



CERTIFICATE NO  
BN22530/21306



**CENTRAL PROCUREMENT ORGANISATION (MKTG)**

(certified to ISO 9001:2015)

**BHARAT PETROLEUM CORPORATION LIMITED  
'A' INSTALLATION, SEWREE FORT ROAD SEWREE (E), MUMBAI - 400 015**

**"OPEN TENDER" FOR**

**ATC FOR "DESIGN, ENGINEERING, SUPPLY, INSTALLATION &  
COMMISSIONING  
OF FLOW COMPUTER SYSTEM OF BPCL PIPELINE (15-SITES)"**

**GEM TENDER ID : GEM/2025/B/ 6662633**

**CRFQ NO: 1000442145**

***Tender Due date and Time: - 30-09-2025 @ 16:00 HRS***

**PRE-BID MEETING: 16/09/2025 AT 11:00 HRS VIA MICROSOFT TEAMS**

**To, M/s.**  
**Dear Sir/Madam,**  
**Subject: INVITATION TO BID**

Dear Sir/ Madam,

**1. ABOUT THE COMPANY:**

Bharat Petroleum Corporation Ltd. (BPCL) is a Fortune 500 Maharatna Oil Refining and Marketing company in India. The company produces a diverse range of products, from petrochemicals and solvents to aircraft fuel and specialty lubricants and markets them through its wide network of Petrol Stations, Kerosene Dealers, LPG Distributors and Lube Shoppe's.

**2. OBJECTIVE OF THE TENDER:**

The objective of this tender is to invite technical and commercial offers for the subject job. You are invited to submit your offer as E-bids in two-part bid format (BQC cum Techno- commercial and Price Bid) for the above work on the terms and conditions contained in this tender document.

**3. BRIEF SCOPE OF THE WORK:**

The brief scope of the work includes design, engineering, supply, installation & commissioning of Flow Computer System of BPCL Pipelines (15 sites). The detailed scope of the work is depicted under Technical Specification & Scope of the work.

This tender is TWO-PART BID E-Tender, having BQC cum Techno-Commercial and Price Bids. Tender document consists of the following Attachments and Annexures:

- Annexure-I: Instruction to bidders.
- Annexure-II: Bid Qualification Criteria (BQC)
- Annexure-III: Technical Specification & Scope of the work & other conditions
- Annexure-IV: General Purchase Condition of Contract (GPC)
- Annexure-V: Special Purchase Condition of Contract (SPC)
- Annexure-VI: Format for Forms (to be submitted in Technical Bid)
- Annexure-VII: Applicable Policies:
  - 1. Policy on Compliance of Restriction of Land border
  - 2. BPCL's social media Policy
  - 3. PPP- Make in India Policy
  - 4. HSSE Policy

**4. EMD of INR 05 lakhs is applicable for this tender. EMD exemption applicable as per MSE Policy.**

**5. TENDER DETAILS :**

Description	Applicable for this tender
Type of Job –	Goods Contract
Divisibility of the tender – Divisible / Non-divisible	Non-divisible
Purchase Preference (MSE) - Applicable / Not Applicable	Applicable
Preference to Make in India, (PPP-MII) -Applicable / Not Applicable	Applicable
Relaxation in BQC for MSE's- Applicable / Not Applicable	Applicable

6. **Price Bid:** Price Bids have to be submitted online. Price Bids have to be submitted online in the price bid form of GeM Portal. **Price Quoted on GeM Portal is inclusive of GST.**

7. **Corrigendum/Addendums** if any will be provided against e-tender on **GEM PORTAL** site only.

8. **Pre-bid meeting will be conducted through video conferencing system/ Microsoft Teams on 16.09.2025/ 11:00 hrs. Bidder or their authorized representatives are requested to send their Email ID and Contact No. so that Link / conference ID could be shared with them for attending the pre-bid meeting.**

Link for joining pre-bid meetings is as: <https://teams.microsoft.com/l/meetup>

The bidders are requested to send their queries/ clarifications, if any, by e-mail to [hariprasad@bharatpetroleum.in](mailto:hariprasad@bharatpetroleum.in) and [abdulmatin@bharatpetroleum.in](mailto:abdulmatin@bharatpetroleum.in), in following MS- Excel format by **15.09.2025 / 15:00 hrs** with E-mail subject “Pre-bid queries – Tender Title & Tender Ref. No. / System ID”. The clarifications shall be provided during the pre-bid meeting.

Sr. No.	Annexure No. / Document Name/ Page No.	Clause No.	Clause Description	Query (if any)	Justification

9. Your online bid should be submitted on or before the due date of this tender. E-tender system will automatically close on the due date and time and bidders will not be able to submit their bids after closing time. Bids not in the prescribed format are liable to be rejected. BPCL does not take any responsibility for any delay in submission of online bids due to connectivity problems or non-availability of site and/or other documents/instruments to be submitted in physical form due to postal delay. No claims on this account shall be entertained.

*Note: Bidders are requested to provide the name, e-mail ID and Contact number of the person responsible for the tender. All correspondence/clarifications with the vendor will be sent either through GeM or to the e-mail ID of the responsible person. The bidders must keep the email account of the responsible person valid at all times and ensure that mails from BPCL account do not go into spam. Bidders shall be solely responsible for keeping the e-mail ID valid at all times and no claims will be entertained due to non – receipt of any mails regarding the tender sent to the responsible person. ”*

10. If BPCL is unable to evaluate any offer for want of information, such offer will not be considered.
11. BPCL reserves the right to change the quantity (increase/decrease) tendered.
12. BPCL’s decision on any matter regarding short listing of Vendors shall be final and any applicant shall not enter into any correspondence with BPCL unless asked for.
13. For clarifications, if any, please feel free to contact the undersigned :

Contact person	To be contacted for
Mr. Hari Prasad Central Procurement Organization (Mktg.), ‘A’ Installation, Sewree Fort Road, Sewree, Mumbai 400015 Email ID: <a href="mailto:hariprasad@bharatpetroleum.in">hariprasad@bharatpetroleum.in</a> Contact: (022) 24176415 / 9448282928	For clarifications regarding this tender.
Mr. Abdul Matin Central Procurement Organization (Mktg.), ‘A’ Installation, Sewree Fort Road, Sewree, Mumbai 400015 Email ID : <a href="mailto:abdulmatin@bharatpetroleum.in">abdulmatin@bharatpetroleum.in</a> Contact: : (022) 24176408 / 9983784935	
Mr. Pankesh Dinesh Patil Sr. Manager (Instr. Maint.), Pipelines Pipeline Operations, HQ Email ID <a href="mailto:patilpd002@bharatpetroleum.in">patilpd002@bharatpetroleum.in</a> Mobile No: 9571882896	Technical/sit e specific Queries/ Location Visits
Mr. Vasu V Dy. General. MANAGER MAINT E&I (PIPELINES), HQ Bharat Petroleum Corporation Limited, Pipelines, Sewree, Mumbai E mail id: <a href="mailto:vasuv@bharatpetroleum.in">vasuv@bharatpetroleum.in</a> MOB NO: 9930551233	

Thanking you, Yours faithfully,  
**for Bharat Petroleum Corporation Limited**

Sd/-

**Abdul Matin, Procurement Leader –CPO (Mktg.)**

## Annexure-I: Instruction to Bidders

### INSTRUCTIONS TO BIDDER FOR DOMESTIC TENDERS

1. Competitive offers are invited in two-part bid- Bid Qualification Cum Techno Commercial Bid and Price Bid from eligible bidders.

2. Successful bidders will be issued LOA by CPO (Mktg.).

3. Offers should strictly be in accordance with the tender terms & conditions and our specifications. Bidders are requested to carefully study all the documents/ annexures and understand the conditions, specifications, drawings, corrigendum etc. before submitting the tender and quoting the rates. In case of doubt, written queries should be raised within 7 days in case of limited tenders and 14 days in case of open tenders from the date of publication of the tender. However this shall not be a justification for request for extension of due date for submission of bids.

4. REFERENCE FOR DOCUMENTATION:

4.1. The number and date of Collective Request for Quotation (CRFQ) & Gem Tender Number must appear on all correspondence before finalization of Rate Contract / Purchase Order.

4.2. After finalization of Contract / Purchase Order, the number and date of 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.

5. LANGUAGE OF BID:

5.1. The Bid and all supporting documentation and all correspondence exchanged by bidder and Corporation, shall be written in English language only.

6. All documents attached with the Bid Qualification Cum Techno Commercial Bid, price bid and all corrigenda issued shall form the part of the tender. Bid Qualification criteria documents, techno-Commercial bid and the price bid will be submitted online. Bidders are required to refer to the list of Documents sought by BPCL for meeting the Bid qualification Criteria of the tender.

7. EARNEST MONEY DEPOSIT:

EMD may be submitted in form of e-BG or NEFT/RTGS transfer to BPCL Account or Bank Guarantee\* (as per format in GCC) or / OR Insurance Surety Bond(as per format in GCC).

7.1. If bidders intend to submit EMD in the form of Bank Guarantee (BG), it is recommended to ask your bank to issue e-BG. e-BG should be generated on or before the due date & time of the tender. Copy of e-BG should be uploaded along with bid against the tender on e-Procurement website.

Details required for e-BG are:

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
- For BG amendment, message type 767COV is to be used.
- SFMS contains following details:

Beneficiary's bank name: ICICI Bank

IFSC Code: ICIC0000393

BPCL'S Customer ID: BPCL583493800

**Details of BPCL required for e-Bank Guarantee (e-BG) is given below:**

Name	BHARAT PETROLEUM CORPORATION LIMITED
UIN / PAN	AAACB2902M
Legal Constitution of the Party	COMPANY
Date of Incorporation	1952-11-03
Email ID	<a href="mailto:sawantshyam@bharatpetroleum.in">sawantshyam@bharatpetroleum.in</a>
Contact No.	9892949644
Registered Address	BHARAT BHAVAN, 4 AND 6 CURRIMBHOY ROAD, BALLARD ESTATE, MUMBAI, MAHARASHTRA- 400001
Registered Pin	400001
Communication Address	BHARAT PETROLEUM CORPORATION LTD. BUSINESS PROCESS EXCELLENCE CENTRE (BPEC) BPCL OFFICE COMPLEX, PLOT NO. 6, SECTOR - 2, KHARGHAR, NEW MUMBAI, MAHARASHTRA- 410210
Communication Pin	410210

7.2. NEFT/RTGS to be provided for an amount mentioned in BQC/Tender Enquiry to the beneficiary as detailed below:

**Beneficiary's Name: Bharat Petroleum Corporation Limited**

**Bank Name: Standard Chartered Bank, Fort Branch**

**A/c No.: 22205020131**

**IFSC CODE: SCBL0036001**

7.3. Bidders may also submit the EMD bank guarantee in physical form if their Bank is not in position to issue e-Bank Guarantee. For this, a letter or an email from the bank shall be provided to BPCL for acceptance of physical BG. The BG should be submitted in a sealed envelope addressed to Procurement Leader, Gr-07 , boldly super- scribed on the outer cover –

**Tender No.:**

**Tender Title (Name of Work):**

**Closing Date / Time:**

**Name of the Bidder:**

Physical EMD BG should be sent by Registered Post/Courier to the following address so as to reach on or before the due date & time of the tender:

**CENTRAL PROCUREMENT ORGANIZATION (CPO)- Mktg.,  
BHARAT PETROLEUM CORPORATION LIMITED  
'A' INSTALLATION,  
SEWREE FORT ROAD,  
SEWREE, MUMBAI-400015**

- 7.4. BPCL will not be responsible for non-receipt of EMD/instrument(s) due to postal delay/loss in transit etc.
- 7.5. Demand Draft, Cheques, cash, Money Orders, Fixed deposit Receipts etc. towards EMD are not acceptable. Similarly, request for adjustment against any previously deposited EMD/Pending Dues/Bills/Security Deposits of other contracts etc. will not be accepted towards EMD.
- 7.6. Bid received without the EMD is liable to be rejected.
- 7.7. Bidders registered with BPCL shall also submit the EMD as mentioned above.
- 7.8. Exemption of EMD would be in line with policy of Govt. of India for MSE vendors.
- 7.9. For GEM tender EMD exemption shall be as per GeM EMD Exemption clause detailed in GTC (General Terms and Conditions of GeM portal).

#### **8. DOCUMENTS TO BE SUBMITTED BY BIDDER:**

Bidder shall furnish the necessary documents as per tender conditions along with the bid. In the absence of such documents, BPCL reserve the right to reject the Bid without making any reference to the bidder or assigning any reason whatsoever.

In case of Open tender floated on GeM platform, Bidder shall submit the following documents as per Bid Qualification Criteria (BQC), Technical and Techno- commercial requirement of tender:

#### **Documents required for Technical Criteria of BQC:**

Bidder (as defined in the Bid Qualification Criteria) shall submit the required documents as per technical criteria of BQC.

##### **8.1. Technical Criteria:-**

##### **8.1.1. Manufacturing Capability:**

##### **Document required:**

##### **Only OEM (Original Equipment Manufacturer) is allowed to participate:**

- Factory License OR Pollution Control Board certificate OR NSIC certificate OR any other Statutory document clearly indicating that bidder is Manufacturer of the tendered item.
- The documents/licenses as per above shall specify the manufacturing range OR shall indicate that the bidder is a manufacturer of the tendered item. In case, the tender item details are not mentioned in the above documents, a certificate from TPIA (after factory inspection, **post floating of the tender**) stating that Bidder is a manufacturer of the tendered item be submitted. For this purpose bidder shall engage a TPIA who is registered under "NABCB accredited bodies as per requirement of ISO/IEC17020 as Type A" in QCI NABCB.

##### **8.1.2. Supplying Capacity:**

##### **Documents required:**

TPIA verified list of Invoices of any continuous 12 months period issued by the bidder in the last 7 years ending on last day of the month previous to the one in which tender is invited, totaling to at

least **8 nos for NON-MSE Bidder / 7 nos for MSE Bidder** of Flow Computer System (used for Petroleum Product) in any Oil/Gas industries/companies.

S.No	Invoice no.	Invoice dt.	Qty. Supplied	Sold to	PO No.

8.2. Documents required for **Financial Criteria** of BQC:

Bidder shall submit the following financial documents.

8.2.1. Bidder shall furnish Annual Report/ audited balance sheets including Profit and Loss Accounts for previous three financial years along with the Bid to establish Bidder's conformance to financial criteria and prove existence since three years.

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

8.3. **Document Verification:** During BQC/EMD stage all vendors will have to provide self-certified copies of certificates and documents, with an undertaking to submit \*TPIA verified scanned documents or produce the original documents for verification by Proc. Manager in case the vendor emerges as successful (\*TPIAs which are accredited under "NABCB accredited bodies as per requirement of ISO/IEC 17020 as type "A" in QCI's NABCB website (<https://nabcb.qci.org.in/inspection-body/>), unless otherwise stated in BQC.

**All documents submitted through GeM portal shall be deemed to have been self-certified by the bidder, unless otherwise specifically sought.**

**All declarations to be self-certified.**

- **For Work order issued by BPCL TPIA Certification is not required.**
- **TPIA certification is not required for documents submitted in Original.**

Post opening of price bids, the successful bidder(s) is required to submit the TPIA verified scanned documents within 5 days of communication by BPCL. In case a vendor is not able to submit the required documents, action shall be initiated against the Vendor. A Show cause notice for holiday



listing would be issued by the procurement leader, which is to be replied by the vendor within 7 days.

Subsequently, the vendor shall be holiday listed forthwith by Competent Authority without any further process for the minimum period as mentioned in the holiday listing policy.

The bidders who are already registered with BPCL shall also submit all the documents as mentioned above.

#### **8.4. Documents to be submitted by MSE (Micro/Small enterprise) Bidder:**

8.4.1. Bidders quoting as Micro and Small Enterprise shall submit scanned copy of MSE document i.e. valid **“Udyam Registration Certificate”** along with scanned copy of CA certificate (as per the format attached as Annexure-A), to avail the benefits of Public Procurement Policy as per MSMED Act 2006/Public Procurement Policy Order 2012 (as amended from time to time).

8.4.2. In case CA certificate is not submitted, bidder shall not be considered as MSE and such bidder shall not be eligible to avail the benefits of Public Procurement Policy as per MSMED Act 2006/Public Procurement Policy Order 2012 (as amended from time to time).

8.4.3. In case of GeM tenders bidders should have updated their MSE status in their vendor profile to avail the benefit of Purchase Preference.

The CA certificate should be dated after the date of floating of tender and shall be specific to the tender for which bid is being submitted.

Purchase preference to MSE vendors (as per clause 5 of GCC) will be applicable only for Goods and Service tenders and **not** for works contracts.

#### **9. TRADE RECEIVABLES DISCOUNTING SYSTEM (TReDS):**

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. M1xchange and M/s C2treds, 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.

#### **10. ZED / Lean Certifications for MSE vendors:**

MSE vendors are encouraged to obtain ZED / Lean Certifications to improve their manufacturing processes, reduce defects, enhance product quality in line with global standards.

**11.** Bidder shall ensure that any certificate/ reports issued/ attested by a practicing-chartered accountant in India and submitted in the bid shall mandatorily include the UDIN number. Certificate / reports issued/ attested without UDIN number of practicing chartered accountant in India will not be considered for evaluation.

**12.** Charges of TPIA Verification & CA Certificate: All charges of the third party verification and CA certificate shall be borne by the Bidders.

**13.** Submission of authentic documents is the prime responsibility of the bidder. Wherever BPCL has concern or apprehensions regarding the authenticity/correctness of any document or information, BPCL reserve the right to get the documents cross-verified from the document issuing authority.

BPCL reserves the right to inspect the facilities at party's work to confirm their capabilities. BPCL also reserves the right to independently assess the capability and capacity of the bidder for execution of the project. If document authenticity cannot be established, the bid shall be rejected and administrative action (as applicable) shall be taken.

**14.** Failure to submit the above documents as per Qualification Criteria will render the Bid liable to be rejected. Therefore, the bidder shall in his own interest furnish complete documentary evidence in the first instance itself, in support of their fulfilling the Qualification Criteria as given in the tender. BPCL reserves the right to complete the evaluation based on the details furnished without seeking any additional information.

**15. PERFORMANCE SECURITY / RETENTION MONEY:**

Performance Security is applicable for all contracts with value exceeding Rs.10 Lacs.

Successful bidder can submit the Performance Security Deposit of 5% of basic contract value for Goods, upfront within 15 days from the receipt of LOA/award of Contract.

If performance security deposit is submitted in the form of Bank guarantee, the Bank Guarantee shall be valid and remain in force till the contractual completion period, defect liability period (if any) and with a claim period of six months thereafter. The Bank Guarantee shall be in the form prescribed in GPC.

Performance security may also be in the form of NEFT/ Insurance Surety Bond.

**For SITC Part**

Validity of PBG = 37 Months + 6 Months Claim Period = 1(One) Month Call Off Period + 06 months Delivery Period + 6 Month Installation & Commissioning + 24 months Guarantee period Post Commissioning + 6 months (for invocation / Claim).

**For Breakdown Maintenance Part**

Validity Period : 60 months AMC period + 06 months ( for invocation / Claim)

**16. VALIDITY OF QUOTE:**

The quote shall be valid for 120 days from the opening date of the tender. This condition supersedes GPC/ GCC condition.

**17. SUBMISSION OF BIDS:**

**17.1 Bidders are advised to note that any deviations from the technical or commercial terms and conditions of this tender must be clearly stated only in the designated "DEVIATION" bid form provided.** Failure to do so will be interpreted as full compliance with all tender terms and conditions.

**Please be aware that BPCL will not consider any clarifications, comments, or deviations mentioned in other documents submitted by the bidder.** Likewise, if any uploaded document implies a variation from the tender specifications or terms and conditions, such deviations will be disregarded.

**No deviations are permitted unless explicitly approved.** Bids containing unapproved deviations will be rejected. If a bidder wishes to propose a deviation, it must be submitted for

approval before the tender closing date. Any deviation not approved prior to the deadline will not be considered.

**17.2** Upload a scanned copy (in pdf or jpg format) of the following documents:

**17.2.1 All the Bid Qualification Documents (For Open tenders)**

In case the no. of pages to be uploaded are more, then the same can also be zipped and uploaded.

**17.2.2 Price bid:**

Online fill in the quotes in the price bid form. Price Bids have to be submitted online. Bidders should **NOT** mention any price anywhere else in the bidding forms.

**18** Incomplete bids are liable to be rejected. No further correspondence/enquiries raised on this issue by the bidder shall be entertained. Any terms and conditions stated by the Bidder in his bid will not be binding on the Corporation.

**19** Unsolicited / conditional discounts if offered by any party will not be considered and offers of parties offering such unsolicited discounts are liable to be rejected.

**20 ACCEPTANCE/EVALUATION OF BIDS BY THE CORPORATION:**

**20.1 BID QUALIFICATION & TECHNO-COMMERCIAL BID**

Based on the information and documents submitted, only parties meeting the Bid Qualification Criteria will qualify for the techno commercial evaluation. Price bid of only those bidders shall be opened who qualify in the Techno-commercial bid. The schedule for opening the price bid shall be advised separately.

**20.2 PRICE BID**

**20.2.1** Through this tender, BPCL seeks to surface the lowest price supplier

**In case of tender on GeM portal bidders have to quote rates inclusive of GST as per the terms and conditions of GeM portal.**

*Note: In case of multiple L1's, L1 run functionality of GeM shall be used to select the successful bidder.*

**21 IN TENDERS WHERE GST RATE IS QUOTED BY THE BIDDER:**

GST, as quoted by the bidder, shall be deemed as final and binding for the purpose of bid evaluation (applicable for tenders where bidder quotes the GST rates). In case a bidder enters "zero" GST or an erroneous GST, the bid evaluation for finalizing the L1 bidder will be done considering the quoted GST rate. No request for change in GST will be entertained after submission of bids.

In cases where the bidder quotes a wrong GST rate, for releasing the final order, the following methodology will be followed:

**21.1** In case the actual GST rate applicable is lower than the quoted GST rate, the actual GST rate will be added to the quoted basic rates. The final cash outflow will reduce to the extent of the revised GST.

**21.2** In case the actual GST rate applicable for the state is more than the quoted GST rate, the basic rates quoted will be reduced proportionately, keeping the final cash outflow the same as the overall quoted amount.

The Corporation reserves the right to reject any and /or every tender without assigning any reason whatsoever and/or place order on one or more bidders and/ or carry out negotiations with bidder in the manner considered appropriate by the Corporation.

**22            Public Procurement (Preference to Make in India)**-Public Procurement (Preference to Make in India) order, 2017 issued by DPIIT and as amended time to time will be applicable, bidder to provide necessary declarations accordingly.

**The formats of undertakings are attached as Annexures. Bidders shall submit the required undertaking as specified in the tender bidding forms.**

*BPCL reserves the right to seek any other documents (like break up of value and percentage of the local content etc.) from bidder to establish/verify his claim of local content during the Tender Evaluation process.*

**23            NEW STATUTORY LEVIES:**

The taxes, duties, rates, and Cess quoted shall be final. New tax, if any, introduced later shall be on BPCL account from the date of bid submission (or extended date, if any) up to contract period. During contractual period, any variation in existing taxes, duties, rates and cess shall be borne by BPCL. Any upward statutory variation in taxes, duties rates and cess (including any new tax) beyond contractual completion date shall be borne by the bidder. However, in case of downward variation, the same shall be passed on to BPCL.

**24            GST details:**

Type of GST namely IGST/CGST-SGST will be determined based upon the billing address provided by the bidder in the tender & the state in which works are being executed.

Bidders are requested to enter SAC codes (Service Accounting Codes) / HSN codes as Applicable in the relevant column of the price bid.

For GeM Tender bidder to provide \_SAC codes (Service Accounting Codes) / HSN codes as Applicable for respective items in Technical Bid.

**25**        Bidders may have to attend the concerned office of the Corporation for clarifications and/or pre-bid meeting and/or negotiations/clarifications if required at their own cost, in respect of their bids without any commitment from the Corporation.

**26**        It shall be understood that every endeavor has been made to avoid errors which can materially affect the basis of the tender and the successful bidder shall take upon himself and provide for risk of any error which may subsequently be discovered and shall make no subsequent claim on account thereof.

**27            List of abbreviations used :**

**27.1**       The terms “BPC”, “BPCL”, The Corporation, the Company and Owner in the appropriate context means Bharat Petroleum Corporation Limited, the Company registered under Companies Act 1956 and includes its successors and assignees.

**27.2** The term “LOA” in the appropriate context means Letter of Acceptance

**27.3** The term “PO” in the appropriate context means Purchase Order

**28 DECLARATIONS/ UNDERTAKINGS BY BIDDERS:**

Bidders have to mandatorily submit the following declarations/undertakings as per the formats provided:

**28.1 DECLARATIONS ON HOLIDAY LISTING & LIQUIDATION:** Bidder shall submit the declarations that:

- Bidder is not under liquidation, court receivership or similar proceeding.
- Bidder is currently not serving any Holiday Listing orders issued by BPCL or MOPNG debarring them from carrying on business dealing with BPCL/ MOPNG or convicted of an offence –

Under the Prevention of Corruption Act, 1988: or

The Indian Penal Code or any other law for the time being in force, for causing any loss of life or property or causing a threat to public health as part of execution of a public procurement contract.

