for each final test run (i = 1 to T)
T =	Number of different grades for which test runs are performed.
OAL =	Overall Aggregate Liability as defined elsewhere in bidding document
TR _{G,i} =	Guaranteed off-spec (transition) product generation during test run i
TR _{A,i} =	Actual demonstrated off-spec product generation during test run i

The total Price Discount for failure to meet off-spec product generation Performance

Guarantees is:

$$PDTR = \sum_{i=1}^T PDTR_i$$

f) CONSUMPTION OF SOLVENT, ADDITIVE AND CHEMICAL:

Liability: BIDDER shall not exceed 100% of solvent, additive and chemicals consumption guaranteed for the respective product grade and shall be fully liable to execute necessary modifications in the plant at no cost to the owner if the plant exceeds the offered consumption guarantee. In case of failure to meet the guarantee for any of the guarantee test even after the proposed modifications, the BIDDER shall be liable to pay liquidated damages/compensation as detailed below.

$$PDS_i = \frac{1}{T} \times \left(\frac{(SC_{A,i} - SC_{G,i})}{SC_{G,i}} \right) \times OAL \times 0.2$$

Where:

PDS _i =	Price Discount for each final test run (i = 1 to T)
T =	Number of different grades for which test runs are performed.
OAL =	Overall Aggregate Liability as defined elsewhere in bidding document
SC _{G,i} =	Guaranteed consumption of Solvent, Additive and Chemical during test run i
SC _{A,i} =	Actual demonstrated consumption of Solvent, Additive and Chemical during test run i

The total Price Discount for failure to meet off-spec product generation Performance Guarantees is:

$$PDS = \sum_{i=1}^T PDS_i$$

g) TURNDOWN RATIO:

Liability: BIDDER shall meet plant turn down capacity for the respective grade and shall be fully liable to execute necessary modifications in the plant at no cost to the owner if the plant fails to meet the same. In case of failure to meet the guarantee for any of the guarantee test even after the proposed modifications, the BIDDER shall be liable to pay liquidated damages/compensation as detailed below.

$$PDT = \left(\frac{(TR_A - TR_G)}{TR_G} \right) \times OAL \times 0.1$$

Where:

PDT =	Price Discount for test run
OAL =	Overall Aggregate Liability as defined elsewhere in bidding document
TRG =	Guaranteed turndown ratio during test run
TRA =	Actual demonstrated turndown ratio during test run

The overall Price Discount(PD) is calculated as follows:

$$PD = PDC + PDM + PDU + PDZN + PDTR + PDS + PDT$$

**4.5.6 Liabilities for (Proprietary and non proprietary) Fixed Bed Catalyst /Resin/
Adsorbent performance Guarantee**

**Table 4.5.6: Liability for (Proprietary and non proprietary) Fixed Bed
Catalyst/Resin/Adsorbent Performance Guarantees**

Guarantee parameter	Liability
For catalyst/resin/adsorbent whose ultimate life is more than one year	a) If the catalyst/resins/adsorbent fails to perform and because of which any of the Performance Guarantees parameters (including yields and minimum guarantees) attributable to the catalyst are not met, within 50% of guaranteed life in months, from introduction of feed stock, BIDDER shall reimburse 100% of the cost incurred for purchase of catalyst/resin/adsorbent to Owner or shall fully replace the non- performing catalyst/resin/adsorbent at designated unit site free of any cost to the OWNER.
	b) If catalyst/ resin /adsorbent fails any time after 50% of the guaranteed life in months, the penalty to be given by the BIDDER shall be calculated as the percentage of total cost incurred by Owner for purchase of catalyst/resin/adsorbent, arrived at by the following formula as per the applicable clause indicated above.
	Percentage= [((Guarantee life in months) - (Actual achieved life in months)) / (50% of guaranteed life in months)] *50
	c) The BIDDER's liability to replace the catalyst/ resin/adsorbent shall apply to each replacement charge, which shall, unless otherwise agreed, carry a guaranteed life, which is not less than the residual guaranteed life of the original charge.
	d) The cost incurred by Owner for procurement of catalyst/resin/adsorbent shall be on the landed cost which shall include the basic cost of catalyst, custom duty paid, transportation cost etc.
	e) The landed cost will exclude the price of precious metal in the catalyst, if any.
For catalyst/ resin/ adsorbent whose ultimate life is less than or equal to one year	f) OWNER at its option can decide to choose replacement of catalyst/ resin/ adsorbent or reimbursement of catalyst/ resin/ adsorbent cost.
	BIDDER shall be liable for the full replacement of the Catalyst / adsorbent at designated refinery site free of any cost to the Owner.

4.5.7 Liabilities for Proprietary items (excluding catalyst and adsorbents)

Table 4.5.7: Liability Schedule for Proprietary items (excluding catalyst and adsorbents)

Guarantee parameter	Liability
Proprietary items (excluding catalyst and adsorbents)	In case of any defect/failure up to 18 months of commissioning of the unit or 24 months from the last dispatch of the equipment, whichever is earlier, BIDDER shall supply and replace the Proprietary items or faulty part (including removing and reinstalling) free of cost at site.

5.0 EVALUATION CRITERIA

BIDDERS offer shall be evaluated based on the following criteria for technical acceptance and final selection.

5.1 TECHNICAL QUALIFICATION CRITERIA

5.1.1 Minimum Qualification criteria for the BIDDER shall be as per Section “Bidder Qualification Criteria (BQC)” specified in “Invitation for Bid (IFB)”.

5.1.2 Technical evaluation of bidder’s proposal shall be based on the following criteria:

- **Proven Experience:** Provenness of offered technology and the extent of BIDDER experience in having successfully implemented plants, which are similar in nature and objectives to the plant desired by the OWNER, shall be considered. BIDDER should have reference operating units where the offered/ guaranteed performance for process and equipment had been demonstrated.
- **Technical Assessment:** Operability, reliability, guaranteed process performance, product quality, run-length, number of furnaces etc.
- **Technical Services and Support:** Adequacy of scope and quality of bidder’s Basic Engineering Package and conformance with the desired scope, engineering support services during design, follow-up engineering and plant commissioning and ongoing technical support after plant start-up.

5.1.3 BIDDER will provide filled in Annexure-4.0 for all reference units, Additionally BIDDER will also include documents required as per the BQC in his offer.

5.1.4 Technically acceptable offers will be identified based on compliance to the bid document.

5.2 TECHNO-ECONOMIC EVALUATION

Techno Economic evaluation of technically and commercially acceptable offers will be carried out for the final selection of bidder/ Licensor as described below.

5.2.1 Evaluation shall be performed based on the guaranteed product slate of Train-1, Train2 and Train 3 as offered by the bidder in Annexure-3.

5.2.2 Net Present Value (NPV) of the offer will be calculated as net cash inflow for the plant

operating life at a discount rate of 12% per annum. The cash flows/ NPV shall be arrived at by Owner at its option, through a competent Consultant, based on the information furnished and prices quoted by the Bidder, after due review by the Owner/ Consultant.

5.2.3 Estimation of NPV will be carried out on the following basis:

- a. The NPV shall be computed for the facilities limited to unit battery limit.
- b. Expenses towards License Fee, Basic Engineering Design Package fee, fees towards detail engineering (if any), fees towards Training and other services quoted by BIDDER as well as other related costs as necessary e.g. Mechanical design fees, Training fee, cost of proprietary/ hardware items, cost of initial charge of catalyst, anti-oxidant, chemicals etc. If any, shall be considered for estimation of capital cost.
- c. Cost of proprietary/ hardware items if any, as quoted by Bidder shall be considered for estimation of capital cost.
- d. Owner will consider the equipment/ plant cost, as estimated by Owner/ Consultant, as per the process configuration and relevant equipment data furnished by BIDDER in his offer, after due rationalization. BIDDER shall agree to furnish additional information, if required, to facilitate plant costing.
- e. Feed to the unit, products from the unit and utilities will be priced as given under Optimisation Criteria in this document.
- f. Guaranteed values of feed (i.e. 1,3 Butadiene, Styrene Monomer and Extender Oil), on-spec/off spec production and product quality furnished by BIDDER as per performance guarantee for the design product slate shall be considered for the evaluation purpose after due rationalization if any.
- g. Bidder's guaranteed catalysts, co-catalysts, , additives, solvents, adsorbent, chemicals and utility consumption figures shall be considered. The cost of utilities, catalysts/chemicals etc. shall be included in the operating costs.
- h. Cost of Catalyst/Co-catalyst/ Resin/adsorbent for subsequent charge and make up, if applicable, shall be included in the operating cost as quoted and guaranteed by Bidder (As applicable).
- i. Evaluation shall be carried out for Catalyst / Co-catalyst/ Resin/additive/ Adsorbent or any other item (e.g. modules) offering catalyst function based on 4 years or multiples of 4 years as applicable.
- j. The utility consumptions provided by BIDDERS shall be reviewed with respect to machine efficiencies, motor efficiencies and heater efficiencies; and rationalized utility consumption figures shall be used for evaluation.
- k. Taxes, duties, freight and other indirect costs on plant/ equipment as applicable, shall be considered.
- l. Plant operating life for economic calculation shall be 20 years with 5% salvage value. Construction period shall be considered as 48 months with phasing of investment as 15% for the first year, 25% for the second year, 35% for the third year and 25% fourth year.
- m. Escalation rate quoted by BIDDER shall be used for estimating the cost of respective items based on expected date of award.
- n. In case of discrepancy in the equipment details given in the equipment list and other places in the bidder's offer such as process description, PFD etc., the details as per equipment list shall be considered.
- o. Bidder's fee towards Mandatory Services and Additional Services shall be considered for evaluation as explained elsewhere in this document.
- p. Operating revenue and operating cost for NPV calculation will be based on 8000 on stream hours per year.
- q. Design Cases as defined in this document shall be considered for evaluation.

- r. To facilitate evaluation and comparison of prices, all bid prices shall be converted in to Indian Rupees. Exchange rate shall be the rate defined elsewhere in ITB. Analysis shall be done taking into account the prevailing Indian Tax rates.
- s. Price of Catalyst including precious metals will be considered in the NPV calculation. For precious metal (ex: palladium), 99% recovery shall be considered for every catalyst change and thus 1% of its cost shall be considered for evaluation for subsequent charge of Catalyst. 99% salvage value shall be considered at the end of life.
- t. For catalyst without any precious metals, after achieving the ultimate life, the catalyst will be spent and will be considered "Zero" value and full load of fresh Catalyst cost will be considered for NPV calculations."

5.2.4 No technical deviations shall be accepted. Loading for commercial deviations shall be applied as described under Instructions to BIDDERS.

5.2.5 100% weightage shall be given for NPV and the BIDDER who obtains maximum NPV shall be considered as the successful BIDDER and recommended for selection.

5.2.6 Bid with no deviation towards scope/definition and schedule will be accepted.

5.2.7 The evaluation data/documentation including Capex/Opex worked out by owner/owner's consultant for licensor evaluation shall not be shared with bidders.

5.2.8 The information required from bidder for estimation of NPV shall be furnished as per Annexure 3.0 along with the technical proposal.

6.0 INFORMATION REQUIRED FROM LICENSOR IN PROPOSAL

Information to be furnished, as a minimum, in the TECHNICAL PROPOSAL are defined in this section. BIDDER shall submit their technical proposal containing comprehensive information on the process technology offered, commercial experience, process economics, any specific safety features w.r.t to comparable plants etc. such that their offer is evaluated comprehensively. Data/information shall be given item wise and metric system of units shall be followed for all information. Please refer to 'Instructions to

Bidders' for details on submission of bid.

Bidder's offer should be in complete conformance to the Bidding document and its subsequent amendments.

6.1 TECHNICAL INFORMATION & GUARANTEES

6.1.1 Acceptance of Time Schedule as per Annexure-2.0 shall be submitted along with the proposal.

6.1.2 BIDDER shall submit all the details and technical information including data with respect to Process Guarantees as per format given in Annexure- 3.0, duly signed and complete in all respects, along with the offer. The information sought shall be furnished separately for each of the design cases for SBR production, where applicable.

6.1.3 The technical data including guaranteed values for all parameters required to be guaranteed wherever applicable (minimum/maximum values as indicated in the

respective tables) should be included in the proposal as these values are essentially required for evaluation of the offer. Guaranteed values should conform to the specifications given in this document. Proposal without these values may not be evaluated. Reason for omission if any, should be brought out.

6.2 PROCESS INFORMATION

6.2.1 BIDDER to provide the following information in the proposal, as a minimum, for all design cases of SBR as defined under clause 2.3 (metric system of units shall be followed for all information).

- a. Outstanding features of the process technology. Wherever possible, these points are to be quantified. The steps where BIDDER differs from competing process technologies should be emphasized.
- b. Improvement and development in technology done in the recent past with special reference to catalyst, capital cost, operating cost, product quality and applicability, safety, energy conservation and environmental considerations.
- c. Process Description
- d. Overall material balance for the each product group for each train.
- e. Process Flow Diagrams for overall and individual process sections (including facilities for chemical injection) indicating processing scheme, flow rates, major operating parameters, all equipment and process control scheme.
- f. Material balance, section wise, for each incoming/outgoing stream for each product grade and for each train. The information must include flow rate, pressure and temperature for these streams along with composition break-ups.
- g. Type of reactor, number of reactors, reactor capacity, conversion per pass, normal and emergency reactor cooling method, reactor fouling problem with control methods, frequency of reactor cleaning and safety features.
- h. Turn down ratio for various sections of the plant and overall turndown ratio for the total plant, along with reasons for any limitations
- i. Co-monomers used, if any, their specifications, grade wise quantity.
- j. Effect of variation in feed impurities (monomer, co-monomer, hydrogen, catalyst poisons, inert gases, moisture, oxygen, etc.) on SBR process stability, catalyst performance, polymerization kinetics, product yield, and resultant product properties shall be clearly identified and furnished by the BIDDER.
- k. Details and technical information including data with respect to process guarantees as per all formats given in Annexure 3.0 and product specifications as per Section 2.8.
- l. BIDDER to provide following information (but not limited to) with respective to all Catalyst/ Co-catalyst// adsorbents/ additives/ solvents and Chemicals etc. used in process,

- Type, size, shelf life, hazards, productivity (kg of product/gm of catalyst), method of metering the dosing into the reactor system
 - Item wise consumptions (kg/hr) and unit cost.
 - Initial charge volume & weight
 - Subsequent fills (volume and weight), if applicable
 - Handling losses as percentage of initial charge
 - Bulk density and other specifications
 - Ultimate life (without regeneration), minimum as defined in catalyst section of this document
 - Duration of unit shut down towards catalyst change over
 - Recommended procedure for safe disposal of spent catalyst
 - Delivery period of catalyst/adsorbent
 - Reactor-wise catalyst distribution
 - Details of manufacturers/ suppliers of catalysts/ adsorbents
 - Recommended list of vendors for dense loading machine (if applicable)
 - Outlines of catalyst preparation unit included in the battery limit.
 - List of manufacturers/ suppliers for each item.
 - Installed cost of catalyst preparation and dosing unit shall be given separately in case equipment specifications are not given.
 - Detailed specifications of catalyst, chemical and additives.
- m. Details of additives used for each major product grade, their consumption grade wise and the cost.
- n. BIDDER shall provide a list of chemicals used in the process with their initial charge and consumption rate during normal operation, start-up and shutdown for the units along with recommended suppliers list in the offer. Use of proprietary chemicals, if any, is to be clearly indicated. The list of recommended suppliers of proprietary chemicals, if any, shall be indicated by BIDDER.
- o. Qualitative Description on the operating variables: Operating variables and their effects, the effects of variation of feed composition and feed rates.
- p. Benefits of any technical features incorporated in the proposed design.
- q. Number & type of on-line analyser in proposal.
- r. Purge stream, if any: Composition and quantities of hydrocarbon rich purge streams corresponding design cases, their mode of disposal.
- s. Estimated maximum flare load, relieving temperature and molecular weight corresponding to
- Cumulative failure (For eg. General power/ cooling water failure)
 - Discreet Failure (For e.g Local reflux/operational failure)
- Bidder to indicate philosophy adopted for arriving at the mitigated load.
- t. Flare load data corresponding to unit start up (Load and composition).

- u. Requirement of any utility during emergency such as general power failure or any other exigency.
- v. Design features for Environment Protection and Occupational Safety.
- w. Write-up on safety and environmental control features offered in the design.
- x. Details of transition time and transition product quantity produced during changeover of grades and the method of use/disposal of the transition product (See Annexure-3).
- y. Percentage of off spec. product generated on annual basis (saleable and non-saleable). Further BIDDER to provide data on off spec. product generation quantity during change over from grade to grade along with the transition period. (See Annexure-3).
- z. Quantity and spec of by products, hydrocarbon & hazardous waste and spent diluents/ solvent, if any, and suggested/recommended method of disposal.
- aa. Waste stream summary for gaseous effluents, liquid effluents and solid wastes along with stream wise quantity, quality and composition.
- bb. Bidder to provide preliminary equipment layout along with the proposal showing key items of equipment for similar unit capacity. The plot area available for the SBR Block is 460m x 200m. Bidder to confirm in the offer that all inside battery limit facilities can be accommodated in this specified plot size.
- cc. Key operating conditions for the various sections of the unit.
- dd. BIDDER shall provide Sample P&IDs for the purpose of illustrating the level of details.
- ee. Bidder to provide Baling and Packaging specification for each train.

6.2.2 PRODUCT & EFFLUENT INFORMATION:

PRODUCT:

- i) Total product range list with properties and end use application for each grade.
- ii) Physical properties/specifications of different polymer grades offered.

EFFLUENT:

- i) Effluent stream summary from the unit, comprising of all gaseous, liquid and solid waste streams/ material from the unit like by-products, hydrocarbon waste, hazardous waste, spent diluents/solvents, etc, as applicable, along with stream-wise quantity, quality and composition and suggested/recommended method of disposal (during normal operation & exigencies).
- ii) If any effluent treatment facility is included inside the battery limit, details of such facility to be described along with cost of such facilities.
- iii) BIDDER shall indicate quantity, composition and disposal methods for solid effluent

- iv) For wastewater discharge, in addition to the level of specific organic or inorganic contaminants, BOD, COD, pH, TSS, TDS, total HC (state whether soluble or insoluble) etc. for each stream are to be specified.
- v) Proper facilities for handling & disposal of solid effluent, if any shall form a part of ISBL facilities. BIDDER should indicate quantity, composition and disposal methods for solid effluent.
- vi) Any treatment facility for continuous or intermittent gaseous vents shall be provided by the BIDDER and is to be included in the scope before discharging to atmosphere/ flare header. The discharge to atmosphere should meet standards for ambient air quality laid by Central and State Pollution Control Board.

6.2.3 Consumption Information:

- a. Consumption of a) monomer b) DM Water etc, if any for each grade of SBR product .
- b. Consumption of catalyst, co-catalyst, chemicals and additive for each product grade. Where consumption and names of materials cannot be disclosed, consumption figure in kg along with the unit cost per ton of material for product grade shall be given.
- c. Consumption of solvent/ diluents per ton of product.
- d. Equipment wise consumption of following utilities to be given separately as applicable to the process.
 - VHP Steam
 - HP steam
 - MP steam
 - LP steam
 - Power
 - Process water/ raw water
 - DM water
 - Boiler feedwater
 - Cooling water(circulating)
 - Nitrogen
 - Instrument air (including requirement for operation of diverter valves in product conveying)
 - Plant air (general purpose use)
 - Fuel gas/ R-LNG

Where intermittent/start-up/emergency requirement for any utility is significantly large compared to normal consumption, the same shall be specified.

Consumption figure given for the above utilities shall include requirement of chilled water/brine/refrigeration/hot oil units as may be necessary and included in battery limit.

- e. Normal/estimated consumption figures against section 6.2.3 a) to d) shall be provided.

In addition, the LICENSOR shall furnish guaranteed consumption figures for all grades as per the formats/Guarantee table given in Annexure 3, same to be demonstrated during performance test runs.

- f. Maximum acceptable limits of impurities in feedstock.
- g. Start-up, shut-down, and emergency requirements for utilities, monomer, catalyst, co-catalyst, chemicals, additives, adsorbents, and solvents etc necessary for the process shall be specified by the LICENSOR.
- h. Normal Transition production

6.2.4 Production Rate Information:

Normal production rate (in kg/hr) for each product grade offered shall be provided. BIDDER shall offer guarantees in their proposal for production rate for all grades.

6.3 EQUIPMENT DATA

Bidder to provide an equipment list showing dimensions and other key design parameters, including Materials of Construction (MOC), *lining if applicable*, and corrosion allowances. Information concerning proprietary equipment shall be included. The equipment list shall contain information in sufficient details so as to enable OWNER or his consultant to estimate equipment cost with an accuracy of $\pm 10\%$. Given below is the typical format in which the equipment specifications are to be provided by the Bidder. The data listed is the minimum information required, Bidder to provide any additional significant design information having cost implication.

Bidder to provide equipment details for both train separately considering all design cases as mentioned in section 2.8.2 for Train-1 and Train-2.

Reactor / Regenerator	
Diameter	
Height	
Type of head	
Design Pressure	
Design Temperature	
MOC of shell / internals	
Corrosion Allowance	
Cladding thickness (if applicable)	
Refractory / Abrasion Resistant Lining Details	
Estimated Weight (with internals & cladding)	
Estimated Weight (without internals & with cladding)	
Weight of internals	
Features/Type of Internals and typical sketch such as quench zones	
Column (Tray/packed) (Note-1)	
Diameter	
Height (considering actual number of trays)	

Type of head	
Design Pressure	
Design Temperature	
MOC of shell / internals	
Corrosion Allowance	
Cladding thickness (if applicable)	
Estimated Weight (with internals & cladding)	
Estimated Weight (without internals & with cladding)	
Weight of internals	
For trayed columns:	
No of actual trays	
Type of trays	
For packed columns:	
Volume of packing	
Type of packing	
Packing material	
Features/Type of Internals and typical sketch	
Drum/vessel/Orifice Chamber	
Diameter (including boot if applicable)	
Height (including boot length if applicable)	
Type of head	
Design Pressure	
Design Temperature	
MOC of shell / internals/boot	
Corrosion Allowance	
Cladding/internal lining thickness (if applicable)	
Estimated Weight (with internals & cladding)	
Estimated Weight (without internals & with cladding)	
Weight of internals	
Features/Type of Internals and typical sketch	
Orientation (horizontal/vertical)	
Fired Heater	
Design Duty - Fired/ Absorbed, Estimated	
Normal Operating Duty – Fired/Absorbed, Estimated	
Type of Furnace	
MOC	
Design Pressure	
Design Temperature	
Steam generating/ superheating coil details	
Exchanger	
Type (TEMA Type to be provided)	
Design Duty (Operating and Design Duty)	
Heat Transfer Area	
MOC (Shell/tube) incl corrosion allowance	
No. of shells required	
Design Pressure (Shell/tube)	
Design Temperature (Shell/tube)	

Air Cooler	
Drive Shaft Power	
Design Duty (Operating and Design Duty)	
Heat Transfer Area(Bare tube area)	
MOC incl corrosion allowance	
No. Required	
Design Pressure	
Design Temperature	
Pump	
Type	
Capacity	
Head	
Density of fluid	
No. Required	
MOC	
Driver (Motor or turbine)	
Shaft Power	
Pump efficiency	
Motor efficiency	
Total Power	
Compressor	
Type	
Capacity	
Molecular weight	
Suction & Discharge Pressure	
No. of stages	
No of compressors	
MOC	
Driver (Type: Motor or turbine (Backpressure or extraction cum condensing))	
Shaft Power	
Compressor efficiency	
Motor efficiency	
Total Power	
Miscellaneous Equipment	
Min Specifications required for costing for any other miscellaneous equipment	
Filters: Type, number, filtering area and material of construction. Min specifications required for cost estimates or budgetary prices to be provided.	
Package: Type, Capacity, Total Power requirement or for each equipment part of package.	
Cyclones	
Diameter	
Height	
Number of Cyclones	
Design Pressure	
Design Temperature	

MOC	
Corrosion Allowance	
Slide Valves	
Direction of Flow	
% Open Area	
Number of Slide Valves	
Design Pressure	
Design Temperature	
MOC	
Dryer	
Capacity	
Type	
MOC	
Centrifuge	
Type of Machine	
Suction /Discharge pressure	
Differential pressure	
Configuration of the unit	
Feed and Discharge rate	
Lubrication unit	
MOC	
Driver	
Wet Scrubber	
Capacity	
MOC	
Baling and Packaging Machine Specification - No of Machine - Capacity, Tons per hour - Speed, Bales per hour - Type - Any other detail	

Notes:

1. In case of columns with varying diameters, specify length and diameters of each section.
2. Special requirements for e.g. PWHT, HIC, and NACE etc. shall be specified for each of the equipments. This is required for costing purposes
3. All items of expensive metallurgy must be defined and any requirement of cladding etc. for equipment to be identified.
4. Steam generation facilities, along with regenerator flue gas ducting, orifice chamber, slide valve, stack details, etc. shall also be provided for costing purpose.
5. Details of equipments / items for reactor/regenerator such as air grid, cyclones, slide valves, expansion joints, other internals, etc. good for costing shall be provided.
6. Bidder shall also submit the required equipment data as per clause 6.3 for Costing Input in editable excel format (.xlsx format).

6.4 **PROPRIETARY ITEMS**

- 6.4.1 Bidder shall provide all required information on proprietary items as required in section 3.4
- 6.4.2 BIDDER is to give a list of special equipment, which is to be designed, fabricated and supplied by vendors nominated by the BIDDER. A list of vendors is to be furnished for each such item.
- 6.4.3 BIDDER to indicate whether an Advance Process Control Package needs to be installed in the unit. If yes, additional investment along with a list of recommended vendors is to be furnished.
- 6.4.4 BIDDER shall clearly specify the items/equipments, if any used in the process for which proprietary design is by the BIDDER. BIDDER shall provide specification, engineering documents and manufacturing specifications for such items/equipments along with recommended vendors, if any as part of BEDP. The cost of such services is to be included in the fees towards BEDP.

6.5 **EQUIPMENT LAYOUT**

Estimated footprint plot area and preliminary equipment layout of the plant showing optimum layout and indicating overall dimensions and locations of major equipment including accesses, operating and maintenance requirements, Analyzer sheds for pollution monitoring etc. as applicable shall be submitted along with the proposal. Bidder shall conceptualize the equipment layout so as to accommodate the facilities in the specified plot size, i.e. 460m x 200m. Bidder shall also furnish the recommended practice to be followed by Owner/ Consultant for development of equipment layout.

6.6 **MANPOWER FOR OPERATION**

BIDDER to provide an estimate of the man power required for operation of the plant assuming that the DCS Control Panel would be located in a Central Control Room. indicative maintenance manpower is also to be provided.

Indicative operating, maintenance and laboratory manpower requirement shall be furnished by the Bidder. This shall be indicated for shifts and general shift operation separately. Any other manpower required shall also be indicated by BIDDER.

6.7 **COMMERCIAL INFORMATION**

- i. Prices for all supplies, services and proprietary items are to be quoted in the specified format given as Schedule of Prices. The prices shall be quoted in the Priced Bid only.
- ii. BIDDER to provide sufficient information in proposal to arrive at NPV.
- iii. Project implementation plan for the project, i.e. for the BEDP and post BEDP activities.
- iv. Following additional information with respect to bidder's services is also to be included in the proposal (please refer Schedule of Prices):
 - a. List of mandatory services - list of documents/ drawings requiring their approval/review for bidder to offer guarantee.
 - b. List of special equipment and facilities

- c. List of proprietary items with justification
- d. List of long lead items

6.8 **COMMERCIAL REFERENCE:**

Information in respect of the reference units shall be submitted as required by Owner in a format given as Annexure-4.0.

6.9 **INFORMATION ABOUT BIDDER:**

BIDDER is required to bring out the salient features of the technology being offered. The following information/ documents in respect of bidder's process shall be submitted:

- a. Reference list (complete list of grass root plants licensed by the BIDDER) containing details of operating SBR plant indicating owner, licensed capacity/feed rate, feed type/quality, type of process, major product grades produced and number of train, location, product quality, start-up date, scope of BIDDER/ Bidder services provided, equipment supplied by BIDDER etc. Generally only grass roots facilities should be listed. As additional information, BIDDER may give separate list of revamped plants, if any, giving details of bidder's scope of services.
- b. List of grass root plants currently under design, engineering and construction and their details as in (a) above. Details of revamp jobs presently under design, engineering/ construction should be given separately as explained above.
- c. Complete list of plants currently under design, engineering or construction based on technology being offered against this technical specification as well as their details as per (a) above.
- d. Certificate from the users on their experience on the units licensed by the BIDDER along with documentary proof for licensing of the reference unit.
- e. Reference information about the best commercial plant in operation (at an installation other than that owned by BIDDER/ LICENSOR or its associate companies) for a plant of like capacity, nature of feed, products and which has demonstrated offered process performance. Reference must include plant manager's name, as OWNER/LICENSEE may like to visit such plants and expects the BIDDER to facilitate such visit. The BIDDER shall identify similarities and point out design advances between this reference plant and the proposed plant. In particular reference, plant data should include:
 - Reactor type, number and capacity of each
 - Catalyst type/ details
 - Consumption and type of feed.
 - Consumption of 1,3 Butadiene, Styrene, Extender Oil, co-monomers, diluents/solvent power, and steam actually achieved.
 - Actual quantity and specification of by-products/waste hydrocarbon produced
 - Method and frequency of reactor cleaning
 - Product grades produced and no. of grade changes considered typical per annum while changing the grades.
 - Furnace Run-length (if applicable)

- Actual operation and plant on stream factor data for last five years.
 - Operating problems, if any.
 - Accidents & Safety issues if any encountered in unit licensed by BIDDER.
 - Furnish references about the most efficient SBR Unit in operation similar in capacity to the proposed for BPCL SBR Unit and furnish following data of reference plant
 - Contact person name with contact details
 - Safety record of the plant
 - Quantity of off spec., material produced per annum, while changing the grades.
 - Product grades produced and typical percentage of each over total annual production. Grade produced in one production campaign/cycle and number of campaign per year.
 - Conversion per pass, residence time in reactor, and overall yields achieved.
 - Frequency and method of reactor plugging & other major equipment plugging.
 - Actual annual production, on-stream hours achieved in last five years and main reasons for downtime.
 - Observation during turn around/ inspection. If any
 - Any other special features.
- f. Proposal for potential plants suitable for site visit.
- g. Process/ product catalogues (standard brochures) and relevant recent publications.
- h. Corporate activities for SBR technology advances. Latest technology developments with reference to reduction in investment, reduction in operating and maintenance costs, new safety and environmental considerations, new product developments, catalyst, etc.
- i. Experience in the implementation of DCS and Advance Process control systems.
- j. Safety and environmental aspects in respect of the offered technology and process scheme.
- k. Information on the following shall be provided:
 - Details on the office, which will support the project.
 - Resume of project manager and lead engineers who will prepare the BEDP for this specific project.
 - Organisation chart of the bidder's team who will be providing the required services.
- l. Format of all agreements including general terms and conditions by BIDDER if any, which will be needed for execution of the contract

- m. Details of latest technology developments with reference to reduction in investment, reduction in operating and maintenance costs, product quality improvements, new safety and environmental considerations, new product developments, etc
- n. Marketing experience including new product grades/ applications developed in the recent past.

6.10 TECHNO-COMMERCIAL PRESENTATION ON BIDDER OFFER

BIDDER would be required to give presentation on their proposal and also to resolve all queries regarding the technical and commercial issues pertaining to the bid. The discussion and presentation will be held before the priced bid opening.

6.11 EXECUTION MODE AND JOINT VENTURE PARTICIPATION

Though the execution mode for the proposed SBR unit is yet to be finalized by BPCL, BPCL remains open to execute the project under a Joint Venture (JV) mode with the selected Bidder. The Bidder is requested to express willingness to participate in the JV mode in the Bid submission. In case the Bidder intends to have equity participation in the JV, the Bidder shall indicate the expected level of equity participation. It is clarified that any such expression of intent does not confer any right to the Bidder, and the final decision on equity participation shall remain at the sole discretion of BPCL.

In case the Bidder intends to have certain rights for marketing of the SBR grades for domestic market, internal consumption in India, and/or overseas markets (the "Product Off-take"), the Bidder shall confirm such intent and specify the volume of Product Off-take desired, with a clear split between domestic and overseas markets. At the time of JV execution, BPCL may fix the product off-take split between domestic and overseas markets.

BPCL prefers to offer Product Off-take only to such Bidders who take equity participation in the JV. However, if any Bidder wishes for Product Off-take without or with lesser equity participation than the off-take volume, the same shall be clearly mentioned in the Bidder's proposal. The decision of BPCL with respect to Product Off-take shall be final and binding. It is further clarified that any expression of intent for Product Off-take does not confer any right to the Bidder, and the final decision shall remain at the sole discretion of BPCL.

7.0 ANNEXURE/ENCLOSURES

ANNEXURE -1: SCOPE OF DESIGN ENGINEERING PACKAGE

ANNEXURE -2: TIME SCHEDULE

ANNEXURE -3: TECHNICAL INFORMATION & GUARANTEE

ANNEXURE-4: INFORMATION IN RESPECT OF OPERATING UNIT (REFERENCE UNIT)

ANNEXURE -5: INFORMATION REQUIRED FOR NPV CALCULATION

ANNEXURE -6: BASIC ENGINEERING DESIGN DATA

ANNEXURE -7: TYPICAL CONTENT OF SMART PLANT DATABASE

ANNEXURE-1.0

SCOPE OF BASIC ENGINEERING DESIGN PACKAGE

1.0 INTRODUCTION

- 1.1 a. The Basic Engineering Design Package (BEDP) shall be prepared conforming to all the design cases specified in Section 2.3, with independent:
- Process flow diagrams indicating operating conditions
 - Heat and Material balances
 - Control and Set Point Summary
 - Utility & Effluent summary
 - Catalyst & Chemical summary.
 - Datasheets conforming to all the design cases and the equipment selection/design case shall be specified in the datasheets.
- b. Licensor to note that the following information (as a minimum) is required to be submitted for check cases:
- Heat and Material Balance
 - PFDs indicating operating conditions
 - Maximum throughput achievable and limiting equipments to achieve 100% throughput.
 - All properties of all products.
- 1.2 The Basic Engineering Design Package (BEDP) which will be prepared by the Licensor shall contain adequate process and mechanical design data and information necessary to enable a competent engineering/ construction contractor to undertake and proceed with the detailed engineering, procurement, construction and commissioning of the unit. All documents are to be prepared with sound design and engineering standards followed in hydrocarbon/petrochemical industry. Licensor to note that the BEDP should comprise of all the data that is required to carry out detailed engineering by detail engineering contractor.
- Licensor to note that Basic Engineering Design Basis Part-B document shall be furnished to Licensor after LOA. This document comprises of balance design basis data defining overall project requirements for making all units compatible and ensuring uniform design practices for the total complex. The Basic Engineering Design Basis Part-B shall be further discussed and finalized during kick-off meeting and the general requirements of the complex which are applicable to the unit shall be agreed and complied by Licensor. The agreed document shall be signed by Licensor and this will form part of the design basis. All documents in Licensor package shall be in line with agreed BEDB PART B and there shall be no deviations allowed. In Case licensor has any issue in following certain design practices outlined in Part B, same shall be discussed during Kick-Off Meeting.
- 1.3 The scope of deliverables shall be in strict conformance with the details given in this document. In case some of the deliverables listed herein do not form part of the usual basic engineering package, for this specific project, Licensor shall make necessary arrangements to satisfy the complete scope of BEDP as defined herein.
- 1.4 Further Licensor is required to provide all control valve sizes with expander reducers

and all PSV sizes with inlet/ outlet line sizing as part of BEDP. These shall be depicted in the P&ID's provided as part of the BEDP. Hydraulics shall be performed as per the equipment layout agreed and finalized during PFD review stage.

- 1.5 All documents shall be in accordance with the Project specifications. Document Numbering and Document/Drawing Template shall be as per Owner's specification. Metric system of units shall be used for all deliverables (except for pipe and nozzle sizes in inches) with the only exception being extended to Licensors own standards which are issuable with their existing units of measurement. Wherever Licensor's own engineering standards are to be necessarily followed with respect to equipment design, piping design, instrumentation design, etc., the same shall be issued to Owner as part of BEDP at no extra cost.
- 1.6 BEDP documents issued by licensor for review need to be submitted only in soft copies. Final Basic Engineering Design Package (BEDP) and operating manuals shall be submitted in three (3) hard copies each. The complete package will also be supplied in editable soft form (native format) for the DEC to update during execution.
- 1.8 Licensor shall provide editable soft copies (in native format) of PFDs, P&IDs and Full BEDP. All Drawings/ documents shall be executed on software such as Microsoft word, Microsoft Excel, AutoCAD, Intelligent P&ID etc., as per requirement specified below:
- All P&IDs to be developed as Intelligent P&IDs with required database. Version of software shall be latest version at the time of execution of Project, same shall also be confirmed during KOM.
 - Refer Annexure-7 for details for intelligent P&ID requirement, typical data to be filled in Database, as minimum. Any additional information shall be decided and finalized during KOM.
 - The integrated Intelligent Platform and database shall be informed by PMC/Owner during Kick-off Meeting of the BEDP Preparation stage. Licensor to comply the requirement confirmed by PMC/Owner during Kick-off Meeting.
 - Develop all other PFD's and engineering drawings using AUTOCAD (Latest Version)
 - All drawings to be given in editable soft form.
 - All drawings shall be made in layer concept and not in single layer basis.

For any design changes issued by the Licensor after BEDP submission as per schedule, the Licensor shall provide editable soft copies of all affected BEDP documents, P&IDs, and other relevant deliverables reflecting such changes at any stage of the Project.

- 1.9 Line list and Equipment/ Instrument Data Sheets shall be provided in MS Excel. Line list/equipment list shall be extracted from intelligent platform. No separate excel format shall be used for generating line list/equipment list.
- 1.10 **CONCURRENT ENGINEERING**
Concurrent engineering will be carried out by Owner/ Consultant during preparation of plot plan, equipment datasheets, hydraulic calculation etc. BIDDER has to provide all the input/ assistance parallel to BEDP preparation. Modalities will be decided at Kick off Meeting. BIDDER shall ensure that process data sheets along with P&ID's for LLI items are provided to Owner/ Consultant for concurrent engineering.

- 1.11 The contents of BEDP shall be, but not necessarily limited to, in accordance with the details described in subsequent sections.
- 1.12 Document revision procedure and change request format shall be established during Kick off meeting. However, Bidder to ensure proper clouding and marking of all changes while submitting the next revision of document after Owner/PMC comments during the course of BEDP preparation. This will ensure smooth and proper review of documents submitted.
- 1.13 The PMC/OWNER will issue the Piping Material Specification (PMS), which shall be incorporated into the intelligent Piping and Instrumentation Diagrams (P&IDs). In the absence of the PMC/OWNER PMS, the Licensor may initially develop the P&IDs using their own standard PMS. However, once the PMC/OWNER -specific PMS is received—provided it is before the PFD review stage—the Licensor shall update and convert all relevant documents to conform to the PMC/OWNER PMS prior to final submission. In case any specific class is not available in PMC/OWNER PMS the same shall be developed by the licensor in the similar format and get it approved from the PMC/OWNER before incorporation.

2.0 BASIS OF DESIGN

- 2.1 The Basis of Design (BOD) will provide all the information agreed upon between Licensor and Owner upon which the design and engineering will be based. It will contain the following minimum information as applicable:
- a) Plant definition including function and scope of the unit.
 - b) Plant capacity, turndown ratio and on-stream hours per year.
 - c) Definition of cases (design/ alternate check cases)
 - d) Feed stock source and specifications highlighting limiting specifications and their impact on unit design.
 - e) Products and their desired target specifications and destinations.
 - f) Estimated and guaranteed products and effluent qualities
 - g) Operating conditions of the major equipment
 - h) Specific design criteria and basis of selecting critical parameters.
 - i) Battery limit conditions.
 - j) Utility source and specifications.
 - k) Environmental requirements.
 - l) Safety requirements.
 - m) Codes and standards followed.
 - n) Site location and infrastructure requirements.
 - o) Local meteorological conditions.
 - p) Units of measurement.
 - q) Drawing standards.
 - r) Special owner requirements, if any.
 - s) Schedule of deliverables including advance release of critical Equipment data
 - t) Co-ordination procedure

3.0 PROCESS DEFINITION

3.1 Process Description

A detailed process description of the unit following the Process (and Utility) Flow Diagrams shall be provided. This shall also include a description of the reaction

chemistry, kinetics, range of critical operating parameters and their impact on product quality and operability, energy consumption, etc.

3.2 Process Flow Diagram

The Process Flow Diagrams (PFDs) shall show the functionality of the unit, with all process streams, process equipment, main utility streams and process control philosophy. PFDs should be prepared for each of the design and check cases grades of SBR.

The following minimum information will be shown on the diagrams:

- a) Process flow with all process streams (including start-up lines) and main utility streams (where they influence process configuration). Intermediate streams such as compressor interstage etc., also to be indicated in the PFD.
- b) All control loops and instrumentation necessary for understanding the process and utility systems regulation philosophy. Where a PFD is inadequate in explaining the complete control and interlock philosophy or as per Licensor standard philosophy, Process Control Diagrams (PCD) shall be additionally generated and issued along with PFD at review stage itself.
- c) Normal operating conditions of major process streams including temperature and pressure profiles along with flow rates.
- d) Equipment number and equipment name shall appear for all major equipment including number of shells for exchangers and number of air coolers.
- e) Number of passes and functional outlines of convection and radiation section, coil arrangements consistent with furnace efficiency improvement strategies such as steam generation, steam superheating, etc. for fired heaters.
- f) Diagrammatic outlines of columns, vessels and reactors indicating operating pressure and temperature at key locations like top, bottom, flash zone and including details of trays, packed sections and other internals, relative location of feed / product and other nozzles, etc.
- g) Functional depiction of heat exchangers indicating operating duties and types of exchangers such as air cooler, shell & tube, plate or spiral, double pipe etc. Allocation of shell and tube side streams.
- h) Functional depiction of pumps and compressors indicating normal flows and types of pumps and compressors such as centrifugal, reciprocating, etc. Driver details in case of turbine driven (Extraction/ condensing)
- i) All process and main utility streams shall be numbered. The numbering shall correspond to Heat and Material balances. When there is a change in temperature, pressure or flow rate of the stream, a new stream number shall be assigned. The enthalpy and material balance information issued with PFD's shall have complete thermo-physical and transport property data for all numbered process streams.
- j) All incoming and outgoing streams shall be flagged showing battery limit pressures and temperatures and indicating their source/ destination.
- k) Preferably stream details to be provided at the bottom of the each PFD.
- l) Broad specifications of equipment required but not limited to are as follows:
 - **Reactors:**
 - Item number
 - Service
 - Diameter & Height

- **Columns:**
 - Item number
 - Service
 - Diameter & Height
- **Vessels and Tanks:**
 - Item number
 - Service
 - Diameter & Height/ Length
- **Heat exchangers:**
 - Item number
 - Service
 - Normal duty
- **Air Cooled Exchangers:**
 - Item number
 - Service
 - Number of bundles
 - Normal duty
- **Furnace:**
 - Item number
 - Service
 - Normal duty (absorbed / fired)
- **Pump:**
 - Item number
 - Service
 - Rated Capacity
 - Differential head
 - Power
- **Compressor:**
 - Item number
 - Service
 - Rated Capacity
 - Differential head
 - Power
- **Silos:**
 - Item number
 - Capacity
 - Material of construction
- **Pneumatic Conveying System:**
 - Item number
 - Capacity
- **Extruder:**
 - Item number
 - Capacity
 - Power
- **Packaged Items:**
 - Item number
 - Service
 - Rated capacity
- **Miscellaneous Items:**
 - Item number
 - Service
 - Rated capacity or any other defining parameter as applicable

3.3 Overall Unit Balance and Product Properties

An overall unit material balance shall be provided for each of the design and check cases grades of SBR for each train.

This overall balance shall include all feed streams to the unit and all product streams from the unit including recycle streams. Section-wise material balance and stream-wise material balance report with component break-down shall be provided. It shall also include a list of all relevant product properties.

3.4 Heat and Material Balance

Heat and Material Balances shall be provided for the following cases, for each revision of PFD.

- All design cases and check cases grades of SBR for each train.

The heat and material data will include as a minimum the following information.