**28.2 DECLARATION FOR SUBMISSION OF TPIA DOCS**

**28.3 DECLARATION ON CONFLICT OF INTEREST**

**28.4 COMPLIANCE OF RESTRICTIONS FOR COUNTRIES WHICH SHARE LAND BORDER WITH INDIA:**

Bidders have to submit an undertaking with respect to Compliance of Restrictions for Countries which share land border with India {Restrictions under Rule 144(xi) of the General Financial Rules, 2017–Reference OM no. 6/18/2019 – PPD dt. 23.07.2020 (read along with any subsequent clarifications/amendments thereof) issued by Ministry of Finance, Public Procurement Division (<https://doe.gov.in/procurement-policy-divisions>)}.

**28.5 DECLARATION ON ACCEPTANCE OF TERMS & CONDITIONS SOCIAL MEDIA POLICY OF BPCL:**

Terms & Conditions under Social Media Policy of BPCL for business partners are to provide clear guidance on acceptable standards of conduct and practices to be followed by the

Business Partners of Bharat Petroleum Corporation Limited, 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 platforms by such constituents. **Successful bidder/bidders shall have to essentially submit following documents for further evaluation in the tender:**

“Social Media T&Cs” document along with the bid documents, duly signed & stamped/ digitally signed by the same signatory who is authorized to sign the bid documents. All the pages of the “Social Media T&Cs” shall be duly signed. Bidder’s failure to return the “Social Media T&Cs” duly signed along with the bid documents shall result in the bid not being considered for further evaluation.

**28.6 DECLARATION FOR PUBLIC PROCUREMENT POLICY-MAKE IN INDIA (PPP-MII):** Applicable for tenders above 1 Cr. Bidder should be Class I OR Class II local supplier as per PPP-MII policy. For tenders above Rs.10 Crore PPP-MII declaration from bidder giving the percentage (%) of Local Content along with certificate from the statutory auditor or cost auditor of the organization (in case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of other than companies) confirming the minimum local content requirement.

## **29 STARTUPS MEDIUM ENTERPRISES:**

In case a Startup is interested in supplying the tendered item, but does not meet the Pre-Qualification Criteria (PQC)/ Proven Track Record (PTR) of Prior Turnover norm as indicated in the tender document, i.e., in this case the Bid Qualification Criteria (BQC) mentioned above, the Startup is requested to write a detailed proposal separately and not

against the present tender requirement, to the tender issuing authority about its product. Such proposals should be accompanied by relevant documents in support of Start-ups as under:

**29.1** Certificate of Recognition issued by Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry, GOI.

**29.2** Certificate of Incorporation/Registration.

**29.3** Audited P&L statement of all the Financial Years since incorporation. In case where balance sheet has not been prepared, bidder shall submit a certificate in original from its CEO/CFO stating the turnover of the bidding entity separately for each Financial Year since incorporation along with a declaration stating the reason for not furnishing the audited P&L Statement. The certificate shall be endorsed by a Chartered Accountant/Statutory Auditor.

**29.4** Such proposal will be examined by the tender issuing authority who may consider inviting a detailed offer from the Startup with the intent to place a trial order or test order provided the Startup meets the Quality and Technical Specifications.

**29.5** In case the Startup is successful in the trial order, it will be considered for PQC exemption/relaxation (as the case may be) for the next tender for such item till the time the entity remains a Startup.

**29.6** Startups are exempted from submission of EMD.

## **30 SUBMISSION OF BANK GUARANTEE**

Bank Guarantee submitted by the vendors either for EMD/ Security Deposit or for Performance Guarantee shall be from any bank as detailed below:

	Particular	B G Value	Stipulations
	Criteria for acceptance of BG	Up to Rs. 1 crore	Bank Guarantee from any scheduled bank (including nationalized banks, other scheduled commercial banks, scheduled cooperative banks, and scheduled regional rural banks) as appearing in the second schedule to the RBI act 1934 shall be acceptable.
	Criteria for acceptance of BG	More than 1 crore	Bank Guarantees which are issued by Banks having long term issuer rating of 'A2' from Moody's or equivalent from Fitch and S&P in case of the foreign bank and long term issuer rating of at least 'AA' from CRISIL or equivalent from CARE, ICRA and India Ratings in case of Indian Banks, shall be acceptable. In case rating for a bank is available from more than one rating agency, the lowest of such rating shall be considered.
	Replacement of BG		In case rating falls below stipulated level or that bank is under moratorium by RBI, all BGs issued by such bank must be replaced.

### **31**      PLANNING AND DESIGNING IN PURVIEW OF VULNERABILITY ATLAS OF INDIA

Vulnerability Atlas of India (VAI) is a comprehensive document which provides existing hazard scenario for the entire country and presents the digitized State/UT - wise hazard, maps with respect to earthquakes, winds and floods for district-wise identification of vulnerable areas. It also includes additional digitized maps for thunderstorms cyclones and landslides. The main purpose of this Atlas is its use for disaster preparedness and mitigation at policy planning and project formulation 'stage.

This Atlas is one of its kind single point source for the various stakeholders including policy makers, administrators, municipal commissioners, urban managers, engineers, architects, planners, public etc. to ascertain proneness of any city/location/site to multi-hazard which includes earthquakes, winds, floods thunderstorms, cyclones and landslides. While project formulation, approvals and implementation of various urban housing, buildings and infrastructures schemes, this Atlas provides necessary information for risk analysis and hazard assessment.

The Vulnerability Atlas of India has been prepared by Building Materials and Technology Promotion Council under Ministry of Housing and Urban Affairs, Government of India and available at their website [www.bmtpc.org](http://www.bmtpc.org).

It is mandatory for the bidders to refer Vulnerability Atlas of India for multi-hazard risk assessment and include the relevant hazard proneness specific to project location while planning and designing the project in terms of:

- i. Seismic zone (II to V) for earthquakes,
- ii. Wind velocity(Basic Wind Velocity: 55, 50, 47, 44, 39 & 33 m/s)
- iii. Area liable to floods and Probable max. surge height
- iv. Thunderstorms history
- v. Number of cyclonic storms/ severe cyclonic storms and max sustained wind specific to coastal region
- vi. Landslides incidences with Annual rainfall normal
- vii. District wise Probable Max. Precipitation

### **32**      CLAUSE ON CONFLICT OF INTEREST:

The definition of bidder is the entity which has a unique PAN (Permanent Account Number). A Bidder shall submit only one bid in a particular bidding process.

In case of a holding company having more than one independent manufacturing units or more than one unit having common business ownership / management, only single bid shall be submitted by the bidder.

Similar restrictions shall apply to closely related sister companies. Bidder's sister/ Associated/ Allied concern(s) participating or applying against the same tender, shall lead to disqualification of Bidders.

Sister/ Associated/ Allied concern means a company, society, partnership firm or proprietorship firm having one or more common persons as Director/ Partner/ Member/ Owner.

A Bidder who submits more than one bid will cause all the proposals submitted in the particular tender to be disqualified.

In relation to the above, a person will include firm(s) of Proprietorship / Partnership Firm / Limited Liability Partnership / Private Limited / Limited company / Society registered under Society's Act / Statutory Bodies / any other legal entity, as the case maybe, & will be deemed to have submitted multiple bids in a particular bid if a person bids in any of the two formats given below:

- individual or proprietorship format and/or
- a partnership or association of persons format and/or
- a company format. Whereby,
  - A company shall for this purpose include any artificial person whether constituted under the Indian laws or of any other country.

1.1. A person shall be deemed to have bid in a partnership format or in association of persons format if he is a partner of the firm which has submitted the bid or is a member of any association of persons which has submitted a bid.

1.2. A person shall be deemed to have bid in a company format if the person holds:

1.2.1. more than 10% (ten percent) of the voting share capital of the company which has submitted a bid, or

1.2.2. is a director and / or Key Managerial Personnel of the company which has submitted a bid, or

1.2.3. holds more than 10% (ten percent) of voting share capital in and/or is a director and / or Key Managerial Personnel of a holding company of that company which has submitted the bid.

By making a bid pursuant to the Tender Documents, the bidder / tenderer shall be deemed to have declared that the bidder / tenderer has not made any other bid or multiple bids as understood or deemed in terms of this clause.

All the bids of a bidder who has submitted multiple bids, as per the clause, shall be rejected and Bid Security for all such bids shall be forfeited.

In addition to the above, bidders found to be in contravention to the said clause will be liable for administrative actions.

### **33 REPEAT ORDER:**

A repeat order for the entire quantity awarded to a bidder/bidders against this tender could be placed by BPCL if the need arises, subject to concurrence by the bidder/bidders who was/were awarded the quantity/quantities against this tender. Such a repeat order, if required will be placed on the same rate and terms and conditions of this tender within 12 months of placement of original order.



**Annexure: A**

Date: \_\_\_\_\_

**CERTIFICATE CONFIRMING ELIGIBILITY FOR BENEFITS OF PUBLIC  
PROCUREMENT POLICY**

Ref: Tender No 1000442145 for DESIGN, ENGINEERING, SUPPLY, INSTALLATION & COMMISSIONING OF FLOW COMPUTER SYSTEM ON T OF BPCL PIPELINE (15-SITES)

This is to confirm that we have verified the investment limits and other details of Unit \_\_\_\_\_ pertaining to M/s \_\_\_\_\_ and certify that they satisfy the eligibility criteria as per MSMED Act, 2006 and other notifications/circulars/amendments issued from time to time in this regard. Accordingly, M/s \_\_\_\_\_ is a **Micro/Small enterprise** under the said Act and are eligible to claim the benefits of public procurement policy for the tender mentioned above.

**In case applicable:**

Based on our verification of share holding pattern and other details, it is certified that M/s. \_\_\_\_\_ meets the eligibility criteria under SC/ST provision of Public Procurement Policy Order 2012 and other notifications/circulars issued from time to time in this regard and are hence eligible to claim benefits pertaining to SC/ST under the act.

**In case applicable:**

Based on our verification of share holding pattern and other details, it is certified that M/s \_\_\_\_\_ meets the eligibility criteria under Women Entrepreneur provision of Public Procurement Policy Order 2012 and other notifications/circulars issued from time to time in this regard and are hence eligible to claim benefits pertaining to Women Entrepreneur under the Act.

Name of CA Firm:

[Signature of Authorized Signatory] Name:

Date:

Designation:

Seal: Membership no. UDIN no.

**ANNEXURE B1- DECLARATION BY TPIA CONFIRMING SUBMISSION OF  
CERTIFIED BOC DOCUMENTS (Only from L1 Bidder)**

To: M/s. BHARAT PETROLEUM CORPORATION LIMITED CPO (MARKETING),  
SEWREE, MUMBAI-400015

SUBJECT: DESIGN, ENGINEERING, SUPPLY, INSTALLATION & COMMISSIONING OF  
FLOW COMPUTER SYSTEM ON T OF BPCL PIPELINE (15-SITES)

TENDER ID. / CRFQ NO. : 1000442145

Dear Sir

This is to certify that [Enter (TPIA) Name] has been duly appointed as the Third-Party Independent Agency (TPIA) by [Enter Bidder Name] for the purpose of verifying the originality and authenticity of documents submitted by bidders participating in the procurement process of the subject tender invited by BPCL.

We hereby declare that we have meticulously examined the original documents presented by [Enter Bidder Name], for the purpose of bid submission in the subject tender and subsequently inserted the "Verified from Originals" stamp on the document.

The documents verified include, but are not limited to, the following:

[List of Documents Verified 1] [List of Documents Verified 2]

.....

Based on our comprehensive examination, we hereby confirm that the documents provided by [Enter Bidder Name] are found to be true and genuine, valid, and in accordance with the requirements stipulated in the tender documents.

Furthermore, we affirm that no alterations, modifications, or discrepancies have been observed in the presented documents during our verification process.

This declaration is made to the best of our knowledge and professional expertise.

For verification of the genuineness/originality of this document, you may contact us as per the details mentioned below

Yours sincerely, [Signature]

[Seal/Stamp of Third-Party Independent Agency (TPIA)]

[Name of Authorized Representative of TPIA] [Designation/Position] [Name of the Third-Party Independent Agency]

[Accreditation Number as per NABOB, Type and Validity]

[Contact Information: Phone Number, Mobile Number and Email Address, etc.]

Note: This format is a general template and can be modified as per specific requirements and regulations of the organization/institution.]

**ANNEXURE-C**

**UNDERTAKING BY BIDDER TOWARDS MANDATORY MINIMUM LC**

(IN CASE SEEKING BENEFIT OF PPP-MAKE IN INDIA)

(Self – Declaration – Applicable for tender value of Rs.1 Crore and above)

To,

M/s BHARAT PETROLEUM CORPORATION LIMITED, SUBJECT:

TENDER NO: 1000442145

Dear Sir

We, M/s \_\_\_\_\_ (*Name of Bidder*) have submitted bid against aforesaid tender.

We have read and understood the Purchase Preference to Make In India Order/Policy attached with the tender document. Accordingly, we hereby confirm that our local content percentage for the tendered item is        %.

We further confirm that in case we fail to meet the above mentioned local content, BPCL will take action as per provisions of tender document/ PPP-MII Order/Policy.

**Place:**

**D  
a  
t  
e  
:**

**[Signature of Authorized Signatory of  
Bidder having power of attorney]**

**Name: Designation: Seal**

**ANNEXURE-II**  
**BID QUALIFICATION CRITERIA (BQC)**

## **2.0 BID-QUALIFICATION CRITERIA (BQC):**

**BPCL would like to qualify vendors for undertaking the above work as indicated in the brief scope.**

**Detailed bid qualification criteria for short listing vendors shall be as follows:**

### **2.1 Technical Criteria (Proven Track Record)**

#### **a) *Manufacturing Capability:***

**Bidder\* should be Original Equipment Manufacturer of Flow Computer Systems.**

The definition of bidder is the entity which has a unique PAN (Permanent Account Number). All documents should be in the name of the bidder only (except in cases where the bidder is allowed to take the technical credentials of their OEM). Documents in the name of any legal entity other than the bidder, as defined above, shall not be accepted

#### **b) *Supplying Capacity:***

The bidder shall have experience of having successfully supplied minimum of **8 nos for NON-MSE Bidder / 7 nos for MSE Bidder** of Flow Computer System (used for Petroleum Product) in any 12 continuous months during last 7 years in any Oil/Gas industries/companies, ending on last day of the month previous to the one in which tender is invited.

### **2.2 Financial criteria:**

#### **2.2.1 AVERAGE ANNUAL TURN OVER:**

The average annual turnover of the Bidder for last three audited accounting years shall be equal to or more than **Rs. 138.05 Lakhs**.

#### **2.2.2 NET WORTH**

**The bidder should have positive net worth as per the latest audited financial statement.**

***Documents Required: Please refer the ITB (Instruction to Bidders) which mentions the documents to be submitted by bidders for meeting the above Technical and Financial criteria.***

### **2.3 Bids may be submitted by:**

I. An entity (domestic bidder) that has completed 3 financial years of existence as on original due date of tender since date of commencement of business.

II. "JV/Consortium bids will not be accepted (i.e Qualification on the strength of the JV Partners/Consortium/subsidiaries/Parent/Group Members will not be accepted)".

### **3. EVALUATION METHODOLOGY:**

The tender will be invited through Open tender (Domestic) as two-part bid. The bid qualification evaluation of the received bids will be done as per the above bid qualification criteria and the technical bid of the shortlisted bidders will be evaluated subsequently. The price bids of the bidders who qualify BQC criteria & meet Technical / Commercial requirements of the tender will only be opened and evaluated.

The Commercial Evaluation shall be done on Overall Lowest Basis.

The order will be placed based on above methodology AND Purchase preference based on MSE/PPP-MII Policy.

The subject job is Non-Divisible.

- i. The BQC evaluation shall be carried out for complete work.
- ii. The bidder must quote for all the items, otherwise bid offer shall be liable for rejection.
- iii. BPCL reserves the right to negotiate the rates with successful bidder before finalizing the award.

### **4. EARNEST MONEY DEPOSIT (EMD):**

**The EMD amount for the tender is Rs. 5 Lakh.**

EMD shall be submitted in the form of Electronic Funds Transfer or Bank Guarantee or Insurance Surety Bond.

EMD exemption shall be as per **MSE policy**

#### **4.1. PERFORMANCE SECURITY (PERFORMANCE BANK GUARANTEE / SECURITY DEPOSIT/ RETENTION MONEY):**

**PBG for SITC-Part and Breakdown Maintenance (BM) shall be submitted separately.**

##### **For SITC Part**

Successful bidder can submit the Performance Security Deposit of 5 % of basic contract value for SITC Work

##### **For BM Part**

Successful bidder can submit the Performance Security Deposit of 5 % of annualized basic contract value for BM Work, to be submitted a month before end of warranty period.

In above mentioned both options performance security deposit / security deposit submitted preferably in form of e-Bank Guarantee or Bank Guarantee or Insurance Surety Bond, the Bank Guarantee /Insurance Surety Bond shall be valid and remain in force till the contractual completion period and with a claim period of six months thereafter.

**ANNEXURE-IV**

**GENERAL PURCHASE CONDITIONS (GPC)**

## **General Purchase Conditions**

**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
8. SHIPPING
9. INDIAN AGENT COMMISSION
10. ORDER AWARD / EVALUATION CRITERIA
11. CONFIRMATION OF ORDER
12. PAYMENT TERMS
13. GUARANTEE/WARRANTY
14. PERFORMANCE BANK GUARANTEE / INSURANCE SURETY BOND
15. PACKING & MARKING
16. DELIVERY
17. UNLOADING AND STACKING
18. TRANSIT INSURANCE
19. VALIDITY OF OFFER
20. DELIVERY DATES AND PRICE REDUCTION SCHEDULE
21. RISK PURCHASE CLAUSE
22. FORCE MAJEURE CLAUSE
23. ARBITRATION CLAUSE
24. INTEGRITY PACT (IP)
25. RECOVERY OF SUMS DUE
26. CONFIDENTIALITY OF TECHNICAL INFORMATION
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 availment 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](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.

<b><u>Documents</u></b>	<b><u>BPCL</u></b>
Bill of Lading/Airway Bill original)	4 (including 1
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 and M/s. M1 xchange. 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: BPCL583493800
- 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.
- g. BPCL Location : Kharghar , Navi Mumbai  
Head office : Ballard Estate  
UIC : BPCL583493800
- h. The Original BG should be submitted along with print out of SFMS Delivery report from the BG Issuing Bank Branch.
- i. 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 printed 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. ARBITRATION CLAUSE:**

Any dispute or difference whatsoever arising out of or in connection with this Agreement including any question regarding its existence, validity, construction, interpretation, application, meaning, scope, operation or effect of this contract or termination thereof shall be referred to and finally resolved through arbitration as per the procedure mentioned herein below :

- (a) The dispute or difference shall, in any event, be referred only to a Sole Arbitrator
- (b) The appointment and arbitration proceedings shall be conducted in accordance with SCOPE forum of Arbitration Rules for the time being in force or as amended from time to time
- (c) The Seat of arbitration shall be at \_(Region/HQ from where the tender has been floated)
- (d) The proceedings shall be conducted in English language
- (e) The cost of the proceedings shall be equally borne by the parties, unless otherwise directed by the Sole Arbitrator.

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between the Central Public Sector Enterprises (CPSEs)/Port Trusts inter se and also between CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, 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.4(1)/2013- DPE(GM)/FTS-1835 dated 22- 05-2018.

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

**24. 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.

**25. 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.

**26. 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.

**27. 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.

**28. 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.



**29. 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.

**30. 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.

**31. 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.

**32. NEW & UNUSED MATERIAL:**

All the material supplied by the vendor shall be branded new, unused and of recent manufacture.

**33. 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.

**34. CANCELLATION:**

34.1. BPCL reserves the right to cancel the contract/purchase order or any part thereof through a written notice to the vendor if:

34.1.1. The vendor fails to comply with the terms of this purchase order/contract.

34.1.2. The vendor becomes bankrupt or goes into liquidation.

34.1.3. The vendor fails to deliver the goods on time and/or replace the rejected goods promptly.

34.1.4. The vendor makes a general assignment for the benefit of creditors.

34.1.5. A receiver is appointed for any of the property owned by the vendor.

34.2. 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.

**35. 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.

**36. 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.

**37. GOVERNING LAW:**

These General Purchase Conditions shall be governed by the Laws of India.

**38. 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.

**39. 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.

**40. 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>

**41. 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.

**42. 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.

**43. 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  
s)

... (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 anyway 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 or 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:.....



**ANNEXURE-V**

**SPECIAL PURCHASE CONDITION (SPC)**

## **SPECIAL PURCHASE CONDITIONS(SPC)**

### **1. General**

1.1 Special Purchase Conditions (SPC) shall be read in conjunction with the General Purchase Conditions (GPC), scope of work, specifications of Coating Material and other documents forming part of the tender wherever the context so requires.

1.2 Where any portion of the General Purchase Conditions or terms given elsewhere in the document is repugnant to or at variance with any provisions of special purchase conditions than the provisions of the special purchase conditions shall be deemed to override the provisions of the general purchase conditions or terms given elsewhere in the document.

1.3 In case of any discrepancy between the General Terms and Conditions (GTC) of GEM and Additional Terms and Conditions (ATC) of tender, the Additional Terms and Conditions (ATC) of Tender shall prevail. ATC document prevails over GeM Bid Document.

### **2. Inspection**

2.1 Bidder must understand attached datasheets of existing Flow Computer System & carry out engineering in order to offer correct model of the Flow Computer System to meet required to meet functional and operational performance of the Flow Computer System as per tender requirement.

2.2 If required, vendor must make multiple visits to each location to study & note any missing data to offer correct Flow Computer System model without any additional cost to BPCL.

2.3 Cards (having electronic components) offered by Flow Computer System manufacturer shall be suitable to operate at elevated temperature up to 60deg °C.

2.4 The Flow Computer System shall be designed to program / configure without any pipeline shutdown.

2.5 A continuous (0-100%) backlit illuminated indication for Flow Computer System to be provided.

2.6 Flow Computer System painting must be performed in such a way, that no corrosion takes place under ambient conditions as specified.

After awarding P.O. vendor shall come for kick off meeting / through video conferencing with BPCL officers within 15 days from date of instruction and shall give 60-minute presentation on brief idea about NPW design basis, operation, manufacturing process, maintenance, and work schedule from award of P.O. to dispatch of product. Work schedule shall include all major millstones of P.O. requirement.

**ANNEXURE-VII**

**FORM FORMATS**

**FORM-A: CA CERTIFICATE TO BE SUBMITTED BY MSE BIDDER FOR EMD  
EXEMPTION CERTIFICATE CONFIRMING ELIGIBILITY FOR BENEFITS OF PUBLIC  
PROCUREMENT POLICY**

Date: \_\_\_\_\_

Ref: **Tender No** GEM/2025/B/ 6662633

Tender Title: **TENDER FOR DESIGN, ENGINEERING, SUPPLY, INSTALLATION &  
COMMISSIONING OF FLOW COMPUTER SYSTEM OF BPCL PIPELINE (15-SITES)**

This is to confirm that we have verified the investment limits and other details of Unit \_pertaining to  
M/s

\_\_\_\_\_ and certify that they satisfy the eligibility criteria as per MSMED Act, 2006 and other  
notifications/circulars/amendments issued from time to time in this regard. Accordingly, M/s \_\_\_\_ is a  
Micro/Small enterprise under the said Act and are eligible to claim the benefits of public procurement  
policy for the tender mentioned above.

**In case applicable:**

Based on our verification of share holding pattern and other details, it is certified that M/s \_\_\_\_ meets  
the eligibility criteria under SC/ST provision of Public Procurement Policy Order 2012 and other  
notifications/circulars issued from time to time in this regard and are hence eligible to claim benefits  
pertaining to SC/ST under the act.

**In case applicable:**

Based on our verification of share holding pattern and other details, it is certified that M/s \_\_\_\_ meets  
the eligibility criteria under Women Entrepreneur provision of Public Procurement Policy Order 2012  
and other notifications/circulars issued from time to time in this regard and are hence eligible to claim  
benefits pertaining to Women Entrepreneur under the Act.