- a) Stream number (corresponding to PFD).
- b) Stream name and phase of fluid.
- c) Total mass & volume flow.
- d) Component wise Heat and Material Balance
- e) Normal operating temperature.
- f) Normal operating pressure.
- g) Density of fluid at operating conditions. (Vapour and Liquid separately also for 2-phase streams)
- h) Specific gravity of liquid components.
- i) Molecular weight of vapour components.
- j) Kinematic Viscosity at operating conditions. (Vapour and liquid separately also for 2-phase streams)
- k) Thermal conductivity at operating conditions. (Vapour and liquid separately also for 2-phase streams)
- l) Specific heat at operating conditions. (Vapour and liquid separately also for 2-phase streams)
- m) Cp/Cv, Compressibility Factor of vapour
- n) Surface Tension
- o) Critical temperature and critical pressure.
- p) Stream composition in both weight and mole basis (Vapour and liquid separately for 2-phase streams)
- q) Stream enthalpy (Vapour and liquid separately for 2-phase streams)
- r) Percentage of free water
- s) True Vapor Pressure
- t) H₂/H₂S content and other corrosive components of relevant streams that may affect the selection of MOC (Vapour and liquid separately for 2-phase streams)
- u) Latent heat of vaporization of each stream.
- v) vapour pressure
- w) Distillation data for Naphtha and Heavier streams
- x) Component breakdown for pure/ pseudo components in mole and weight.

For mixed phase streams, the vapour and liquid phases along with above listed properties will be shown separately. For the total stream: average enthalpy, viscosity, mixed density and mol. wt. shall also be given. Weight % of vapour & free water shall

be indicated.

3.5 Process Control Philosophy & Diagrams

The control philosophy shall cover complete depiction/ explanation of critical and complex controls of the individual sections of the unit indicating all instrumentation for the unit operations inclusive of start-up, shutdown, emergencies, etc. The description of the control philosophies shall be aided by Process Control Diagrams (PCD). Advanced process control strategies, if employed, shall be specifically elaborated.

4.0 MECHANICAL DESIGN

4.1 Material of Construction

Material Selection Diagrams (MSDs) shall be prepared (coloured) showing the design temperature and pressure, and selected materials of construction of all equipment (including internals) and piping including utility side, with corrosion allowance and cladding requirements in sufficient details. Maximum operating temperature scenario shall also be mentioned in the MSD. All equipment data sheets shall clearly detail special requirements if any like Wet H₂S service, NACE, PWHT, H₂ service etc. and other corrosive contents for determining the MOC's. The information on hydrogen content and Hydrogen partial pressure must be included, and requirement of consideration of hydrogen services to be specified. All information for material selection must be included in MSD, P&ID's (in PMS selection) and spec breaks. Equipment datasheets must have complete specification of MOC's as per MSD.

Each stream with a different MOC shall be highlighted using a distinct colour or pattern for easy identification.

5.0 UTILITIES, CHEMICALS AND CATALYSTS

5.1 Utilities

Utility summary shall be provided to cover estimated normal and maximum utility consumption and/or production of the following utilities at process design/ operating conditions:

- a) Service water (Raw water), if required in process.
- b) Boiler Feed Water.
- c) Demineralized (DM) Water.
- d) Cooling Water.
- e) Steam at each level (VHP/HP/MP/LP).
- f) Condensate (of different types i.e., pure, suspect, surface, etc) at each level (VHP/HP/MP/LP).
- g) Blow down Streams
- h) Electric Power*.
- i) Nitrogen (Inert Gas).
- j) Plant Air, if required in process.
- k) Instrument Air.
- l) Fired Fuel Gas/ Fuel oil/ Natural gas

* Refer to Section-10.1 for electrical power consumption.

The estimates are to be provided as minimum, normal and maximum. Apart from continuous utility requirements, complete data must be given on intermittent utility

requirements during start-up, shut down, catalyst regeneration (in case applicable) and emergencies, etc. Some items of the utility summary require vendor design information such as steam for turbines or power for pumps. In such cases, Licensor shall use good engineering judgment or in-house data in arriving at the estimates.

In case due to requirements of the specific process technology or in order to safeguard the facilities by bringing them to a safe shutdown condition, or for any other reason, some utilities (like electric power, cooling water, steam, etc) are required to be made available to the unit during a general power failure, the same shall be clearly indicated by the licensor in the BEDP. The information provided shall cover the following as a minimum:

- a) Names of utilities (like Steam, LT Power, Cooling Water, etc) required during a power failure. Instrument air will be available for 30 minutes after a power failure to facilitate safe shut-down of the unit.
- b) Whether these utilities are required on an uninterruptible basis or they can be restarted after some time upon demand.
- c) Duration for these emergency utilities are required. In case Instrument air is required for more than 30 minutes, same shall be indicated.
- d) Emergency operations to be performed and equipments to be operated using these emergency utilities.

Utility flow diagrams and summary for steam shall be submitted for all possible operating scenarios including start-up, shut down, tripping of steam user, power failure, etc

5.2 Catalysts, Adsorbents, Absorbents and Chemicals

Complete Catalyst properties like trade name and manufacturers, function, characteristics including bulk density, metal content, gravimetric and volumetric analysis of loaded catalyst, catalyst quantity (including contingencies) for initial load as well as annual consumption, expected cycle length and ultimate life, list of vendors, etc., shall be given. This information will also be provided for adsorbents, absorbents, inert balls and grading materials. Recommended method of loading and disposal methods shall also be provided.

Chemical name, characteristics, function, initial load, annual consumption, handling precautions, injection rate, concentration, etc., shall be given for chemicals. For specialty chemicals, list of vendors needs to be included. Chemical requirement during normal operation, start-up, shutdown and regeneration shall be summarized.

Licensor shall provide adequate definition of storage and handling requirements, chemical injection requirements such as normal and maximum dosing rates, delivery pressure and temperature, dosing pattern/frequency, properties which have to be necessarily specified, etc., with which a detailed engineering contractor can develop the full system design without reverting to licensor.

Chemical neutralization/passivation requirements to be identified and suggestions for disposal of passivation effluent to be provided based on earlier experience.

MSDS for catalysts, adsorbents, absorbents, speciality chemicals etc. shall be provided.

Licensor shall provide the detailed specifications and specific consumption data of

catalysts and chemicals as required (per ton of product).

6.0 PROCESS EQUIPMENT DATA

6.1 Process Equipment List

A Process Equipment List shall be provided showing the following information:

- Equipment name/ tag number.
- Equipment type and service.
- Special remarks. This will include information like critical or proprietary items including vendor lists with contact details, specific testing and acceptability criteria, if any.
- Whether the equipment is a Long Lead Item.
- Single vendor item should be listed and reason of single vendor to be specified.

6.2 Equipment Specifications

Specifications for equipment shall be provided with the following, but not limited to, points:

- Each equipment, major as well as minor, proprietary or otherwise, shall be specified through individual Equipment Process Data Sheets.
- Each datasheet shall carry a separate document number and include equipment name, service and identify the case to which the data corresponds.
- Data sheets shall include information on process fluids including physical properties, operating conditions and mechanical design conditions.
- Sketches showing shape, dimensional details of internals and other design information shall be provided for static equipment. Information in the data sheets shall be sufficient to carryout detailed mechanical design.
- Arrangements for steaming/ Vacuum Design/ Nitrogen blanketing of vents, drains, etc., for making the equipment (including heat exchangers) free of hydrocarbons shall be shown in the P&IDs and data sheets.
- Data sheet to be provided for controlling case, Additional cases will be shown for proper design of equipment wherever relevant. Also defined design cases must be included in data sheet. In case intermittent or alternate operating cases (for example catalyst regeneration (if applicable), emergency depressurization, etc) dictate selection of equipment or some component thereof, then the impact of the same shall be reflected appropriately in the equipment data sheet.
- Equipment list and specifications will be reviewed by Owner and Owner's consultant to identify equipments for which performing fatigue analysis will be necessary. This list will be shared with Licensor and Licensor will provide all data necessary for performing fatigue analysis of these equipments.
- All requirements of Design Basis Part B as applicable to the design of equipments shall be incorporated in their specifications by licensor.
- In case steam coils are required for some equipment, details of steam coil, i.e., size, pitch, number of turns and number of coils will be included in the data sheet.
- IBR – requirements to be mandatorily followed in this project. For all equipment to be designed as per Indian Boiler Regulations (IBR) requirements, a note shall be included by the Licensor stating "IBR applies". Details of IBR requirements to be followed will be provided to Licensor during Kick-Off Meeting.

- A note stating that equipment shall be subjected to steam out condition shall be specified in equipment that are required to be steamed out during maintenance. Steam out condition (pressure, temperature) shall be specified as per Design Basis Part-B.
- Insulation requirement and insulation thickness shall be indicated for all equipment where ever it is applicable. Insulation thickness shall be as per the insulation table in Design Basis Part-B.
- Requirement of cathodic protection shall be specified wherever applicable.
- MDMT to be provided in datasheets.
- Licensor shall provide list of mandatory vendors for major equipment along with BDEP.

The information to be provided for specific types of equipment is given below:

6.2.1 HEAT EXCHANGERS/AIR COOLERS

- a) Process conditions including fluid flow rates with breakup of vapour/ liquid/ steam/ water/ non-condensables, density, viscosity, thermal conductivity, surface tension (for two-phase conditions), critical temperature and pressure (for re-boiled streams), Mol Wt (if vapour), specific heat, over capacity on flow and duty etc.
- b) Operating temperature and pressure for inlet and outlet streams.
- c) Heat transfer duty and heating/ cooling curves as required. Any limitations with respect to fluid velocity, heat flux, etc. to be included.
- d) Vaporization & condensation data including critical pressure/ temperatures shall be provided for exchangers encountering two phase flow.
- e) Mechanical design conditions. Licensor shall follow good engineering practice in evaluating system hydraulics and accordingly fix mechanical design conditions. It shall be reasonably ensured that such design conditions will not require to be revised upwards during Detailed Engineering.
- f) Fouling factors
- g) Materials of construction and corrosion allowance (for shell and tube side components).
- h) Type of exchanger/ number of shells.
- i) Insulation requirement shall be indicated.
- j) Allowable pressure drop.
- k) Allowable pressure drops indicative above should be used in unit hydraulics executed by Licensor. When a group of exchangers, say multiple shells in series, together are designed within a pressure drop limit, the same shall be indicated. Any preference/ limitation in stacking of heat exchangers also to be indicated, where applicable.
- l) For proprietary heat exchangers, thermal and mechanical design is also included in Licensor's scope, the details shall be complete to the extent relevant and necessary for procurement as per industry practice.
- m) Type of control required in air cooler
- n) Schematic arrangement of shells/ bays and special piping requirements for inlet and outlet manifolds etc., if any (for e.g. distance, symmetrical arrangement etc.)
- o) For congealing services, i.e., services handling fluids having their pour point below minimum ambient temperature, LP steam coils for preheating the air to a

temperature at least equal to the fluid pour point before it enters the air cooler shall be provided. Hot air recirculation will not be specified for the air-cooled exchangers.

- p) Requirement of emergency power supply for air cooler fans.
- q) Requirement of variable speed drives for air coolers fan motors.
- r) Requirement of reacceleration feature for air coolers fan motors.

6.2.2 PUMPS

- a) Process conditions such as minimum, normal and maximum flow rates/ normal & upset suction & discharge conditions/operating temperature & pressure, rated discharge pressure and NPSH available. NPSHA shall be specified reasonably so that it need not be revised upward to have vendor during detail engineering.
- b) Fluid density, viscosity, pour point, vapours pressure and annotations towards presence of toxic, corrosive or erosive materials.
- c) Mechanical design conditions. Licensor shall follow good engineering practice and typical vendor information in specifying these. It shall be reasonably ensured that such design conditions are not required to be revised upward during detailed engineering. Set pressure data of discharge PSVs for positive displacement pump shall be provided in pump process datasheet.
- d) Materials of construction, corrosion allowance of casing & internals and insulation / tracing requirements.
- e) Number of operating & spare pumps.
- f) Type of pumps
- g) Recommended type of pump drive for main and spare pumps and estimated brake KW, assumed efficiency, Estimated utility of driver
- h) Requirement of VFD, Auto start, reacceleration, Emergency power supply
- i) Capacity control and ranges where relevant.
- j) Differential head.
- k) Type of seal (Single / Double) and Recommended API seal Plan
- l) Any other specific construction data (e.g., cooling requirements, external flushing requirements, etc.).
- m) Estimated Shut – off pressures to be reported in pump datasheet.
- n) For pumps in congealing service, pour point to be mentioned in pump datasheet.
- o) For pumps handling sludge / solid particles, details of solid particles such as max concentration of solid handled and max particle size diameter to be reported in pump datasheet.
- p) Requirement of reacceleration feature for motors.

6.2.3 VESSELS/ COLUMNS/ REACTORS/ DRUMS

This section covers the minimum specifications for reactors, columns, drums required in the BEDP, covering the process design of the vessels including internals (distributor, outlet collector, unloading nozzle, etc.)

- a) Vessel/ Column/ Reactor/ Drum name and tag number, Quantity, Diameter and height or length
- b) Sketches of Vessel/ Column/ Reactor/ Drum layouts showing dimensions, tentative elevations, location of nozzles and man ways, internals such as trays, demisters, packed sections, catalyst sections, collector trays, Tray spacing, number of trays, Key tray numbers and locations, gravity or spray distributors, support grids, type of head, etc. Vessel diameter shall be expressed as ID for vessel shells and OD for vessel boots.
- c) Process design conditions (including Density of liquid at operating conditions). Mechanical design conditions to be reported for both top and bottom of the columns and reactors. MDMT shall be specified for all the columns, vessels and reactors.
- d) Mechanical design condition (internal and external if any) including recommendations, if any, on jacketing, stress relieving, insulation, surface finishing, etc. Licensor shall follow good engineering practice in evaluating system hydraulics and pressure relieving conditions (including considerations such as impact of vapour blow backs for high pressure vessel to low pressure vessel letdowns) and accordingly fix the mechanical design conditions. It shall be reasonably ensured that such design conditions will not require to be revised upwards in the course of detailed engineering.
- e) Materials of construction and corrosion allowance of shell & internals, Insulation requirements. Cladding requirements, Recommendations for post weld heat treatment, if required for corrosion reason.
- f) Number, type and spacing of trays for towers.
- g) Number, type & height of packed beds.
- h) Elevation, size and service of nozzles.
- i) Process data sheets for trays/ packed bed sections.
- j) Details and design data of other internals like demisters, distributors, linings, etc.
- k) High, low and normal liquid levels in vessels and tower bottoms/ collector trays (including interface levels).
- l) Vapour-liquid traffic data for trays and packed internals, indicating fluid flowrates, operating conditions, fluid density, fluid viscosity, liquid surface tension, allowable pressure drop, vapour molecular weight, etc.
- m) For reactors: Mechanical design conditions (including temperature, pressure drops, loads), and arrangement for reactor internals, catalyst beds arrangement and arrangement drawings for thermocouples and wells in reactors, Catalyst regeneration conditions if applicable.
- n) For columns: Other specific inputs:
 - Additional sketches, as required to show locations, sizes or orientation for particular column components especially for top tray, bottom tray and transition zones (sketches of distributors and redistributors):
 - Type of flow: single, double, 4-way cross flow

- Typical arrangement of down-comer for top and bottom
 - Typical arrangement of inlet/outlet weirs and notching, if required
 - Special tray features such as seal pans, draw-off pots when required
- o) Separate tray design data sheets for each column section, which detail the following:
- Type of tray (definition of valves, sieve, bubble-cap, or baffle tray)
 - Reference column number
 - Tray number as labeled on column process sketch
 - Inside diameter
 - Normal tray spacing
 - Material of construction
 - Operating temperature and pressure
 - Number of passes
 - Turn down and over-design requirements
 - At normal loading, the vapor and liquid loadings, vapor and liquid density, liquid viscosity, surface tension
 - Allowable pressure drop
 - Design maximum flooding factor
 - Foaming factor
 - Tray support details (in case trays are proprietary or supplied by mandatory vendor)
- p) Separate packing design data sheets for each column section, which detail the following:
- Type of packing
 - Reference column number
 - Bed number and estimated height
 - Inside diameter
 - Material of construction of packing
 - Operating temperature and pressure
 - Turn down and over-design requirements
 - At normal loading, the data for vapor and liquid loadings, vapor and liquid density, liquid viscosity, surface tension
 - Allowable pressure drop
 - Design maximum flooding factor
 - Foaming factor

6.2.4 HEATERS

- a) Fluid flow rates with breakup of vapor/ liquid/ steam/ water/ non-condensable, density, viscosity, thermal conductivity, surface tension and vaporization curve correlating pressure, temperature, enthalpy and percent vaporized, Mol Wt (if vapour), specific heat, over capacity on flow and duty, turndown achievable.
- b) Operating temperature and pressure.
- c) Mechanical design conditions. Licensor shall follow good engineering practice in evaluating system hydraulics and accordingly fix the mechanical design conditions.

It shall be reasonably ensured that such design conditions will not require to be revised upwards in the course of detailed engineering

- d) Allowable pressure drop.
- e) Allowable pressure drops indicated above shall be used in unit hydraulics executed by Licensor.
- f) Materials of construction and corrosion allowance.
- g) Fouling factor or expected coke thickness.
- h) Type of heater, e.g., cabin type or vertical cylindrical, natural draft or forced draft, double fired or single fired, etc.
- i) Heat transfer duty/ absorbed heat for each section. Whether limitations such as minimum fluid velocities, maximum heat flux, etc., apply.
- j) Fuel data for fired heaters.
- k) Thermal efficiency of heater and strategies for improving efficiency towards a target of 90% or more. These shall be evaluated in the course of BEDP preparation and review.
- l) For proprietary heaters thermal and mechanical design is also included in licensor's scope and licensor to provide details complete to the extent relevant and necessary as per industry practice and would include detailed evaluation of heater efficiency measures.
 - Conceptual preliminary Heater/ APH system P&ID's along with Logic shutdown and heater schematic sketch
 - Details of burner(s) along with details of ignition equipment and flame scanning devices. Insulation details, including notes on recommended method of application and precautions, if any.
- m) For CO boilers and waste heat boilers, when envisaged within unit, a duty specification will be provided, A Process data sheet will be supplied with following information:

Service, Type when relevant, Operating Case identification, controlling case for design

6.2.5 COMPRESSORS/ TURBINES/ BLOWERS/ FANS

- a) Gas flow rates with pure component composition breakup, dry and wet molecular weights, range of molecular weights for machine specification, compressibility factor, C_p/C_v ratio, gas density, gas viscosity, etc.
- b) Operating temperature and pressure at inlet and outlet conditions.
- c) Minimum/ normal/ maximum flow rates.
- d) Turndown and turn up ratios.
- e) Mechanical design conditions. Licensor shall follow good engineering practice and typical vendor information in specifying these. It shall be reasonably ensured that such design conditions will not require to be revised upward in the course of detail engineering.
- f) Number of stages
- g) Number of operating & spare units.

- h) Materials of construction and corrosion allowance (casing and internals).
- i) Recommended type of main and spare machine and machine drive including estimated shaft KW, assumed polytropic/ adiabatic efficiency and head,
- j) Estimated utility consumptions,
- k) Recommended seal type,
- l) Dew Point of vapour at each stage
- m) Capacity control mechanism and ranges, where relevant. (Step control process requirements)
- n) Estimated settle out pressure
- o) Anti surge facilities.
- p) Operating conditions for start-up/ regeneration (if applicable).
- q) Number of stages required for compressor to be specified by licensor. Licensor shall size and provide datasheets for all the interstage coolers and interstage knock out drums as per the requirements given for vessels and heat exchangers. The compressor shall not be considered as packaged item
- r) Type of compressor, if the machine is lubricated or non- lubricated based on the service required.
- s) For reciprocating compressors, the spill back lines and coolers will be separate for each stage and no clubbing of spillback lines will be practised. Spillback circuits including lines, control valves and coolers shall be specified for 100% of relevant compressor stage rated flow through spillback.
- t) For centrifugal compressors, the anti-surge circuit including line, control valve and anti-surge cooler, if applicable, shall be sized for minimum 100% of relevant compressor stage rated flow. In case anti surge cooler is specified, the same shall be specified as a cooling water exchanger. These specifications will be further reviewed and updated by the compressor vendor during detailed engineering.
- u) For centrifugal compressors, in case free draining of inlet and/or outlet lines of some or all stages is required away from the compressor, a note shall be provided as follows: "In case of bottom entry and/or bottom exit compressor, low pocket(s) with appropriate draining arrangements to closed blow down system shall be provided to limit the elevation of the compressor to reasonable levels."
- v) Requirement of variable speed drives for motors for motor driven machines.
- w) Requirement of reacceleration feature for motors for motor driven machines.

6.2.6 FILTERS/ STRAINERS

- a) Design flow rates, fluid density and viscosity, pour point and annotations towards presence of toxic, corrosive and erosive materials. Adequate particle size distribution and % solids data shall be included for design of filters.
- b) Operating temperature and pressure, allowable system pressure drop, filtration efficiency, etc.
- c) Mechanical design conditions. Licensor shall follow good engineering practice and typical vendor information in specifying these. It shall be reasonably ensured that such design conditions will not require to be revised upward in the course of detail engineering.
- d) Materials of construction and corrosion allowance of filter casing & internals and

insulation / tracing requirements.

- e) Type of filter.
- f) In case of automatic backwash type filter: maximum flux rate, information on backwash system design like applicable back wash fluid (i.e., filtered fluid or external fluid), frequency of backwash, supply and return pressures of backwash fluid, size of backwash fluid supply/ return holdup & pumping arrangements, etc. P&Ids and datasheets for equipment in backwash handling system shall also be provided.
- g) Noise limitations (if applicable).
- h) Mesh Size, filter feed particle distribution.
- i) Type of filter
- j) Quick opening requirement
- k) Whether steam out, if applicable, shall be done keeping element in place

6.2.7 MIXERS

- a) Process design conditions.
- b) Mechanical design conditions.
- c) Materials of construction.
- d) Type & extent of mixing action.
- e) Type of mixer and driver (if applicable).
- f) Power consumption (if applicable).
- g) Noise limitations.
- h) Allowable pressure drop in mixers.
- i) Orientation with typical sketch

6.2.8 MISCELLANEOUS EQUIPMENT

The datasheets/ characteristics for miscellaneous equipment (chemical injection system, vacuum system, ejector, eductor, desuperheaters, flame arrestor, silencers, Extruder, conveying system, bagging system or any other miscellaneous equipment/package envisaged in the unit) shall be provided. This shall also include process performance specifications, fluid properties as relevant, mechanical design conditions, materials of construction and corrosion allowance, power consumption (if applicable), noise limitations (if applicable), etc. Licensor shall follow good engineering practice and typical vendor information in specifying these.

Datasheets for Chemical injection facilities (data sheet of vessels, pumps, metering, unloading facility etc) in detail shall be provided. Licensor shall provide adequate definition of chemical injection requirements such as normal and maximum dosing rates, delivery pressure and temperature, properties which have to be necessarily specified, etc., with which a detailed engineering contractor can develop the full system design without reverting to licensor.

Datasheet for Specialty piping items (mixers, injection nozzles, low delta P check valve, etc.) to be provided in BEDP.

7.0 SAFETY, HEALTH & ENVIRONMENT

7.1 Hazardous Chemicals

Physical and chemical properties of all hazardous chemicals and streams present in the unit shall be defined and provided in completeness. The applicable Material Safety Data Sheets (MSDS) shall be included. In case, any additional MSDS is required for any intermediate stream handled within the unit during detail engineering, the same shall be furnished to Licensee by Licensor without any extra charges.

7.2 Safety Requirements

Design shall incorporate latest features of environment protection & occupational safety. It shall incorporate various safety features in line with international safety standards and design practices. These should include but not limited to following provisions.

- a. Necessary interlocks and automation to enhance operational safety.
- b. Special safety requirements such as leak detectors, snuffing rings around leak prone flanges and online analyzers required during operation, decoking etc.
- c. Provision for H₂S, hydrogen and hydrocarbon detectors in the platform or location where operators will be required to approach during operation/ maintenance.
- d. Special fire fighting and safety system as necessary.
- e. Measures for handling of emergency shut-down; shut down valve required for emergency isolation/ inventory containment shall be evaluated and specified on the P&ID wherever required.
- f. Smart positioners (Partial Stroke Testing) for Fail Close Emergency Shut Down (ESD) valves.
- g. In-built facilities for safe guarding the process system in any type of emergency/ failure.
- h. Use of combustion and burner technology to achieve low levels of noxious components in the flue gases.
- i. Closed sampling systems.
- j. Audio visual alert devices.
- k. Necessary interlocks with appropriate SIL ratings to enhance operational safety
- l. Open deck piping layout which are ergonomically designed
- m. Design of overpressure relieving systems based on international safety standards/ codes.
- n. FCI Leakage class VI shall be considered for emergency depress using /Dump valve services and the shall be indicated in the P&ID.
- o. Smart positioners for all Emergency Shut Down (ESD) valves.

The following shall be provided by the Licensor in their design.

- Special safety requirement such as Hydrogen/ H₂S/ Hydrocarbon leak detectors
- Snuffing steam rings around leak prone flanges etc. to be indicated wherever necessary. The number required along with the location to be identified.
- Guidelines for any specialized fire protection and gas detection system for protection of equipment and personnel shall be provided. A conceptual layout & design of any specialized fire-fighting system and personnel protective facilities to be provided by Licensor, showing recommended sensory instruments, protective apparatus etc.

P&ID furnished in the Process Package would incorporate preventive measures for the identified hazards based on HAZOP studies conducted by the Licensor. Licensor shall ensure to the effect that the design of the unit is safe for operation. However, during detailed engineering, the identified hazards will be analyzed and preventive measures will be incorporated in the design to prevent the hazards. Licensor to include data on release rates, conditions etc. for hazardous release cases, so as to enable carrying out consequence analysis using Dispersion Model.

Licensor to provide the following documents as part of BEDP:

- SIL assessment report for Safety Instrumented Functions
- Safety Requirements specification and SIS Testing procedure.

BEDP shall contain a description of the major potential hazards and safety system employed to control those potential hazards and sufficient information for HAZID.

BEDP shall specify the Safety Integrity Level (SIL) for the design of the unit. System shall be designed for appropriate SIL rating required as per accepted international practices/ standards.

7.3 Plant Waste Effluents

All unit waste effluents and by-products (gaseous, liquid and solid) produced continuously or intermittently shall be identified and estimated quantity and quality shall be described (physical and chemical characteristics in format by Owner). For intermittent users frequency with quantity shall be specified. Recommended treatment/ disposal methodologies shall be given. An estimate of emissions, leaks and losses of chemical compounds shall be provided.

All hazardous vents from the Unit to be routed to Incinerator or Flare. No venting to atmosphere is permitted for such gases.

BIDDER to include Pretreatment, if any, for waste water in their scope.

BIDDER shall provide completed emission tables as indicated in Table 7.1 – Table 7.4.

7.4 Flare Load Summary

For gaseous effluents connected to flare, a summary of flare loads shall be provided which will summarise the unit flare load for all relevant cases such as cooling water failure, general power failure, fire case, blocked discharge, any operational failure etc.

Loads like venting of Hydrogen and any other gases during start-ups and emergency depressurizations etc. are to be provided to enable design of the flare network and stack accordingly.

The flare load summary shall include an itemized summary of each PSV contributing to the flare load under different scenarios, along with the corresponding relieving conditions.

Licensor to carry out Flare mitigation study inclusive of dynamic simulation for minimizing flare load from the unit as a part of BDEP without any extra implication to the Owner. Flare mitigation for the unit shall be carried out keeping in view of agreed mitigation philosophy for entire complex.

Flare mitigation measures will be adopted to bring down the relief loads from the unit, with the instrumented reduction of flare load, studies like HIPPS (High Integrity Pressure Protection System) and SIL (Safety Integrity Level) shall have to be carried out in BEDP in order to ensure safety of the plant under various eventualities.

To reduce the resulting flare load, highly reliable safety Instrumented systems (SIS) will be adopted that take action during a global overpressure event to reduce the number of pressure relief devices discharging concurrently.

Flare mitigation study & results of dynamic simulation will be provided as a report which would be finalized with the Licensor during P&ID review. The recommendations/provisions of this report (Hardware, instrument, specifications etc.) finalized thereof shall be incorporated by the Licensor in P&IDs and other documents of the BDEP.

Licensor will provide unmitigated as well as mitigated loads for PSVs of the mitigated services for both liquid and vapor. Licensor to also provide necessary input in case additional flare mitigation are agreed mutually. The flare mitigation strategy will be applicable for both vapour as well as liquid Loads.

Flare load data corresponding to unit start up and shutdown shall also be provided by licensor.

- 7.5 Bidder to provide preliminary hazardous area classification drawing, Bidder to also provide list with material properties (for all catalysts, chemicals, solvents, additives, adsorbent, absorbent, donor etc used in process) including chemical name, flash point, auto-ignition temperature, explosive limits, vapour pressure, gas group, temperature class, boiling point, density, and viscosity. For dusts, additional data shall include particle size, minimum ignition energy, ignition temperature, Kst, and Pmax for hazardous area classification.

Table 7.1: Emissions

Stream No	Stream Description	Flow Rate (Nm ³ /hr) Normal / Max	Emission/ Discharge Frequency	Before Treatment	Treatment Measure	After Treatment	Discharge Parameters			Emission/ Discharge Destination
				*** BIDDER shall provide composition and flow data per contaminant		*** BIDDER shall provide composition and flow data per contaminant	Height of Stack	Stack Inside Diameter	Temperature at Stack Outlet	

Table 7.2: Waste Water Discharge

Stream No	Stream Description	Flow Rate (m ³ /hr) Normal / Max	Emission/ Discharge Frequency	Before Treatment	Treatment Measure	After Treatment	Discharge Parameters			Emission/ Discharge Destination
				*** BIDDER shall provide composition and flow data per contaminant ¹		*** BIDDER shall provide composition and flow data per contaminant ¹	T (°C)	Density (kg/m ³)	pH	

¹ Including TSS, TDS, TOC, BOD, COD, Organics & Metals, if any

Table 7.3: Waste Solid or Liquid (non-Waste Water Liquids) Discharge/effluents

Stream Number	Stream Description	Flow Rate (MT/year) Normal / Max	Emission/ Discharge Frequency	*** BIDDER shall provide composition and flow data per contaminant	Hazardous Components	T(°C)	Batch Quantity, if applicable (kg)	Density (Bulk) (kg/m ³)	Viscosity (cP)	HHV (kJ/kg)	LHV (kJ/kg)	Emission/ Discharge Destination

Table 7.4: Noise Emissions

Source Number	Equipment Name	Frequency Range (Hz)	Emission Frequency	Noise Intensity (dBA)		Mitigation Measure	Equipment Placement Height (m)
				Before Mitigation	After Mitigation		

8.0 PIPING & INSTRUMENTATION DIAGRAMS

8.1 Piping & Instrumentation Diagrams

Piping and Instrumentation Diagrams (P&IDs) of the unit shall be provided. The purpose of P&IDs is to allocate, identify and specify all piping items and instruments in the unit, consistent with the process flow scheme on the PFDs. The P&IDs shall include all process lines, utility lines to individual process consumers, all start-up/shut down lines, instrumentation for control, monitoring and interlocks.

P&IDs, equipment numbering, equipment naming, instrument numbering and line numbering philosophies and symbols/ legends shall be as per Owner's system which shall be provided at the time of Design Basis finalization.

Licensors will provide P&IDs in Intelligent P&ID showing process equipment, piping with line sizes, essential instrumentation, piping classes, insulation and heat tracing, and equipment elevations etc. using LICENSEE SEED files/drawing requirements. In lieu, of using LICENSEE provided SEED files, LICENSOR will use out of the box Intelligent P&ID configuration. The Intelligent P&IDs should contain filled up database. Typical requirements for database of Intelligent Plant are attached as Annexure-7. However, any additional requirement shall be discussed during BEDP preparation stage. SEED file shall be provided by OWNER/EIL during Kick off meeting to the selected licensor.

The following information, as a minimum, shall be included in the P&IDs by Licensor:

8.1.1 PIPING

- a) All process lines required for all operating modes of the unit including normal operation and abnormal conditions such as start-up, shutdown, flushing and regeneration, if applicable. Lines traversing between P&IDs as well as lines at unit battery limits will bear flagged connecting arrow-boxes.
- b) All utility lines required to individual process consumers. It stands clarified that a cooling water line to an exchanger such as product cooler is a process service and will have to be shown whereas cooling water line to a pump casing cooling is a non-process service and need not be shown. Also, utility distribution P&ID, showing unit utility headers and connections as per equipment layout, is excluded from Licensor's scope.
- c) Line size, Line number & piping class designation and insulation types for all process lines, process drain/ vent lines and utility lines. Line numbering philosophy shall be as per owner.
- d) Separate line numbers to be provided for individual pump suction and discharge lines or inlet/outlet lines of any spare/ standby equipment, and lines connecting number of shells of heat exchangers as applicable. For air cooler inlet and outlet, separate line number to be adopted with appropriate spec breaks (if required). In general separate line number is to be provided whenever line crosses any equipment, piping spec break and for all branch lines including drain and vent.
- e) Special piping items, like valves, spool pieces, spectacle blinds, process drains, vents, etc. will all be indicated. Owner shall furnish his own standard details for selected licensor to review and follow as agreed upon.
- f) Pressure relief valve inlet and outlet piping sizes (even if preliminary) and

annotations towards location relative to connected equipment.

- g) Insulation, heat tracing (steam or electrical) and jacketing wherever required for process reasons.
- h) Requirements for sampling to be indicated. List and types of sample connections to be used based on Owner/ licensor standard drawings and specifications to be indicated in P&IDs.
- i) Special arrangements like relative elevation differences of lines, sloping of lines, hot or cold flushing, purge/blanketing, minimum distance requirements, etc. shall be clearly identified wherever relevant.
- j) Two phase line to be clearly identified with a note specifying appropriate supporting requirements for the same.
- k) Spec breaks, insulation break to be clearly indicated for all the lines.
- l) Requirement for flushing oil injection on lines handling high pour point fluid
- m) Details of injection points to be provided wherever required.
- n) Valving: Air failure position of control and on/off valves, TSO requirements for on/off valves or control valves (when safety action is required, on/off valve will be installed as a standard/no solenoid on control valves), LO/LC requirements (key required for valve manipulation will be preferred to CSO/CSC, seal that can be removed on field for manipulation. To be confirmed during PIDs review), Check valves required on process lines, Check valves required on utilities lines (excluding utilities Piping Network), Control valve bypass, Hand wheel, Mechanical or key interlocks, Limit switches, Actuator type pneumatic/electric (As a standard, all on /off valves are specified with pneumatic actuators.
- o) Fittings: Spectacle blinds on lines used only for Start-up and Shutdown, Spectacle blinds required for positive isolation between two process fluids, spectacle/ spacer blinds for equipment isolation for positive isolation/ maintenance, Requirement for flushing oil injection on lines handling high pour point fluid, Details of injection.
- p) Any Special valve trim, in case required.
- q) All the details indicated in the legend P&ID or elsewhere in the P&ID shall be cross referenced at relevant location as part of P&ID.
- r) Special piping items (Special Valves, low pressure drop check valve, injection quills etc.) shall be provided with tag number and indicated in the P&ID. Datasheet for the same shall be provided.
- s) IBR requirements as applicable to piping and instrumentation will be followed in the P&IDs. IBR requirements will be informed to Licensor as part of BEDB Part B during the Kick-Off Meeting.
- t) Interface P&IDs showing all lines (process and utility) entering or leaving the unit along with their battery limit instruments and isolation arrangements shall be included in the BEDP.
- u) Inventory Isolation valves, as applicable, to be provided in P&IDs

- v) Lines for alternate destination, off-spec (to be reviewed and approved by LICENSEE)
- w) Equipment by-pass lines for alternate operation (to be reviewed and approved by Owner as well as Licensor)
- x) Single interface P&ID indicating all incoming and outgoing lines from the unit along with their battery limit isolation valve assemblies.
- y) Thermal gradient of flare header shall be provided
- z) Plant maintenance/commissioning related aspects shall be incorporated by licensor as per their philosophy. Moreover, licensor shall consider requirement of break up flanges, removal spool pieces for equipment maintenance, spacer & blind for higher rating pipe classes shall be considered as per Owner/consultant's inputs

8.1.2 INSTRUMENTATION

- a) All instruments with their tag numbers for all operating modes of the unit including start-up, shutdown and emergency situations. Signals traversing between P&IDs as well as at battery limits will bear flagged connecting arrow-boxes.
- b) All instruments required from a process stand point on utility lines to individual process consumers. Definition of a process service is as defined above for piping.
- c) Instrument number, instrument designation as per ISA, insulation/ tracing requirements for all instruments. Instrument numbering philosophy shall be as per Owner's system. All instrument P&ID symbols shall follow ISA symbols.
- d) Control loops and instruments for proper and safe operation.
- e) Size and air failure position of control valves. Type of control valve manifold either in the P&ID itself or as a legend referring to a specific table of valve size vis-a-vis manifold valve sizes to be followed.
- f) All control valve sizes to be incorporated in the P&IDs along with the depiction of the required reducers and expanders.
- g) Clear identification of all hardware and software instruments both in field and in control room, philosophy of automated trips and start-ups, alarms, etc.
- h) Set pressure and recommended size of pressure relief valves.
- i) All PSV sizes to be incorporated in the P&IDs along with the inlet and outlet line sizing/ numbering and piping spec break wherever applicable by Licensors. Rupture disk to be provided for PSVs, if required based on the process conditions and fluid properties being handled.
- j) Single tapping for multiple instruments not permitted. Separate tapping shall be used for each Instrument.
- k) Additional instrumentation for flare mitigation as agreed and instruments as required for operation as per owner's requirements to be incorporated with tagging and specification.
- l) Process switches, shall be realised only through field transmitters.
- m) All instruments required for demonstrating performance guarantees of Licensors

shall be ensured by the Licensor in the P&IDs.

- n) In case locked open (LO) gate valves are provided on the inlet and/or outlet lines of safety valves, the same shall be arranged with their stems either in the horizontal or in the vertically down position so that breakage of stem and falling of gate does not block the PSV discharge line.
- o) A summary I/O count for the Distributed Control System/programmable logic controller shall be furnished.
- p) Analysers/ sample connections supply and return tapping shall be indicated in P&IDs.
- q) Any On-off valve (along with actuator and accessories) required to be fire safe shall be indicated in the P&ID.
- r) All tags in the same loop shall have same numerical value tag no. even if they appear in different P&IDs.
- s) All Level instrument drain and vent shall normally be plugged. If Licensor has any specific requirement of connecting any level instrument drains to the CBD system and vent to flare, same to be indicated in the P&ID against the applicable tags.
- t) Requirement of interlock bypass / Startup bypass switches shall be depicted in P&ID along with tag numbers.
- u) For all temperature loops, Temperature element along with Temperature Transmitter shall be indicated.

8.1.3 EQUIPMENT

The equipment on the P&IDs will show the tag number and service name, mechanical design pressure and temperature of all equipment (major as well as minor, normal as well as spare) along with the following data in line with the information provided on equipment data sheets:

- a) Functional outline sketch of equipment (using licensor's symbology of depicting equipment) showing all connected process and process related utility piping and nozzles
- b) Columns: Diameter, height, all nozzles, Manholes, Drain, vent (connected on pipe by default), Utility connections (only nozzle and isolation valve), Steam out connections to columns, Tracing/Steam coil, Columns major Internals (columns shall be shown on P&IDs in accordance with general arrangement of column Data sheet, except for trays. For trays show transition zones, draw off, top, bottom, feed and reflux trays and whenever required for instrument localization). Vortex breakers shall be shown. All internals such as trays, demisters, packed sections, collector trays, gravity or spray distributors, etc. shall be shown.
- c) Vessels/ Reactors: Diameter, length/ height. All nozzles, Manholes, Drain, vent (connected on pipe by default), Utility connections (only nozzle and isolation valve), Steam out connections to vessels, Tracing/Steam coil, Drums internals including demisters, baffles etc. (drums/ reactors shall be shown on P&IDs in accordance with general arrangement of drum/ reactor Datasheet). Vortex breakers shall be shown. Dryers and reactors major internals to be shown.
- d) Heat exchangers: Rated heat duty, TEMA type of heat exchanger, number of shells with piping arrangement, line numbers, instrumentation details etc. (coldest shell is tagged as "Shell A". For utilities, cooled fluids will be shown from top to bottom and

heated fluid from bottom to top. For process fluid, no specific recommendation). Stacking of shells where relevant. Line numbering for lines connecting two shells (if these are not stacked). Detail piping arrangement for exchanger shells.

- e) Compressors: Type, Rated volumetric flow rate, differential pressure/ head, Strainers, Motor/Steam/Gas turbine, Power recovery turbine as applicable, Nitrogen and Flare connection lines (process purpose). For steam driven compressors, complete details of turbines covering all required instrumentation for control and trip shall be provided as a minimum.
- f) Pumps: Type, Rated volumetric flow rate, differential pressure/ head, Strainers, Steam/Gas turbine, Power recovery turbine, as applicable. For steam driven pumps, complete details of turbines covering all required instrumentation for control and trip shall be provided as a minimum
- g) Air Coolers: Complete details of air coolers like Number of air coolers, Inlet and outlet line numbers from air cooler and the complete detailed piping arrangement, Instrumentation and control system, line numbers, instrumentation details etc. as per agreed philosophy, Variable Speed Driver, Variable Pitch (if required for process reasons), Vibration switches on each fan to trip respective fan on sensing high vibration.
- h) Fired Heaters: Typical representation, with line numbers and instrumentation for common feed/transfer line, Neutralization nozzles (if applicable),
- i) Filters: type etc., instruments required and safety valves.
- j) Miscellaneous:
 - Vendor Packages with the connections of the minimum instrumentation and control required from process point of view. Complete process/ utility battery limit connections also to be shown in sufficient details.
 - Desuperheaters, Silencers, Flame arrestors, Static mixers etc. to be shown in sufficient details.
- k) Type and number of static and rotating equipment with driver type.
- l) Position and elevation requirements. For vessels with connected pumps, this elevation will correspond to equipment elevation in equipment layout after ensuring that pump NPSHA requirements have been met.
- m) Insulation/ tracing requirements.
- n) All equipment required in the unit, major as well as minor, normal as well as spare, shall be shown in the P&IDs.
- o) For compressors: Licensor shall indicate the number of stages along with inter stage coolers and knock out drums in the P&IDs including all the instrumentation and piping requirements.

8.2 Process Cause and Effect Diagram

A Process Cause and Effect Diagram (PC&ED) shall be provided. The PC&ED gives an overview of the process related safeguarding controls ("trips" or "shutdowns") as described in the Process Control Philosophy and shown on the P&IDs.

The PC&ED shows causes (e.g.: high pressure protection by a switch) and their effects (e.g.: plant depressurizing, compressor trip) in the form of a matrix-diagram.

The PC&ED forms the basis for the detailed design of the safeguarding system and has to be considered as an integral part of the P&IDs.

8.3 Interlock Description and Logic Descriptions

Interlock descriptions and logic descriptions, Complex/critical loop description shall be provided. Logic description shall indicate the emergency shutdown causes and the effects on the emergency shutdown valves as installed in the unit. Control algorithms of special loops, if any, used for operability/ optimization will be provided with explanation.

Minimum SIL requirement for each Safety Instrumented System (SIS) shall be identified by Licensor.

9.0 PLANT DESIGN

9.1 Equipment Layout

A conceptual equipment layout for the unit with major dimensions showing all process equipment, accessories and battery limit shall be provided. The equipment layout shall meet all stipulations of Oil Industry Safety Directorate (OISD 118). This drawing shall include the following:

- Specific location of equipment based on construction/ operating/ maintenance requirements, and on safety aspects taking into consideration owner's broad requirement towards inter equipment distances and other applicable safety norms, codes, standards/ guidelines.
- Plant limits and overall dimensions.
- Access roads and surrounding roads.
- Main pipe racks and main structures.
- Plant North, actual North and predominant wind direction data furnished by owner.
- Catalyst loading/unloading/exchanger tube pull out/column internals drop zone shall be also considered while preparing equipment layout.
- Any Gas Chromatograph/Stack analyser Shelter (Approx. min 5meter x 5meter) as applicable.

A dimensional equipment layout for the process unit shall be prepared by the licensor and duly agreed between licensor and owner/ owner's consultant at the time of PFD completion milestone. This layout shall be part of BEDP provided by licensor.

Licensor's hydraulic calculations have to necessarily correspond to this dimensional equipment layout and Licensor will ensure that all hydraulic calculation data (pump/compressor head, line sizes, control valve pressure drops, etc.) provided by the Licensor in BEDP will be as per this dimensional layout.

Licensor shall review and approve the final unit plot plan developed during detailed engineering.

9.2 Piping Specifications

Licensor shall employ Owner's Piping Material Specification (PMS) to standardise the design which would be provided to Licensor at the outset of the project. Licensor is obliged to provide his observations on Owner's PMS and deviations required therein to meet Licensor's requirement prior to the stage of BEDP finalisation. Equivalent Line

Class will be jointly developed by Owner and Licensor. Requirement of special services, NACE, PWHT, wet H₂S, Hydrogen service to be included in the PMS suitably.

P&ID's, line list and all other documents shall indicate owner's PMS. Piping specifications shall be provided based on fluid properties, corrosion allowance, operating and design pressures/ temperature. Specifications will also indicate nominal size, rating and wall thickness (schedule), valving and welding requirements, gasket types, flange facings and reinforcing requirements, if any. Requirement of special valve (if there is any) must be shown on PID and tagged suitably. This section shall also contain specifications for relief valves, ejectors, strainers and where required, special check valves, expansion joints etc.