**(Membership No. of CA along with certification / stamp) CA UDIN NO**

**FORM-B: DEVIATION FORM**

**(Bidders are requested to mention only about deviations if any.)**

Ref: **Tender No** GEM/2025/B/ 6662633

Tender Title: **TENDER FOR DESIGN, ENGINEERING, SUPPLY, INSTALLATION & COMMISSIONING OF FLOW COMPUTER SYSTEM OF BPCL PIPELINE (15-SITES)**

Sr. No.	Annexure No. /Docume nt Name	Claus e No.	Clause Description	Deviation, if any	Justification for deviation

**Note: In case of NIL deviation, same to be mentioned and signed with stamp. There should not be any deviation, bid submitted with deviation shall be rejected.**  
**Deviation if any shall be taken up with tenderer for approval before close of tender due date .**  
**Unless and until deviation is approved by tenderer before tender due date such deviation shall not be considered.**

**BIDDER'S SIGNATURE STAMP:**

**DATE:**

**FORM-D: DECLARATIONS****Tender No GEM/2025/B/ 6662633****Tender Title: TENDER FOR DESIGN, ENGINEERING, SUPPLY, INSTALLATION & COMMISSIONING OF FLOW COMPUTER SYSTEM OF BPCL PIPELINE (15-SITES)**

I /We declare and confirm that:

1	I/we are currently not under liquidation, court receivership or similar proceeding.	
2	I/we are currently not serving any Holiday Listing orders issued by BPCL or MOPNG debarring us from carrying on business dealings with BPCL/MOPNG or convicted of an offence- under the Prevention of Corruption Act, 1988: or the Indian Penal Code or any other law for the time being in force, for causing any loss of life or property or causing a threat to public health as part of execution of a public procurement contract	
3	In line with the guidelines issued for compliance of Restrictions for Countries which share land border with India – as issued by Govt. of India in July’2020, I/We have read the clause regarding restrictions on procurements from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I/We certify that I/We am/are not from such a country or, if from such a country, have 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/We hereby certify that I/We fulfil all requirements in this regard and am/are eligible to be considered.	
4	I / We have read and understood attached 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 us, in the capacity of our authorised representative.	
5	I/ we are eligible for benefit under Purchase Preference to Make In India and undertake that we meet the mandatory minimum Local content requirement as specified in tender document. We further confirm that in case we fail to meet the minimum local content, BPCL will take action as per provisions of tender document/PPP-MII Order/Policy.	Confirm min. Local Content of %
6	I/we have understood the Specification, BOQ, Scope of Work and accept all the terms and condition as detailed in tender without any deviation and have quoted price accordingly.	
7	I/ we are in compliance with the submission of TPIA verified scanned document within 5 days of communication after opening of price bid in case we (vendor) appear as successful (L1) vendor, we also accept that if we are unable to submit TPIA Verified scanned documents as required for tender within 5 days of communication after opening of price bid, action shall be initiated against us (Vendor) for Holiday listing.	
8	I/We have not submitted multiple bids. i.e. more than 1 bid either individually or in any combination of person (Individual capacity, proprietor, affiliates, partnership, association of persons, Company, etc) I/We have no conflict of interest, which substantially affects fair competition. The prices quoted are competitive and without adopting any unfair/ unethical/ anticompetitive means. No attempt has been made or shall be made by us to induce any other bidder to submit or not to submit an offer to restrict competition. I/We am aware that, in case found that such multiple bids are submitted, all such bids are liable for rejection.	

**(Signature and Stamp of the Bidder)**

**FORM-E: DECLARATION FROM TPIA CONFIRMING SUBMISSION OF CERTIFIED  
BQC DOCUMENTS**(To be submitted by  
L1 bidder)

To, M/s BHARAT PETROLEUM CORPORATION LIMITED

**Tender No** GEM/2025/B/ 6662633

**Tender Title:** TENDER FOR DESIGN, ENGINEERING, SUPPLY, INSTALLATION &  
COMMISSIONING OF FLOW COMPUTER SYSTEM OF BPCL PIPELINE (15-SITES)

Dear Sir

This is to certify that [Enter (TPIA) Name] has been duly appointed as the Third-Party Independent Agency (TPIA) by [Enter Bidder Name] for the purpose of verifying the originality and authenticity of documents submitted by bidders participating in the procurement process of the subject tender invited by BPCL.

We hereby declare that we have meticulously examined the original documents presented by [Enter Bidder

Name], for the purpose of bid submission in the subject tender and subsequently inserted the "Verified from Originals" stamp on the document.

The documents verified include, but are not limited to, the following:

[List of Documents Verified 1] [List of Documents Verified 2]

.....  
Based on our comprehensive examination, we hereby confirm that the documents provided by [Enter Bidder Name] are found to be true and genuine, valid, and in accordance with the requirements stipulated in the tender documents.

Furthermore, we affirm that no alterations, modifications, or discrepancies have been observed in the presented documents during our verification process.

This declaration is made to the best of our knowledge and professional expertise.

For verification of the genuineness/originality of this document, you may contact us as per the details mentioned below

Yours sincerely, [Signature]

[Seal/Stamp of Third-Party Independent Agency (TPIA) [Name of Authorized Representative of TPIA] [Designation/Position]

[Name of the Third-Party Independent Agency][Accreditation Number as per NABCB, Type and Validity] [Contact Information: Phone Number, Mobile Number and Email Address, etc.]

[Seal/Stamp of Third-Party Independent Agency (TPIA)]

[Name of Authorized Representative of TPIA] [Designation/Position] [Name of the Third-Party Independent Agency]

[Accreditation Number as per NABOB, Type and Validity]

[Contact Information: Phone Number, Mobile Number and Email Address, etc.]

Note: This format is a general template and can be modified as per specific requirements and regulations of the organization/institution.]

**FORM-F: Pro forma for 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.

**FORM-G: GST % DECLARATION**

Ref: **Tender No** GEM/2025/B/ 6662633

Tender Title: **TENDER FOR DESIGN, ENGINEERING, SUPPLY, INSTALLATION & COMMISSIONING OF FLOW COMPUTER SYSTEM OF BPCL PIPELINE (15-SITES)**  
**I/we confirm that the applicable GST % for BOQ items are as under:**

Item Sr. No	Item Description	Applicable GST %

Signature & Stamp of Bidder Date:

#### **ANNEXURE-VIII POLICIES/GUIDELINES**

1. COMPLIANCE OF RESTRICTIONS FOR COUNTRIES WHICH SHARE LAND BORDER WITH INDIA
2. SOCIAL MEDIA GUIDELINES FOR BUSINESS PARTNERS
3. PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA) ORDER
4. HSSE POLICY

**1. COMPLIANCE OF RESTRICTIONS FOR COUNTRIES WHICH SHARE  
LAND BORDER WITH INDIA**

**.POLICY: COMPLIANCE OF RESTRICTIONS FOR COUNTRIES WHICH SHARE LAND BORDER WITH INDIA**

Restrictions under Rule 144(xi) of the General Financial Rules, 2017–Reference OMno. 6/18/2019 – PPD dtd. 23.07.2020 (read along with any subsequent clarifications/ amendments thereof) issued by Ministry of Finance, Public Procurement Division (<https://doe.gov.in/procurement-policy-divisions>)

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(I) Any bidder\* from a country which shares a land border with India will be eligible to bid in this tender only if bidder is registered with Competent Authority. The Competent authority for the purpose of registration shall be the Registration Committee constituted by the Department of Promotion of Internal Trade (DPIIT) of Govt. of India. (\* In case of domestic tenders, the term “bidder” shall mean domestic bidders as defined under clause III below)

(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 herein before, including any agency branch or office controlled by such person, participating in a procurement process.

(III) “Bidder from a country which shares a land border with India” means:

- a) An entity incorporated, established or registered in such country; or
- b) A subsidiary of an entity incorporated, established or registered in such country; or
- c) An entity substantially controlled through entities incorporated, established or registered in such 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) “Beneficial owner” for the purpose of para (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(s), has a controlling ownership interest or who exercises control through other means. Explanation:

- a. “Controlling ownership interest” means ownership of an entitlement to more than twenty-five percent 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(s), 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) 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.

# # # # #

The format for Undertaking by the Bidder, is provided on next page.

**FORMAT**

**For**  
**Undertaking with respect to Compliance of Restrictions for Countries which share land border with India – as stipulated by Govt. of India.**

(On Company Letter Head, to be signed by the duly authorized person)

**Date:** \_\_\_\_\_

**TENDER NO.** : .....

**TITLE OF TENDER :** .....

To,  
Bharat Petroleum Corporation  
Ltd CPO-M, A-Installation  
Sewri Fort Road, Sewri  
East Mumbai-

400015Dear

Sir/Madam,

In line with the guidelines issued for compliance of Restrictions for Countries which share land border with India – as issued by Govt. of India in July'2020,

I/We have read the clause regarding restrictions on procurements from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries.

- a I/We 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\*.
- b I/We 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\*. *(Applicable for works involving possibility of sub-contracting)*

I/We hereby certify that I/We fulfill all requirements in this regard and am/are eligible to be considered.

[ \* Where applicable, evidence of a valid registration by the Competent Authority shall be attached]

**Name and Signature of the Authorised Signatory**

## 2. SOCIAL MEDIA GUIDELINES FOR BUSINESS PARTNERS





## **BHARAT PETROLEUM CORPORATION LIMITED SOCIAL MEDIA POLICY FOR BUSINESS PARTNERS**

## **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 constantly be associated with the Corporation's name, brand and reputation. Constituents must aware of the risk of damaging the Corporatio n'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 term "**Social Media**" describes internet-based technologies and practices that people use to share opinions, insights, experiences and 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.

on content ("**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.

as "privileged" or "restricted" or "confidential" or "not for circulation" should  
For instance any communication marked  
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 official Social Media content, such as logo, product pictures etc. shall not 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

downplaying the Corporation's business or competitors. In addition, such content that may be defamatory or may have the effect of 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 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 by the Partner's official Social Media Account is subject to monitoring and periodic audits 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.

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## **ANNEXURE I**

### **GENERAL CONDITIONS OF CONTRACT FOR VENDORS**

#### **Clause 34: Contractor's Subordinate Staff and Their Conducts:**

~~34.2~~ ~~34.1~~ Whenever any of the Contractor's or 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.

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ANNEUXRE III

FORMAT OF ACKNOWLEDGEMENT

**T  
o  
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[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.

CONFIDENTIAL

(Signature & seal) Name: \_\_\_\_\_  
Designation:

Date:

3. PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA) ORDER

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

Vanijya Bhawan, New Delhi  
Dated: 19 July, 2024

To

All Central Ministries/Departments/CPSUs/All concerned

**ORDER**

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

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

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

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

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

**Now therefore the following Order is issued:**

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

**Explanatory notes for calculation of local content given above**

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

*Handwritten signature*



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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**3A. Purchase Preference**

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

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



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

- i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract for full quantity will be awarded to L1.
  - ii. If L1 bid is not a 'Class-I local supplier', 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price for the remaining 50% quantity subject to the Class-I local supplier's quoted price falling within the margin of purchase preference, and contract for that quantity shall be awarded to such 'Class-I local supplier' subject to matching the L1 price. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price or accepts less than the offered quantity, the next higher 'Class-I local supplier' within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local suppliers, then such balance quantity may also be ordered on the L1 bidder.
- (c) In the procurement of goods or works, which are covered by para 3(b) above and which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:
- i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is Class -I local supplier', the contract will be awarded to L1.
  - ii. If L1 is not 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price.
  - iii. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the 'Class-I local supplier' within the margin of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder.
- (d) "Class-II local supplier" will not get purchase preference in any procurement, undertaken by procuring entities.

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

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



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

- d. First purchase preference has to be given to the lowest quoting 'Class-I local supplier', whose quoted rates fall within 20% margin of purchase preference, subject to its meeting the prescribed criteria for award of contract as also the constraint of maximum quantity that can be sourced from any single supplier. If the lowest quoting 'Class-I local supplier', does not qualify for purchase preference because of aforesaid constraints or does not accept the offered quantity, an opportunity may be given to next higher 'Class-I local supplier', falling within 20% margin of purchase preference, and so on.
- e. To avoid any ambiguity during bid evaluation process, the procuring entities may stipulate its own tender specific criteria for award of contract amongst different bidders including the procedure for purchase preference to 'Class-I local supplier' within the broad policy guidelines stipulated in sub- paras above.

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

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

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

5. **Minimum local content:** The 'local content' requirement to categorize a supplier as 'Class-I local supplier' is minimum 50%. For 'Class-II local supplier', the 'local content' requirement is minimum 20%. Nodal Ministry/ Department may prescribe only a higher percentage of minimum local content requirement to categorize a supplier as 'Class-I local supplier'/'Class- II local supplier'. For the items, for which Nodal Ministry/ Department has not prescribed higher minimum local content notification under the Order, it shall be 50% and 20% for 'Class-I local supplier'/'Class-II local supplier' respectively.
6. **Margin of Purchase Preference:** The margin of purchase preference shall be 20%.
7. **Requirement for specification in advance:** The minimum local content, the margin of purchase preference and the procedure for preference to Make in India shall be specified in the notice inviting tenders or other form of procurement solicitation and shall not be varied during a particular procurement transaction.
8. **Government E-marketplace:** In respect of procurement through the Government E-marketplace (GeM) shall, as far as possible, specifically mark the items which meet the minimum local content while registering the item for



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

**9. Verification of local content:**

- a. The 'Class-I local supplier'/'Class-II local supplier' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local supplier'/'Class-II local supplier', as the case may be. They shall also give details of the location(s) at which the local value addition is made.
- b. In cases of procurement for a value in excess of Rs. 10 crores, the 'Class-I local supplier'/'Class-II local supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.
- c. The bidder shall give self-certification for local content in the quoted item (goods/works/services) at the time of tendering. However, at the time of execution of the project, for all contracts above INR 10 Crore, the contractor/ supplier shall be required to give local content certification duly certified by cost/ chartered accountant in practice. For cases where it is not possible to provide certification by Cost/Chartered Accountant at the time of execution of project, the supplier shall be permitted to provide the certificate for local content from Cost/ Chartered Accountant after completion of the contract, within time limit acceptable to the procuring entity. In case the contractor/ supplier does not meet the stipulated local content requirement and the category of the supplier changes from Class-I to Class-II/ Non-local or from Class-II to Non-local, a penalty upto 10% of the contract value may be imposed. However, contract once awarded shall not be terminated on this account.
- d. Decisions on complaints relating to implementation of this Order shall be taken by the competent authority which is empowered to look into procurement-related complaints relating to the procuring entity.
- e. Nodal Ministries may constitute committees with internal and external experts for independent verification of self-declarations and auditor's/ accountant's certificates on random basis and in the case of complaints.
- f. Nodal Ministries and procuring entities may prescribe fees for such complaints.
- g. False declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.
- h. A supplier who has been debarred by any procuring entity for violation of this Order shall not be eligible for preference under this Order for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities, in the manner prescribed under paragraph 9



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

**10. Specifications in Tenders and other procurement solicitations:**

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



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

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

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

11. **Assessment of supply base by Nodal Ministries:** The Nodal Ministry shall keep in view the domestic manufacturing / supply base and assess the available capacity and the extent of local competition while identifying items and prescribing the higher minimum local content or the manner of its calculation, with a view to avoiding cost increase from the operation of this Order.
12. **Increase in minimum local content:** The Nodal Ministry may annually review the local content requirements with a view to increasing them, subject to availability of sufficient local competition with adequate quality.
13. **Manufacture under license/ technology collaboration agreements with phased indigenization:** While notifying the minimum local content, Nodal Ministries may make special provisions for exempting suppliers from meeting the stipulated local content if the product is being manufactured in India under a license from a foreign manufacturer who holds intellectual property rights and where there is a technology collaboration agreement / transfer of technology agreement for indigenous manufacture of a product developed abroad with clear phasing of increase in local content.

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

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



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

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

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

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

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

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

17. **Functions of the Standing Committee:** The Standing Committee shall meet as often as necessary, but not less than once in six months. The Committee
  - a. shall oversee the implementation of this order and issues arising therefrom, and make recommendations to Nodal Ministries and procuring entities.
  - b. shall annually assess and periodically monitor compliance with this Order
  - c. shall identify Nodal Ministries and the allocation of items among them for issue of notifications on minimum local content
  - d. may require furnishing of details or returns regarding compliance with this Order and related matters
  - e. may, during the annual review or otherwise, assess issues, if any, where it is felt that the manner of implementation of the order results in any restrictive practices, cartelization or increase in public expenditure and suggest remedial measures
  - f. may examine cases covered by paragraph 13 above relating to manufacture under license/ technology transfer agreements with a view to satisfying itself that adequate mechanisms exist for enforcement of such agreements and for attaining the underlying objective of progressive indigenization

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

18. **Removal of difficulties:** Ministries /Departments and the Boards of Directors of Government companies may issue such clarifications and instructions as may be necessary for the removal of any difficulties arising in the implementation of this Order.
19. **Ministries having existing policies:** Where any Ministry or Department has its own policy for preference to local content approved by the Cabinet after 1<sup>st</sup> January 2015, such policies will prevail over the provisions of this Order. All other existing orders on preference to local content shall be reviewed by the Nodal Ministries and revised as needed to conform to this Order, within two months of the issue of this Order.
20. **Transitional provision:** This Order shall not apply to any tender or procurement for which notice inviting tender or other form of procurement solicitation has been issued before the issue of this Order.



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4.

## HSSE POLICY



## SAFETY REQUIREMENTS : HEALTH, SAFETY & ENVIRONMENT

### 1.0 HEALTH, SAFETY & ENVIRONMENT POLICY OF BPCL.

The objective of this document is to provide and establish safe & environment friendly work practices at all construction sites as per our corporate health, safety and environment policy given below.

#### Commitment

Together, we have the highest concern and commitment for protecting the Health and Safety of all employees, contractors, customers and the communities in which we operate and for conservation of the Environment.

We will comply with all Statutory Regulations and may even go beyond these for the benefit of our environment.

We consider Health, Safety and Environmental aspects are an integral part of our business planning and operation processes.

#### Policy

Based on these guiding principles, we shall :

Demonstrate our commitment by .....

- Providing and maintaining safe facilities and working conditions.
- Recognising that all employees have responsibility for their own safety and actions which could affect the safety of others.
- Adoption of appropriate technologies to minimise the impact of our activities on the Environment.

Establish clear objectives and targets to .....

- Improve continuously for prevention of accidents & occupational illnesses and minimising any impact of our activities on the environment.
- Promote learning through training and sharing of experiences and best practices; including with contractors, customers and the public, wherever required..
- Inculcate values and attitudes conducive to achieve excellence in Health, Safety and Environmental performance.

Provide means to achieve our mission by .....

- Assigning clear roles and responsibilities at all levels and periodically reviewing and recognising contribution to HSE objectives.
- Allocating adequate resources.
- Fostering a spirit of participation by all employees in Health, Safety and Environmental conservation efforts.
- Creating appropriate forums for deliberations on Health, Safety and Environmental issues.

Monitor performance by .....

- Periodically auditing work processes, systems & practices and promptly correcting deficiencies.
- Incorporating HSE performance as a parameter for assessing the overall performance of Employees, Business Units, Contractors and Business Associates.

Commensurate with above corporate HSE policy, policy of E&P to ensure health, safety and environmental protection at every construction site is as under:

- i. Adopting sound and safe engineering practices for each project at design and construction stage.
- ii. Taking due care to not cause any intentional damage to the environment during process of construction or material handling or both.
- iii. All major projects shall be audited by a multimember team. The time gap between two consecutive safety audits at long duration project sites shall be around six months.
- iv. Every audited construction site and material warehouse shall conform to audit recommendations through compliance report to HQ.
- v. Every near miss and accident at construction site shall be reported immediately on-line by official present at incident location.
- vi. Investigation of any accident at construction site shall be done by a multimember team to determine root cause of accident and to recommend necessary changes in ground condition to prevent repetition of similar incident.
- vii. Workshop for contractors on Factory act, Minimum wages act, ESI & EPF acts, Contract labour and Building workers acts.
- viii. Workshops for contractors on industrial first aid procedures.
- ix. Increasing awareness through holding competitions among all categories of staff and contract workers on safety slogan, safety suggestions and detection of unsafe conditions and near misses.
- x. Delivering safety talks and holding safety committee meetings periodically with active participation from workers.
- xi. Observing National Safety Week and Fire Service week and World Environment day appropriately.

## 1.1 IMPLEMENTATION OF SAFETY & ENVIRONMENTAL REGULATIONS

The contractor shall at his own expense arrange and comply with all safety provisions as stipulated by BPCL / Bureau of Indian Standards / Electricity act / OISD / Andhra Pradesh State Pollution Control Board and other acts as applicable in respect of all personnel, directly or indirectly employed by contractor for the work. The contractor shall ensure that he, his sub-contractor and workers employed by him shall comply with all safety / environmental regulations issued from time to time by BPCL.

The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the safety & environmental requirements. If any injury to workers or loss or damage due to accident and / or environmental pollution to any property or a portion thereof occur as a result of failure on part of the contractor to comply with such regulations, the contractor shall be held responsible for the consequences thereof and shall keep BPCL harmless and indemnified.

## 2.0 OISD & BIS CODES OF PRACTICES

*The contractor shall abide by the following OISD codes:*

- i. OISD – STD -105 Work Permit System
- ii. OISD – GDN – 192 Safety Practices During Construction

*The contractor shall abide by the following BIS codes:*

- 1) IS:3764-1992- Excavation work-code of safety.
- 2) IS:4014(Part 1&2)-1967-Safety regulations for steel tubular scaffolding.
- 3) IS:3696(Part 1) -1987-Safety code for scaffolds.
- 4) IS:3696(Part2)-1987 –Safety code for Ladders.
- 5) IS:7293-1974-Safety code for working with construction machinery.
- 6) IS:4081-1986-Safety code for blasting and related drilling operations.
- 7) IS:3016-1982-Code of practice for fire precautions in welding and cutting operations.
- 8) IS:4130-1991-Demolition of buildings-Code of safety.
- 9) IS:5216(Part 1&2)-1982-Reccommendation on safety procedures and practices in Electrical work.
- 10) IS:5121-1969-Safety code for piling and other deep foundations.
- 11) IS:10667-1983-Guide for selection of industrial safety equipments for protection of foot and leg.
- 12) IS:1989(Part 2)-1986-Leather safety boots and shoes for heavy metal industry.
- 13) IS:6994(Part 1)-1973-Specification for safety gloves: Part1-Leather and cotton gloves.
- 14) IS:2925-1984-Specification for industrial safety helmets.
- 15) IS:3521-1983-Industrial safety belts and harnesses.

## 3.0 LEGISLATION ON ENVIRONMENTAL POLLUTION CONTROL

*The contractor shall abide by the following legislation:*

- 1) Water (Prevention & Control of Pollution) Act 1974 & Rules.
- 2) Air (Prevention & Control of Pollution) Act 1981 & Rules.
- 3) Environment (Protection Act) 1986 & Rules
- 4) Hazardous Wastes (Management & Handling) Rules 1989
- 5) Public Liability Insurance Act 1991 & Rules.
- 6) Noise Pollution (Regulation & Control) Rule, 2000

## 4.0 BPCL'S OBLIGATIONS ON SAFETY & ENVIRONMENT

The layout planning of the site shall be done by BPCL. Suitable and adequate space shall be provided to the contractor for his site office and storage of materials / equipment. However, approach to work spot and road around it, if required for movement of men and machineries for construction purpose, shall be made by contractor at his own cost. Electric power source and drinking water facilities at one point of site shall be provided by BPCL. Disaster Management Plan for the site shall be prepared by BPCL wherein the contractor shall be assigned a role, which shall be obligatory.

## 5.0 CONTRACTOR'S OBLIGATIONS ON SAFETY & ENVIRONMENT

Any safety & environmental impact mitigation action plan prepared by BPCL shall be binding on contractor and the contractor shall adhere to the same.

The following practices shall be mandatory on part of contractor::

## 6.0 SAFETY POLICY OF CONTRACTOR

The contractor shall have a safety policy, which shall deal with the following issues:.

- Arrangements for training at all levels with particular attention to key workers such as workers working at height, crane operators etc, whose mistakes can be especially dangerous to other workers.
- Safe methods or systems of working in hazardous condition.
- The duties and responsibilities of supervisors and key workers.
- System to circulate all information / instructions / policies.
- Arrangements for setting up of safety committees.
- The selection and monitoring of sub-contractors (if any).
- The upkeep and maintenance of tools/machineries/safety appliances in perfect working condition.
- Feed back system and corrective measures wherever required.

## 7.0 ENVIRONMENT POLICY OF CONTRACTOR

The Contractor shall have a environmental policy, which shall deal with following matters

- Commitment to not to cause adverse impact on ecologically sensitive areas.
- Environmental Impact mitigation measures.
- Feed back system & corrective measures, wherever required.

## 8.0 ROLE OF SAFETY CUM ENVIRONMENT IN-CHARGE

The contractor shall designate a person possessing required experience and skill in safety and environmental issues as "Safety cum Environment In-charge". His main duties shall consists of :

- Observance of safety action plan for the work and conditions stipulated in the tender/agreement.
- Providing and maintenance of safety facilities like access roadways, pedestrian routes, barricades and overhead protection.
- Providing and installation of safety signs.
- Circulating safety practices for each trade.
- Testing of lifting machineries such as cranes and goods hoists and lifting gears such as ropes and shackles and obtaining certification from competent authority.

- Inspection and maintenance of access facilities such as scaffolds and ladders.
- Inspection and cleaning of welfare facilities such as toilets, clothing, accommodation and canteens.
- Explaining the relevant parts of the safety plan to each worker group.
- Playing role in Disaster management plan.
- Identifying unsafe practice / equipment and rectifying the same.
- Dissemination of information on safety and environment protection
- Attending safety committee meetings and implementing all decisions taken by safety committee.
- Ensuring proper use of personal protective equipment.
- Delivering Safety talk to workers.
- Implementing all Environmental Impact Mitigation measures.