9.3 Line schedule

Line Schedules shall list all lines shown in the P&IDs and include line number, service, description, line size, piping class designation, starting and ending points, operating/ design conditions, upset condition temperature and pressure (when exceeding mechanical design conditions), steam out requirement (if applicable) and flow regime (slug flow etc.), velocity, pressure drop, material specification, tracing and insulation designation and details of any special piping items. Line Schedule to categorically identify two phase flow lines and provide the required data like vapour flow rate and density, liquid flow rate and density, mixed density etc. Two phase flow with vapour fraction needs to be specifically identified by licensor in line schedule. **Slug flow related data for two phase flow and flexible temperature shall be provided in the line list**

9.4 Insulation specifications

Specifications for the various insulation types covering the requirements of all equipment and piping shall be provided.

10.0 ELECTRICAL AND INSTRUMENTATION

10.1 Electrical

A summary of all process electrical consumers and their estimated normal and maximum power consumptions shall be provided. Consumers requiring emergency power shall be indicated and specification for emergency power shall also be furnished. The electrical load summary shall indicate the normal load and peak load required to the unit.

10.2 Instrument Data Sheets

Process data sheets for all instruments covering all instrument loops (open or closed and field or control room) indicating main components, operating conditions, special conditions, Type (if any specific by licensor) etc. shall be provided. Instrument list with process data (tag no., min. value, low and high alarm limits, engineering units) shall also be supplied in the package.

Instrumentation and controls specifications for all in line instruments (such as flow instruments, relief valves and control valves, etc., on stream analyzers, alarm and shutdown systems) shown on the P&IDs shall be provided. Process datasheets to be provided for all the following types of instruments:

- a) Flow
- b) Level

- c) Pressure
- d) Temperature
- e) Control Valves
- f) Safety Valves
- g) Analyzers
- h) Gas Detectors
- i) Motor operated valves
- j) Other Miscellaneous instrumentation (as applicable)

Instrument data sheets shall provide the applicable operating conditions and physical properties of process streams, mechanical design pressure and temperature.

All the above instrument datasheet {item a) to item j)} shall specifically cover the steam out requirement, if applicable.

Datasheets and arrangement drawings shall be provided for thermocouples and thermowells in reactors.

For all instruments to be designed as per Indian Boiler Regulations (IBR) requirements, a note shall be included by the Licensor stating "IBR applies"

For the specific types of instruments, the following minimum information shall be provided in the Instrument Data Sheet:

10.2.1 CONTROL VALVES

For control valves, information supplied in the control valve process data sheets shall contain the following minimum:

- Tag number, location, flow rates (minimum, normal and maximum)
- Applicable flowing operating conditions with operating range, (minimum/normal/maximum)
- Properties at flowing conditions (density and viscosity, Critical pressure, Vapor pressure for liquids, molecular weight and compressibility factor, Cp/Cv, for gases, whether liquid is congealing,)
- Mechanical design conditions
- Pressure drop at minimum/normal/maximum flow
- Valve specific characteristics (Fail safe position, limit switches, tight shut-off, hand wheel and solenoid requirements etc.).
- Applicable maximum differential pressure with valve closed
- Control valve size, mechanical limit stops (if applicable), spring action, etc.
- soft seal requirements
- Leakage classes
- Recommended CV Value.

10.2.2 SHUTDOWN VALVES

Tag number, location (line no, related equipment etc), operating & mechanical design conditions, air failure position, mechanical limit stops (if applicable), action, quick opening/closing requirement (if applicable), leakage class, limit switch requirement (if applicable), DP shutoff, requirement of smart positioners (if applicable) etc. Operational Cycle and Temperature Cycle for Switching type on off valves if applicable.

10.2.3 SAFETY/ RELIEF VALVES

Tag number, location, sizing flow rates, set pressure, operating & relieving conditions, allowable over pressure, density and viscosity and other characteristics (such as congealing nature etc.) for liquids, molecular weight and compressibility factor for gases, all other applicable physical properties of relieving streams are to be provided in each emergency/ Relieving cases (including fire case) as applicable for the service, valve size, recommended orifice size etc. In the case of flashing liquid discharges, outlet condition liquid and vapour flows and physical properties will be provided for the project specified superimposed back pressure.

10.2.4 ANALYZERS

Tag number, location, type of analyser, composition of fluid to be analysed, physical properties to be analysed, ranges of measurement, density and viscosity for liquids, molecular weight and compressibility factor for gases, operating & mechanical design conditions, alarm set point, control set point, etc. Composition of the fluid shall be indicated in terms of mol% for vapours and wt% for liquids. Type and details of on-line analysers and their desired range of measurement during normal operation, catalyst regeneration, start-up etc. should be clearly mentioned.

10.2.5 TEMPERATURE AND PRESSURE INSTRUMENTS

Tag number, location, ranges, fluid properties data, operating & mechanical design conditions, alarm set point, control set point, corrosive constituent, recommended type of TI/PI etc. Data for performing wake frequency calculations following shall be provided for all thermowells.

- (i) Phase
- (ii) Min. Pressure
- (ii) Maximum Flow
- (iv) Velocity
- (vi) Vapour Density
- (vii) Liquid Density
- (viii) Two Phase Density
- (ix) Viscosity

10.2.6 FLOW INSTRUMENTS

Tag number, location, flow rates (minimum, normal & maximum), allowable pressure drop, density & viscosity, special properties (such as congealing nature etc.) for liquids, molecular weight and compressibility factor for gases, operating & mechanical design conditions, alarm set point, control set point, recommendation for type of instrument, recommended orifice size etc.

10.2.7 LEVEL INSTRUMENTS

Tag number, location, upper and lower fluid density & viscosity, whether fluid is congealing, operating & mechanical design conditions, alarm set point, control set point, etc. Type of instrument and dielectric constant for radar type instrument shall be provided.

10.2.8 ALARMS AND SHUTDOWNS:

Prepare a preliminary alarms and shutdowns summary of general instrumentation with

set points for alarm trips and alarms shown on P&IDs.

10.2.9 HAND SWITCHES process data sheets: Provide list.

10.2.10 MOTOR OPERATED VALVES

Tag number, location, mechanical design conditions, failure position, and tight shut off requirements. Leakage class, ANSI class, requirements of limit switches, mechanical limit stop, hand wheel, fire safety etc. and inching requirements of actuators.

10.2.11 OTHER MISCELLANEOUS INSTRUMENTS

Tag number, location, process performance specifications and fluid properties as relevant including physical properties, operating & mechanical design conditions, alarm set point, control set point etc.

10.3 General Instrument Specifications

- a) All monitoring and controls of the unit plant shall be operated from operator consoles located at Master control room. Distributed Control System (DCS) with SMART Instrumentation shall be used for Process control. Foundation Field Bus and Wireless shall not be considered for this project.
- b) Interlocks and shutdowns will be achieved through TMR or Quad Programmable Logic Controller (PLC), which shall be SIL-3 certified as per IEC 61508 and IEC 61511.
- c) Hardware (Instruments) required for future APC implementation to be included as per Licensor's experience.
- d) Functional Schematics for Complex schemes with complete description and write-up shall be provided.

11.0 SUPERVISORY OPERATING MANUAL

The supervisory manual will refer to process description and shall contain the following as a minimum:

- Processing objective of plant along with brief details of the project/ Unit like capacity, Feed/ product properties etc. as a minimum
- Process description along with process chemistry and kinetics
- Advanced technical features of the process
- Impact of variation in feed characteristics
- Operating variables and their effect on unit operation/process and product quality
- General Equipment operating procedures along with Equipment list with broad specifications
- Description of instrumentation, interlocks and permissives, control narratives
- Procedure for preparation of start-up (pre-commissioning and commissioning)
- Bar chart indicating each activity against time required (proposed) for start up
- Procedures/ operating instructions for normal operation, start-up, Feed and chemicals/additives batch preparation, Grade change over, Latex blending section, short-term shutdown, planned long-term shutdown and emergencies
- Recipes for reaction and finishing section
- Troubleshooting in various scenarios
- Catalyst/chemicals loading/ Unloading, handling and regeneration procedures, if applicable
- Special procedures as applicable to heaters (e.g.: decoking), reactors, etc.
- Emergency & safety information

- Description of normal operating practices along with Normal operating parameters
- Operating flexibilities
- Recommended laboratory test procedures, Licensor's own procedures if different from ASTM methods, frequency of analysis, parameters to be analyzed for feed streams, products & intermediates
- Safety data and other process safeguarding devices
- Guidelines for troubleshooting individual problems along with possible causes and remedial actions against each shall be specified.
- List of alarms and trips
- Start-up diagrams
- Brief write up on Health, Safety and Environment safeguard

The manual shall be adequate for the Owner or Detailed Engineering/ Procurement/ Construction contractor to develop a detailed operating manual subsequently. Licensor shall review the manual so developed.

12.0 SPECIAL EQUIPMENT

Datasheets/ specification for special equipment for operation of the unit shall be provided. Details of such equipment including process, instrument, mechanical, metallurgical, electrical, structural etc. aspects shall be provided completely to enable Owner to obtain offers without requiring any further engineering by Owner/ Detailed Engineering contractor and also take up erection/ execution subsequently. The list of such special equipment shall be finalized during Design Basis finalization.

ANNEXURE- 2.0

TIME SCHEDULE

Time Schedule for preparation of BEDP, completion of Detailed Engineering and release of deliverables by Licensor for all units is as follows from Zero date:

Sr. No.	Activity	Schedule (Weeks) (Note-2,4)
1.	Kick off meeting and Design Basis Finalization (Note-1)	0
2.	Dimensional equipment layout	7
3.	Heat & Material Balances and Process Flow Diagrams (PFDs) along with simplified Process Description and Control Narrative for Owner review.	7
4.	PFD Review by BIDDER /Consultant/Owner (Note -5)	8
5.	Submission of all critical equipment Data Sheets (Reactor, any other major equipment, LLI) (Note-3)	8
6.	Finalization of other long lead Equipment datasheet	10
7.	Mech. Design Drawings/Data sheets, where applicable	14
8.	Utility Summary	14
9.	Datasheet for Furnace/ Exchangers/ Air coolers	15
10.	Balance Equipment Datasheets	16
11.	Submission of P&IDs including Internal HAZOP, cause and Effect Diagram incorporated, for Owner Review (Note-8)	16
12.	Finalization of Dimensional Equipment layout	18
13.	P&ID Review by BIDDER/ Consultant/ Owner (Note -5)	18
14.	BEDP (Soft including Native files), inclusive of all reviews and incorporating all comments (Note-4)	24
15.	Operating Instructions/ Laboratory / Analytical Manual/ Technology Manual	26
16.	Final BEDP Soft (including native files) and BDEP hard copies,	(Note-6)

Notes:

1. Kick off Meeting for finalization of Design Basis will be held within two weeks from the date of issue of Letter of Acceptance, in which design basis shall be finalized.
2. "Weeks" refer to calendar weeks after the zero date.
3. All critical and long lead equipment shall be identified and mutually agreed during Kick off Meeting.
4. BEDP (Soft including Native files), mentioned elsewhere in the bidding document, shall mean BDEP (Soft including Native files), inclusive of all reviews and incorporating all comments inline with SI no. 14 of the above table.
5. PFD review be held at Owner / Consultant's office. P&ID review will be held at Licensor's office.
6. Final BEDP hard/Soft copies shall be provided after PMC/Owner acceptance of BEDP incorporating all comments.
7. BEDP review meeting for resolution of BEDP comments shall be carried out physically at PMC/Owner location.

8. P&IDs for owner/PMC review shall include line number, line size and piping specification as minimum. Also MSD (material selection diagram) shall be provided along with P&ID.

TIME SCHEDULE FOR CATALYST, CHEMICALS, ADDITIVES, PROPRIETARY EQUIPMENTS (IF ANY):

A list of proprietary equipment/catalyst/chemicals if any, with its vendor names and other details has to be furnished. BIDDER is to indicate firm prices of these items as per Schedule of prices. Shortest delivery period of such proprietary equipment is also to be indicated.

(SIGNATURE OF BIDDER)

ANNEXURE 3.0

TECHNICAL INFORMATION AND GUARANTEES

The values w.r.t 'Process guarantees' on these items need to be confirmed by BIDDER along with the offer as per performance guarantee table given below, as these values are mandatory required for evaluation of the offer, and an offer without these values may not be evaluated.

(*) PGTR (Performance Guarantee Test Run) may be conducted for each train individually or for both trains together as a combined system. The Bidder shall provide all guarantees accordingly.

TECHNICAL INFORMATION AND GUARANTEES REQUIRED IN OFFER

1. CAPACITY

Capacity: (KTPA) of SBR Unit

Performance Guarantee Table-I		
Attribute	Design	Guaranteed
Design Capacity – eSBR train(s) (KTPA)		
Design Capacity – sSBR train (KTPA)		

2. PRODUCT QUALITY

Table-IIA eSBR Product Specification

PERFORMANCE GUARANTEE TABLE – IIA:								
eSBR Product Specification								
Main Properties	Test Method (Note-2)	Unit	Typical Values					
			SBR 1500	SBR 1502	SBR 1712	SBR 1723	SBR 1739	SBR 1783
Mooney Viscosity ML 1+4(100 °C)	ASTM D 1646	MU	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4
Oil content	ASTM D 5774	phr	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4
Oil content	ASTM D 5774	% wt	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4
Bound Styrene	ASTM D 5775	% wt	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4

**BIDDING DOCUMENT -
TECHNICAL SPECIFICATIONS FOR
STYRENE BUTADIENE RUBBER
UNIT**

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PERFORMANCE GUARANTEE TABLE – IIA:								
eSBR Product Specification								
Main Properties	Test Method (Note-2)	Unit	Typical Values					
			SBR 1500	SBR 1502	SBR 1712	SBR 1723	SBR 1739	SBR 1783
Organic Acid	ASTM D 5774	% wt	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4
Soap	ASTM D 5774	% wt	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4
Volatile matter	ASTM D 5668	% wt	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4
Ash	ASTM D 5667	% wt	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4
Tensile Strength	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4
Modulus @300%	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4
Ultimate Elongation	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4

Table-IIB sSBR Product Specification

PERFORMANCE GUARANTEE TABLE – IIB:								
sSBR Product Specification								
Main Properties	Test Method (Note-2)	Unit	Typical Values (Note-5)					
			A	B	C	D	E	F
Mooney Viscosity ML 1+4(100 °C)	ASTM D 1646	MU	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4
Oil content	ASTM D 5774	phr	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4
Oil content	ASTM D 5774	%	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4
Bound Styrene	ASTM D 5775	% wt	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4
Vinyl Content	Note-4	% wt	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4
Tg	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4
Volatile matter	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4
Any other parameter	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4	Note-4

Notes:

1. The product to be free from any nitrosating agent and is essentially free from pre-formed nitrosamines and nitrosable substances.
2. BIDDER shall indicate equivalent test method or advise an alternate internationally recognized test method.
3. The above-tabulated parameters are indicative; BIDDER may add any other parameter as required.
4. Report and Guarantee.
5. Based on their applications, each grade is assigned a nomenclature code (A, B, C, D, E & F). The corresponding details are tabulated below:

**BIDDING DOCUMENT -
TECHNICAL SPECIFICATIONS FOR
STYRENE BUTADIENE RUBBER
UNIT**

Code	Family	Application
A	Dry	1) Fuel efficient summer tire 2) For Silica/Carbon Formulation, Medium Tg, Good Rolling Resistance/Strength Balance 3) Tg = -24 C
B		1) Typical application is for tire tread by mixing with NR, BR and any other rubber 2) Compatible with silica, as well as carbon black, so many advantage characteristics are observed in silica compound for tire tread such as increasing bound rubber, good filler dispersion, higher wet traction, lower rolling resistance, lower heat build-up and lower mill shrinkage 3) It is functionalized to improve silica affinity
C		Tires, vibration insulators; best performance for silica application; low styrene type for all season tyres
D		1) Provides outstanding winter performance/rolling resistance balance for fuel efficient tire treads based on silica and/or carbon black. 2) The medium vinyl microstructure makes grade applicable in winter tires as well as low Tg blend component in summer and all-season tires. The material can also be used in high-quality technical rubber articles 3) Tg = -62 C
E	Oil Extended	Performance, High performance tire; Tg = -28 C
F		The tread rubber for high performance tire

2.1 ESTIMATED TRANSITION MATERIAL PROPERTIES DURING TRANSITION

PERFORMANCE TABLE - IIC:					
ESTIMATED TRANSITION MATERIAL PROPERTIES DURING TRANSITION					
S.No./ Campaign Run No.	Grade Transition sequence (Grade name as per NIT)		Grade Transition sequence (Bidders Equivalent Grade Name)		Estimated Property
	From Grade	To Grade	From Grade	To Grade	
1.					
2.					
3.					
4.					
5.					
6.					

Notes:

- 1) Bidder to provide the table separately for eSBR and sSBR. Above table is not for Guarantee purpose.

3. GRADE TRANSITION TIME AND OFFSPEC & ON SPEC PRODUCTION

LICENSOR to indicate/fill following table considering grade change over schedule defined in clause 2.8.3. The grade-wise quantities of off-spec material reported by the Licensor in this table shall be guaranteed.

PERFORMANCE GUARANTEE TABLE – IIIA:								
GRADE TRANSITION TIME AND OFFSPEC / TRANSITION PRODUCTION								
S. No./ Campaign Run No.	Grade Transition Sequence (Grade name as per NIT)		Grade Transition Sequence (Bidders Equivalent Grade Name)		Bidder to specify the Type Of Transition Product	Transition time including down time (hrs)	Guaranteed Max Off spec material produced (MT)	Remarks, Key property changes etc.
	From Grade	To Grade	From Grade	To Grade				
1.								
2.								
3.								
4.								
5.								
6.								
A (For 30 Days)	Total transition time / off- spec generation					Hrs	MT.....	
B (for 8000 Hr)	Total transition time / off-spec generation for 8000 hrs operation ((Value under row A above) x 8000 / (24 x 30))					Hrs.....	MT.....	

Notes:

- 1) Bidder to specify the type of Transition Product.
- 2) Bidder to Consider Grade change over sequence for each train of 30 days.
- 3) Bidder to provide the table separately for eSBR and sSBR.

**PERFORMANCE GUARANTEE TABLE – III B:
ON-SPEC GRADE PRODUCTION TIME AND QUANTITY**

LICENSOR to indicate/fill following table considering grade change over schedule defined in clause 2.8.3. The grade-wise quantities of On-spec material reported by the Licensor in this table shall be guaranteed.

PERFORMANCE GUARANTEE TABLE – IIIB					
ON-SPEC GRADE PRODUCTION TIME AND QUANTITY (During change over schedule)					
S.No.	Grade Produced	Bidders Equivalent Grade Name	On Spec Production Time (hrs)	On Spec Quantity Produced, MT	Unit Capacity, MT/hr
1					
2					
3					
4					
5					
6					
A (For 30 Days)	Total Production Time / On-spec Product generation		Hrs	MT.....	
B (for 8000 Hr)	Total Production Time / On-spec product generation for 8000 hrs operation ((Value under row A above) x 8000/ (24x30)		Hrs.....	MT.....	

Notes:

- 1) Bidder to Consider Grade change over sequence for each train of 30 days.
- 2) Bidder to provide the table separately for eSBR and sSBR.

4. GUARANTEE PRODUCTION RATE

PERFORMANCE GUARANTEE TABLE – IVA							
GUARANTEE PRODUCTION RATE							
Sr. No.	eSBR TRAIN-1 ,2 (75X2 KTPA)	Production % Per Year	Annual Quantity (KTPA)	Bidders Equivalent Grade Name	Normal Production Rate, MT/hr	Guaranteed Production Rate, MT/hr	Guaranteed Annual Quantity (KTPA)
1	Non-oil, cold polymerized, SBR 1500	20	30				
2	Non-oil, cold polymerized, SBR 1502	20	30				
3	Oil-extended, cold polymerized, SBR 1712	15	22.5				
4	Oil-extended, cold polymerized, SBR 1723	15	22.5				
5	Oil-extended, cold polymerized, SBR 1739	25	37.5				
6.	Oil-extended, cold polymerized, SBR 1783	5	7.5				
	TOTAL ANNUAL CAPACITY	100	150				

**BIDDING DOCUMENT -
TECHNICAL SPECIFICATIONS FOR
STYRENE BUTADIENE RUBBER
UNIT**

PERFORMANCE GUARANTEE TABLE – IVB							
GUARANTEE PRODUCTION RATE							
Sr. No.	sSBR TRAIN (40 KTPA) (Note-1)	Production % Per Year	Annual Quantity (KTPA)	Bidders Equivalent Grade Name	Normal Production Rate, MT/hr	Guaranteed Production Rate, MT/hr	Guaranteed Annual Quantity (KTPA)
1	A	55	22				
2	B	23	9.2				
3	C	2	0.8				
4	D	1	0.4				
5	E	12	4.8				
6.	F	7	2.8				
	TOTAL ANNUAL CAPACITY	100	40				

Note:

- Based on their applications, each grade is assigned a nomenclature code (A, B, C, D, E & F). The corresponding details are tabulated above in page 5 of 16.

5. SPECIFIC CONSUMPTION OF FEED, CATALYST, CO –CATALYST, SOLVENT, ADDITIVE AND CHEMICALS etc

PERFORMANCE GUARANTEE TABLE - VA											
SPECIFIC CONSUMPTION OF FEED, CATALYST, CO –CATALYST, SOLVENT, ADDITIVE AND CHEMICALS etc											
S.No	eSBR TRAIN-1,2 (2X75 KTPA)	Production % Per Year	Annual Quantity (KTPA)	Sp. Cons. Butadiene	Sp. Cons. Styrene	Sp. Cons. Extender Oil	Name / Sp. cons. of Catalyst	Name /Sp. Cons. of co- catalyst (1)	Name/ Sp. Cons. of Solvent (1)	Name / Sp. Cons. of additive (1)	Name / Sp. Cons. of Chemical (1)
				Kg /Ton of SBR	Kg /Ton of SBR	Kg /Ton of SBR	Kg /Ton of SBR	Kg /Ton of SBR	Kg /Ton of SBR	Kg /Ton of SBR	Kg /Ton of SBR
1	Non-oil, cold polymerized, SBR 1500	20	30								
2	Non-oil, cold polymerized, SBR 1502	20	30								
3	Oil-extended, cold polymerized, SBR 1712	15	22.5								
4	Oil-extended, cold polymerized, SBR 1723	15	22.5								
5	Oil-extended, cold polymerized, SBR 1739	25	37.5								
6	Oil-extended, cold polymerized, SBR 1783	5	7.5								

**BIDDING DOCUMENT -
TECHNICAL SPECIFICATIONS FOR
STYRENE BUTADIENE RUBBER
UNIT**

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PERFORMANCE GUARANTEE TABLE - VB											
SPECIFIC CONSUMPTION OF FEED, CATALYST, CO -CATALYST, SOLVENT, ADDITIVE AND CHEMICALS etc											
S.No	sSBR TRAIN (40 KTPA)	Production % Per Year	Annual Quantity (KTPA)	Sp. Cons. Butadiene	Sp. Cons. Styrene	Sp. Cons. Extender Oil	Name / Sp. cons. of Catalyst	Name /Sp. Cons. of co- catalyst (1)	Name/ Sp. Cons. of Solvent (1)	Name / Sp. Cons. of additive (1)	Name / Sp. Cons. of Chemical (1)
				Kg /Ton of SBR	Kg /Ton of SBR	Kg /Ton of SBR	Kg /Ton of SBR	Kg /Ton of SBR	Kg /Ton of SBR	Kg /Ton of SBR	Kg /Ton of SBR
1	A	55	22								
2	B	23	9.2								
3	C	2	0.8								
4	D	1	0.4								
5	E	12	4.8								
6	F	7	2.8								

Notes:

- 1) In case of more than one item under each category (i.e., co-monomer, co-catalyst, solvent, additives and chemical) listed above, Bidder to update the above table suitably.
- 2) Bidder to specify the name of co-monomer, co-catalyst, solvent, additives and chemical etc for each grade.
- 3) Bidder to mention the Bidder's equivalent Grade Name.
- 4) Based on their applications, each grade is assigned a nomenclature code (A, B, C, D, E & F). The corresponding details are tabulated above in page 5 of 16

6. UTILITY CONSUMPTION/GENERATION GAURANTEEE

LICENSOR to furnish design/guaranteed utility consumptions steam generation at battery limit and turndown ratio for each grade.

PERFORMANCE GUARANTEE TABLE – VIA								
S. No	Utility name, units	Consumption for Grade (Note-1)						
		Non-oil, cold polymerized, SBR 1500	Non-oil, cold polymerized, SBR 1502	Oil-extended, cold polymerized, SBR 1712	Oil-extended, cold polymerized, SBR 1723	Oil-extended, cold polymerized, SBR 1739	Oil-extended, cold polymerized, SBR 1783	
1.	HP Steam, TPH							
	Import							Max, Guarantee
	Export							Min, Guarantee
2.	MP Steam, TPH							
	Import							Max, Guarantee
	Export							Min, Guarantee
3.	LP Steam, TPH							
	Import							Max, Guarantee
	Export							Min, Guarantee
4.	Power, KWH							Max, Guarantee
5.	Recirculating Cooling Water, m ³ /hr							Max, Guarantee
6.	Turndown Ratio							Max, Guarantee
7.	DM Water, m ³ /hr							Max, Guarantee
8.	Nitrogen, Nm ³ /hr							Design
9.	Instrument Air, Nm ³ /hr							Design
10.	Flare Load, TPH							Design
11.	Service Water, m ³ /hr							Design
12.	Plant Air, Nm ³ /hr							Design

**BIDDING DOCUMENT -
TECHNICAL SPECIFICATIONS FOR
STYRENE BUTADIENE RUBBER
UNIT**

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PERFORMANCE GUARANTEE TABLE – VIB								
S. No	Utility name, units	Consumption for Grade (Note-1)						
		A	B	C	D	E	F	
1.	HP Steam, TPH							
	Import							Max, Guarantee
	Export							Min, Guarantee
2.	MP Steam, TPH							
	Import							Max, Guarantee
	Export							Min, Guarantee
3.	LP Steam, TPH							
	Import							Max, Guarantee
	Export							Min, Guarantee
4.	Power, KWH							Max, Guarantee
5.	Recirculating Cooling Water, m ³ /hr							Max, Guarantee
6.	Turndown Ratio							Max, Guarantee
7.	DM Water, m ³ /hr							Max, Guarantee
8.	Nitrogen, Nm ³ /hr							Design
9.	Instrument Air, Nm ³ /hr							Design
10.	Flare Load, TPH							Design
11.	Service Water, m ³ /hr							Design
12.	Plant Air, Nm ³ /hr							Design

Notes:

- BIDDER to provide Guarantee number of each grade of each train as per design product slate.
- BIDDER to also inform estimated intermittent utility consumptions during start-up, normal shutdown, emergency shutdown of SBR unit.
- BIDDER to also inform estimated intermittent utility consumptions during Global failure (power failure, cooling water failure etc.) for bringing the SBR unit

to a safe shutdown condition.

4. BIDDER to also inform estimated intermittent utility consumptions during each grade changes identified in performance guarantee Table-III.
5. Based on their applications, each grade is assigned a nomenclature code (A, B, C, D, E & F). The corresponding details are tabulated above in page 5 of 16.

7. PERFORMANCE GUARANTEE

Licensor to list and provide the required information and guarantees for Initial Fill for all Catalyst/Co-Catalyst/Solvents/Additives/Chemicals (both proprietary and non-proprietary) and adsorbents.

Table: Catalyst/Co-Catalyst/Solvents/Additives/Chemicals Details (To be filled up for continuously consumed catalyst, co-catalyst, solvent, additive and chemicals)

PERFORMANCE GUARANTEE TABLE – VIIA							
	Estimated value			Guaranteed Value			Remarks
	(m3)	Loading density (kg/m3)	(Kg)	(m3)	Loading density (kg/m3)	(Kg)	
Name							
Initial fill (note-5)							

Table: Fixed Bed Catalyst / Adsorbent/Details (To be filled up for all fixed bed Catalysts/Adsorbents)

PERFORMANCE GUARANTEE TABLE – VIIB							
	Estimated value			Guaranteed Value			Remarks
	(m3)	Loading density (kg/m3)	(Kg)	(m3)	Loading density (kg/m3)	(Kg)	
Quantity-Initial fill							
Supplier's (s') name(s) and address(es)							
Precious Metal Content, wt%							
Associated Ceramic/Inert Balls (Note-3)							
Ultimate Life (years)							

Notes:

1. The values wrt. 'Process guarantees' on these items need to be confirmed by Licensor along with the offer, as these values are essentially required for evaluation of the offer, and an offer without these values may not be evaluated.
2. For above, ultimate life of fixed bed catalyst/adsorbent shall be included in offer.
3. Licensor to provide details of size and quantity of all inert balls associated with each catalyst/adsorbent loaded into reactors, as applicable.
4. Bidder may modify above tables to ensure all information as required in the technical specifications is provided.
5. Initial fill quantity requirement shall be as mentioned in technical specification.
6. The above table is to be provided for eSBR & sSBR trains separately.

LICENSOR to furnish following information for catalyst, co-catalyst, solvent, additives and chemical etc.

PERFORMANCE TABLE - VIIC		
S.no	Parameter	Details
1	Catalyst(s)	
1.1	Catalyst Name (Note-1)	
1.2	Supplier(s) Name(s) and Address(es)	
2	Co-Catalyst(s)	
2.1	Co-Catalyst Name (Note-1)	
2.2	Supplier(s) Name(s) and Address(es)	
3	Solvent(s)	
3.1	Solvent Name (Note-1)	
3.2	Supplier(s) Name(s) and Address(es)	
4	Additive(s)	
4.1	Additive Name (Note-1)	
4.2	Supplier(s) Name(s) and Address(es)	
5	Chemical(s)	
5.1	Chemical Name (Note-1)	
5.2	Supplier(s) Name(s) and Address(es)	

Notes:

Bidder to provide the required information for all catalysts, co-catalysts, solvents, additives and chemicals as indicated in the table above

ANNEXURE 4.0

INFORMATION IN RESPECT OF REFERENCE UNIT

INFORMATION IN RESPECT OF OPERATING UNIT (REFERENCE UNIT # Bidder to specify reference unit number as per BQC)

S No.	DESCRIPTION	DETAILS		
1	- Name of the Reference Unit - Owner Name - Location of Plant - Details of Contact person - Name - Address - Telephone - Fax nos. - E-Mail Id			
2	Technology Licensor			
3	Month & Year of Signing of License Agreement			
4	Type of Unit/Project Status			
4.1	Captive/Non-captive			
4.2	Type of Unit (Grass root/ Revamp/ De-Bottleneck)			
4.3	Unit is commercial/ non-commercial (Lab. scale/ pilot plant/ demonstration Plant)			
4.4	Commercially Operational (Yes/No): If Yes: Date of Commissioning If No : Expected Date of Commissioning			
4.5	BEDP By & Completion Date			
4.6	Detailed Engg Contractor			
Design/Guaranteed/Operating Values for the following (item no 4 to 12)		Design	Guaranteed	Operating
5	No.of trains			

S No.	DESCRIPTION	DETAILS		
6	Capacity of each train, kTPA			
7	On stream factor, hours/year			
8	End use applications of grades produced with percent annual production of each			
9	Names of catalysts used			
9.1	Date since when the above catalysts have been put in operation			
10	Feedstocks and compositions			
11	Yield of products vis-à-vis feed			
12	Catalyst yields, kg product / kg catalyst			
13	Whether the unit undergoes performance guarantee test run (PGTR) and performs as originally proposed by the BIDDER and meets all the Guarantees. If not, the reasons thereby.			
14	Any operational or other problems faced in the unit and remedial measures adopted			
15	Details regarding process configuration and variation if any w.r.t the process configuration offered by Licensor.			

Notes –

1. Above format to be filled up by the BIDDER for all the references submitted along with the offer mentioning the reference unit number.
2. Detailed references for at least one actual operating unit using bidder's technology close to the offered process and conforming to the conditions specified in the document are to be submitted.

ANNEXURE 5.0

Information Required for NPV Calculation (NOT TO BE FILLED BY BIDDER)

(Data for NPV evaluation shall be provided in Annexure-3. This table is provided only for information and not to be filled by bidder.)

Process Data	UNIT: SBR Unit	Licensor
	Guaranteed data for evaluation case (Based on weighted average of Product mix and specific consumption as in Annexure 3)	
Overall Unit Material Balance		
1. Incoming Process Streams		
1,3Butadiene, Styrene Monomer, Extender Oil MT/Annum (Total intake-Gross) (Note-5)		
2. Incoming Catalyst / Co-Catalyst		
Main Catalyst, MT/annum (Note-1)		
Other Catalyst, MT/annum (Note-1)		
Co-catalyst, MT/annum (Note-1)		
Other Co-catalysts, MT/annum (Note-1)		
3. Outgoing Process Stream		
On-spec SBR, MT/annum		
Off-Spec SBR (Transition Material), MT/annum		
Any other Co-Product/By-Product, MT/annum		
4. Overall Utility (Note-3)	Consumption	Generation
Power consumed, kWh/annum		
Steam, MT/annum		
- HP steam		
- MP steam		
- LP steam		
DM Water, m3/annum		
Cooling water m3/annum (Del T=12 Deg C)		
5. Continuous Solvent, Additive, Chemical Consumptions		
Chemicals, MT/annum (Note-1)		
Additives, MT/annum (Note-1)		
Solvents, MT/annum (Note-1)		
6. Initial Fill of catalyst, co-catalyst, Solvent, Additive, Chemical required during normal consumption (Note-1)		

7. Adsorbent Beds			
Adsorbent 1			
Name/ Quantity, MT /Life (Note-2)	Name	Quantity	Life
Ceramic/Inert ball (MT)			
Adsorbent 2			
Name/ Quantity, MT /Life (Note-2)			
Ceramic/Inert ball (MT)			
Adsorbent 3			
Name/ Quantity, MT /Life (Note-2)			
Ceramic/Inert ball (MT)			
Any other adsorbent : Quantity, MT (Note-2)			
Ceramic/Inert ball (MT)			

Notes:

- Bidder to provide initial fill and consumption of all the Catalysts, Co-Catalysts, Resin, Adsorbents, Absorbents, Additives, Solvents & Chemicals etc to be used in their process in the Guarantee tables (annexure-3).
- Bidder to also provide the guaranteed adsorbents quantity and life and any other material (i.e. reactor seed bed etc) used in the process in the Guarantee tables (annexure-3).
- Utility consumption figures to be reported as (+) and Utility generation figures to be reported as (-). The guaranteed utility consumptions provided by bidders shall be reviewed with respect to machine efficiencies, motor efficiencies and heater efficiencies; and rationalized utility consumption figures shall be used for evaluation.
- Bidder shall ensure the information sought in above tables is provided (complete-in all respects) in Annexure-3 for performing NPV evaluation of their offer. Licensor to state proprietary Catalysts, Co-Catalysts, Resin, Adsorbents, Absorbents, Additives, Solvents & Chemicals quantities in SOP document. The same will be considered for guarantees and NPV calculations after review with respect to guarantees provided in annexure-3.
- The 1,3 Butadiene, Styrene Monomer, Extender Oil feed consumption has to be total intake as per feed quality.
- Bidder to consider 5 % handling loss to the proprietary Catalysts, Co-Catalysts, Resin, Adsorbents, Absorbents, Additives, Solvents & Chemicals quantity reported and shall be rounded off to nearest drum/bag size and to be quoted in SOP accordingly. Bidder to provide information for all Catalysts, Co-Catalysts, Adsorbents, Absorbents, Additives, Solvents & Chemicals used in the process unit.
- For proprietary Catalysts, Co-Catalysts, Resin, Adsorbents, Absorbents, Additives, Solvents & Chemicals, the first charge quantity shall be specified. In case of continuous make-up, the initial fill quantity & the continuous make-up quantity as per technical specification shall be specified in SOP.
- Operating revenue and operating cost for NPV calculation will be based on 8000 on stream hours per year.

ANNEXURE 6.0

**Document Title:
Basic Engineering Design Data**

**PROJECT: DFR, FIRING UP CONFIGURATION, LICENSOR
SELECTION, EC FOR BPCL-ANDHRA PRADESH REFINERY AND
PETROCHEMICAL PROJECT.**

OWNER: BHARAT PETROLEUM COORPORATION LIMITED.

PMC: ENGINEERS INDIA LIMITED.

JOB NO.: C113

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1.0 INTRODUCTION

This document presents preliminary Basic Engineering Design Data (BEDD) for the Project facilities associated with the proposed Refinery-cum-Petrochemical Complex on the East Coast of Andhra Pradesh (AP), India.

This will be discussed and finalized with the Successful bidder during the Design basis meeting.

2.0 CODES AND STANDARDS

In order to facilitate the conceptual & optimized design for the Refinery-cum-Petrochemical Complex, the following minimum International Codes and Standards shall apply:

Table 2.1 Codes and Standards

Equipment/Instrument Type or Subject Area	Applicable Codes and/or Standard
Pressure Vessels	ASME Section VIII Div 1 and 2, SMPV, IBR, IS 2825
Storage Tanks - Atmospheric tanks - Low pressure tanks (<1.03 barg) - Floating roof tanks - Cryogenic Storage Tanks (Double Wall)	- API 650 Petroleum Acts/Rules where applicable. /IS 803 - API 620 - API 650 - Appendix C - API 620/BS- EN 14620
Silos, hoppers and bins	IS: 9178/EN-1991-4/EN- 1993-4-1
Storage Spheres	ASME SEC. VIII DIV.2
Mounded Vessel	ASME SEC. VIII DIV.2/PD 5500/EEUMA 190
Wind load consideration	IS:875
Seismic design consideration	IS:1893/SITE DATA
FRP Vessels and tanks	ASME Sec. X, ASME RTP-1, EN 13121
Heat Exchangers, Aluminium Plate Fin heat Exchanger (cold box)	TEMA, ALPEMA, ASME Sec. VIII Div 1, API 660
Cooling Tower	Oil Industry Safety Directorate, Petroleum and Explosives Safety Organization
Air Cooled Exchangers	API 661, ASME Sec. VIII Div 1, IS 800
Pumps - Centrifugal pumps - Reciprocating pumps - PD pumps (Controlled Volume) - PD pumps (Rotary) - Pump seal - Seal-less pumps	- ANSI, API 610 / ASME B 73.1 / 73.3 - API 674 / Non-API* - API 675 / Non-API* - API 676 / Non-API* - API 682 / Non-API* - API 685 * If mandatorily required by Process
Piping	ASME B31.3, ASME B16.5 and other applicable codes of ASME, ASTM, API, OISD-118,

**BIDDING DOCUMENT -
TECHNICAL SPECIFICATIONS
FOR STYRENE BUTADIENE
RUBBER UNIT**

Equipment/Instrument Type or Subject Area	Applicable Codes and/or Standard
	PNGBR and IBR guidelines.
Instrumentation	API, IBR, ISA, NFPA, IS, IEC, AGA, ASME, PTC, FCI, BS/ EN, ISO, ISA, OISD 164, API 2218, ASTM, AERB, AWWA, NACE, NEC, NEMA, OSHA, OISD, ICS-6, ANSI
Pressure Safety Valves and Flare system	API RP 520 (Part 1 and 2) and API 521 for Vessels and API 2000 for Storage tanks, API 526 for Safety Valve Design. API 537
Safety	IS, OSHA, Local regulations, OISD, PESO, API, NFPA, API-553
Water Effluent and Air Emissions	Central and State Effluent Regulations. Refer Section 10.0
Noise	OSHA, API 615 (Rotating Machinery), BASF SHE Standards G-S-CL-100-M
Fire Protection	National Building Code (NBC). , OISD, PESO, OISD 164, API 2218
Compressors/Fans - Fans - Centrifugal - Reciprocating - Rotary Type - Integrally Driven Centrifugal Air Compressor	- API 673 / Non-API* - API 617 / Non-API* - API 618 / Non-API* - API 619 / Non-API* - API-672 * If mandatorily required by Process
Lubricating Oil Systems	API 614
Corrosion Protection	
Steam Turbines	API 611 and API 612
Gas Turbines	API 616
Boilers	IBR
Architectural	IS / NBC
Electrical	Indian Electrical Rules, CEA regulations, PESO, National Building Code (NBC), IS Standards, National Electric Code (SP 30) ,OISD ,INDIAN ELECTRICITY ACT , FACTORY ACT , PETROLEUM RULES, OIL MINES REGULATIONS
Civil Work	IS / ASTM Standards
Plot plan	Oil Industry Safety Directorate (OISD-118)
Materials	ASTM, ASME, API
Welding	ASME IX, ASTM, API
Refrigeration	ASHRAE
Sanitary	IS
Structural	IS
Plumbing	ANSI, ASME, ASSE, ASTM, AWS, AWWA, UPC, CISPI, PDI, IPC
HVAC	ASHRAE, SMACNA, ARI, NFPA90A, 90B, 91, 92A, UMC, ASME, ASTM, ANSI, ISHRAE, UL ,IBR, OISD-163
	Applicable standards-

Equipment/Instrument Type or Subject Area	Applicable Codes and/or Standard
Fired Equipment	OISD 111 & OISD 152 latest edition CPCB, as applicable Applicable codes- API 535 latest edition & latest Addendum API 530 – 2015 along with addendum 2019, 2021, 2025 OR latest API 560 - 2016, addendum 1 2021, addendum 2 Dec 2023 OR latest OISD Standard 111 – 2016 OR latest OISD Standard 118 – 2025 OR latest OISD Standard 164 – 2012 OR latest IBR along with Amendments – Latest ASME B36.10 – 2022 OR latest ASME B36.19 - 2022, Errata May 2023 OR latest ASME B16.5 - 2025 OR latest ASME B16.9 – 2024 OR latest ASME B16.25 - 2022 OR latest ASME B16.47 – 2025 OR latest ASME B31.3 - 2024 OR latest ASME sec I – 2025 OR latest ASME sec VIII div. 1 – 2025 OR latest ASME Sec IX - 2025 OR latest IS800 - 2007, Reaffirmed 2017 including amendment no 1 (2012) and 2 (2024) OR latest IS808 – 2021 OR latest IS875 Part3 - 2015, reaffirmed 2020 including amendment no 1 (2016) and 2 (2020) OR latest IS1893 - Part 1-2016 (Reaffirmed 2021) including amendment no. 1 (2017) and 2 (2020) OR latest, Part 4-2024 OR latest IS6533 - Part1-1989 (Reaffirmed 2021) including amendment no 1 (1997) OR latest, Part 2-1989 (Reaffirmed 2017) including amendment no 1 (1998) OR latest IS12778 - 2004 ed. Reaffirmed 2019 OR latest PNGRB – Latest ASME PTC

3.0 UNITS OF MEASUREMENT

Table 3.1 Units of Measurement

QUANTITY	UNIT	SYMBOL
Acceleration	meter per second square	m/s ²
Amount of Substance	kilogram mole	kg-mol or kmol
Angular Velocity	radians per second	rad/s
Area	square meter	m ² or mm ²
Boiling point @ STP	degree centigrade	°C
Composition	volume percentage	Vol% or Wt % or Mole%
Concentration	parts per million, weight or weight percent	ppmw or ppbw or wt%
Concentration	parts per million, volume	ppmv or ppbv
Conductivity	micro-siemens per centimetre	μS/cm
Density	kilograms per cubic meter	kg/m ³
Differential head	meter	m
Dew Point	degree centigrade	°C
Electrical Current	ampere	A
Energy - Electrical	kilowatt hour	kWh
Energy	Kilo calories	kcal
Enthalpy	kilocalories per kilogram	kcal/kg
Entropy	kilocalories per kilogram-degree C	Kcal/kg-°C
Flash point	degree centigrade	°C
Flow - Liquid Volumetric	Cubic meter per hour	m ³ /h
	Litre per hour	LPH
	Litre per minute	LPM
Flow – Liquid mass	Kilogram per hour	kg/hr
	Metric ton per hour	MT/hr
Flow -Gas and Vapor	kilograms per hour	kg/h
	tons per hour	MT/h
	cubic meter per hour	m ³ /h
Flow - Gas and Vapor	normal cubic meter per hour	Nm ³ /h
Flow - Gas and Vapor	standard cubic meter per hour	Sm ³ /h
Flow -Steam	kilograms per hour	kg/h
	tons per hour	t/h
Force	newton	N
Freezing point	degree centigrade	°C
Furnace draft	Millimetre of water column	mm of WC
Heat	Kilocalories/hr	Kcal/hr or MM Kcal/hr or MKcal/hr
Heat transfer coefficient	Kilo calorie per hour square meter degree	kcal/hr-m ² -°C

QUANTITY	UNIT	SYMBOL
Length	millimetre	mm
Length	meter	m
Length	kilometre	km
Line Sizes	inches	"
Mass	kilogram	kg
Mass	Metric ton	MT
Mass Transfer	Kilogram per hour meter squared	kg/m ² .h
Molar Flow	kilogram mole per hour	kmol/hr
Molecular Weight	kilogram per kilogram mole	kg/kmol
Momentum	kilogram meters per second	kg m / s
Moment of Inertia	kilogram meters squared	kgm ²
Noise	A weighted decibel	dB (A)
NPSH	meter	m
Periodicity, Frequency	hertz	Hz
Power	watt	W or kW or MW
Pour point	degree centigrade	°C
Pressure - Gauge	Kilogram per square centimetre (gag.)	Kg/cm ² g
Pressure – Absolute	Kilogram per square centimetre (abs.)	Kg/cm ² a
Pressure-Absolute (Vacuum service)	Millimetre of mercury or Millimetre water column	mmHg or mmWC
Production	metric tons per day	MT/d
Production Capacity	Kilo metric tons per Annum/ Million Metric Tonnes per Annum	KTPA/ MMTPA
RVP	Pound per square inch or kilopascal	Psi or KPa
Specific Heat	kilo Cal per kilogram degree Celsius	kcal/kg-°C
Speed - Linear	meter per second	m/s
Speed - Rotating	revolutions per minute	rpm
Stress	newton per square meter	N/m ²
Storage tank pressure	Millimetre of water column	mm of WC
Surface tension	dyne per centimetre	dyne/cm
Temperature	degree centigrade	°C
Thermal conductivity	kilocalories per hour meter centigrade	kcal/hr-m-C
Time	Hour or second	H or s
Viscosity - dynamic	centipoises	cP
Viscosity - kinematic	centistokes	cS
Volume	cubic meter	m ³
Voltage	volt	V
Radiation	Kilo calorie per meter squared	Kcal/m ²
Sound	Decibel, "A" weighted sound level	dBA
Torque	Newton meter	Nm
Smoke Point	Millimetres	mm

Standard cubic meter (Sm^3) and normal cubic meter (Nm^3) do not have a universally accepted definition, so their reference pressure and temperature shall always be specified. For this project, standard conditions shall be defined as 15°C and $1.03323 \text{ kg/cm}^2\text{a}$. Normal conditions are at 0°C and $1.03323 \text{ kg/cm}^2\text{a}$

4.0 NAME AND LOCATION

Name : Refinery Cum Petrochemical Project
Location : Ramayapatnam, Andhra Pradesh (AP), India
Nearest railway station : Tettu (5 Km)
Nearest Airport : Vijayawada
Nearest Port : Ramayapatnam & Krishnapatnam
Source of Water : Sea Water and Kanigiri Reservoir

5.0 PLANT DESIGN LIFE

The design life of the project facilities shall be **20** years, i.e. the design shall be such that the unit will be able to operate at 100% of design feed throughput for **20** years, with scheduled maintenance turnarounds occurring every **4** years.