## 9.0 ROLE OF SUPERVISOR

Good planning and organization at work site and assignment of clear responsibility to supervisors are fundamental to safety and environment protection. Each supervisor shall ensure within his field of competence and domain the following:-

- Working condition and equipment are safe.
- Workplace safety is ensured.
- Workers are trained for the job they are supposed to do.
- Workplace safety measures are implemented.
- The best alternative to ensure safety and environment protection is adopted within available resource and skill.
- Necessary personal protective equipments are available and used by workers.
- Safety caution boards are displayed at right place.
- Unsafe practices are eliminated.
- Arranging rescue of workers, in case of accident.
- Playing his role in disaster management plan.
- Arrange tool box safety meeting frequently.
- Informing safety cum environment in-charge in case of any violation of safety practices.
- Informing safety cum environment in-charge in case of any violation of Environmental Impact Mitigation measures.

## 10.0 ROLE OF WORKER

Every worker shall follow safety practices and environmental impact mitigation measure conveyed to him by the contractor's supervisor. He shall take care of his tools and use personnel protective equipment in accordance with safety practices.

## 11.0 SAFETY COMMITTEE AT SITE

The safety committee shall include representative of BPCL, representative of contractor identified as safety cum environment in-charge and representatives of various trades from workers. Ratio between BPCL representatives and that of contractor and various trades taken together shall be 1:1.

### *Model code of practice:*

Safety committee is a key part of safety in the workplace. They shall accomplish the following::

- a) Central focus : Overall look at safety requirements and to foresee problems that might otherwise cause difficulties.
- b) Sounding board. The committee is a visible and approachable body for safety or environmental complaints, suggestions, and the like.
- c) Central coordination. The coordination of safety training activities shall be accomplished by the safety committee.

An effective safety committee encourages safety awareness, gets a large number of employees actively involved in the safety program over time, helps motivate employees to follow sound safety practices. An effective employee safety structure provides a feedback mechanism to identify and correct new safety hazards at the earliest stage. Once the safety committee structure is in place and working well, it is a natural vehicle for employee involvement, preparation and introduction of new safety rules, new preventative practices, and safety procedures on new equipment.

Primarily safety committee shall look in to following:

- a) Detection of Hazard and determination of risks to workers, equipment, property and environment.
- b) Deciding actions to mitigate risks
- c) Drawing Disaster Management Plan
- d) How the committee can help management to enforce safety rules and environmental Impact mitigation measures.
- e) How to implement safety suggestions
- f) How to ensure compliance from workers.

Ideally safety committee members should play following roles:

- a) Set a good example. Committee members must set a good example. They must be above average in their safe work habits and their positive attitude about safety and environment..
- b) Be visible. Names of safety committee members should be posted prominently in their departments.
- c) Conduct safety inspections. Safety committee members should perform safety inspections. Members know the safe—and the unsafe—way to perform the jobs. Hence, they are right men to correct unsafe situation.
- d) Investigate accidents. Safety committee should investigates all lost work day accidents and record the findings.
- e) Hold regular meetings. Safety committees must meet at least once a month,

and for their meetings to be effective the following matters must be considered:

Safety cum environment in-charge shall in general act as chairperson cum secretary

Preparing agenda & issuing in advance of the meeting to:

- keep discussions on track
- allow members to prepare for the meeting Issuing Minutes within two days containing:
- written summary of proceedings
- names of attendees
- number of absentees
- responsibilities for implementation assigned
- timing of implementation assigned
- cost of implementation
- any approvals required
- completed recommendations
- uncompleted recommendations
- accident review (if any)
- safety training activities

Duties of Safety Committee members shall be as under:

- Work safely yourself—set the example in the site.
- Attend and actively participate in safety committee meetings.
- Speak to your fellow workers if you believe that they are engaged in an unsafe work practice; report things which you feel you can't handle.
- Listen to employee suggestions about safety and bring those that appear to have merit to the notice of safety committee.
- Before each safety committee meeting review minutes and open items affecting your section of job and have answers or a progress report on each item for the meeting.

*Model code of practice for Safety Talks:*

Safety talks should be delivered by any one of Safety Committee members by rotation. Duration could be anything depending on interest of audience and capacity of speaker to deliver oration.

The speaker may like to use this opportunity to convey various decisions taken in Safety Committee to workers. He may prepare talk on following suggested topics or any topic of his choice but of relevance. Political or human relation related topic must not feature in Safety talks.

- i. Housekeeping

- ii. Use of Safety Shoes
- iii. Use of Safety Helmet
- iv. Wearing of Safety Harness
- v. Safety from Cement and stone dust.
- vi. Checking scaffold before climbing
- vii. Right use of ladders.
- viii. Use of materials and tools while on scaffold.
- ix. Fall protection, i.e. toe boards, anchoring of safety harness, positioning of safety net.
- x. Handling of Asphalt
- xi. Precautions during excavation.
- xii. Electrical faults.
- xiii. Safety from hanging live wires and high tension lines.
- xiv. Entering confined space.
- xv. Safety from toxic materials and fumes.
- xvi. Right posture for lifting weights.
- xvii. Slipping, tripping, drowning and falling hazards.
- xviii. Eye protection from arc welding and dust.
- xix. Precautions during operation of lifting appliances.
- xx. Safety during erecting shuttering.
- xxi. Safety during stripping of shuttering.
- xxii. Safety during use of concrete mixers and pouring of concrete.
- xxiii. Precaution during demolition of any structure.
- xxiv. Right storage of safety belts and other PPEs.
- xxv. Working on steep roof.
- xxvi. Safety from vehicles.
- xxvii. Need of communication and looking for safety of one another.
- xxviii. Look around safety.
- xxix. Air and water pollution.
- xxx. Nearby medical facilities.
- xxxi. Sun stroke and remedies
- xxxii. First aid in case of injury.
- xxxiii. Protection from AIDs.
- xxxiv. What to do if accident happens.

## 12.0 WORKING CONDUCT

No one shall enter any part of the worksite other than for the purpose of carrying out the work. Contractor's personnel shall abide by all rules and regulations stipulated, including the following:

- Smoking inside the premises of a working location is strictly prohibited except in the designated areas.
- No source of ignition shall be taken to job site unless covered by a Hot Work Permit.
- Personnel must also strictly adhere to the approved protective clothing and equipment requirements.



- It is essential that good house keeping is practiced at all time to keep the work area neat and clean. No material on any of the site of work shall be so stacked or placed as to cause danger and inconvenience to any person.
- Consumption of liquor, drugs or any other intoxicating substances shall be totally banned.

### 13.0 SITE PLANNING AND LAYOUT

Proper advance planning shall be done in all matters including the following:

- Details regarding location of workshop / fabrication yard/ quality control laboratory / store yard / electrical installations / construction machineries, medical and welfare facilities, lighting etc. shall be decided and identified.
- The working sequence.
- Clear access to work location.
- Identifying and providing emergency exit.
- Displaying warning notices at vulnerable locations and routes for vehicles..

### 14.0 HOUSE KEEPING

- Maintain tidiness during construction by cleaning up rubbish/scrap/spilled oil and grease.
- Keeping gangways, working platforms and stairways clear of equipment and material not in immediate use. Removing or hammering down any nails projecting from timber etc.
- Arrange all machinery such as welding machine, generators, cutting machine etc. in such a way that equipment are segregated and protected.
- Check all machines at periodic intervals.
- Do not accumulate saw dust and other combustible waste to avoid fire.

### 15.0 LABOUR ACTS:

The Contractor shall comply with all provisions of applicable Labour Acts, such as

- (a) The Minimum Wages Act 1948.
- (b) The Factories Act 1948
- (c) The Contract Labour (Regulations & Abolition) Act 1970
- (d) The Building & other Construction Workers Act 1996.
- (e) The Employees State Insurance Act 1948
- (f) The Employees Provident Funds & Miscellaneous Provisions Act, 1952.
- (g) Any other applicable Act.

### 16.0 LABOUR WELFARE MEASURES:

The contractor shall extend all welfare measures to his workmen in line with provisions given in labour acts mentioned in previous clause 15. Some of those are reproduced below:-

- First Aid box
- Treating injuries by a qualified and experienced medical practitioner.
- Arrangement for hospitalization, if needed.
- Payment of wages / PF / ESI etc. as per relevant labour act and maintaining proof of the same.
- Ensuring fitness of workers and maintaining hygiene.
- Arrangements for clean & cold drinking water.
- Separate toilet and washing and resting facilities for male and female workers.
- Canteen facility, if obligatory under contract labour act..
- Crèche, if obligatory under contract labour act.

## 17.0 ROLE OF SUB-CONTRACTORS

It shall be responsibility of the contractor to ensure that all sub-contractors engaged by him in accordance with terms of agreement with BPCL, comply with all safety practices and environment protection measures mentioned here and conveyed to him subsequently.

## 18.0 PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment shall be of approved make and are essential for avoiding injuries to workers on the job. A register showing stock and issue of PPE shall be maintained by the contractor. The most common personal protective equipment are described below.

### 18.1 SAFETY SHOES

Suitable safety footwear conforming to relevant BIS code shall be worn by personnel, considering the nature of works and hazards such as:

- Risk of crushing by heavy objects.
- Penetration by sharp objects.
- Penetration by chemicals or harmful liquids.
- Weld spatter.

Leather safety shoes with steel toe caps shall be used for all heavy manual work and general construction. Shoes shall be abrasion resistant and suitable for wet and muddy conditions. Soles shall be slip resistant type.

Light low-cut leather safety shoes with slip resistant soles shall be used for climbing job. Gum boot shall be used while working with bitumen, chemicals, mud and muck etc.

## 18.2 HAND GLOVES

Hand gloves are mainly used to protect the hand from hazards of material handling, heat, electrical shock. etc. Various types of hand gloves are available. Some of those are described below:

- Flame-resistant gauntlet gloves made of leather or other suitable material. They may be insulated for heat.
- Rubber gloves suitable for working in low voltage, medium voltage and high voltage.
- Hand gloves made of asbestos for handling hot bitumen and other hot work.
- Hand gloves made of special material for protection against chemicals.

Hand Gloves shall conform to relevant BIS code.

## 18.3 SAFETY HELMETS

Safety helmets shall be of yellow colour with chin strap. All workers are expected to wear safety helmet while inside the construction site. Sufficient number of safety helmets shall be kept at site for visitors. Safety helmets used by helpers of excavators shall have suitable arrangement to carry load on head. Safety helmet shall conform to relevant BIS code.

## 18.4 SAFETY JACKET

All workers shall wear yellow colour jackets made of good quality cotton with trade name printed on back and front in bold letters. Safety cum Environment in-charge and supervisors shall wear jackets of green colour made of good quality cotton with designation printed on back and front in bold letters.

## 19.0 PROTECTIVE CLOTHING DURING WELDING AND HANDLING TOXIC/HAZARDOUS MATERIALS

Welders shall wear aprons or overalls and gloves made of flame resistant material. Hand held welding face shield shall be used for any welding job. Full face shield with respiratory filters shall be used for specialized welding jobs. For handling toxic or hazardous materials proper impervious overalls, gum boots, gloves; facemask and respiratory equipment like canister masks shall be used. All equipment shall conform to relevant BIS code.

## 19.1 GOGGLES

Goggles shall be used to avoid risk from:

- Flying particles / dust ingress.
- Chemical splash – Radiation glare.
- Hot sparks or metal splatter.
- Harmful vapours.
- Sand / grit blasting.

Goggles shall be single piece constructed of clear impact resistant plastic and fitted with adjustable elastic straps. Goggles shall conform to relevant BIS code.

## 20.0 HEARING PROTECTION

Hearing protection shall be worn by personnel involved with works in areas where noise level exceed 85 dB (A noise level beyond which normal conversation becomes difficult) on a continuous or regular intermittent basis.

Protection is available in two basic types; 1) an external cup type defender which fits over the outside ear and 2) internal disposable type of ear plugs usually made of compressible foam, which fits inside ear. Whenever practicable, equipment generating high noise levels shall be fitted with sound mufflers and located at maximum possible distance away from any work place .

For overhead welding ear protection in the form of wool or rubber plugs shall be done. All equipment shall conform to relevant BIS code.

## 21.0 WARNING SIGNS AND BARRIERS

The contractor shall arrange necessary material to secure the work site and to warn the general public or other workers of hazards. This shall include

- Warning signs.
- Warning lights and signs in traffic control zone.
- Barricades around excavations including illuminating warning signs.

## 22.0 RESPIRATORY PROTECTION / MASK

Whenever there is doubt about the presence of toxic substances or the gases injurious to health, a respirator must be worn. The type of respirator to be used shall depend upon the hazard and work conditions.

The simplest masks are disposable paper types. These are only effective against nuisance dusts. There are three types of half-face masks with filters.

- For protection against airborne particles, e.g. stone dust, with a coarse filter fitted in the cartridge (these filters have a specific lifetime and should be changed as necessary).
- For protection against gases and fumes, e.g. when using paints containing solvents, with a filter containing activated carbon.
- A combination filter containing both a dust and gas filter. Cartridge must be replaced regularly.

A full facemask could be fitted with the same types of filter, and it also protects the eyes and face.

Self-contained breathing apparatus with a full-face mask fed with air at positive pressure is another alternative and it must be used in confined spaces and whenever supply of air or oxygen is insufficient.

Users must be trained in the use of self-contained breathing apparatus and must know the manufacturer's specifications.

All equipments shall be thoroughly checked prior to use to ensure:

- Oxygen Cylinders are full and gauges function correctly.
- All connections are proper
- Facemasks are in order.

All equipment shall conform to relevant BIS code.

## 23.0 SAFETY BELTS / HARNESESSES

The majority of fatal accidents in construction sites are due to fall from height.

There are many types of safety belt and safety harness available depending on nature of work. A full safety harness should always be used in preference to a safety belt.

Safety belts / harnesses shall conform to relevant BIS code and worn by all workers working at a height greater than 2 mts above ground level.

Details of Safety Belts / Harnesses are given in 26.5 “Working at Height”.

## 24.0 LIFE JACKET AND LIFEBUOYS

For working over or near large and deep-water body this life saving device should be used. Life Jacket shall be tested for leak and usefulness before start of work. It shall conform to relevant BIS code.

## 25.0 RAIN COAT

Rain coat shall be provided to workers during rainy season. The colour of rain coat shall be yellow. It shall conform to relevant BIS code.

## 26.0 SAFE CONSTRUCTION PROCEDURES / PRACTICES

### 26.1 EARTH EXCAVATION

- i) The site of the excavation or trench should be sloped or battered back to a safe angle of repose usually 45 degree or be supported with shoring by timbering or other suitable means to prevent collapse. The type of support necessary will depend on the type of excavation, type of soil, the nature of

ground and the ground water condition. Adequate timbering or sheeting shall be provided where excavation is deeper than 1.5 M. 100 mm wide “Safety tape” of yellow colour with one meter long phosphorescence band after every three meter shall be used to encircle excavated pit of any depth. For any pit of depth one meter or more, one meter high fence with a mid rail made of bamboo or steel pipes shall be provided for preventing people / animals from slipping into the pit. If the pit is by the side of vehicular drive way, in addition a prominent board shall be put up saying “Excavation in Progress”.

- ii) Pumping out of accumulated water from pit is to be done at regular intervals. Run-away water shall be prevented from entering the excavated area, as such water can cause erosion of soil and sudden collapse of earth.
- iii) If the excavation is carried out without shoring, necessary angle of repose shall be maintained at all times.
- iv) Labourers shall not be allowed to sleep or take rest inside the pit. Protection against insects / poisonous snake shall be provided.
- v) Excavated earth shall be stacked at least one meter away from cutting edge to avoid collapse of trench and sliding of heaped earth into trench.
- vi) Contractor shall ensure that the excavation does not damage any existing underground cables, pipelines, foundation of adjoining buildings or structures etc. Wherever excavation is near any adjoining building or structure, proper precaution shall be taken.
- vii) Before working / entering inside an existing excavated pit it shall be ensured that it is free from any toxic gasses or explosive gases. The underground water present in the pit shall be checked for acid content, if there is possibility of seepage of industrial affluent.
- viii) Adequate access to and escape from the excavated trench in the form of ladders provided at every thirty meters or less shall be ensured. Crossovers over excavated trench shall be provided at suitable interval for movement of workers.
- ix) If the excavated trench is adjacent to any parking space for vehicles, adequate and well-anchored stop blocks shall be provided on the surface to prevent vehicles from falling in to trench while reversing.

Relevant BIS codes shall be followed for safe practices.

## 26.2 PILING AND OTHER DEEP FOUNDATIONS

*The following precautionary measures shall be taken:*

- Piling machine operators shall be over 18 years of age and properly trained.
- Prior to piling, all underground services shall be located and made safe
- There shall be a firm level base for the crane. If necessary crane mats shall be provided.
- The workers shall use necessary personal protective equipment.
- All cranes, lifting appliances and lifting gear must have appropriate certificates of testing and shall be of capacity required for the job.
- Particular attention shall be provided to the risk of damage to lifting gear from sharp edges.

- Cranes used for lifting or lowering workers, must be fitted with a dead man's handle and lowering shall be done under power.

Relevant BIS Safety Code for piling and deep foundations shall be followed.

### 26.3 WORKING IN BASEMENT / UNDERGROUND TANK

Fatal and serious accidents could occur if proper precautions are not taken before entering confined space like basement or underground tank.. The following precautions shall be taken:

- i) Entry into the confined space shall be allowed only against Hot work permit.
- ii) Air circulation shall be ensured. Hot work in such places shall be taken up only after ensuring that ample supply of fresh air is available using additional blowers etc. Proper ventilation shall be ensured by opening manholes (either ends if available) and fixing a wind sail or forced circulation of air. Old tanks shall be filled with water and washed with water before entering into it. Sludge shall be cleared / removed from outside of the confined space, to the extent possible, before entering.
- iii) Workers shall be allowed entry in the confined space, only after ensuring absence of toxic and explosive gases. Purging of gases may be done by filling the underground confined space with water.
- iv) Everyone inside the confined space shall wear rescue harness, with lifelines attached to a point outside the confined space. Whenever workmen are allowed to enter a vessel or underground tank or confined space, it is necessary to keep one person (alert and trained) at each manhole or entry point. The person should keep watch through manhole and offer rescue assistance so as to ensure prompt pulling out of the workers from confined space in case of emergency. Proper communication system between confined space and outside shall be maintained.
- v) A proper procedure for rescue in an emergency shall be laid down, with specific duties allocated to specific persons.
- vii) An experience supervisor shall supervise the entire operation.
- viii) Monitoring of air supply must continue while work in progress.
- ix) Only trained workers shall be allowed entry into confined space..
- x) The following equipment shall be provided.:

- Toxic gas meter, Oxygen meter and Explosive meter
- Rescue harnesses with adequate length of rope taking into account the location of work site.
- Hand torches or lamps safe for use in a flammable atmosphere.
- Appropriate self contained breathing apparatus.
- First aid equipment.
- Fire fighting equipment.
- An audible alarm for summoning help.
- Resuscitation equipment.
- Means of communication between confined space and outside.
- Boards & barricades.

## 26.4 DEMOLITION

- Demolition is a dangerous process and workers shall use requisite personal protective equipment.
- Demolition must be supervised by supervisor with thorough knowledge not only on demolition procedure, but also on the principles of structural construction.
- A survey of the physical characteristics and design of the structure to be demolished must be carried out in order to choose a safe method of demolishing. The demolition action plan shall be drawn by the contractor including drawings or sketches showing the sequence of operations, the machinery and equipment to be used, personal protective equipment required etc. Before demolition begins, all service connections to the structure shall be disconnected. Arrangements must be made to erect a fence of height two meter encircling the structure under demolition
- It is dangerous to leave isolated walls or parts of a wall standing alone, as those are liable to collapse from the effect of high winds and hence necessary supports should be given in such cases.
- Debris should not be allowed to build up against walls or floors with the consequent risk of the structure getting overloaded.
- Vapour present inside the structure must be checked for toxic nature before starting demolition work.
- Protective measures should be taken against dust, fumes, chemical deposits, asbestos, glass wool etc. while carrying out demolition work.
- Disposal process and pit / yard should be identified for safe disposal of debris.
- Relevant BIS safety code for demolition of structures shall be followed.

## 26.5 WORKING AT HEIGHT

Scaffolds accidents occur primarily to the following reasons:

- Faulty design
- Faulty erection
- Weak foundation
- Inadequate strength of structural members
- Inadequacy of platforms, guard-rails and toe-boards.

Scaffolds are designed for live loads of workers and building materials, besides their own dead weight. However, a scaffold is usually designed only in case of important structures, like bridge girder/slab, very long beam/very large slab in buildings etc. In case of day today scaffoldings for general civil constructions / colour washing / painting / plastering etc., scaffolds are usually not designed, but erected based on experience.

Scaffolds may be constructed of either timber, sal ballies, bamboo, or metal. Those may be single scaffold or double scaffold for light duty or heavy duty, as the case may be. Single scaffolds are recommended for carpenter, painter and similar trade. Double scaffolds are recommended for masons and similar trade. All scaffolds should conform to IS:3696(Pt.1)-1987. As bamboo and metal scaffoldings are used, salient features of those scaffoldings are given below:



#### Single Pole Bamboo Scaffolds :

Single scaffold consists of one row of upright poles or standards, placed not more than 1.8mt centres, fixed at suitable distance from the wall and connected horizontally by ledgers (bamboo placed horizontally ) spaced vertically at 1.5 to

1.8mt centres. Cross members (putlogs), supported on ledger on one side and hole in the wall on other side, are provided at 1.2mt centres.

#### Double Pole Bamboo Scaffolds:

It consist of two rows of up-rights or standards. The inner row is placed next to wall and other row placed 1.2 to 1.5mt away from the wall. As in earlier case, ledger is provided every 1.5 to 1.8mt vertically. However, in this case , putlogs shall rest entirely on ledgers at both ends.

Every single or double pole scaffolds, shall be effectively tied with adjacent structure. Diagonal face bracing or zig zag face bracing shall be provided on single pole scaffold and outer row of double pole scaffold. The maximum distance between braced bays in any lift of scaffold shall not exceed 10mt.

#### Quality of Bamboo

Bamboo should be reasonably straight, sound, free from splits, knots dry rot, worm holes and any other defect, which tend to reduce strength of bamboo. The mean diameter shall not be less than 80mm in case of single pole scaffold and 100mm in case of double pole scaffold, subject to minimum diameter of 50mm at thinner end. The slenderness ratio, i.e.L/d ratio shall not exceed 50, where L is the length of up-right or standard between putlogs. The diameter of bamboo shall not be measured at knot points.

Where it is necessary to extend a up-right, the overlapping distance between two up -rights shall not be less than 600mm.

#### Maximum Height of Bamboo Scaffolds

IS:3696(Pt 1) has recommended use of Bamboo Scaffolds for heights upto 18mt, subject to conforming to provisions given there-in.

#### Platform Width for Working on Scaffolds

❖ Where platform is not more than 2mt above ground or floor:

For Painters,Decorators etc	30 0 m m (m in)
For other types ,i.e., mason etc.	50 0 m m (m in)

❖ Where platform is more than 2mt above ground floor:

For Painters,Decorators etc	900 mm (mi n)
For other types ,i.e., mason etc.	120 0m

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### Railings & Toe Boards

Railings consisting of top rail at a level of around 1000mm above platform and an intermediate rail halfway between top rail and platform shall be provided for all working platforms higher than 2mt above ground or floor.

The platform edges shall be provided with 150mm high toe board to eliminate hazards of toolbar or other objects falling from platform. Where scaffolds are erected over areas, where people work or pass, the space between top rail and toe board shall be enclosed by tarpaulin or PVC sheets.

### Means of Access

A safe and convenient means of access shall be provided to all platform level of scaffolds.

Conventional means of access are the following:

- Ladder
- Stairway
- Ramp

#### Ladder:

- To ensure safe use of ladder, the following steps should be followed:
- Erecting ladders in the "four up-one out position" (i.e 75 degree angle between ladder and ground)
- Lashing ladder securely with the structure.
- Using non-slip devices, such as, rubber shoes or pointed steel ferrules at the ladder foot, rubber wheels at ladder top, fixing woollen battens, cleats etc.
- When ladder is used for climbing over a platform, the ladder must be of sufficient length, to extend at least one meter above the platform, when erected against the platform in "four up-one out position".
- Portable ladders shall be used for flights not more than 4mt. Above 4mt flights, fixed ladders shall be provided with at least 600 mm landings at every 6mt or less.
- The width of ladder shall not be less than 300mm and rungs shall be spaced not more than 300mm.

#### Stairway

For scaffolds exceeding 4mt height, stairway are safest means of access.

It shall conform to the following:

- Treads and risers shall be of uniform width and height in any one flight.
- Minimum width of 1000mm.
- No unbroken vertical rise of more than 4mt.
- Maximum angle of ascent 50 degrees.
- Stair railings on all open sides.
- Hand rails on all enclosed sides.
- Railings and toe boards on all landings.

#### Ramp

Ramp shall conform to the following:

- Open sides of ramp shall be protected by railing and toe board, where ramp is 1.5mt or more above ground or floor.
- Where slope is more than 1 in 4, footholds shall be provided by stepping laths of minimum size 50 x 30mm at interclass not exceeding 450mm.
- Maximum permissible slope is 2 in 3.