5.1 EQUIPMENT DESIGN LIFE

Table 5.1 Equipment design life

Design life of equipment normally specified in the data sheet otherwise the following design life shall be applied: -Reactor/ Heavy wall vessels or exchanger (including non-removable internals and catalyst bed support beam if any.)	30 years
- Reactor removable internals	20 years
- Columns, other vessels	20 years
- Stainless steel, high alloy and non-ferrous material heat exchanger tube bundles	20 years
- Cracking Furnace tubes/ Coils	12 years
- Piping	20 years
- Steel/ High alloyed steel heat exchanger tube bundle	10 years
- Carbon steel/ Low alloyed steel Heat exchanger tube bundle	7 years
- Extruder Screw	15 years
- Rotating Equipment	20 years

5.2 RECOMMENDED FOULING RESISTANCES ($\text{hr-m}^2\text{-}^\circ\text{C/k Cal}$)

For utility streams, following factors shall be used.

Table 5.2 Fouling factor for exchanger design

Fluid	Fouling Resistance, $\text{hr-m}^2\text{-}^\circ\text{C/kcal}$
Cooling Water	0.0004
Tempered Water	0.0002
Chilled Water	0.0002
Treated Water	0.0002
Steam	0.0001

Fluid	Fouling Resistance, hr-m ² -°C/kcal
Condensate	0.0001
Boiler Feed water	0.0001
Natural Gas	0.0002 – 0.0004
Refrigerant Liquids / Hydraulic Fluids	0.0002
Industrial Organic Heat Transfer Media	0.0003
Calcium Chloride / Sodium Chloride Solution	0.0006
Methanol / Ethylene Glycol Solutions	0.0003
DM water	0.0001
Nitrogen	0.0001
Plant air	0.0002

Note:

Fouling factor for process streams shall be confirmed by Licensor based on past experience and good design practice.

6.0 UTILITY SPECIFICATION AND BATTERY LIMIT CONDITIONS

6.1 BATTERY LIMIT CONDITIONS

The preliminary utility battery limit conditions to use for process units are given below. Please read the notes prior to use.

Table 6.1 Conditions of utilities at unit battery limits

S.No	Parameter	Minimum	Normal	Maximum	Design	Remarks
1.	VERYHIGH PRESSURE (VHP) STEAM					
	Pressure, kg/cm ² g		122	125	135/FV	Note-1, 5, 6
	Temperature, °C		520	525	540	
2.	HIGH PRESSURE (HP) STEAM					
	Pressure, kg/cm ² g	40	42	44	50/FV	Note-1, 5, 6
	Temperature, °C	380	390	400	427	
3.	MEDIUM PRESSURE (MP) STEAM					
	Pressure, kg/cm ² g	15.1	16.3	17.7	20.4/ FV	Note-1, 5, 6
	Temperature, °C	270	285	310	350	
4.	LOW PRESSURE (LP) STEAM					
	Pressure, kg/cm ² g	3.6 (Note-11)	4	4.5	6.5/FV	Note-1, 5, 6
	Temperature, °C	180 (Note -11)	200	225	288	
5.	SUSPECT CONDENSATE					
	Pressure, kg/cm ² g	6.0	7.0		16.0	
	Temperature, °C		100		150	
6.	SURFACE CONDENSATE					
	Pressure, kg/cm ² g	6.0	7.0		16.0	
	Temperature, °C		100		150	
7.	PURE CONDENSATE					

S.No	Parameter	Minimum	Normal	Maximum	Design	Remarks
	Pressure, kg/cm ² g	6.0	7.0		16.0	
	Temperature, °C		100		150	
8.	POLISHED CONDENSATE (Note-12)					
	Pressure, kg/cm ² g	6.5	8.5	9.5	14	
	Temperature, °C	60	60-80	80	150	
9.	SERVICE WATER					
	Pressure, kg/cm ² g	3	5	6	17.0	
	Temperature, °C		Amb		65	
10.	RECIRCULATING COOLING WATER					
	Supply Pressure, kg/cm ² g	4.0	4.9		9.0	
	Return Pressure, kg/cm ² g	2.9			9.0	
	Supply Temperature, °C		33		65	
	Return Temperature, °C		45	45	65	
11.	DEMINERALISED WATER / POLISHED WATER					
	Pressure, kg/cm ² g	4	7.5	8	17	
	Temperature, °C	30	40	50	65	
12.	VHP BOILER FEED WATER					
	Pressure, kg/cm ² g		144.2	147	200.5	
	Temperature, °C	130	130	130	150	
13.	HP BOILER FEED WATER					
	Pressure, kg/cm ² g	62	64	66	70	
	Temperature, °C	130	130	130	150	
14.	MP BOILER FEED WATER					
	Pressure, kg/cm ² g	25	28	35	40	
	Temperature, °C	130	130	130	150	
15.	PLANT AIR					
	Pressure, kg/cm ² g	4.5	7.0	8.0	10.5	
	Temperature, °C	-	40	-	65	
16.	INSTRUMENT AIR					
	Pressure, kg/cm ² g	4.0	6.5	7.5	10.5	
	Temperature, °C	-	40	-	65	
17.	NITROGEN					
	Pressure, kg/cm ² g	4.5	6.0	7.0	10.5	
	Temperature, °C	-	40	-	65	
18.	INTERNAL FUEL OIL					
	Supply Pressure, kg/cm ² g	8	10	11	15.5	
	Return Pressure, kg/cm ² g	3.5	4	4	15.5	
	Temperature, °C	125	160-220	240	260	
19.	REFINERY FUEL GAS					

S.No	Parameter	Minimum	Normal	Maximum	Design	Remarks
	Pressure, kg/cm ² g	2.5	3	4.5	8.1	
	Temperature, °C	35	37	55	65	
20.	IMPORT GAS (NATURAL GAS/ RLNG)					
	Pressure, kg/cm ² g	38	40	41	49.0	
	Temperature, °C	20	25	30	65	

Notes:

- Export of VHP, MP and LP steam not desired. Steam export to refinery if unavoidable shall be HP Steam only. LICENSOR to note that export steam from unit should meet MAXIMUM steam conditions given in above table at unit battery limits
- Cooling water pressure drop within the unit Battery limit (including cooling water piping and equipment) shall not be more than 2 Kg/cm².
- All B/L pressures are at grade.
- In case any utility is required at higher/ lower than the conditions indicated above, Licensor to include the facility to meet the requirements within his scope and indicate in the proposal
- Steam generators shall be floating on steam headers, i.e. no pressure control shall be provided on steam generators unless warranted for process reasons. Accordingly, Licensor shall consider the normal battery limit steam pressure as indicated in the table above for estimation and guarantee of the steam generation quantity. However, design of steam generation facilities shall be capable of operating at minimum as well as maximum battery limit pressure condition also.
- Licensor shall superheat the steam generated in the fired heater (in case of steam generation is envisaged anywhere in the unit) continuously to match the battery limit condition indicated in the table above unless warranted otherwise for process reason.
- Above provided battery limit conditions are indicative and will be firmed during next phase of project.
- Deleted.
- Mechanical design conditions of utility systems will be verified during detailed engineering based on final hydraulics.
- The battery limit pressures for liquid lines at individual unit battery limits will vary depending up on the location of the unit. These shall be finalized during detailed engineering.
- For Substations & SRR buildings, RO-DM Plant/CPU the Minimum LP steam condition considered at the battery limit of building shall be 3.1 kg/cm²g, 145 deg C.
- Polished condensate conditions at CPU B/L (at grade).

6.2 UTILITY SPECIFICATION

6.2.1 WATER QUALITY

Water quality for the Desalinated Water, Demineralised Water (DM), Boiler Feed Water (BFW) and Recirculation Cooling Water are attached below.

Table 6.2.1: Water Quality

S.No.	Parameter	Desalinated Water / Treated Water	DM Water	BFW	Recirculating Cooling Water
1.	pH	7.5-8	6.5-7.0	8.5-9.5	7.5-7.8
2.	LSI	±0.5 (Max)			
2.	Dissolved Oxygen, ppm			0.005	
3.	Total suspended solids, mg/l	2 (max)	Below detection limit	Nil	5-10 (Note-2)
4.	Conductivity, micromho/cm	375 (max)	0.2 max		1875 (max)
5.	TDS, mg/l	230 (max)		0.5 (max)	1150 (max)
6.	Turbidity, NTU	2 (max)	Below detection limit	Nil	5-10 (Note-2)
7.	Chloride as Cl, mg/l	20 (max)	Below detection limit		100 (max)
8.	Calcium hardness as Ca, mg/l	35 (max)			175 (max)
9.	Magnesium hardness as Mg, mg/l	1 (max)			5 (max)
10.	Total hardness as CaCO ₃ , mg/l	100 (max)			500 (max)
11.	M-alkalinity as CaCO ₃ , mg/l	100 (max)			100-120 (Note-1)
12.	Fluoride as F, mg/l	0.05 (Max)			
13.	Sodium as Na, mg/l	30 (max)	0.01 max		150 (max)
14.	Potassium as K, mg/l	1.5 (Max)			
15.	Sulphate as SO ₄ , mg/l	1.5 (max)			387-408 (max)
16.	Phosphate as PO ₄ , umol/l	Nil			
17.	Nitrates as NO ₃ , umol/l	1 (max)			

**BIDDING DOCUMENT -
TECHNICAL SPECIFICATIONS FOR
STYRENE BUTADIENE RUBBER
UNIT**

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S.No.	Parameter	Desalinated Water / Treated Water	DM Water	BFW	Recirculating Cooling Water
18.	Total silica as SiO ₂ , mg/l	0.5 (max)			2.5 (max)
19.	Reactive silica as SiO ₂ , mg/l	0.5 (max)	0.02 max	0.02 max	2.5 (max)
20.	Colloidal silica, mg/l	Below detection limit			
21.	Boron as B, mg/l	0.5 (max)			
22.	Iron as Fe, mg/l	Below detection limit	0.03 max	0.03 max	0.5-1 (Note-3)
23.	Chromium, mg/l	Below detection limit			
24.	Barium, mg/l	Nil			
25.	Strontium, mg/l	Below detection limit			
26.	Organic matter as KMnO ₄ at 100 Deg C, mg/l	0.01 (max)			
27.	Oil & Grease, mg/l	Below detection limit	Below detection limit		
28.	Mineral Oil, mg/l	Below detection limit			
29.	Total copper, mg/l		0.003 max	0.003 max	
30.	KMnO ₄ value @ 100 Deg C, mg/l		<1	5 max	
31.	Conductivity at 25 deg.C or ambient (after addition of Hydrazine and Morpholine)			<1	

Notes:

1. Total alkalinity will find its own level depending upon maintained pH. Total alkalinity as CaCO₃ will be about 100-120 ppm.
2. 10 ppm is at the outlet of cooling tower sump. SS filter shall be designed for the inlet value of 60 ppm.
3. Value indicated as Total Iron, mg/l.
4. Where value is not defined /mentioned in above table, it means value not reported, does not mean zero.

6.2.2 NITROGEN

Following is the quality of the nitrogen supply.

Table 6.2.2: Nitrogen Quality

Nitrogen Gas Specification		
Parameter	Unit	Specification
Dew point @ atm pressure	°C	(-)100
Nitrogen Purity	vol %	99.99
Oil Content	ppm	Nil
Oxygen content	ppmv	3 max
Carbon Monoxide	ppmv	Nil
Carbon dioxide	ppmv	1 max

6.2.3 INSTRUMENT AIR

Following is the quality of the Instrument Air.

Table 6.2.3: Instrument air specification

Instrument Gas Specification		
Parameter	Unit	Specification
Dew point @ atm pressure	°C	(-)40
Oil content	ppm	Nil

6.2.4 PLANT AIR

Following is the quality of the Plant Air.

Table 6.2.4: Plant air specification

Plant Air Specification		
Parameter	Unit	Specification
Dew point @ atm pressure	°C	No free water
Oil content	ppm	Nil

6.2.5 FUEL GAS

Following is the typical Fuel Gas specification.

Table 6.2.5: Fuel Gas specifications

S.No	Parameter	UOM					
1.	Name		Fuel Gas			R-LNG (Notes-2,3,4,5,6,7)	LPG
2.	Case #		Rich Gas	Lean Gas	Higher H2 Case (Notes-8)		START-UP
3.	Composition						
a.	Hydrogen	mol%	17.48	27.76	51.77		
b.	Nitrogen	mol%	3.46	0.27	4.69	1 Max	
c.	Carbon Dioxide	mol%	0.76	0.0	0.6	< 100 ppm-mol	
d.	Carbon Monoxide	mol%	0.14	0.13	0.31		
e.	Oxygen	mol%		0.0	0.33	< 50 ppm-mol	
f.	Water	mol%	0.27	0.07			0.14
g.	Methane	mol%	32.01	67.98	19.81	87.00 Min	
h.	Ethane	mol%	13.57	1.84	8.88	1.5 min - 9.5 max	3.29
i.	Ethylene	mol%	22.23	0.08	10.42		
j.	Propane	mol%	1.2	0.93	0.79	Note-2	29.24
k.	Propylene	mol%	6.5	0.0	0.84		
l.	i-Propane	mol%				Note-2	
m.	n-Butane	mol%	0.49	0.22	Note-8	Note-3	53.78
n.	i-Butane	mol%	0.23	0.25	Note-8	Note-3	13.25
o.	Butene-1	mol%	0.1	0.0			
p.	i-Pentane	mol%	0.01	0.0	Note-8	Note-4	0.27
q.	n-Pentane	mol%	1.49	0.47	Note-8	Note-4	0.03
r.	Pentene	mol%	0.02	0.0	Note-8		
s.	Hexane	mol%	0.03	0.0			
t.	Hexene-1	mol%		0.0			
u.	C7 (+)	mol%					
v.	Hydrogen Sulphide	mol%	<150 ppmv	0.001	<150 ppmv	< 5 mg/Nm3	Note-1
w.	Total Sulphur	mg/Nm3				< 30	
x.	NH3	mol%	0.01	0.0	0.04		
y.	Mercaptan Sulphur	mg/Nm3				< 7	
4.	Total molecular weight	kg/kmol	22.06	13.0	13.1		
5.	LHV (Mass basis)	kJ/kg	10940 kCal/kg	12415 kCal/kg	11239 kCal/Kg		
6.	HHV (Mass basis)	kJ/kg					
7.	GHV	Kcal/SM3				9340- 10420	

Notes:

- 1) Vaporized LPG Sulphur content is as follows:
 - a) Total Sulphur, ppmw (max): 150

- b) Mercaptan Sulphur, ppmw (max) : 20
- c) H₂S: Nil
- d) Cu Strip corrosion @ 38 °C for one hour: Not worse than 1
- e) Free Water content: Nil
- 2) Propane and heavier: 4.5 mol% Maximum
- 3) Butane and heavier: 2.0 mol% Maximum
- 4) Pentane and Heavier: 0.20 mol% Maximum
- 5) The R-LNG contains traces of Metals.
 - a) Pb+Zn: Max 0.50 ppmw
 - b) Na+K: Max 0.30 ppmw
 - c) Vanadium: Max 0.50 ppmw
 - d) Calcium: Max 2.0 ppmw
 - e) Magnesium: Max 2.0 ppmw
 - f) Sum of Heavy Metals: Max 1.0 ppmw
- 6) The Moisture content in the R-LNG is 112 Kg/million SM3 (Max).
- 7) The Wobbe Index: min/max: 1360-1440 Btu/SCF.
- 8) Higher H₂ Case Fuel Gas also contains:
 - a) C₄ : 0.52 Mol%
 - b) C₅+ : 0.51 Mol %
 - c) Butenes: 0.13 Mol%

6.2.6 FUEL OIL

Following is the typical Fuel Oil specification.

Table 6.2.6: Refinery Fuel Oil specifications

S.No	Parameter	UOM	
1.	Name		Refinery FUEL OIL
2.	Crude Stock		
3.	Sp Gr @15 DEG C		0.957
4.	Sulphur content	WT%	<= 0.5
5.	Nitrogen content (total/basic)	wppm	1290
6.	Nickel content	wppm	3.1
7.	Vanadium content	wppm	3.1
8.	Sodium content	wppm	Nil
9.	Copper content	wppm	
10.	Calcium content	wppm	
11.	Potassium content	wppm	
12.	Flash Point	DEG C	61
13.	Pour Point	DEG	(-)1.0
14.	Pour Point(summer)	DEG	
15.	Kinematic Viscosity @ 100 DEG C	cst	3.0
16.	Kinematic Viscosity @ 150 DEG C	cst	
17.	Acidity, Total, Max	Mg KOH/g	
18.	Distillation Range (ASTM D86)-IBP		
19.	Distillation Range (ASTM D86)-10%		
20.	Distillation Range (ASTM D86)-20%		

S.No	Parameter	UOM	
21.	Distillation Range (ASTM D86)-30%		
22.	Distillation Range (ASTM D86)-40%		
23.	Distillation Range (ASTM D86)-50%		
24.	Distillation Range (ASTM D86)-60%		
25.	Distillation Range (ASTM D86)-70%		
26.	Distillation Range (ASTM D86)-80%		
27.	Distillation Range (ASTM D86)-90%		
28.	Distillation Range (ASTM D86)-FBP		
29.	Conradson Carbon Residue	wt%	9.5
30.	Ash content (max)	wt%	
31.	Cetane Number	wt%	
32.	Water Content	ppmw	
33.	Net heating value	kcal/kg	9750
34.	HHV	kcal/kg	
35.	Cold Filter Plugging Point- Winter (Deg C)	CFPP	
36.	Cold Filter Plugging Point- Summer (Deg C)	CFPP	
37.	Total Sediments	wt%	
38.	Density @ 37.8 / 98.9 deg C	kg/m3	
39.	Bromine number	kg/m3	
40.	Mono / Di/Tri/Poly/total aromatics	Vol%	
41.	Aniline Point, deg C	Vol%	
42.	Asphaltene	Vol%	
43.	H/C ratio or Ultimate Composition	Vol%	
44.	Iron content	wppm	

Notes:

1. Internal Fuel Oil Specification based on MoEFCC standard of 0.5 wt% (max.) Sulphur content.
2. These compositions are tentative and shall be confirmed during detailed engineering.

6.2.7 ELECTRICAL POWER

Following Standard voltage ratings will be applied to various equipment & services.

Table 6.2.7: Electric power supply details

S.No.	Type Of Load	Power	Supply	Frequency	Phase	Voltage
1	Lighting		AC	50 +/- 3%	1	240 V +/- 10%
2	Instrumentation Power supply		AC UPS	50 +/- 3%	1	110 V +/- 10%
3	UPS (UPS Output specifications)		AC	50 +/- 1%	1	110 V +/- 1%
4	Motor					
4.1		P<0.18 kW (Except MOV's)	AC	50 +/- 3%	1	240 V +/- 10%
4.2		0.18 kW <= P <= 160kW (Except VFD Motors)	AC	50 +/- 3%	3	415 V +/- 10%
4.3		>160kW	AC	50 +/- 3%	3	6600 V +/- 10%

7.0 SITE / METEOROLOGICAL DATA

CLIMATIC CONDITION

The Plant shall be designed based on the following climatic conditions.

Table 7.1 Atmospheric Temperature

Ambient Temperature		Minimum: 16.2
		Maximum: 47.2
Data for Equipment Design		
1) Design Temperature for Air Handling Equipment		
	Dry Bulb Temperature	39.5
	Wet Bulb Temperature	29
	Design air temperature for air cooled exchangers where followed by water cooling	40
	Design air temperature for air cooled exchangers in critical services not followed by water cooling	42
	Coincident Temperature for Air Blower & Air Compressor design	40.5 @ 100% relative humidity
Low ambient temperature for Min Design Metal Temperature		16.2

Table 7.2 Barometric Pressure

Minimum/Normal /Maximum mbar	989.8 / 1006 / 1018.4

Elevation above mean sea level is -----m

Table 7.3 Relative Humidity

Minimum/Maximum/ Design	17 / 74 /100

Table 7.4 Wind

Prevailing Wind Direction	
Wind Velocity	50m/s (180km/h) @10m ht.