### Metal Scaffolds

With the evolution of concept of designing multi -storied and long span structures, metal scaffolds came into practice, mainly due to following advantages.

- Ease of assessing strength of scaffolds structure.
- Reusable many more times than bamboo.
- Possibility of human error while erection, is much less than in case of bamboo scaffolding.
- Aesthetically neat and good looking.

Metal scaffolds shall conform to IS:2750 - 1964, in addition to IS3696(Pt 1). Scaffold tubes are usually 40mm N.B., mild steel continuous weld conforming to IS:1239 or IS1161, grade YST 210, of lengths varying between 4.5mt to 6mt. These are manufactured and marketed by various agencies. As such, it is essential to obtain guarantee certificate from the manufacturer about safety and stability of metal scaffolds under likely worst combination of loads.

### Other General Safety Requirements for all types of Scaffolds

- Erection, alteration and removal shall be done under supervision of experienced personnel.
- Use of barrels, boxes, loose bricks etc., for supporting platform shall not be permitted.
- Every platform and means of access shall be kept free from obstruction.
- Each supporting member shall be securely fastened and braced
- Where planks are butt-joined, two parallel putlogs shall be used, not more than 100mm apart, to give support to each plank.
- Platform plank shall not project beyond its end support to a distance exceeding four times the thickness of plank, unless it is effectively secured to prevent tipping. Cantilever planks shall be avoided.
- If Grease, mud, gravel, mortar etc., fall on platform or scaffolds, these shall be removed immediately to avoid slipping.
- Workers shall not be allowed to work on scaffolds during storms or high wind. After heavy rain or storms scaffolds shall be inspected by site-in-charge before reuse.
- All scaffolds or platforms shall be fastened with adjacent structure, and if independent, scaffolds shall be braced properly.
- Scaffolding shall be erected on firm and level ground. In case of loose soil, the soil should be compacted by watering and ramming, besides using wooden base plate of minimum thickness 30mm for erecting standards.
- All members of metal scaffolding shall be checked periodically to screen out defective /rusted members. All joints should be properly lubricated for easy tightening.
- Clear access to scaffolds shall be maintained at all times. For prohibiting entry of unauthorised persons in scaffolds area, barricades should be put up and warning notices prominently displayed.
- If scaffolds are used, where public movement is anticipated, entry of public should be prohibited for the duration of the job.
- Where lifts are provided to hoist premixed concrete, reinforcement etc., to upper floors, barricades should be raised to prevent accidental entry of workers under the lift. Such lifts shall not be used for hoisting people, unless those are designed specifically for that purpose.
- Dismantling of scaffoldings shall be done in a pre-planned, sequential manner in order to maintain stability throughout the process. If necessary, additional tying, bracing may have to be done

to prevent sudden collapse of scaffolds structure.

- Before initiating dismantling process, precautions should be taken to ensure removal of all loose materials from the scaffolds.
- Use of scaffolds, under dismantling process, must be prohibited.
- Wearing safety helmets shall be made mandatory within 10mt from scaffolds.

#### Dismantling of Form -work

Action for dismantling form-work, used for supporting concrete casting, must be done after expiry of requisite number of days after casting and proper curing. Untimely dismantling of form-work may cause total collapse of structure.

Bottom shuttering of chajja or sun-shed should not be removed, till the attached lintel is properly secured by brickwork, to avoid failure of lintel due to toppling / torque.

In case of casting of multi-storied framed structure, casting of upper floor should be avoided till expiry of minimum curing period of lower floor. But, if essential, bottom shuttering of the lower floor shall be suitably strengthened by additional props.

#### INDUSTRIAL SAFETY BELTS & HARNESES

Primary functions of safety belt & harness are to minimise injury after a fall. Despite providing proper scaffolds, railing etc, possibility of slipping and falling can not be over-ruled. This equipment is the last check to prevent worker from getting fatal injury.

Four types of safety belts & harness are available in the market, depending on nature of various jobs. Failure to choose right type of safety belt & harness may lead to endangering life of worker at the time of need. All safety belts and harness shall conform to IS3521-1989.

	Consists of	Permissible fall	Used for
	Waist belt with safety line	Not more than 0.6 mt	Building / Structural maintenance.
	Waist belt with two shoulder straps & safety line	Not more than 1.8 mt.	Construction, structural erection.

	Waist belt with two hoisting straps & safety line, with provision for leg straps.	Not more than 0.6 mt.	Working in confined atmosphere and rescuing.
	Waist belt with pole strap.	-	Working on electric line pole.

Proper choice of anchoring point for anchoring the safety-line is essential. At many instances, the workers have met with fatal accidents due to anchoring with weak supports. Sometimes anchoring points are found to be chosen by mistake in such a way, that should a person fall, he would hit against a rigid structure due to swinging action of the safety line. Hence anchoring point for safety-line needs to be judiciously chosen. Where proper anchoring points are not likely to be available, action should be taken in advance to provide for hooks and fixtures.

The shock absorbing capacity of the safety-line is critical for reducing impact of fall. A stiff safety-line, would arrest a fall suddenly, resulting in an abnormal impact load on body of the worker, causing injury. According to IS3521, safety- line should be made of nylon or polyester or synthetic fibre. It shall not break under minimum tensile load of 2000kg. The minimum diameter of test specimen shall be 10mm. Performance test of the Safety belt & Harness shall be carried out as per annexure - B of IS3521, by dropping an articulated anthropometric dummy weighing  $100 \pm 5$  kg with an overall height of 1.6mt to 1.8mt, and waist not more than 1000mm circumference.

#### INDUSTRIAL SAFETY NETS

Industrial Safety Nets are designed to catch workers and / or debris falling whilst working on high buildings or structural fabrications.

The safety net should be installed as close to the work level as possible. Sufficient clearance should be maintained between the safety net and the ground or structure below, in order to accommodate full deflection of the net under impact.

IS 11057-1984 specifies requirements for two types of safety nets. Suitable for use at maximum duty height (\*) upto 6mt

Suitable for use at maximum duty height (\*) upto 1mt

(\* The maximum vertical distance between working level and the level at which safety net is to be placed in use.)

- Salient features are as under:
- Minimum nominal size shall be 4mtX 3mt.
- Shall be made with square or diamond mesh and the length of mesh side shall not be more

than 100mm.

- In case of multi layer nets, all layers shall be joined together and fitted to a common border cord or cords.
- A continuous length of net, with no joints shall be used.
- When in use (without any load, except dead weight of the net), the sag at centre of the net shall be between one-fifth and one-fourth of the length of the shorter side.
- Performance shall be tested by actual drop test of a sand bag weighing 140kg, in accordance with appendix A of IS-11057-1984. (Safety nets are available with an overlay net to catch small tools and debris. But, the performance test shall be carried out only after removing such overlay net.)
- The deflection at the centre of the net during above drop test, shall not exceed 2m or one-half of the length of the shortest side, whichever is more.
- Manufacturer shall declare the duty height at which net conforms to IS11057 by fixing labels marked with indelible ink at two different positions on the net. The labels should also contain following information.
  - ❖ Manufacturer's name or trade mark ❖ Nominal size of safety net.
  - ❖ Date of manufacture.
  - ❖ Deflection at centre of the net during above drop test.

#### ROOFTOP LADDERS

Asbestos cement sheets are usually used as industrial roofing material. These are very brittle. In some cases GI sheets are used, which when rusted, become fragile. The collapse of fragile roofs, while walking on it, can cause fall from rooftops. These roofing materials are often laid on slopes, causing additional hazards of slips and falls from edges. For working on fragile and / or slopping roof, the following safety measures shall be taken:

- Crawling boards or roof top ladders shall be used.
- While working, the worker should always stay on those and remember not to step on the roof surface, which may give way.
- Before commencing any work on fragile roof, the site-in-charge shall verify the availability of crawling board or roof top ladder and competence of workers to use those equipment.

#### 26.6 STORAGE TANKS / SPHERES / BULLETS

The safety of tanks depends more on the standards and quality of inspection applied at all stages of construction than any other single feature. The contractor shall ensure adherence to relevant code and all safe practices required during construction of tanks including handling of plates from storage yard to fabrication yard

##### 26.6.1 FABRICATION

- Before commencing the fabrication work, work area is to be made free from combustible materials, used asbestos cloth and place proper fire extinguisher near work site.
- While gas cutting of structural items, there is a possibility of back fire to the portable gas cutting set and hence cutting torch, rubber hoses pressure gauges shall be checked thoroughly at regular intervals.
- All personal protective equipment shall be worn by welder.

- Loose nylon or polyester dresses shall not be used during work.
- All gas cylinders to be kept, in upright position and avoid mishandling.

## 26.6.2 ERECTION

- Proper supports to be provided on both sides of plate after erection by guy ropes/wires/cranes to hold the plate in position and to avoid falling of plates on ground.
- Only proper structural supports shall be used for workmen standing purpose and not boxes / drums etc. .
- Holes in plate work to assist in erection are not permitted. Lugs nuts, clamps etc. to assist in erection may be attached to tank shell plate by welding for erection.
- The tank shell shall be safeguarded from damage due to wind by provision of steel wire guy ropes or cables after erection of 3<sup>rd</sup> shell or 3 M height whichever is less until completion of roof.
- Support for steel scaffolding shall be checked. Each scaffolding shall be tied up with other to avoid fall of welder from a height due to shifting/sliding of scaffolding from its position.
- To avoid accident at height “jacking up method” shall be adopted from safety point of view.
- Suitable capacity of crane and authorized driver shall be deployed for operation.

## 26.6.3 WELDING AND GAS CUTTING

Adherence to relevant codes and employment of qualified and tested welder are two basic requirements for welding and gas cutting process. Hazards such as electricity, heat/flame, flammable gas etc. are present in this process. Hence following precautions must be followed while carrying out these operations.

- Hot work permit shall be obtained wherever applicable before commencement of the work.
- All fire precautions as stipulated in IS:3016 (code of practice for fire precautions in welding and cutting operations) shall be followed while welding/gas cutting.
- Fire extinguishers, sand buckets, water and gunny bags shall be provided when hot work is in progress. Gas cylinders used for gas cutting and welding shall

- Be of approved make.
- Be stored upright, and is kept away from hot work and care shall be taken to prevent heating of gas cylinders.
- Gas cylinder valves shall always be checked and shall be closed when not in use.
- Be stored in a well-ventilated area.
- Be fitted with safety caps when not in use.
- Not be lifted by nozzle and rolled.

- All gas and oxygen regulators shall be fitted with Flashback arrestors, being non-return valves designed to prevent an explosive mix developing in cylinder.
- Checking for leaks shall be with help of soapy liquid applied to each joint and under no circumstances shall a naked flame be applied to any part of the cylinder.
- When working at a height, do not place cylinders directly beneath the working area, as molten metal may fall onto the hoses, causing leaks and possibly igniting the gasses.
- During electric arc welding process, very high ultra violet radiation is generated. The welder



and any person working in close proximity, in order to prevent permanent damage to the eyes must wear suitable eye protection. When not in use, power supply to the holder and electrode shall be turned off.

- Hose shall be in good condition, and properly clamped. Welding cable shall have proper insulation with minimum number of joints.
- All equipments shall be properly earthed, and cables properly insulated and connected.
- ELCB / RCCB shall be provided in every welding circuit. Earthing shall be dedicated for each circuit. Diesel generating set shall have separate earthing. Circuit shall always be made by cables of right quality and cross section only. Diesel generating set shall be connected with welding transformer through switch board fitted over a rigid support at height of 100 cm from ground with appropriate ELCB / RCCB.
- The welder or welding operator shall be insulated from both the work and metal electrode and holder. The bare metal part of an electrode holder shall never be permitted to touch the operator's bare skin or wet clothing. Consistent use of well insulated electrode holders and cables, dry clothing on hands and body and insulation from the ground shall be helpful in preventing contact with electricity.
- Electrode should never be changed with bare hand or wet gloves or when standing on wet floor / ground.
- Frame of welding unit (portable/stationary) should be grounded using correctly rated wire/strip and earth pit.
- Resistance to earthing must be checked daily before start of work.
- Receptacles of power cables for portable welding unit should be used so that it is impossible to remove the plug without opening the power supply switch.
- If cable is worn, exposing bare conductors, it must be immediately replaced / insulated.
- Welding cables shall be kept dry and free of grease and oil to prevent premature breakdown of the insulation.
- Cables laid on the floor/ground shall be protected in such a way that they will not interfere with safe passage or become damaged or entangled.
- Welding cables shall be kept away from power supply cable or high tension wires.
- Welding cables shall not be coiled or looped around any structure.
- While coupling several lengths of cables for use as a welding circuit, insulated connectors on both the ground and electrode holder line shall be used if occasional coupling and uncoupling is necessary.
- Supervisor shall ensure that the portion in the circuit of liquid or gas circulation e.g. the storage tank, pipelines, valves, pumps etc. where welding/cutting work is to be carried out, is blanked or isolated and purged with inert gas or washed thoroughly, so as to make absolutely certain that no inflammable liquid/gas is present in an amount, which can catch fire under action of heat, spark, flame, welding spatter or red hot objects. The area shall be checked and ascertained that concentration of combustible gas in the air is within permissible limit.
- Goggles, if used, shall be for welding with right shade conforming to ANSI Z 87.1 or BIS.

The shade number of the glass to be used for various purpose/ process shall be as under:

OPERATION	SHADE NO. OF THE GLASS
Soldering	2
Torch brazing	3 or 4

Gas cutting (1" to 6")	4 or 5
Gas cutting (over 6")	5 or 6
Gas welding	5
Shielded metal arc welding	10

- *Other personal protective equipment shall be as under:*
- ❖ Protective cloth/apron long enough to cover wrists and forearms against heat, sparks, molten metal and radiation. Leather or asbestos apron can be used for this purpose.
- ❖ Flame resistant gloves ❖ Safety shoes
- ❖ Helmet / shoulder cover for over head welding as necessary ❖ Safety harness while working at heights
- ❖ Ear protection (wool or rubber plugs) in case of noise pollution or overhead welding.
- ❖ In a confined place or where fumes/gas emissions cannot be below the toxic level, respiratory protective equipment duly certified for the exposure by reputed Government organization, like DGFASLI, shall be used.
- Space of more than 284 cum. per welder should be provided.
- Clothing should be free from oil & grease. Collars and cuffs should be buttoned and turned up inside. Pockets should be eliminated from the front vests, shirts and apron
- After welding or cutting is completed a warning sign should be provided to keep workers away from heated surfaces.
- Electrode rod stubs should be kept in a proper waste container
- Gas cylinders for each type of gas should be stored separately. They should be kept away from any source of heat and shielded from direct sun light. If stored, the store must be well ventilated. The cylinders in use should be retained upright in a rack or trolley and not be left free standing.
- While unloading /loading gas cylinder nozzle valve guard cap must be properly fitted and cylinder shall be unloaded over rubber/soft mat.
- Regulators, noses, torches and other Oxy-fuel gas equipment should be kept free. from grease, oil and other combustibles.
- Lubricants should never be used on Oxy-fuel gas equipment
- Oxygen should never be substituted by compressed air
- Oxygen pressure reducing regulator, hose or other pieces of apparatus should never be used with any other gases.
- Oxygen cylinder should never be used without first connecting a suitable pressure-reducing regulator to the cylinder valve.
- Acetylene cylinder should be turned & kept in such a way that the valve outlet will point away from oxygen cylinder
- While opening acetylene cylinder valve, key or spindle should not be turned more than one and one-half turns -
- Gas cylinder should not be lifted by nozzle and rolled
- All gas and .oxygen regulators shall be fitted with flash back arresters ,being no return valve design to prevent an explosive mix developing in cylinder
- Checking for leaks shall be by means of soapy liquid applied to each joint and under no

circumstance shall a naked flame be applied to any part of the cylinder.

- When working at height do not place cylinder directly beneath the working area as molten metal may fall on the hoses causing leaks & possibly igniting the gas
  - Acetylene cylinder key for opening valve must be kept on valve stem while cylinder is in use so that it may be quickly turned off in case of emergency
  - Acetylene should never be used at pressures in excess of 15 PS.I. The use of higher pressures is prohibited by all insurance authorities and by law in many localities
  - The gas hoses should be in a good condition and easily distinguishable and protected against heat, sharp objects, dirt, oil & grease.
  - LPG Cylinders, if used, should be stored kept in a well-ventilated place and there should be no excavations, drains or basements nearby.
  - LPG cylinders should never be stored below ground level or closer than 3 M to cylinders containing oxygen or materials which are toxic and corrosive.
  - Cylinders full or empty should never be stored upright with the valve uppermost.
  - The valve of empty LPG cylinders should be kept closed, if they are left open, air will diffuse into the cylinder and may form an explosive mixture.
  - For storage of large numbers of gas cylinders regulations of NFPNA/OISD/CCOE should be observed.
  - If an outlet valve of acetylene cylinder becomes clogged with ice or frozen, it should be thawed with warm water (not boiling), applied only to the valve.
- A flame should never be used. This is because the fusible safety plugs on acetylene cylinder melts at about boiling point of water.
- Cylinders are not designed for temperatures in excess of 54°C and hence storage/handling should be done keeping this in mind.
  - Never bring cylinders into tanks
  - Portable fire fighting facilities and first aid facilities should be made available in ready condition
  - Adequate water should be made available at work spot for emergency requirements
  - BIS Code IS: 3016-1982 on "code of practice for fire precautions in welding and cutting operations" shall be referred for further safety measures.

## 27.0 PRECAUTIONS IN ELECTRICAL WORK

Electrical hazards are different from other types of hazard found in construction work because the human senses provide no advance warning. It is the voltage that determines the current through the body. Since reduced voltage reduces the severity of electric shock, attempt shall be made to work with reduced voltage of 110 V wherever possible.

Some of the basic safety steps to be ensured by contractor at construction sites are given below:

- 1) Only authorized persons with license issued by State Electricity Boards or any other Government regulatory body, shall carry out operation and maintenance of electrical systems.
- 2) Work permit and isolation of the electrical system before taking up the work must be ensured.
- 3) Proper protective equipments like rubber hand gloves, insulated apron etc. shall be used. FLP fittings /enclosure as per IS: 2148 and certified by CCOE, Nagpur should only be used in Zone-1&2 area. Capacitors should be relieved of charges before working on them

- 4) Check for defective cables, loose joints in conduits, damaged fuse boxes, loose pins, faulty sockets and defective earthwire. Cable joints must be properly insulated and protected.
- 5) Do not overload electrical equipment. All circuits shall be provided with dedicated ELCB / RCCB. There shall also be dedicated earthing for each circuit.
- 6) Use right type of tools for the jobs.
- 7) After maintenance of flameproof fittings, ensure that the fittings meet requirements of flameproof standards.
- 8) Power supply cable shall be laid at least 45 cm below ground level from source to the work place.
- 9) Tag with marking should be provided on each cable for identification and correct connections to terminals must be ensured
- 10) The route and depth of any underground cables should be determined and power should be switched off if possible before execution of work for the existing cable
- 11) Jointing of cable shall always be made using proper junction box and flameproof junction box when in hazardous areas even in case of temporary connections. Power cables should not be tied in knots; it should be looped instead.
- 12) All equipments LT or HT that are likely to cause hazard shall be turned off and segregated. All base terminals etc. shall be insulated, Rubber mats shall be used for LT/HT switch room, where applicable.
- 13) All electrical equipments like wires, switch board etc., shall be protected against rains or leaking water lines etc. In wet condition switches shall not be operated until it is dried up properly. Switches starters shall be placed well above ground level.
- 14) Proper earthing shall be provided for all electrical items and effectiveness of earthing shall be checked every time before commencing work/switching on the electrical system.
- 15) Electrical items shall be handled after isolation and care shall be taken to identify and replace damaged electrical items. Guard wire shall be provided for aboveground HT wires.
- 16) Ensure all ELCBs and RCCBs are of good quality and conform to correct ratings.
- 17) Always plug of right specification should be used for taking connection from a socket.
- 18) Cables should be kept out of the way of other workers (or with proper guard/warning) and are not in contact with water
- 19) Moving parts of all equipment should be properly guarded.
- 20) All electrical transmission and operational equipment must observe safety clearances as stipulated in IE Rules.
- 21) Fail safe features should be available for interlocking mechanism.
- 22) Suitable overcurrent tripping device should be provided in the electrical Circuit.
- 23) Earth leakage relay with high sensitivity should be provided in the electrical system.
- 24) Earth pits should be tested periodically and certified by the licensed electrician
- 25) Before working on an electrical line fuse should be physically removed and the line is isolated and a suitable locking mechanism must be provided to prevent accidental switching/fixing fuses by other persons. A notice board displaying "Men at work" message should be placed. The section of circuit under repair should be connected to earth.
- 26) Temporary switchboards at site must conform to the following:
  - structures are firm and strong
  - fully protected from rain and dust
  - properly grounded
  - all connections are made with right size lugs
  - suitably barricaded

- rubber mat of correct rating is provided on floor
- Danger band indicating system voltage should be displayed
- 27) No electrical equipment /cables/parts should be touched with wet hand/cloths
- 28) Lightning arrestors should be provided .
- 29) Electrical maintenance workman working around a wet area near a fuse box must use wooden platform with rubber mat, insulated tools and rubber boots.
- 30) All electrical installation including incomer line, temporary distribution board, electric motor and machine must be installed as per IE Rules with proper earthing and must be inspected and certified by a licensed electrician at periodic intervals.
- 31) IS: 5216-1982 -" Recommendations on safety procedures and practices in Electric Works" shall be referred for further safety measures.

## 28.0 SAFETY IN RADIOGRAPHY WORKS

Planning and procedure for radiography initially shall be formulated by contractors and submitted to proper authority. Procedure shall be thoroughly discussed by all related persons for familiarization. All radiation equipment and radioactive materials shall be stored, handled, transported or disposed off, so that, no person receives unnecessary dose of radiation. Shield ability of the radioactive materials container shall be inspected every six months. Warning signs and posters shall be displayed. Radiography shall be performed under the direction of radioactive supervisors/officer responsible for this work. Supervisor and source must possess valid BARC certificate indicating-

1. Type & strength of source
2. The serial number of radiography camera
3. Names of radiographer
4. Training/competency of person handling the source

All workers shall be experienced and knowledgeable of the work such as radiation procedure, operation of radiation apparatus and effects of radiation on the body.

The following spaces or areas shall be classified as restricted areas.

- a) Storage place of radioactive materials
  - b) Any area where the radiation exists at levels such that large portion of the body could receive a dose in excess of 30 milligram per week.
  - c) Emergency storage area for radiation apparatus or radioactive material capsules.
- Warning signs, labels and fence shall be provided for restricted area to prevent trespassing.

The area covered within a radius of 5 Mts. from the radiation working spot or location and subject to a dose of radiation in anyone hour in excess of 50 milligrams shall be called the radiation area and trespassing in that area shall be strictly prohibited.

All workers entering the restricted area shall wear film badges sensitive to radiation. All workers who could receive a dose of radiation in excess of 100 milligrams per day shall wear a pocket dosimeter and the dose of radiation received shall be recorded everyday. The dose of radiation shall be checked by the supervisor for each radiation exposure when the dose of radiation exceeds 100 milligrams. In such case, suitable alternative for shortening the radiation time, reinforcing the shield plate etc. shall be arranged. During radiation work, dose of radiation at the boundary shall be measured and recorded.

The radiography supervisor shall measure and record the surface dose rate of restricted area every day

as under:

- a) Date of measurement
- b) Measuring method
- c) Description and capacity of apparatus
- d) Measured condition
- e) Results of measurement
- f) Name of measurement
- g) Any action taken

Radioactive materials shall be stored separately from other material or equipment. The storage place shall be 10 cm or more above the ground and locked to prevent unauthorized entry. Radioactive materials shall be stored in a case made of lead of ample thickness with a lock on the exterior surface of the case. The description of materials, quantity and danger sign shall be distinctly visible.

## 29.0 WORKING WITH MACHINERIES / MATERIAL HANDLING EQUIPMENT

### 29.1 General

Many accidents place while handling materials at site. It is 'highly hazardous operation. Hence special attention by contractor is required in this respect. Following precautions are essential:

- Safe working space for all handling equipment shall be provided. Proper material stockyard should be made and all material should be stacked /arranged/kept in orderly manner with proper moving space for handling machinery. Proper wooden sleepers should be provided below steel plates and such other materials.
- Mixers, winches, cranes, bending machines etc., shall be overhauled regularly as per manufacture's advice/maintenance schedule.
- Proper warning boards/signs shall be provided when machineries like cranes, hoists are being operated.
- Brakes, clutches of winches shall be checked on regular basis. Chains, ropes, belts shall be inspected and repaired/changed as necessary.
- All moving parts of the material handling equipment must be provided with suitable guards.
- Lifting ropes should be inspected for kinking, loose wires, high strands, corrosion, nicking, lubrication, change in diameter /cross section
- Slings and other lifting materials, which are not suitable for use should be promptly withdrawn and destroyed
- Lifting chains should be inspected for bent links, cracks in weld areas or any other section of link, traverse nicks and gauges and corrosion pits.
- Elongation of the lifting chain link due to over loading should be inspected before using it.
- Maximum allowable wear at any point of link of the lifting chain is given below: -

CHAIN SIZE (mm)	MAXIMUM ALLOWABLE WEAR(mm)
6	1

10	2
12	3
16	3.5
20	4
22	4.4
25	4.8
28	5.5
31	6.4
35	7
40	8
45	8.7

For lifting hook, if the throat opening exceeds 15% of the normal opening, it should be replaced. When inspecting the hook, measurement must be made between the shank and narrowest point of the hook opening

- A chain used for lifting should not be spliced by inserting a bolt between two links
- Strain should not be put on a kinked chain
- Hammer should not be used to force a hook over a chain link
- A safety hook fitted with a latch to prevent displacement of loads should only be used for material handling/lifting
- IS: 7293-1974 (Code of Practice for Working with Construction Machinery) shall be referred for further safety measures.

## 29.2 CRANES

All works involving the use of crane shall be properly planned in advance and the following shall be ensured

- The crane is capable of lifting the load. Safe load capacity should be clearly marked on jibs, winches, pulleys, slings and ropes. All job cranes should have an automatic safe load indicator which alerts the operator
- The condition of the ground at the crane location is satisfactory to support the crane and the load
- The rotation of the cab and, therefore the boom is not restricted. Suitable matting or plates are available to protect underground services and paving.
- All slings shackles, hooks etc. are of correct rating and in good condition
- Cranes and lifting equipments must be inspected and carry a valid test certificate issued by an accredited testing agency.
- Crane hooks are to be fitted with properly functioning safety clips to prevent displacement of the sling from the hook during the lift.
- Driver of the crane must be watchful and must ensure before driving the vehicle either forward or reverse that no one is near the wheel of the vehicle and no one is trying to climb the vehicle while moving. .
- Crane operators and signalers must be trained and sufficiently experienced. There should

always be a signalman or a signaling system such as a telephone, if the crane operator cannot see the load throughout the lift. Hand signal shall be clear and distinct and shall follow recognized code or system. Workers must use safety shoes and helmets. They are also required to wear gloves and other PPE s for handling materials.

- Raising, lowering and braking of jib should not be done abruptly in order to prevent it from snapping.
- No part of the crane or crane load should be closer than 4 Mts. to live overhead power lines.
- For movement of crane or other material handling equipment ,ramp gradient should not exceed 1 in 10
- No person should be allowed to stand or work under lifted load.

### 29.3 MANUAL HANDLING

Assistance should be obtained if the load is too heavy or awkward for manual handling. Clear walkway to the destination and safe stack should be ensured before handling the load manually. Following procedure should be followed while lifting a load manually:

- Stand close to the load on a firm footing and with feet about 30 cm apart
- Bend the knees and keep your back as straight as you can
- Take a firm grip on a load ..
- Breathe in and throw the shoulders backwards
- Straighten the legs & continue to keep the back as straight as you can
- Make sure that your view is not obstructed by the load
- Keep the load close to the body
- Lift slowly and smoothly
- When carrying the load ,avoid twisting spine to turn, move your feet instead
- One person shall not pull more than 63 kg.
- The weight unit for lifting by a worker is 18 kg and hence should be fixed as upper limit of load to be lifted by worker
- If two or more workers are lifting, one should give instructions to ensure that the team works together
- Type of clothing is very important in manual handling of material. Clothing should be such that it allows easy movement of arms and will not catch in machinery or on a load.

## 30 VEHICLE SAFETY

- All vehicles used for carrying workers and construction materials must undergo preventive maintenance and daily checks.
- Contractor shall maintain a register for this purpose for each vehicle.
- All documents related to the vehicle shall be kept in vehicle for checking. -
- Driver with proper valid license shall only be allowed to drive the vehicle.
- Routes shall be leveled, marked and planned in such a way so as to avoid potential hazards such as overhead power lines and steep sloping ground. Speed limit shall be specified.



- While reversing the vehicle, help of another worker should be enlisted and his instructions should be complied at all times during reversing and sound signal should be provided before reversing
- An unattended vehicle should have the engine switched off.
- Foot injuries to drivers and their assistance during loading and unloading are common and they should wear safety boots and shoes.
- Wherever possible one-way system shall be followed.
- Head clearance must be ensured on the route of the vehicle and no vehicle shall be allowed to deviate from its route.
- Overloading, carrying unauthorized passengers etc. shall not be allowed.
- Load on vehicle should be evenly distributed, properly secured and normally should not project beyond the plan of vehicle. If some degree of projection is unavoidable, it should be clearly shown by the attachment of red flags.
- Load should be properly secured
- The body of a tipper lorry should always be lowered before driving the vehicle off.
- Signs/signals/caution boards etc. should be provided on the routes.

### 31 SAFE OPERATION OF PLANT, TOOLS AND EQUIPMENT

The following four basic principles shall be applied for the safe use of hand and power tools.

1. To choose right tool for the job
  2. To use only tools in good condition
  3. To use tools correctly, and only for the purpose they are intended
  4. To maintain and store tools properly.
- Electrical tools shall be checked to ensure that the supply voltage is as per requirement.
  - Electrical tools shall always be properly earthed.
  - High speed rotating equipments such as grinders shall be fitted with protective guards.
  - Static load on shoulder or arm due to continuous holding of a tool at a raised position or gripping of a heavy tool should be avoided
  - Awkward wrist angles to be avoided
  - Uncomfortable posture and pressure on the palm or joints of the hand should be avoided.
  - Repair or discard the tool, if tool heads mushroom, tool jaws open out and cutting tools loose their edge
  - Tools handle should have a firm grip
  - Tools should be properly cleaned and stored
  - Air connection to pneumatic tools should be clamped and secured properly.
  - Electrical cable/pneumatic tube should be protected against damage
  - Socket, terminal boxes, fuses etc. must be of high quality and properly covered and protected
  - Correct fuse should be used for the electrical tools.
  - Power tools shall never be left operating unattended.
  - Spark arrestor shall be fitted to all equipment exhausts where risk of presence of combustible gases exists.
  - Periodical inspection shall be done.

## 32 WORKING OVER WATER

Falling into water and drowning and getting carried away by water current is an ever-present danger when working over or adjacent to large water bodies. The following precautions should always be followed:

- Working platform should be made secured and there shall be no tripping hazards such as tools, wires, timbers, bricks etc. Surface should not be slippery.
- Access ladders, guard rail and toe board for the working platform should be firmly held.
- Safety helmet should always be used.
- A life jacket should be used
- A safety harness or net shall be used.
- Lifebuoys fitted with lifelines should be kept ready in hand for immediate use.
- Availability of safety boat (motor driven with self-starter for tidal/fast flowing river) should be ensured.
- Availability of alarm system should be ensured

## 33 PIPELINE CONSTRUCTION SAFE PRACTICES

### I. Handling and storage of pipes

#### a) Bare Pipes

- \* Unloading, loading, stockpiling and transportation of bare pipes should be done using suitable means and in a manner to avoid denting, flattening or other damages to pipes
- \* Pipes should not be allowed to drop but should be lifted or lowered from one level to another by suitable equipment
- \* Lifting hooks when used, should be equipped with a plate curved to fit the curvature of the pipe
- \* Pipe when stockpiled, should be placed on a suitable skid to keep it clear of the ground.
- \* The stacks must be properly secured against sliding and should consist of pipes of the same diameter and wall thickness
- \* Personal Protective Equipment like safety shoe and glove should be used by worker while handling pipes.

#### b) Coated Pipes

- \* Coated pipe shall be handled by means of slings and belts of proper width made of non-metallic/ non-adhesive materials
- \* Belts/slings when used should be cleaned to remove hard materials such as stone, gravel etc.
- \* Coated pipes should not be bumped against any other pipe or any other objects

- \* Rolling, skidding or dragging of coated pipes should be strictly avoided

\* Coated pipes at all times should be stacked completely clear from the ground so that the bottom row of pipes remains free from any ground contact. Pipelines should be stacked at a slope so that during rain, water does not collect inside the pipe.

\* The coated pipes may be stacked by placing them on ridges of sand and covered with a plastic film.

\* Stacks should consist of limited number of layers so that the pressure exercised by the pipe's own weight does not cause damages to the coating

\* The weld lead of pipes should be positioned in such a manner so as not to touch adjacent pipes

\* Coated pipes stacked in open storage yard should be suitably covered on top to decrease direct exposure to sunlight

\* The ends of the pipes during handling and stacking should always be protected with end protectors

## II. Swabbing and Night capping

To ensure that all dirt and objects likely to cause obstruction in the interior of the pipe are removed, each length of pipe should be thoroughly scrubbed prior to alignment and welding. At the end of each day's work a steel plate or nightcap should be adequately secured over open ends of incomplete section of the pipeline to prevent ingress of extraneous objects and ground or floodwater. .

## III. Inspection of field welds

In case of cross-country pipeline and where specifically specified, all weld joints should be radiographed to ensure the soundness of welding joints to avoid failure of joints, which may create serious pollution or environmental problem.

## IV Coating Inspection in the field

Where pipeline coating is carried out in the field, all bare and primed pipe should be kept free from dust and grease, oil etc. Before the pipeline is lowered into the trench the coating should be thoroughly inspected both visually and by using holiday detector. Any visible damage should be repaired and the pipeline shall be retested.

## V. Lowering and Backfilling

Equipment used for lowering the pipeline from the skids and positioning it finally in the trench should be sufficiently padded at points of contact with the pipe to prevent damage to the protective coating

\* Slings used for lowering the pipe should be made of canvas or equally non-abrasive material and of a width not less than the diameter of the pipe.

\* The trench should be clear of loose rocks, lumps or other objects that might

prevent the coated pipe from bearing evenly on the trench bottom.

- \* When digging soil from beneath the pipe in order to remove slings, care should be taken to avoid damage to the protective coating. The coating should subsequently be inspected and any damage shall be repaired.

- \* In waterlogged areas it may be necessary to provide additional weighting or screw anchors to prevent floatation of pipeline.

- \* No lowering should be done after sunset without proper lighting arrangement

- \* Minimum 3 side booms should be used and mounting of counter weights should be ensured on side booms for lowering the pipes.

#### VI. Road, Rail and Water Crossing

- \* Where work being done either adjacent to or any public or private road; warning signs and night time warning lights should be provided and maintained.

- \* Crossing will frequently necessitate laying the pipeline at greater depth than normal and may therefore call for special measure to support the trench or boring pit.

- \* Where crossings are made by open cut, the work should be programmed so as to minimise the amount of time that the normal traffic or flow is interrupted. Where necessary temporary conduits or pumping system should be provided to maintain the flow in water courses

#### VII. Trenching

- \* Barricading should be made while trenching in heavy traffic area.

- \* Sign boards should be provided while trenching in heavy traffic area

- \* Trench cross over shall be provided at every 30 Mts. of its length while trenching

- \* Lighting should be provided for night working

- \* Shoring should be provided for trench support

- \* Underground service connections should be identified and marked prominently

- \* Excavation tools should be properly insulated to avoid electric shocks

- \* Evacuation of workers should be ensured before blasting

- \* Entry of workers in site, where blasting is planned to be done, should be allowed after inspection and clearance from qualified Blaster

- Requirements of safe procedure as stipulated in BIS Code IS:4081-1986 for blasting and drilling must be observed during blasting operation.

#### VIII. Pipeline Marks

Distinctive markers should be created at all crossings to indicate the alignment of the pipeline and should give information about ownership, diameter, the nature of content, the normal direction of flow and the location of the crossing. A telephone number for use in emergencies shall also be displayed.

#### 34.0 STORAGE OF HAZARDOUS MATERIALS

Harmfulness of materials shall be identified and proper care shall be taken against fire/health hazards e.g. against asbestos fibre/rope, sand/shot blasting, paints, handling leaded container and tank, furfural liquid etc. Waste materials and consumables like woods, papers, and plastic pieces etc. shall be cleared

on regular basis. Petroleum products/solvents used for cleaning etc. shall be kept away from working site specially when hot work is in progress. No smoking board/signs etc. shall be used in sites where such materials are stocked. Paints shall be stored in separated areas. The quantity of paint stored in actual working areas shall be as minimum as practicable. The ingestion of paint shall always be avoided. Food and drink shall not be brought, stored, prepared or consumed in areas where paints are stored, handled or used. Smoking in such areas shall be prohibited. The inhalation of paints, dusts or fumes shall always be avoided by the use of local ventilation or extraction. Where fumes or dusts are unavoidable, then suitable approved respirators or facemasks shall be worn. All personnel who handle and use paints shall wear appropriate protective clothing (such as, gloves, eye protection and overalls). Splashes of paint on skin shall be treated promptly by copious washing with water or an approved cleaning agent. (Solvent shall not be used for personal cleaning).

### 35 CLASSIFICATION & WORKING IN HAZARDOUS ZONES

Hazardous (flammable atmosphere) zones are classified as zone-O, zone-1 and zone- 2. All other areas are unclassified but not necessarily non-hazardous. In these areas, safety precautions must be observed in order to eliminate risk of explosion. Zone-O is defined as the vapour space in and directly around product storage tanks. Zone-1 is defined as an area where vapours, may be expected at all times. For zone 2, flammable vapours may be expected to be presently when a failure to equipment or plant occur. Unclassified areas cannot be assumed to be always non-hazardous, therefore must be checked prior to issue of work permits, Following precautions shall be taken while working in hazardous areas.

#### 35.1 NON-SPARKING EQUIPMENT

Sparks can be produced from electrical tools/devices, and where two surfaces collide. In order to avoid risk of sparking, only tools approved for use in hazardous zone-1 shall be used. The condition of all equipments used within hazardous zones shall be checked by BPCL Engineer. Where chipping or scraping is necessary in a hazardous area, several precautions shall be taken such as; the surface being chipped or scraped shall be kept moist with water at all times ; Air driven jackhammers may be used where atmosphere has been certified to be safe and the impacting surfaces must be submerged in water.

#### 35.2 CHECKING OF WORKERS

Workers are to be checked for matchboxes, lighters and other spark producing items. If workers are found to be carrying any such item, the same shall be taken into custody by security at the entry point.

#### 35.3 SAFETY CHECKS

In all cases where work is to be carried out within hazardous zones, BPCL Engineer shall check the area using an explosimeter for the presence of flammable vapours. The explosimeter shall be verified before each use, for its smooth functioning. Should there be any indication of flammable vapours, steps shall be taken to reduce the vapour content of the surrounding atmosphere. If found safe after re-checking by explosimeter, the work permit shall be issued.

#### 35.4 FIRE SCREEN WALL

Fire screen shall be provided to segregate area where hot works, such as welding & cutting, is planned to be done from surrounding. To construct fire screen, the following shall be complied with:

- Members shall be made of appropriate size MS pipes, MS structurals, strong enough to withstand the wind, live and dead loads. The bottom of columns shall be properly grouted.
- Good quality G.I. Sheets free from damage and holes shall be used as screening wall. G.I. Sheets shall be properly tied up with the structure.
- The height of fire screen wall shall be decided based on the level at which hot work is supposed to be carried out. For example, in case of above ground tanks fabrication by jacking up method, a fire screen of 6 M height is sufficient where as in the other case it is required to have a height equal to height of structure to be fabricated.

### 36. WORK PERMIT SYSTEM

If work is to be performed in a hazardous area, a duly authorized written work permit shall be obtained by the contractor from BPCL or any official duly authorized by BPCL for this purpose. This is a document authorizing contractor to carry out the work concerned, warning him of the possible hazards and spelling out precautions needed for the job to be done safely. The contractor shall be fully aware of the details of the work permit system and shall obtain the same signed by authorized person before starting the job. Based on the nature, the work shall be undertaken either under Cold Work Permit or Hot work / Entry to confined space permit or Electrical isolation and energisation permit.

Permits and certificates are to be issued by BPCL Engineer or any official duly authorized by BPCL for this purpose with overall responsibility for the work area.

All work permits shall carry serially printed numbers. The printing of all work permits shall be done by the contractor in adequate quantity at his own cost.

#### 36.1 COLD WORK PERMIT:

Work falling under the category of cold work such as opening process machinery, blinding & debinding, tightening of flanges, hot bolting, painting etc. shall be performed through Cold Work Permit.

This Permit shall be in minimum two copies. The original should be in yellow colour and the copy should have the word "Copy" printed in large yellow letters. Original shall be issued to the contractor, retaining the duplicate in the book. (Ref. Annexure-I)

#### 36.2 HOT WORK / ENTRY TO CONFINED SPACE PERMIT:

All hot work such as welding, grinding, gas cutting, burning, shot blasting, soldering, chipping, excavation, open fire, use of certain non-explosion proof equipment etc. shall be carried out through Hot Work Permit. Entry and operation of petrol or diesel driven vehicles or equipment without spark arrester in hazardous area also falls in the category of hot work, and shall be performed under the hot work permit.

The confined space entry permit is required for the protection of personnel entering a confined space such as Vessels, boilers, storage tanks, large diameter piping etc against hazards such as oxygen deficiency, toxic and flammable materials, falling objects, power driven equipment etc. Excavation more than 1.2 meter deep, entry on floating roof tank when the roof is more than 3 meter down from

the top, space located below ground level such as pits, drain, channels etc. also fall under the confined space.

For excavation work regardless of the depth, permission from various sections shall be obtained with precautions to be taken for the underground facilities viz; sewers, telephone lines, cables, pipelines etc.

This work permit shall be in minimum three copies. The original should be in pink colour and copies should have the word "COPY" printed in large pink letters. Original shall be issued to the contractor, duplicate to the Safety Section and triplicate retained in the book. (Ref. Annexure-II)

### 36.3 ELECTRICAL ISOLATION AND ENERGISATION PERMIT

Before issuing any work permit, it is essential that the equipment / facility to be worked on is electrically safe and electrical power is isolated to the extent necessary for the safe conduct of the authorized work.. Permit for electrical isolation and energisation shall be in triplicate and in two sections with tear off facility. Section-A shall be used for electrical isolation and Section-B for energisation. The original should be in light blue color and copies should have the word "COPY" printed in large letters in light blue colour. Original along with a copy shall be issued to the electrical section for electrical isolation / energisation. Electrical section authorized person on isolation / energisation of the equipment / circuit shall return the original to the issuer keeping copy for record. (Ref. Annexure-III)

### 36.4 SCAFFOLDING FITNESS CERTIFICATE

For all temporary scaffolds erected by contractor, fitness certificate, in format given in Annexure IV, shall be issued by BPCL site in charge after due checking to his satisfaction .

### 36.5 TEMPORARY ELECTRICAL CONNECTION FITNESS CERTIFICATE

For all temporary electrical connections taken by contractor including diesel generating sets, fitness certificate, in format given in Annexure V, shall be issued by BPCL site in charge after due checking to his satisfaction.

## 37. ACCIDENT REPORTING AND CLASSIFICATION

### 37.1 ACCIDENT REPORTING

All employees must be encouraged to report any near miss incident that has or could have caused injury, illness, damage to property, or interruption in work. The reporting of such incident helps in analyzing what went wrong and enables steps to be taken to prevent recurrence. The accident reporting forms the basis for objective investigation of the accident and will bring out essential and contributory factors leading to It. The necessary decisions then can be taken to prevent recurrence in future.

### 37.2 CLASSIFICATION OF ACCIDENTS

Accidents are classified as follows:

- a) Near Miss

It is a 'narrow escape' where accident, major loss or injury did not occur. Such incidents must be reported locally and the working conditions leading to it must be investigated.

b)            Fatality

A death resulting from work injury is covered under this category irrespective of the intervening time between injury and death.

c)            Permanent total disability

Personal injury which incapacitate a person completely and results in termination of employment.

d)            Permanent partial Disability

Any injury which results in complete loss or permanent loss of use of any part of body or any permanent impairment of the function of the body.

e)            Lost Work-Day Case

Any injury excepting permanent partial disability which renders the injured person unable to perform any regular job on any day after the day of receiving the injury.

f)            Restricted work case

After the injury, the injured person can not perform his normal duties or regular job.

g)            Lost work days

The number of calendar days on which the injured person was temporarily unable to work.

h)            Restricted Work days

The total number of calendar days from the start of Restricted work, by the injured persons, till he returns to his regular job.

i)            Medical treatment cases

The injury requiring medical treatment under order from a physician but does not involve Lost work Days, or restricted workdays.

### 37.3    REPORTING

Contractor shall notify BPCL as under:

Lost time injuries / Fatality / Injury which may cause total or partial disability to injured etc - immediately.

Fire and Miscellaneous Events- immediately. First Aid injuries-Within a day.



## 38 SAFETY TRAINING

Training is a pro-active measure. The contractor shall engage only those workers who are proficient in their respective jobs. It is responsibility of contractor to impart job knowledge to all workers and supervisors before engaging them for any work. It is also binding to the contractor to depute persons for safety training, if arranged by BPCL.

## 39 DOCUMENTATION

Following documents shall be maintained by contractor at site:

- Safety & Environment Policy
- Safety committee minutes of meeting
- Critical machinery/equipment fitness certificate. ➤ Stock register of Personnel Protective Equipment.
- Maintenance registers for major machineries/equipment.
- Accident / incident investigation reports. ➤ Various work permits.
- Earthing test certificates. ➤ Materials test certificates.
- P.F., Contract Labour, ESI registration.
- All records & registers as required under Contract Labour (Regulation & Abolition Act) 1970 and Building & Other Construction Workers Act 1996.

## 40 ENVIRONMENT PROTECTION

Contractor should ensure that the work carried out by him does not change the quality of air, water & soil at the work site & surrounding areas. Disposal of surplus earth, rubbish, scrap etc. shall be done in Eco-friendly manner. The contractor shall ensure that the greenery is protected to the extent possible while executing the work.

## 41 ENVIRONMENTAL IMPACT MITIGATION MEASURES

The best way of impact mitigation is to prevent the event occurring. All efforts should be made to locate the developmental activities in a area free of agricultural lands, cyclones, earthquakes, ecologically sensitive, erosion, forests, flooding, human settlements, land slides, natural scenic beauty, water logging. In case this is not feasible, the next step is to look at the raw materials/technologies/processes alternatives which produce least impact i.e. adopting or using processes or technologies which are efficient and produce recyclable wastes/minimum waste/wastes that can be easily disposed, without affecting the environment. However if the developmental activity produce the adverse impact, action has to be taken to mitigate the same. Following are the suggested methods, which shall be taken in to consideration by the contractor to choose right technology for executing the work:

### 41.1 AIR

- Attenuation of pollution on pathway or protection of receptor through green belts.

- Particulate removal devices such as : cyclones, setting chambers, scrubbers, electrostatic precipitators, and bag houses.
- Gas removal devices using absorption (liquid as a media), adsorption (molecular sieve), and catalytic converters.
- Uses of protected, controlled environment, such as oxygen masks, Houston Astrodome, etc.
- Control of stationary source emission (including evaporation incineration, absorption, condensation and material substitution)
- Use of masks
- Dilution of odourant (dilution can change the nature as well as strength of an odour)
- Odour counteraction or neutralize (certain pairs of odours in appropriate concentration may neutralize each other)
- Odour masking or blanketing (certain weaker malodours may be suppressed by a considerably stronger good odour)

#### 41.2 NOISE

- The mitigation measure may include damping, absorption, dissipation and deflection methods. Common technique involve constructing sound enclosures, applying mufflers, mounting noise sources on isolators, and/or using materials with damping properties.
- Performance specifications for noise represent a way to insure the procured item is controlled.
- Ear protective devices should be used. When an individual is exposed to steady noise levels above 85-dB (A), in spite of the efforts made to reduce noise level at the source, hearing conservation measures should be initiated.

#### 41.3 WATER

- Conjunctive use of ground/surface water, to prevent flooding/water logging/depletion of water resources. Included are land use pattern, land filling, lagoon/reservoir/garland canal construction and rainwater harvesting and pumping rate.
- Minimize flow variation from the mean flow.
- Segregation of different types of wastes.
- Storing of oil wastes in lagoons should be minimized in order to avoid possible contamination of the ground water system.
- Surface runoff from oil handling areas should be treated for oil separation before discharge into the environment. If oil wastes are combined with sanitary sewage, oil separation will be necessary at the waste water treatment facility.
- All effluents containing acid/alkali/organic/toxic wastes should be processed by treatment methods. The treatment methods may include biological or chemical processes. The oil water separator of appropriate size based on catchment area shall be provided.
- The impact due to suspended solids may be minimized by controlling discharge of wastes that contain suspended solids; this includes sanitary sewage and industrial wastes. Also, all activity that increases erosion or contributes nutrients to water (thus stimulating alga growth) should be minimized.
- Waste-containing radioactivity should be treated separately by means of dewatering procedures and solids or brine should be disposed of with special care.