Table 7.5 Rainfall

Maximum Recorded	
For 1 hour period	98 MM
for 24-Hour period	
Total annual Rainfall	

SEISMIC DATA:

ZONE 3 as per IS1893 Part 4, 2024.

SOIL DATA

Soil data will be provided later

8.0 ENVIRONMENTAL AND SAFETY DATA

For safety, fire protection, plant effluent (solids, liquid, and gaseous) and noise, the requirements of local, regional, and national laws, regulations and codes shall be confirmed.

Separate sewers for following waters are required for oily waste water, chemical waste water, sanitary waste water, storm water. Liquid waste zero discharge to environment should be practiced, hence liquid waste outside the complex is zero.

The emission limits of air pollutant are as mentioned in below tables

Table 8.1 Standards for Emissions from Furnaces, Boilers, Heater, Vaporizer

Emission from Chimney / Stack				
Sr. No.	Parameter	Fuel Type	Limiting concentration in mg/Nm ³ , unless stated	
			Existing	New furnaces, boilers
1	Sulphur Dioxide (SO ₂)	Gas firing	50	50
		Liquid firing	1700	850
2	Oxides of Nitrogen (NO _x)	Gas firing	350	250
		Liquid firing	450	350
3	Particulate Matter (PM)	Gas firing	10	5
		Liquid firing	100	50
4	Nickel + Vanadium (Ni + V)	Liquid firing	5	5
5	Hydrogen Sulphide in Fuel Gas	Liquid/gas firing	15	150
6	Sulphur content in liquid fuel wt%	Liquid/gas firing	1	0.5
7	Carbon Monoxide (CO)	Gas firing	150	100
		Liquid firing	200	150

Notes:

- (1) All values shall be corrected to 3% Oxygen
- (2) Wet scrubber shall be necessarily be operated at the time of decoking
- (3) Norms for CO shall be monitored only in case of Phthalic Anhydride (PA), Maleic Anhydride (MA), Terephthalic Acid (PTA) and Dimethyl Terephthalate (DMT) Plants. Norms for CO emissions shall not be applicable to PA/MA manufacturing standalone existing plants with an installed capacity of less than 30,000 metric tonnes per annum, provided that such units have a chimney/stack of minimum 30 metres height of emitting carbon monoxide.
- (4) Particulate Matter (PM) limit from polymer plant dust from silos, bins, hoppers etc also to be considered as 5 mg/nm³.

Table 8.2 Standards Process Emission (Specific Pollutant)

Sr. No.	Parameter	Source	Limiting concentration in mg/Nm ³	
			Existing Plants	New Plants
Specific Pollutant				
1	Chlorine	EDC/VCM Plant and Incinerator	10	10
2	Hydrochloric Acid Mist	EDC/VCM Plant and Incinerator	30	30
3	Ammonia	Waste Water stripper, Acrylonitrile Plant, Caprolactum Plant	75	75
4	Hydrogen Sulphide	Naphtha Pre-Treatment Plant, Olefin Plant	5	5
5	Phosgene	(TDI) and (MDI) Plant	1	1
6	Hydrogen Cyanide (HCN)	Acrylonitrile Plant	10	10
7	VOC (HAPs) – TDI and MDI	TDI, Methylenediphenyl Di-isocyanate (MDI) Plants	0.1	0.1
8	VOC (HAPs), Benzene and Butadiene	Benzene, Butadiene Plants	5	5
9	VOC (HAPs), EO, VCM, EDC, AC, N and PO	EO, VCM, EDC, ACN and PO Plants	20	10
10	Organic Particulate	PA, MA and TDI Plant	50	25
General Pollutant				
11	VOC (MA, PA and Phenol)	MA, PA, Phenol Plants	-	20
12	VOC (EB, Styrene, Toluene, Xylene, Aromatics, EG and PG)	Ethyl Benzene (EB), Styrene, Toluene, Xylene, Aromatics, EG, PG Plants	-	100
13	VOC (Paraffin, Acetone and Olefins)	Non-Methane, HC (Paraffin), Acetone, Olefins Plants	-	150

Note- HAP - Hazardous Air Pollutants are those pollutants that cause cancer or other serious health effects, or adverse environmental and ecological effects.

Ambient Air Quality

Ambient air quality around the premises will be limited to those as per National Ambient Air Quality Standards 2009, which are given below:

Table 8.3 National Ambient Air Quality Standards

Sr. No.	Pollutant	Time Weighted Average	Concentration in Ambient Air		
			Industrial, Residential, Rural & other areas	Ecologically Sensitive Area	Methods of measurement
1.0	Sulphur Dioxide (SO ₂)	Annual Average*	50 µg/m ³	20 µg/m ³	-Improved West and Gaeke
		24 hours**	80 µg/m ³	80 µg/m ³	-Ultraviolet Fluorescence
2.0	Oxides of Nitrogen (NO ₂)	Annual Average*	40 µg/m ³	30 µg/m ³	-Modified Jacob & Hochheiser (Na-Arsenite)
		24 hours**	80 µg/m ³	80 µg/m ³	-Chemiluminescence
3.0	Particulate Matter, Size<10 µ	Annual Average*	60 µg/m ³	60 µg/m ³	-Gravimetric -TOEM
		24 hours**	100 µg/m ³	100 µg/m ³	-Beta attenuation
4.0	Particulate Matter, Size<2.5 µ	Annual Average*	40 µg/m ³	40 µg/m ³	-Gravimetric -TOEM
		24 hours**	60 µg/m ³	60 µg/m ³	-Beta attenuation
5.0	Ozone O ₃	8 hours**	100 µg/m ³	100 µg/m ³	-UV Photometric -Chemiluminescence
		1 hour	180 µg/m ³	180 µg/m ³	Chemical method
6.0	Lead (Pb)	Annual Average*	0.5 µg/m ³	0.5 µg/m ³	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
		24 hours**	1.0 µg/m ³	1.00 µg/m ³	-ED-XRF using Teflon filter
7.0	Carbon Monoxide (CO)	8 hours**	2 mg/m ³	2 mg/m ³	-Non-Dispersive Infrared (NDIR)
		1 hour	4 mg/m ³	4.0 mg/m ³	Spectroscopy
8.0	Ammonia (NH ₃)	Annual Average*	100 µg/m ³	100 µg/m ³	-Chemiluminescence
		24 hours**	400 µg/m ³	400 µg/m ³	-Indophenol blue method
9.0	Benzene	Annual Average*	05 µg/m ³	05 µg/m ³	-Gas chromatography based continuous analyser
					-Adsorption and Desorption followed by

Sr. No.	Pollutant	Time Weighted Average	Concentration in Ambient Air		
			Industrial, Residential, Rural & other areas	Ecologically Sensitive Area	Methods of measurement
10.0	Benzo(a) Pyrene (BaP)	Annual Average*	01 ng/m ³	01 ng/m ³	-Solvent extraction followed by HPLC/GC analysis
11.0	Arsenic (As)	Annual Average*	06 ng/m ³	06 ng/m ³	- AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
12.0	Nickel (Ni)	Annual Average*	20 ng/m ³	20 ng/m ³	AAS/ICP method after sampling on EPM 2000 or equivalent filter paper

* Annual Arithmetic mean of minimum 104 measurements in a year taken twice a week 24 hrs. at uniform interval.

** 4 hourly/8 hourly values should be met 98% of the time in a year. However, 2% of the time, it may exceed but not on two consecutive days.

Note: Whenever and wherever monitoring results on two consecutive days of monitoring exceed the limits specified above for the respective category, it shall be considered adequate reason to initiate regular or continuous monitoring and further investigation.

VOC Control, Emission and Monitoring

Fugitive emissions are primarily due to intermittent/continuous leakage or evaporation of Volatile Organic Carbons (VOCs) from processing/storage area of the Petrochemical Complex.

Storage of General Petroleum Products

Requirements on type of storage tanks shall be as follows:

Table 8.4: Types of Storage Tanks

Sr. No.	Total Vapor Pressure, KPA	Tank Capacity, m ³	Type of Storage Tank
1	> 10	4 – 75	Fixed Roof Tank (FRT) with pressure valve vent
2	10 – 76	75 – 500	Internal Floating Roof Tank (IFRT) or External Floating Roof Tank (EFRT) or Fixed Roof Tank with vapor control or vapor balancing system
3	10 – 76	> 500	Internal Floating Roof Tank or External Floating Roof Tank or Fixed Roof Tank with vapor control system
4	> 76	> 75	Fixed Roof Tank with vapor control system

Notes:

1. Requirement for seals in Floating Roof Tanks:

- IFRT & EFRT are to be provided with double seals with minimum vapor recovery of 96%.
 - Primary seal shall be liquid or shoe mounted for EFRT and vapor mounted for IFRT. Maximum seal gap width will be 4 cm and maximum gap area will be 200 cm²/m of tank diameter.
 - Secondary seal will be rim mounted. Maximum seal gap width will be 1.3 cm and maximum gap area will be 20 cm²/m of tank diameter.
 - Material of seal and construction should ensure high performance and durability.
2. Fixed Roof Tanks will have vapor control efficiency of 95% and vapor balancing efficiency of 90%.
3. Inspection and maintenance of storage tanks should be carried out under strict control. For the inspection, API RP 575 may be adopted. In-service inspection with regard seal gap should be carried out once in every six months and repair to be implemented in short time. In future, possibility of on-stream repair of both seals will be examined.
4. Storage tanks shall be painted with white color shade, except for derogation of visually sensitive area.

Storage of Benzene, VCM (Vinyl Chloride Monomer) & ACN (Acrylonitrile)

Requirements on type of storage tanks shall be as follows:

- FRT with vapour for incineration with 99.9% of removal efficiency for volatile organic compounds (VOC) shall be provided; or
- IFRT/EFRT with double seals, emission-reducing roof fitting and fitted with roof with vapour removal efficiency of at least 99% shall be provided; or
- Internal floating roof and nitrogen blanketing in between fixed & floating roofs shall be provided.

VOC Emission Standard

Standards for emissions from storage of volatile liquids are as follows:

Table 8.5: Emission Control for road tank truck/ rail tank wagon loading

Sr. No.	ITEM	STANDARDS
1	Naphtha: a) VOC reduction, % or b) Emission, gm/m ³	(i) ≥99.5 or (ii) ≤5
2	Benzene and Butadiene: a) VOC reduction, % or b) Emission, gm/m ³	(i) ≥99.99 or (ii) ≤20
3	Toluene/Xylene: a) VOC reduction, % or b) Emission, mg/m ³	(i) ≥99.98 or (ii) ≤150

Table 8.6: Quantum limits in gm/hr for new petrochemical plants

Sr. No.	ITEM	SOURCE	QUANTUM LIMIT (GM/HR)
1	Organic particulate	Phthalic Anhydride (PA), Maleic Anhydride (MA), Toluene Di-Isocyanate (TDI) Plants- process emission	100
2	VOC-HAP (TDI+MDI)	Toluene Di-Isocyanate (TDI), Methylene-diphenyl Di-Isocyanate (MDI) Plants – process emission	0.5
3	VOC-HAP (Benzene + Butadiene)	Benzene, Butadiene Plants – Process emission	25.0
4	VOC-HAP (EO, VCM, EDC, CAN + PO)	EO, VCM, EDC, ACN, PO Plants – Process emission	50.0

Liquid Effluents from Refinery and Petrochemical Units:

The Effluent generated from the Refinery and Petrochemical Units shall be routed to a Centralized Effluent Treatment Plant in the Complex where the effluents generated from all facilities including Process Unit and Utilities and Offsite facilities shall be received for Treatment. The Configuration of the Effluent Treatment Plant shall typically consist of Oil Removal Section, Biological Treatment section and Polishing (Media and Activated Carbon Filtration etc.) for Treatment of the Effluents to a treated effluent quality which after Tertiary Treatment (in a RO based Facility), shall enable recycle of the Treated Effluent in the Complex as treated water to supplement the fresh water requirements in the complex.

The Licensor(s) shall confirm that the effluents generated in the Unit shall be treatable in the ETP of a configuration as indicated above.

The detailed quality and generation of the Liquid Effluents from the Unit / Section(s) shall be provided as indicated in the Table below

Table 8.7: Liquid Effluent Streams

Description	Unit of Measurement
Source / Originating Point	
Flow Rate (Average / Peak)	m ³ /hr
Frequency of Flow	Continuous / Intermittent
Duration, if Intermittent	Hours / day
Temperature	C Deg

**BIDDING DOCUMENT -
TECHNICAL SPECIFICATIONS FOR
STYRENE BUTADIENE RUBBER
UNIT**

Description	Unit of Measurement
Color/ Odour	
Pressure	Kg/cm ² a
Sp. Gravity	
Viscosity	cP
Vapor Pressure	Kg/cm ² (g)
pH	
Biological Oxygen Demand, 3 days @ 27 ⁰ C	mg/l
Chemical Oxygen Demand	mg/l
Total Suspended Solids	mg/l
Total Dissolved Solids	mg/l
Volatile Matter	mg/l
Total Oil Content	mg/l
Emulsified Oil	mg/l
Oil Components	cP
Total Alkalinity	mg/l
P-Alkalinity	mg/l
Sulphide	mg/l
H ₂ S	mg/l
Free / Total Ammonia	mg/l
Total Kjeldahl Nitrogen (TKN)	mg/l
Phosphorus (P)	mg/l
Benzene	mg/l
Benzo (a) - pyrene	mg/l
Phenols (and Phenolic Compounds)	mg/l
Heavy Metals (Including Pb, Ni, Zn, Cu, Hg, V, etc.)	mg/l
Chromium (Total and Hexavalent)	mg/l
Cyanides	mg/l
Other Contaminants in the Effluent (with Contaminant Concentration)	mg/l
Toxic / Corrosive Contaminants (Amines, salts, etc.)	mg/l

Description	Unit of Measurement
Chemical (Ionic) Composition - Anionic and Cationic Quality in terms of Calcium, Magnesium, Fluoride, Sodium + K, Nitrate, Phosphate, Silica etc.	mg/l
Recommended Treatment of Effluent Stream (including any Specific Pre-Treatment required for the Effluent Stream)	

9.0 NOISE

The ambient noise levels standards prescribed under Environmental (Protection) Act, 1986 Rules, and 1989 viz. 75 dBA (day time) and 70 dBA (night time) and 85 dBA @ 1m from burners / from source of equipment, however to be reduced to 80 dBA based on vendor input.

ANNEXURE-7

INTELLIGENT P&ID AND DATABASE REQUIREMENT

The following software shall be used for updating of documents / generation of new documents:

- P&IDs : Intelligent Plant P&ID
Provision to provide database backup in SQL also
- Line List/Equipment list/Instrument List : MS EXCEL (extracted from Intelligent P&ID, no separate excel format)

INTELLIGENT P&ID REQUIREMENT:

- a) The Seed File shall be shared with the Licensor during the KOM. If required by PMC/OWNER, the Licensor shall perform all Intelligent P&ID activities within the PMC/OWNER's designated common data environment. As per PMC/OWNER requirements, the Licensor shall operate/work on integrated network (ex-workshare environment in host and satellite arrangements, or equivalent arrangement in other platforms). All work shall be carried out on a single, integrated intelligent platform and database to ensure consistency and alignment across all licensors. The integrated Intelligent Platform and database shall be informed by PMC/Owner during Kick-off Meeting of the BEDP Preparation stage. Licensor to comply the requirement confirmed by PMC/Owner during Kick-off Meeting.
- b) All Piping and Instrumentation Diagrams (P&IDs) shall be developed as intelligent P&IDs from the beginning of the project. All document outputs, including PDF versions for reviews, shall be generated directly from the intelligent P&IDs to ensure consistency and accuracy. The Licensor shall provide the intelligent P&ID files upon request by the Client and mandatorily at each formal review stage.
- c) Item tag configuration for line number, instrument etc. shall be defined during KOM.
- d) Back-up of Intelligent P&ID to be shared whenever required by PMC/Owner.
- e) Dummy Graphics not to be prepared. All Graphics should be intelligent graphics.
- f) Typical requirements for database of INTELLIGENT PLANT P&IDs are attached Refer Annexure A.1. Any additional requirement shall be finalized during Kick off meeting.
- g) Special requirement mentioned in note for some valve, these valves should be drafted with specialty valve.
- h) Isolation valves as per installation standard of instrument are to be drafted/shown in P&ID wherever applicable.
- i) Rating break for all Instruments i.e. PSV, CV, FT etc. & equipment to be shown in Intelligent P&ID with proper segment break.
- j) Where 2 check valves are shown "both to be different type, Different type of NRV's to be provided during drafting in Intelligent P&ID. Instead of writing with notes.
- k) Line list, instrument list, equipment list should be extracted from Intelligent P&ID with all database as per annexure A.1 & submitted for OWNER/PMC along with P&ID.
- l) Intelligent Labels i.e. LO/LC/FC/FO/TSO/PSO/ FF to be considered during drafting.
- m) Line list, instrument list, equipment list format to be customized based on

PMC/OWNER requirement during KOM.

- n) Intelligent labels symbols to be placed on all the items in P&ID drawing like line number, equipment tag number, instrument number etc. and placing of note label symbol at these items is not accepted. Note label to be considered to write any general text in the P&ID only.
- o) All inconsistencies in the Intelligent P&IDs shall be eliminated, and an out-of-date report shall be generated and submitted.
- p) Line serial numbers must be unique based on the combination of only **three attributes**: *Fluid Code*, *Unit Number*, and *Serial Number*. Duplication shall not be checked using the entire line number string, but only these three key attributes.
- q) P&ID should be prepared with adequate font size (~2.5mm) in A1 layout, spacing, and layout adjustments should be made in accordance with industry best practices and applicable standards etc to ensure all information is clear and legible in A3 format print. Also conform to standard engineering documentation practices.

All engineering models (e.g. P&IDs, PFDs.) shall be created using intelligent design tools, which enable object-based modeling and metadata embedding, on Common Data Environment and/or with software specified or approved by the Owner.

The Licensor shall prepare a Master Tag Register with unique identifiers, linked to design documents, and including metadata fields as per the Owner's standard template.

Deliverables

Deliverable	Format	Comments
Piping & Instrumentation Diagrams (P&IDs)	Native + XML + PDF	Developed in smart software; with embedded tag data
Process Flow Diagrams (PFDs)	Native + DXF + PDF	Developed in CAD/smart software; with embedded tag data
Master Tag Register (MTR)	Excel + XML/JSON	Must conform to Owner structure and ISO 15926
Instrument Index	Excel + XML/JSON	Includes tag number, loop, signal type, function
Design Models	Native / Excel	All simulation and design files for non-proprietary sections of the unit

The Licensor shall maintain change / revision logs, data dictionaries, schema definitions, etc. to ensure changes are traceable and data is comprehensive.

ANNEXURE-A-1: TYPICAL CONTENT OF INTELLIGENT PLANT DATABASE

Typical Content of Intelligent Plant Database

For Equipment:

#	Equipment Name	Attribute	Example
A	General		
1	General Equipment Code		xxxxxx
2	Equipment Description		Vessel
3	Tag Sequence Number		XX
5	Operating Pressure		XXX kg/cm2 (g)
6	Operating Temperature		XX C
7	Design Pressure		XXX kg/cm2(g)
8	Design Temperature		XX C
9	Dimensions LxD		XXmDia XXX m T/T
10	Insulation Type		XX
11	Insulation Thickness		XX
12	Materials of Construction		XX

#	Exchangers	
1	Heat Duty	XX kW
2	Equipment Surface Area	XX m2
3	Shell Design Pressure	XX kg/cm2(g)
4	Tube Design Pressure	XX kg/cm2 (g)
5	Shell Design Temperature	XX C
6	Tube Design Temperature	XX C
7	Shell Material	304 SS
8	Tube Material	304 SS
9	Shell Operating Pressure	XX kg/cm2 (g)
10	Tube Operating Temperature	XX C
11	Trim Material	304 SS
12	Insulation Spec	

#	Filters	
1	Capacity & Delta P	
2	Differential Pressure	XX kg/cm2 (g)
3	Dimensions LxD	XXmDia XXX m T/T
4	Filter Material	xxxx
5	Trim Material	xxx

#	Pumps & compressors	
1	Capacity	nm3/hr, M3/hr
2	Suction Pressure	XX kg/cm2(g)
3	Suction Temperature	XX degC
4	Discharge Pressure	XX kg/cm(g)
5	Discharge Temperature	XX degC
6	Differential Head	XX m
7	Design Pressure	XX kg/cm(g)
8	Design Temperature	XX degC
4	Driver Power	XX kW
5	Casing Material	316 SS
6	Impeller Material	316 SS

#	Air Coolers	
1	Heat Duty	XX kW
2	Equipment Surface Area	XX m2
3	Tube Material	304 SS
4	Fin Material	304 SS
5	Insulation Spec	

For Piping, Instrument and Other Attributes

#	Piping Attributes Name	Example
1	Pipe Line Number	
2	Line Service Code	
3	Size	
4	Unit Number	
5	Line Class	XXXXXXX
6	Line Sequence Number	
7	P&ID No.	
8	Fluid Name	Steam
9	Fluid Phase	V
10	Flow regime	
11	Corrosion Allowance	3.0 mm
12	Operating Pressure	XX kg/cm ² (g)
13	Operating Temperature	XXX c
14	Design Pressure	XX kg/cm ² (g)
15	Design Temperature	XX C
16	Heat Tracing (Min. Temp.) / Maintenance Temp.	XX C
18	Tracing type	
19	Insulation Code	
20	Pipe ID/ Schedule	
21	Density	
22	Viscosity	
23	Mass flowrate	
24	Linear DeltaP	
25	Velocity	
26	PWHT Requirement	
27	Remarks	

#	Piping Specialty Attribute Name	Example
1	Piping Specialty item Tag Number	xxxx
2	Description	Globe Valve
3	Nominal Diameter	
4	Sequence Number	
5	Corrosion Allowance	XX mm
6	Rating	300#
7	Heat Tracing (Min. Temp.)	75 c
8	Tracing type	
9	Opening Action	CSO
10	Insulation Code	

#	Instruments Attribute Name	Example
1	Instrument Tag Number	xxxxxx
2	Tag Sequence Number	
3	Tag Suffix	A
4	Operating Pressure	XX kg/cm ² (g)
5	Operating Temperature	XXX c
6	Design Pressure	XXkg/cm ² (g)
7	Design Temperature	XX C
8	Flow	Kg/hr
9	Element Type	

Signature Not Verified

Digitally signed by ARVIND KUMAR
Date: 2026.05.07 17:02:53 IST

Location: eProcure-EPROC
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