#### 41.4 LAND

- The environmental impact of soil erosion can best be mitigated by removing vegetative cover only from the specific site on which construction is to take place and by disturbing the vegetation in adjacent areas as little as possible. Land clearing activities should be kept to the absolute minimum.
- Disturbing the existing vegetation and natural contour of the land as little as possible can mitigate increases in surface runoff. Vegetation along watercourses should not be cleared indiscriminately. Neither should potholes or swamps be drained unless absolutely necessary for successful completion of the activity.
- Construction activities that result in the soil being laid bare could be scheduled in such a way that some type of vegetative cover appropriate to the site could be established prior to the onset of intense rain or windstorms. If grass is to be seeded, mulch of straw will help to protect the soil from less extreme erosive forces until vegetative and root development begins.
- Natural drainage patterns can often be maintained by preparing sodden waterways or installing culverts.
- Steep slopes can be terraced, thereby effectively reducing the length of slope.
- Check dams built near construction sites can reduce the quantity of eroded soil particles reaching free-flowing streams or lakes.
- Use of “floating” foundations and height restrictions in earthquake zones and increased foundation height, wall strength and roof support in areas periodically subject to cyclones can reduce the hazards.
- All forms of temporary structures should be avoided from the flood plain and all permanent structures should be raised to a height above the level which flood waters can be expected to reach once every 100 years (100-year flood).
- Installation of underground drainage structures helps to reduce sediment loads.
- Engineering plans can be drawn to reduce the area of earth cuts on fills below what might otherwise be acceptable, provide physical support for exposed soil or rock faces, concentrate or distribute-as appropriate the weight loading of foundations to areas or state better able to support that weight.
- Use small charges for mining/blasting.
- Restricting the number, frequency and area of movement of heavy machinery.
- Compatibility between adjacent land uses can best be assured by providing a green belt between the proposed activity and nearby properties where any significant degree of incompatibility is likely to result.

#### 41.5 ECOLOGY

- Intruding as little as possible on their habitat can best mitigate the impact of activities on animals. If such animals use the area where the activity will take place, the activity should be concentrated to the maximum extent possible in those parts of the area that they least often frequent.
- During the planning phase of an activity, an attempt should be made to avoid extending into the home range wild animals. If this is not feasible, the activity should be completed, as quickly as possible, and regular and sustained use of the area over time should be minimized.
- Regular or sustained intrusions of men or equipment into nesting areas of birds should be avoided to the maximum possible extent, especially while are being incubated by the adults and until the young have left the nest. The

sanitation cuttings of non-commercial individual trees should destroy no known nests.

- Restricting the input of polluting substances into watercourse, estuaries and the open sea can mitigate impacts upon fish and shellfish populations. Additionally, when a part of the activity involves water level control, changes in such levels should be programmed to be extent, it is possible to do so in a way that will minimally disturb nesting and feeding habitat.

COLD WORK PERMIT APPENDIX-I

Sl.No. \_\_\_\_\_

Work clearance from \_\_\_\_\_ hrs of date \_\_\_\_\_ To \_\_\_\_\_ hrs of date \_\_\_\_\_ (Valid for the shift unless renewed)

Issued to (Department / Section / Contractor) \_\_\_\_\_

Exact Location of work (Area / Unit / Equipment no. etc) \_\_\_\_\_

Description of work  
\_\_\_\_\_  
\_\_\_\_\_

THE FOLLOWING ITEMS SHALL BE CHECKED BEFORE ISSUING THE PERMIT  
(Tick mark in the appropriate box. Checklist items marked with asterisk ( \* ) shall be complied by receiver)

item				Item		
Equipment / Work Area inspected				Equipment water flushed		
Surrounding area checked, cleaned and covered				Equipment properly steamed / purged		
Equipment blinded/disconnected / closed / isolated / wedge opened				Proper ventilation and lighting provided		
Equipment properly drained and depressurize				Area cordoned off & caution		

	d				boards / tags provided.		
	Equipment electrically isolated and tagged vide Permit no. -- ----- ----- -				Gas test: HCs / Toxic etc. HCs = % LEL Toxic gas = ppm		

Remarks:

1. The activity has the following expected residual hazards (Tick the relevant items): Lack of Oxygen / H<sub>2</sub>S, Toxic Gases / Combustible gases / Pyrophoric Iron / Corrosive Chemicals / Steam – Condensate / Others \_\_\_\_\_
2. Following additional PPE to be used in addition to standards PPE (Helmet, Safety Shoes, Hand gloves, Boiler suit): Face Shield / Apron / Goggles / Dust Respirator / Fresh Air Mask / Lifeline / Safety Belt / Airline / Earmuff etc.
3. Additional precaution if any:  
\_\_\_\_\_

Issuer Name & Designation	Issuer Signature	Receiver Name & Designation	Receiver Signature

**Closing of the work permit:**

Receiver : Certified that the subject work has been completed / stopped and area cleared			Issuer: Verified that the job has been completed and area cleared and is safe from any hazard.		
<i>D a t e &amp; T i m e</i>	<i>N a m e &amp; D e s i g n a t i o n</i>	<i>S i g n a t u r e</i>	<i>D a t e &amp; T i m e</i>	<i>N a m e &amp; D e s i g n a t i o n</i>	<i>S i g n a t u r e</i>

**Clearance renewal**

<i>D a t e</i>	<i>Tim e</i>		<i>Addi tiona l preca ution s if any, Othe rwise ment ion “NIL ”</i>	<i>Issue r's Nam e, Desi gnati on &amp; Sign ature</i>	<i>Rec eive r's Na me, Des igna tion and Sign atur e</i>
	<i>F r o m</i>	<i>T o</i>			




*General Instructions:*

1. The work permit shall be filled up carefully and accurately in clear handwriting ensuring that complete information is provided in all the sections / subsections. Sketches should be provided wherever possible to avoid miscommunication.
2. Appropriate safe guards and required personnel protective equipment (PPEs) shall be determined by a careful analysis of the potential hazards and the operations to be performed prior to starting the work.
3. Requirement of standby personnel from Process / Maintenance / Contractor / Fire / Safety etc if any shall be mentioned in the additional requirement.
4. In case of fire alarm / siren, all work must immediately be stopped.
5. For renewal of work clearance, the issuer shall ensure that the conditions are satisfactory for the work to continue. If the conditions have changed, it may be necessary to issue a new permit or amend the existing permit.
6. This clearance on the same permit can be renewed / extended upto a maximum of seven calendar days.
7. This permit must be available at work site at all times.
8. On completion of the work, the permit shall be closed.

The industry may add other relevant instruction based on their operating and maintenance practices.

APPENDIX -II

WORK PERMIT  
for

HOT WORK / ENTRY TO CONFINED SPACE

Sl.No. \_

Work clearance from \_\_\_\_\_ hrs of date \_\_\_\_\_ To \_\_\_\_\_ hrs of date \_\_\_\_\_ (Valid for the shift unless renewed)

Issued to (Department / Section / Contractor)

Exact Location of work (Area / Unit / Equipment no. etc) \_\_\_\_\_

Description of work

THE FOLLOWING ITEMS SHALL BE CHECKED BEFORE ISSUING THE PERMIT  
(Tick mark in the appropriate box. Checklist items marked with asterisk (\*) shall be complied by receiver)

Item				Item		
General points				For Hot work / Entry to confined Space		
Equipment / Work Area inspected				Proper ventilation and Lighting providing		
Surrounding area checked, cleaned and covered				Proper means of exit / escape provided		
Sewers, manholes, CBD etc and				Standby personnel provided from		

	hot surfaces nearby covered				Process / Maint / Contractor / Fire / Safety dept.		
	Considered hazard from other operations and concerned persons alerted.				Checked for oil and Gas trapped behind the lining in Equipment		
	Equipment blinded/discon nected / closed / isolated / wedge opened				Shield provided against spark		
	Equipment properly drained and depressurized				Portable equipment / nozzles properly grounded		
	Equipment properly steamed / purged				Standby persons provided for entry to confined space		
	Equipment water flushed						
	Iron sulfide removed / kept wet				For Vehicle Entry		
	Equipment electrically isolated and tagged vide permit no.				Spark Arrestor on the mobile equipment / vehicle provided.		
	Gas test : HCs = %LE L Toxic gas = ppm, O2 = %						
	Running water hose / Fire extinguisher provided. Fire water system available.				For Excavation works		
	Area cordoned off and Precautionary tags / Boards provided.				Clearance obtained for excavation / road cutting / Dyke cutting from concerned		

					depart.		
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REMARKS:

1. The activity has the following expected residual hazards (Tick the relevant items): Lack of Oxygen / H<sub>2</sub>S, Toxic Gases / Combustible gases / Pyrophoric Iron / Corrosive Chemicals / Steam – Condensate / Others

2. Following PPEs to be used in addition to standards PPEs (Helmet, Safety Shoes, Hand gloves, Boiler suit): Face Shield / Apron / Goggles / Dust Respirator / Fresh Air Mask / Lifeline / Safety Belt / Airline / Earmuff etc.

3. Additional precautions if

any:\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Issuer Name & Designation	Issuer Signature	Receiver Name and Designation	Receiver Signature

Clearance renewal

Date	Time		Gas Test Values for HC's, Toxic, O <sub>2</sub> etc	Additional precautions if any, Otherwise mention "NIL"	Issuer's Name, Designation & Signature	Receiver Name, Designation and Signature
	From	To				

**Closing of the work permit:**

Receiver: Certified that the subject work has been completed / stopped and area cleaned.			Issuer: Verified that the job has been completed and area cleaned and is safe from any hazard.		
Date & Time	Name & Designation	Signature	Date & Time	Name & Designation	Signature

**General Instructions:**

1. The work permit shall be filled up carefully and accurately in clear handwriting ensuring that complete information is provided in all sections / subsections and none of column is left blank. Sketches should be provided wherever possible to avoid miscommunication.
2. Appropriate safe guards and required personnel protective equipment shall be determined by a careful analysis of the potential hazards and the operations to be performed prior to starting the work.
3. In case of fire alarm / siren, all work must immediately be stopped.
4. Only certified vehicle / engines and permitted type of electrical equipment and tools are allowed in operating areas.
5. Welding machines should be located in non-hazardous and ventilated areas.
6. No hot work should be permitted unless the explosive meter reading is Zero.
7. When a person is entering confined space, the receiver must keep minimum two standby-designated persons at the manhole or entry point.
8. Before box up of any vessel manhole cover, ensure that no men / materials are inside the vessel.
9. For renewal of work clearance, the issuer shall ensure that the conditions are satisfactory for the work to continue. If the conditions have changed, it may be necessary to issue a new permit or amend the existing permit.
10. This clearance on the same permit can be renewed / extended upto a maximum of seven calendar days.
11. This permit must be available at work site at all times.
12. On completion of the work, the permit must be closed and kept as record.
13. The industry may add other relevant instructions based on their operating and maintenance practices.

APPENDIX -III

Electrical Isolation / Energisation Permit

Section-A: Isolation Permit.

Sl.No. \_\_\_\_\_

*Request for Isolation:*

*Date:*

\_\_\_\_\_ *Time:* \_\_\_\_\_

Department / Section / Area issuing the permit

\_\_\_\_\_

Equipment number to be isolated:

\_\_\_\_\_

Name of the equipment / circuit to be isolated:

\_\_\_\_\_

The above-mentioned equipment / circuit shall be de-energized and isolated from all live conductors to carry out the maintenance work by \_\_\_\_\_ section / for operational requirement.

\_\_\_\_\_

Issuer Name

Designation

Signature

\_\_\_\_\_

Certificate of Isolation:

*Date:*

\_\_\_\_\_ *Time:* \_\_\_\_\_

Certified that Equipment / Circuit no. \_\_\_\_\_ of

\_\_\_\_\_ plant has been electrically isolated by switches / isolators / links / fuses (tick as applicable) and the danger tag is put on the supply panel. Actions in respect of electrical isolation have been recorded in the electrical shift logbook.

\_\_\_\_\_

Name of Authorized Person

Designation

Signature

-----



Section-B: Energisation Permit.

Sl.No. \_\_\_\_\_

*Request for Energisation:*

*Date:*

\_\_\_\_\_ Time: \_\_\_\_\_

Department / Section / Area issuing the  
permit \_\_\_\_\_

Equipment number to be energized:

\_\_\_\_\_

Name of the equipment / circuit to be  
energized: \_\_\_\_\_

Work on the above mention equipment / circuit has been completed and all the applicable permits  
closed. This equipment / circuit may be energized.

\_\_\_\_\_

Issuer Name

Designation

Signature

\_\_\_\_\_

Certificate of Energisation:

*Date:*

\_\_\_\_\_ Time: \_\_\_\_\_

Certified that Equipment / circuit no. \_\_\_\_\_ of

\_\_\_\_\_ plant has been electrically energized and the danger tag removed from the  
supply panel. This is also recorded in the electrical shift logbook.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name of Authorized Person

Designation

Signature

APPENDIX -IV

Scaffolding fitness certificate

(Name of contractor \_\_\_\_\_ )

Project \_\_\_\_\_

Exact location of scaffolding \_\_\_\_\_

Date of inspection \_\_\_\_\_

Type of scaffolding & height \_\_\_\_\_

Purpose \_\_\_\_\_

We have personally checked the scaffolding and declare it as fit for use. Signature of site in-charge

Signature of contractor's representative \_\_\_\_\_

Date:

APPENDIX -V

Temporary electrical connection fitness certificate

(Name of contractor \_\_\_\_\_ )

Project \_\_\_\_\_

Exact location of electrical temporary connection \_\_\_\_\_

Date of inspection \_\_\_\_\_

Purpose \_\_\_\_\_

We have personally checked the temporary electrical connection and workability of  
ELCB/RCCB and declare it as fit for use.

Signature of site in-charge

Signature of contractor's representative \_\_\_\_\_

Date:

## GRIEVANCE REDRESSAL MECHANISM

### PREAMBLE

Grievance Redressal Mechanism aims at speedy resolution of grievance of tenderes and prospective tenderes by providing them with a platform to refer their grievances and to seek appropriate remedy to the same.

### 13.0 Definitions

In this mechanism, unless repugnant to the meaning or context thereof, the following expressions shall have the meaning given to them below :-

13.1 'Company' shall mean Bharat Petroleum Corporation Ltd.

13.2 'Grievance' shall mean a representation complaining of an interference in the rights of a Tendering party or representation complaining of an oppression on a Tendering party by Bharat Petroleum Limited (BPCL) or its representatives, resulting in denial of his rights as a Tendering party.

13.3 'Tendering party' shall mean a party or parties as a group who has / have participated in the tender process and submitted his / their tender in response to an invitation to participate in the tender or a party / parties who is / are prospective tenders qualified to participate in a tender based on notice issued by the Company inviting tender.

13.4 'Tender Inviting Authority' shall mean an employee or committee of BPCL employees authorised to invite and / or to accept a particular tender.

13.5 'Grievance Redressal Officer' (GRO) shall mean respective Functional Director to whom the originator of Tender reports.

### 2.0 Authorities to handle grievances

2.1 There will be a two-tier mechanism to handle the grievance received from a Tendering party.

2.2 The first level of Grievance Redressal Mechanism (GRM) shall comprise of a Grievance Redressal Committee (GRC) consisting Tender inviting authorities as the Co-ordinator, head of SBU/Entity originating the Tender and the ED (Finance). All the grievance shall be lodged with the Coordinator of the GRC with a copy to the Tender Inviting Authority.

2.3 The second level of GRM shall be Standing Committee of the Board for Tenders (SCBT) to whom appeal against the Orders of the GRO can be filled by the Tendering party in case he is not satisfied with the decision of the GRC.

### 3.0 Contact details co-ordinator

Telephone No.

Address:

Fax: Our Ref:

### **BAN ON USE OF HYDRA CRANE IN BPCL WORK SITES**

Usage of Hydra Cranes Even for Shifting Materials, Equipment, Cable Drums, Pipelines, Towing of Vehicles etc. from one location to the other is banned due to safety reasons.

Some of the models but not limited to having the above mentioned features are mentioned as below for reference which can be permitted to be used in BPCL work sites:

SL. NO.	MANUFACTURE	MODELS
1	Escorts Construction Equipment Ltd ( ECEL)	TRX Series – K10; F15:TRX 2319; MAC
2	Action Construction Ltd ( ACE)	FX 120: FX10; 15XWE 15XWF ; RHINO 110 PC

**ANNEXURE-III**  
**TECHNICAL SPECIFICATION, SCOPE OF WORK & BOQ**

**Supply, Installation and Commissioning of Flow Computer for existing Turbine Flow Meters at Multiple Pipeline locations of BPCL Pipeline**



**Supply, Installation & Commissioning of new Flow Computer including integration with existing Turbine Flow Meters, establishment of communication with existing Station PLC/DCS & Pipeline SCADA System at multiple BPCL Pipeline locations**

**1. INTRODUCTION:**

Bharat Petroleum Corporation limited (BPCL), a Maharatna Public Sector Undertaking Company of Govt. of India is having Pipeline Entity. Pipeline entity operates cross country multi product petroleum Pipelines which has number of Flow Computer System at dispatch, intermediate pumping & receipt stations.

The Mumbai Manmad Bijwasan pipeline (MMBPL) of M/s Bharat Petroleum Corporation Limited (BPCL) is having underground multi product pipeline for transfer of MS (Euro-IV),



**Supply, Installation and Commissioning of Flow Computer for existing Turbine Flow Meters at Multiple Pipeline locations of BPCL Pipeline**

SKO & HSD (Euro-IV) products for a distance of 1380KM from Mumbai Refinery to Bijwasan (Delhi). Along the pipeline, the locations called Mumbai, Washala, Manmad, Piyala, Bijwasan are Receipt cum Dispatch Terminal in different states of India State are provided with pumping facilities for transportation of the product. Bharat Petroleum Corporation Limited (BPCL) has one more multi product pipeline for pumping the MS (Euro-II&III), SKO & HSD (Euro-II & III) Product distance of 292.0 KM from Cochin Irimpanam Installation to Karur (Tamilnadu). Along the pipeline route, there is one tap-off location (Coimbatore-Irugar) and one receipt station (Karur) which have Flow Computers at all the Pipeline stations.

Along the pipeline route, there are Sectionalizing valve (SV) Stations, intermediate pumping stations and a tap-off Point (TOP) station which have Flow Computers to convert pulse input into flow & for measurement of mass, volume flow of the pipeline system and flow entering the receipt station. At present Mumbai, Manmad, Manglya, Piyala, Bina & Kochi are dispatch pumping stations & Manmad, Manglya, Kota, Piyala, Jobner, Irugar, Karur are product receipt stations. Washala, Sanghvi, Gujri, IP-Sherpur, IPS-Malarna, IPS-Bhratpur, Mathura, are intermediate pumping cum receipt locations. The field flows are measured by existing Rockwin/Daniel make Turbine Flow Meters.

M/s BPCL desires to procure & install new Flow Computers for existing Rockwin/Daniel make Turbine Flow Meters at BPCL Pipeline locations state.

**2. VENDOR SCOPE OF WORK:**

**2.1** Vendor shall be responsible for engineering, manufacture, procurement materials and bought out components, assembly at shop, Inspection, testing at manufacturer's works, packing, delivery, documentation, installation & commissioning of new Flow Computers for existing Rockwin/Daniel make Turbine Flow Meters at following BPCL Pipeline locations.

1. Washala(Maharashtra)
2. Manmad (Maharashtra)

**Supply, Installation and Commissioning of Flow Computer for existing Turbine Flow Meters at Multiple Pipeline locations of BPCL Pipeline**

3. Sanghvi (Maharashtra)
4. Gujri (Madhya Pradesh)
5. Manglya (Madhya Pradesh)
6. IP1 Sherpur(Rajasthan)
7. Kota (Rajasthan)
8. Malarna (Rajasthan)
9. Bharatpur(Rajasthan)
- 10.Mathura (Uttar Pradesh)
11. Piyala(Haryana)
- 12.Bijwasan(New Delhi)
- 13.Koch(Keral)
- 14.Irugur(Tamlinadu)
- 15.Karur(Tamilnadu)

**2.2** Vendor has to supply new Flow Computers for existing Rockwin/Daniel make Turbine Flow Meters at BPCL Pipeline locations state & as per enclosed Standard technical specifications of Flow Computer and Data sheet as below:

- a. Flow Computer Technical Specifications **Annexure-1** (Total no. of pages 9).
- b. Flow Computer Data Sheet **Annexure-2** (Total no. of pages 3).
- c. Vendor Data Requirement in the **Annexure-3** (Total no. of pages 1).
- d. Flow Computer System Technical Questionnaire the **Annexure-4** (Total no. of pages 1).

**2.3** The vendor is responsible for the selection of the Flow Computer for existing Rockwin/Daniel make Turbine Flow Meters system including accessories and it's suitability to meet the specification for existing Turbine Flow Meters system.

**2.4** Flow Computer shall have pulse input minimum 4 Nos as per ISO 6551(Pulse inputs for each turbine / Coriolis : 2 nos. for stream no. 1 as per ISO6551). It means One Flow Computer shall be compatible to configure minimum 2 no of streams of turbine/Coriolis as per ISO6551). Two no streams shall be considered for each flow computer while selecting/designing a flow computer.

**Supply, Installation and Commissioning of Flow Computer for existing Turbine Flow Meters at Multiple Pipeline locations of BPCL Pipeline**

- 2.5** The bidder shall consider supply of license software required to configure flow computer. One license software per site shall be given by the bidder, cost of the same shall be included in the flow computer supply cost only.
- 2.6** 230 VAC  $\pm$  10%, 50 Hz  $\pm$  5%, single phase power supply will be available for the Flow Computer system (as specified on datasheet).
- 2.7** If at any stage, till the completion of the order, the Flow Computer system & accessories offered are found unsuitable implication schedule/casting and design conditions, the vendor shall replace the same with suitable model no. meeting the specifications without any schedule/cost implication.
- 2.8** Offered models of the Flow Computer system and all accessories shall be field proven. Further vendor shall furnish purchase order, successful commissioning reports for supplied offered make & model of The Flow Computer system for Oil & Gas services.
- 2.9** The Flow Computer system including all accessories like CPU Card, display, control circuit, communication cards, etc. shall be supplied in fully assembled conditions complete.
- 2.10** All electrical/electronic accessories in the Flow Computer system shall be suitable for installation in control room environment.
- 2.11** Vendor to note that the offered models of The Flow Computer system shall be suitable for ambient temperature of 55 deg C (maximum) & 0 deg C (minimum). The Flow Computer system shall be suitable for continuous duty throughout the range for 24 hours and 365 days of each year.
- 2.12** Vendor to offer only standard product out of their manufacturing range as listed out in their product catalogues including Flow Computer System model nos. The Flow Computer system with non-standard model no. shall not be acceptable.
- 2.13** The vendor shall be responsible for obtaining all statutory approvals, as applicable for all instruments and control systems. Equipment / Instruments / systems located in the hazardous area (for all intrinsic

**Supply, Installation and Commissioning of Flow Computer for existing Turbine Flow Meters at Multiple Pipeline locations of BPCL Pipeline**

safe/flame proof protected) shall be certified by statutory authorities like BASEEFA/ FM/ UL/PTB/ LCIE etc. Copy of the approved certificate shall be furnished with bid. In addition to above certification by the Indian statutory authorities-CCE (Chief Controller of Explosives)/PESO India is mandatory.

- 2.14** The commissioning spares of The Flow Computer system shall be included in the base quote. If any special tool/equipment required for calibration, same shall be provided by vendor with Flow Computer System.
- 2.15** Vendor to furnish the control schematics indicating control signals, control mechanism & positioning operation of the Flow Computer system with the bid.
- 2.16** Vendor shall specify the make of all the parts of The Flow Computer system. Address, telephone no. and E-mail of the spare parts manufacturer shall be provided along with offer. Detailed catalogues of all the spare parts shall also be provided.
- 2.17** Vendor shall be responsible for the availability of spares of the Flow Computer system for a minimum period of 10 years even after the withdrawal of the product from the market. Vendor shall submit written commitment with respect to supply of spares directly or through bidder to BPCL.
- 2.18** Vendor shall dismantle the existing Flow Computer system and install new The Flow Computer system at BPCL Pipeline locations, Also should ensure fitting / Connection arrangement of proposed Flow Computer system with existing Rockwin/Daniel make Turbine Meters at design and manufacturing stage. If required, vendor shall visit the BPCL Pipeline locations, to get technical & details of existing Flow Computer system at site in order design the correct suitable for existing Rockwin make Turbine meters & offered The Flow Computer system. Design of new The Flow Computer system with offered Model suitable for existing Rockwin/Daniel make Turbine Meters is the responsibility & in complete scope of vendor bidding for the tender.

**Supply, Installation and Commissioning of Flow Computer for existing Turbine Flow Meters at Multiple Pipeline locations of BPCL Pipeline**

- 2.19** Vendor shall arrange all the required services and assistance (Manpower, Crane, tools, any special tool, valve vendor visit if require, etc.) for installation and commissioning of supplied Flow Computer system at BPCL Pipeline locations.
- 2.20** BPCL will arrange electrician for cable termination at PLC/DCS/SCADA end, permissions & permit to execute the job.
- 2.21** Vendor must dismantle all signal & power cables of existing Flow Computer system and connections to be made with new Flow Computer system.
- 2.22** Vendor has to do the Calibration & actual settings of supplied Flow Computer system with existing Rockwin/Daniel make Turbine Meters at BPCL Pipeline locations.
- 2.23** Vendor shall provide the Calculation accuracy better than  $\pm 0.05\%$  of full-scale including linearity, hysteresis, repeatability, and resolution. Accuracy for analog inputs to be minimum  $0.05\%$ , while for analog output accuracy should be  $\pm 0.1\%$  of FSD.
- 2.24 After Sales Service Support Facilities:** OEMs of Flow Computer system is required to have Service Support Facilities in India along with Trained Engineers for preventive / breakdown maintenance of the Flow Computer System within 48 Hours after receipt of intimation from BPCL. Details of Service Support Facilities are to be furnished by Vendors along with Technical Bid.
- 2.25 Spares & Accessories:** Vendor shall furnish list of recommended spares and accessories for flow computer system required during start-up and commissioning. Vendor shall furnish list with price of recommended spares and accessories required for normal operation and maintenance of valves.

**Schedule of supply:**

**Supply, Installation and Commissioning of Flow Computer for existing Turbine Flow Meters at Multiple Pipeline locations of BPCL Pipeline**

<b>Line item</b>	<b>Location</b>	<b>DESCRIPTION</b>	<b>QTY</b>	<b>UNIT</b>
10	Washala	Supply of Flow Computer at Washala	2	SET
20	Washala	Installation & Commissioning of new Flow Computer including integration with existing Rockwin/Daniel make Turbine Metres, establishment of communication with existing Station PLC & Pipeline SCADA System at Washala	1	LS
30	Manmad	Supply of Flow Computer at Manmad	3	SET
40	Manmad	Installation & Commissioning of new Flow Computer including integration with existing Rockwin/Daniel make Turbine Metres, establishment of communication with existing Station PLC & Pipeline SCADA System at Manmad	2	LS
50	Sanghvi	Supply of Flow Computer at Sanghvi	1	SET
60	Sanghvi	Installation & Commissioning of new Flow Computer including integration with existing Rockwin/Daniel make Turbine Metres, establishment of communication with existing Station PLC & Pipeline SCADA System at Sanghvi	1	LS
70	Gujri	Supply of Flow Computer at Gujri	1	SET
80	Gujri	Installation & Commissioning of new Flow Computer including integration with existing Rockwin/Daniel make Turbine Metres, establishment of communication with existing Station PLC & Pipeline SCADA System at Gujri	1	LS
90	Manglya	Supply of Flow Computer at Manglya	2	SET
100	Manglya	Installation & Commissioning of new Flow Computer including integration with existing Rockwin/Daniel make Turbine Metres, establishment of communication with existing Station PLC & Pipeline SCADA System at Manglya	2	LS
110	IP1 Sherpur	Supply of Flow Computer at IP1 Sherpur	1	SET
120	IP1 Sherpur	Installation & Commissioning of new Flow Computer including integration with existing Rockwin/Daniel make Turbine Metres, establishment of communication with existing Station PLC & Pipeline SCADA System at IP1 Sherpur	1	LS
130	Kota	Supply of Flow Computer at Kota	4	SET

**Supply, Installation and Commissioning of Flow Computer for existing Turbine Flow Meters at Multiple Pipeline locations of BPCL Pipeline**

140	Kota	Installation & Commissioning of new Flow Computer including integration with existing Rockwin/Daniel make Turbine Metres, establishment of communication with existing Station PLC & Pipeline SCADA System at Kota	3	LS
150	Malarna	Supply of Flow Computer at Malarna	1	SET
160	Malarna	Installation & Commissioning of new Flow Computer including integration with existing Rockwin/Daniel make Turbine Metres, establishment of communication with existing Station PLC & Pipeline SCADA System at Malarna	1	LS
170	Bharatpur	Supply of Flow Computer at Bharatpur	2	SET
180	Bharatpur	Installation & Commissioning of new Flow Computer including integration with existing Rockwin/Daniel make Turbine Metres, establishment of communication with existing Station PLC & Pipeline SCADA System at Bharatpur	2	LS
190	Mathura	Supply of Flow Computer at Mathura	2	SET
200	Mathura	Installation & Commissioning of new Flow Computer including integration with existing Rockwin/Daniel make Turbine Metres, establishment of communication with existing Station PLC & Pipeline SCADA System at Mathura	2	LS
210	Piyala	Supply of Flow Computer at Piyala	3	SET
220	Piyala	Installation & Commissioning of new Flow Computer including integration with existing Rockwin/Daniel make Turbine Metres, establishment of communication with existing Station PLC & Pipeline SCADA System at Piyala	2	LS
230	Bijwasan	Supply of Flow Computer at Bijwasan	1	SET
240	Bijwasan	Installation & Commissioning of new Flow Computer including integration with existing Rockwin/Daniel make Turbine Metres, establishment of communication with existing Station PLC & Pipeline SCADA System at Bijwasan	1	LS
250	Kochi	Supply of Flow Computer at Kochi	2	SET

**Supply, Installation and Commissioning of Flow Computer for existing Turbine Flow Meters at Multiple Pipeline locations of BPCL Pipeline**

260	Kochi	Installation & Commissioning of new Flow Computer including integration with existing Rockwin/Daniel make Turbine Metres, establishment of communication with existing Station PLC & Pipeline SCADA System at Kochi	1	LS
270	Irugur	Supply of Flow Computer at Irugur	1	SET
280	Irugur	Installation & Commissioning of new Flow Computer including integration with existing Rockwin/Daniel make Turbine Metres, establishment of communication with existing Station PLC & Pipeline SCADA System at Irugur	1	LS
290	Karur	Supply of Flow Computer at Karur	1	SET
300	Karur	Installation & Commissioning of new Flow Computer including integration with existing Rockwin/Daniel make Turbine Metres, establishment of communication with existing Station PLC & Pipeline SCADA System at Karur	1	LS
310	Washala	1st Year Post Warranty AMC (1 Visit per site)	1	LS
		2nd Year Post Warranty AMC (1 No Visit per site)	1	LS
		3rd Year Post Warranty AMC (1 No Visit per site)	1	LS
		4th Year Post Warranty AMC (1 No Visit per site)	1	LS
		5th Year Post Warranty AMC (1 No Visit per site)	1	LS
320	Manmad	1st Year Post Warranty AMC (1 No Visit per site)	1	LS
		2nd Year Post Warranty AMC (1 No Visit per site)	1	LS
		3rd Year Post Warranty AMC (1 No Visit per site)	1	LS
		4th Year Post Warranty AMC (1 No Visit per site)	1	LS
		5th Year Post Warranty AMC (1 No Visit per site)	1	LS
330	Sanghvi	1st Year Post Warranty AMC (1 No Visit per site)	1	LS
		2nd Year Post Warranty AMC (1 No Visit per site)	1	LS
		3rd Year Post Warranty AMC (1 No Visit per site)	1	LS
		4th Year Post Warranty AMC (1 No Visit per site)	1	LS
		5th Year Post Warranty AMC (1 No Visit per site)	1	LS
340	Gujri	1st Year Post Warranty AMC (1 No Visit per site)	1	LS
		2nd Year Post Warranty AMC (1 No Visit per site)	1	LS
		3rd Year Post Warranty AMC (1 No Visit per site)	1	LS
		4th Year Post Warranty AMC (1 No Visit per site)	1	LS
		5th Year Post Warranty AMC (1 No Visit per site)	1	LS
350	Manglya	1st Year Post Warranty AMC (1 No Visit per site)	1	LS
		2nd Year Post Warranty AMC (1 No Visit per site)	1	LS
		3rd Year Post Warranty AMC (1 No Visit per site)	1	LS
		4th Year Post Warranty AMC (1 No Visit per site)	1	LS
		5th Year Post Warranty AMC (1 No Visit per site)	1	LS
360	IP1 Sherpur	1st Year Post Warranty AMC (1 No Visit per site)	1	LS



**Supply, Installation and Commissioning of Flow Computer for existing Turbine Flow Meters at Multiple Pipeline locations of BPCL Pipeline**

		2nd Year Post Warranty AMC (1 No Visit per site)	1	LS
		3rd Year Post Warranty AMC (1 No Visit per site)	1	LS
		4th Year Post Warranty AMC (1 No Visit per site)	1	LS
		5th Year Post Warranty AMC (1 No Visit per site)	1	LS
370	Kota	1st Year Post Warranty AMC (1 No Visit per site)	1	LS
		2nd Year Post Warranty AMC (1 No Visit per site)	1	LS
		3rd Year Post Warranty AMC (1 No Visit per site)	1	LS
		4th Year Post Warranty AMC (1 No Visit per site)	1	LS
		5th Year Post Warranty AMC (1 No Visit per site)	1	LS
380	Malarna	1st Year Post Warranty AMC (1 No Visit per site)	1	LS
		2nd Year Post Warranty AMC (1 No Visit per site)	1	LS
		3rd Year Post Warranty AMC (1 No Visit per site)	1	LS
		4th Year Post Warranty AMC (1 No Visit per site)	1	LS
		5th Year Post Warranty AMC (1 No Visit per site)	1	LS
390	Bharatpur	1st Year Post Warranty AMC (1 No Visit per site)	1	LS
		2nd Year Post Warranty AMC (1 No Visit per site)	1	LS
		3rd Year Post Warranty AMC (1 No Visit per site)	1	LS
		4th Year Post Warranty AMC (1 No Visit per site)	1	LS
		5th Year Post Warranty AMC (1 No Visit per site)	1	LS
400	Mathura	1st Year Post Warranty AMC (1 No Visit per site)	1	LS
		2nd Year Post Warranty AMC (1 No Visit per site)	1	LS
		3rd Year Post Warranty AMC (1 No Visit per site)	1	LS
		4th Year Post Warranty AMC (1 No Visit per site)	1	LS
		5th Year Post Warranty AMC (1 No Visit per site)	1	LS
410	Piyala	1st Year Post Warranty AMC (1 No Visit per site)	1	LS
		2nd Year Post Warranty AMC (1 No Visit per site)	1	LS
		3rd Year Post Warranty AMC (1 No Visit per site)	1	LS
		4th Year Post Warranty AMC (1 No Visit per site)	1	LS
		5th Year Post Warranty AMC (1 No Visit per site)	1	LS
420	Bijwasan	1st Year Post Warranty AMC (1 No Visit per site)	1	LS
		2nd Year Post Warranty AMC (1 No Visit per site)	1	LS
		3rd Year Post Warranty AMC (1 No Visit per site)	1	LS
		4th Year Post Warranty AMC (1 No Visit per site)	1	LS
		5th Year Post Warranty AMC (1 No Visit per site)	1	LS
430	Kochi	1st Year Post Warranty AMC (1 No Visit per site)	1	LS
		2nd Year Post Warranty AMC (1 No Visit per site)	1	LS
		3rd Year Post Warranty AMC (1 No Visit per site)	1	LS
		4th Year Post Warranty AMC (1 No Visit per site)	1	LS
		5th Year Post Warranty AMC (1 No Visit per site)	1	LS
440	Irugur	1st Year Post Warranty AMC (1 No Visit per site)	1	LS
		2nd Year Post Warranty AMC (1 No Visit per site)	1	LS
		3rd Year Post Warranty AMC (1 No Visit per site)	1	LS
		4th Year Post Warranty AMC (1 No Visit per site)	1	LS
		5th Year Post Warranty AMC (1 No Visit per site)	1	LS

**Supply, Installation and Commissioning of Flow Computer for existing Turbine Flow Meters at Multiple Pipeline locations of BPCL Pipeline**

450	Karur	1st Year Post Warranty AMC (1 No Visit per site)	1	LS
		2nd Year Post Warranty AMC (1 No Visit per site)	1	LS
		3rd Year Post Warranty AMC (1 No Visit per site)	1	LS
		4th Year Post Warranty AMC (1 No Visit per site)	1	LS
		5th Year Post Warranty AMC (1 No Visit per site)	1	LS

**LOCATION DETAILS FOR MATERIAL DELIVERY/COMMISSIONING:**

<b>Addresses</b>
Intermediate Pumping Station WASHALA Village Washala, Kashara, Taluka Shahapur, Dist. Thane, Maharastra. Contact No: 9823060209
MANMAD Receipt & Despatch Terminal Manmad - Nandgaon Road, Panewadi , Manmad, Nashik, Maharastra Contact No: 9422271487
SANGHVI Intermediate Pumping Station. Off NH 3, Sanghvi Village, Tehsil Shirpur, District Dhule, Maharashtra Contact No: 9422284206
GUJRI Intermediate Pumping Station AB road, Kakardia, Gujri, Tehsil Maheshwar, District Khargaon, Madhya Pradesh. Contact No: 9755558616
MANGLYA Receipt & Despatch Terminal Manglya terminal, MMBPL (BPCL), Manglya -Sanwer road ,

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Manglya (Indore), Madhya Pradesh. Contact No: 9425065623
SHERPUR Intermediate Pigging BPCL, Intermediate Pigging Station Station-1 SHERPUR-1, Village- Sherpur, Taluka- Pidawa, District- Jhalawar, Rajasthan State.
Intermediate Pigging Station--2 KOTA KOTA Intermediate Pigging Station-2, Village Brijeshpura, Tehsil Ladpura, District Kota, Rajasthan. Contact No: 992803538
<u><b>MALARNA :</b></u>  Bharat Petroleum Corporation Ltd. Mumbai-Manmad-Bijwasan Pipeline Terminal, Intermediate Pumping Station no 3, Malarna Station road, Village Malarna, Tehsil Gangapur, District-Sawai Madhopur, Rajasthan- 322201
Bharat Petroleum Corporation Ltd Mumbai- Manmad-Bijwasan Pipeline, Bharatpur Bulk Oil Depot, Village Jaghina, On Mathura Bharatpur State Highway, Bharatpur, Rajasthan- 321001
Mathura Terminal  IPS Mathura – MMBPL

**Supply, Installation and Commissioning of Flow Computer for existing Turbine Flow Meters at  
Multiple Pipeline locations of BPCL Pipeline**

<p>Bharat Petroleum Corporation Limited</p> <p>Road no 26, UPSIDC IND area,</p> <p>Opposite IOCL Refinery</p> <p>Mathura-281005</p>
<p>PIYALA Receipt &amp; Despatch Terminal</p> <p>PIYALA TERMINAL,</p> <p>Post : ASAOTI,</p> <p>Thesil : BALLABHGARH,</p> <p>Contact No: 9999102660</p>
<p>Bijwasan Terminal</p> <p>Bijwasan Installation – MMBPL</p> <p>Bharat Petroleum Corporation Limited</p> <p>Post – Bijwasan, near bijwasan underpass,</p> <p>New Delhi - 110061</p>
<p>COCHIN CONTROL ROOM, Cochin Coimbatore Karur Pipeline , BPCL Installation,</p> <p>Seaport Airport Road, Irimpanam, Cochin (Kerala) — 682 309</p>
<p>COIMBATORE CONTROL ROOM, Cochin Coimbatore Karur Pipeline , Coimbatore Terminal, Near BPCL Ravathur Post, Irugur (Tamil Nadu)</p> <p>Contact Number: +91-9446427555/9930855475</p>
<p>KARUR CONTROL ROOM, Cochin Coimbatore Karur Pipeline , Karur Terminal, Near BPCL, Aathur Village, Karur (Tamil Nadu)— 639 002</p>

**Supply, Installation and Commissioning of Flow Computer for existing Turbine Flow Meters at  
Multiple Pipeline locations of BPCL Pipeline**

**PLC/SCADA TECHNICAL DETAILS FOR INTERFACING:**

<b>SR. NO.</b>	<b>LOCATION</b>	<b>PLC/DCS</b>	<b>SYSTEM DETAILS</b>
1	MUMBAI PLC		ABB PLC-PM 864A (AC800M Family)
2	WASHALA PLC		MAKE: ABB PLC-PM 864A (AC800M Family)
3	MANMAD PLC		STATION PLC:ALLEN BRADLEY PLC 5 CONTROLLER LOGIX 5570 (1756 L73) WITH FT VIEW,STUDIO 5000 HMI UCP PLC (TWO NOS):ALLEN BRADLEY COMPACTLOGIX 5370 L3 CONTROLLER WITH FT VIEW HMI
4	SANGHVI, GUJRI, MANGLYA, PIYALA, JOBNER PLC		Schneider make PLC M580 HSBY Processor & Scadavantage HMI System, At Sanghvi & Jobner- QUANTUM HOT STANDBY CPU 140-CPU-67261
5	MALARNA STATION PLC	Station PLC	MAKE: SIEMENS MODLE: SIMATIC S7 400 PLC FOR PROCESS CONTROL SYSTEM (CPU 412- 5HPN/DP & its I/Os) SIEMENS SIMATIC WINCC DUAL REDUNDANT HMI SERVERS (2 Nos) SIEMENS SIMATIC MULTI PANEL MP 377 HMI (3 nos.).
7	BHARATPUR STATION PLC	Station PLC	MAKE: SIEMENS MODLE: SIMATIC S7 400 PLC FOR PROCESS CONTROL SYSTEM (CPU 412- 5HPN/DP & its I/Os) SIEMENS SIMATIC WINCC DUAL REDUNDANT HMI SERVERS (2 Nos) SIEMENS SIMATIC MULTI PANEL MP 377 HMI (3 nos)

**Supply, Installation and Commissioning of Flow Computer for existing Turbine Flow Meters at Multiple Pipeline locations of BPCL Pipeline**

8	KOCHI, KARUR, IRUGUR		MAKE: SCHNEIDER QUANTUM HSBY PROCESSOR UNITY 2048/7168K
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**PIPELINE SCADA DETAILS: ABB & ECIL make Pipeline SCADA System.**

**3. SPECIAL PURCHASE CONDITIONS:**

Bidder must understand attached datasheets of existing Flow Computer System & carry out engineering in order to offer correct model of the Flow Computer System to meet required to meet functional and operational performance of the Flow Computer System as per tender requirement.

If required, vendor must make multiple visits to each location to study & note any missing data to offer correct Flow Computer System model without any additional cost to BPCL.

Cards (having electronic components) offered by Flow Computer System manufacturer shall be suitable to operate at elevated temperature up to 60deg ° C.

The Flow Computer System shall be designed to program / configure without any pipeline shutdown.

A continuous (0-100%) backlit illuminated indication for Flow Computer System to be provided.

Flow Computer System painting must be performed in such a way, that no corrosion takes place under ambient conditions as specified.

**Supply, Installation and Commissioning of Flow Computer for existing Turbine Flow Meters at  
Multiple Pipeline locations of BPCL Pipeline**

After awarding P.O. vendor shall come for kick off meeting / through video conferencing with BPCL officers within 15 days from date of instruction and shall give 60-minute presentation on brief idea about NPW design basis, operation, manufacturing process, maintenance, and work schedule from award of P.O. to dispatch of product. Work schedule shall include all major millstones of P.O. requirement.

**MANDATORY DOCUMENT IN TECHNICAL BID**

**CERTIFICATE FOR LOGISTIC SUPPORT:**

**(To be signed by Manufacturers (OEM) corporate level signatory on company's letterhead)**

I, on behalf of M/s. \_\_\_\_\_ confirm that the Flow Computer System for existing Rockwin/Daniel make Turbine Meter Valve \_\_\_\_\_ quoted for M/s BPCL against Tender no. \_\_\_\_\_ shall continue to be supported by us **(in terms of spares and services)** for a period of **minimum 10** years. The quoted system shall not be withdrawn from Indian market as a matter of our corporate policy.

I further confirm that in case of placement of order by BPCL on us, we shall continue to support BPCL in providing back-up engineering, maintenance support and spare part support for a period of **10 years from the date of placement of order**.

**SIGNATURE WITH SEAL**

**AUTHOURIZED, SENIOR**

**MANAGEMENT LEVEL**

**Supply, Installation and Commissioning of Flow Computer for existing Turbine Flow Meters at  
Multiple Pipeline locations of BPCL Pipeline**

(PRINCIPAL CORPORATE  
LEVEL) SIGNATORY

Vendor must submit ONE No. of Proven Track Record and copies of purchase order along with contact details of the client where similar (i.e., Flow Computer System) job is executed in any Cross-Country Pipelines. (Certificate to be submitted as per Proven Track Record {PTR} format or in a similar format including necessary information from the end user where the similar system is installed and is successfully running not less than 6 months.

**FORM 1: PROVEN TRACK RECORD (PTR) FORM FOR FLOW COPUTER SYSTEM**

**DATE:**

To:

DY Gen. Manager Maintenance,  
BPCL Pipelines HQ,  
BPCL Refinery,  
Mahul Village,  
Chembur, Mumbai-400074

**Sub: -** Performance Certificate for Flow Computer System

We here by confirm that we have purchased Flow Computer System  
(Make & Model no:) from M/s \_\_\_\_\_ .



**Supply, Installation and Commissioning of Flow Computer for existing Turbine Flow Meters at  
Multiple Pipeline locations of BPCL Pipeline**

This flow computer system was installed & commissioned by M/s \_\_\_\_\_ on \_\_\_\_\_. We are using the system for last \_\_\_\_ year's / months & the performance of the hardware & software is found satisfactory.

Yours truly,

\_\_\_\_\_  
**Authorized Signatory**

(With Company Seal)

**Note:** The above form should be filled by the end user of Flow Computer system on the letter head of the end user company.

ANNEXURE 1:

**MANDATORY DOCUMENT IN TECHNICAL BID**

**TECHNICAL COMPLIANCE STATEMENT:**

(TO BE SIGNED BY VENDOR'S PRINCIPAL CORPORATE LEVEL SIGNATORY ON COMPANY LETTERHEAD)

I, ON BEHALF OF M/s-----CONFIRM THAT THE PROPOSAL QUOTED FOR BPCL PIPELINES: \_\_\_\_\_ AGAINST TENDER No. ----- IS IN TOTAL COMPLIANCE TO THE SCOPE AS WELL AS ALL THE TECHNICAL SPECIFICATION & APPLICABLE STANDARDS AND NO DEVIATION, VARIATION OR RESERVATION WHATSOEVER HAS BEEN MENTIONED

**Supply, Installation and Commissioning of Flow Computer for existing Turbine Flow Meters at Multiple Pipeline locations of BPCL Pipeline**

IN THE TECHNICAL OFFER. IT IS FURTHER AGREED THAT THE TECHNICAL DETAILS FURNISHED IN OUR OFFER WILL BE REVIEWED BY BPCL DURING DETAILED ENGINEERING STAGE AFTER ORDER AND ANY CHANGE (**NOT LOWERING OF TECHNICAL SPECIFICATION**) REQUIRED TO MEET THE REQUIREMENTS OF ENQUIRY SCOPE AND SPECIFICATION INCLUDING AMENDMENT(S) (IF ANY) WILL BE INCORPORATED BY US WITHOUT ANY PRICE AND TIME IMPLICATION.

(SIGNATURE WITH SEAL)

**DETAILS REQUIRED WITH BID TO QUALIFY TECHNICALLY:**

Following documents must be submitted by the bidder along with technical bid.

- a. Agreed all BPCL terms condition in this tender
- b. Data sheet for each equipment to be offered complete BOM installed and spares in this bid
- c. Vendor shall ensure availability of spare parts and maintenance support services for the offered equipment for at least 10 years from the date of supply as per declaration.
- d. Performance Certificate for Flow Computer System
- e. OEM authorization letter
- f. Before phasing out of the product / spares vendor shall give a notice of at least two year before to BPCL to enable the end user to place order for spares and services.
- g. Drawing and CatLog for each equipment to be offered complete BOM installed and spares in this bid

## ANNEXURE-1: FLOW COMPUTER TECHNICAL SPECIFICATIONS

### FLOW COMPUTER:

#### 1.1 Technical Requirements

Flow Computers shall be supplied at BPCL Pipeline Locations. Flow computers shall be installed in existing OMNI Flow Computer location of Omni 6000 position of existing Control (CP) panel.

At BPCL Pipeline Locations, the CP panel is available in control room. Flow computers shall be kept in an air-conditioned room / mounted on panel at BPCL Pipeline Locations control room. The flow computers at IPS station shall be mounted in AC environment and shall be suitable for ambient temperature of 0 to 50°C.

The existing back up program of Omni6000 Flow Computer shall be made available to all eligible flow computer supply vendor to minimize the onsite programming & shutdown time as new Flow Computer is to be installed in running Pipeline operation system which is used for our daily flow metering & Leak Detection Software.

#### The following PLCs are available as mentioned below:

- Manglya, Gujri, Piyala: - Schneider make PLC M580 HSBY Processor.
- Rockwell RS Logix Family PLC at Manmad
- Kota: Emerson/GE PLC System: IC695CPE330 Processor (2 SLOT, DUAL CORE, 1GHZ 64MB CPU)
- MATHURA : 2 NOS. OF HMI (Vijeo Citect 8.0) ALONG WITH M340 RTU
- BIJWASAN : 2 NOS. OF HMI (Vijeo Citect 8.0) ALONG WITH M340 RTU
- **CCKPL Kochi, Irugur & Karur:-**
  - COCHIN: SCHNEIDER QUANTUM HSBY PROCESSOR UNITY 2048/7168K
  - KARUR: SCHNEIDER QUANTUM HSBY PROCESSOR UNITY 2048/7168K
  - COIMBATORE: SCHNEIDER QUANTUM HSBY PROCESSOR UNITY 2048/7168K
  - SANGHVI: QUANTUM HOT STANDBY CPU 140-CPU-67261

**The Pipeline EC SCADA System is also available at both locations.**

**New Flow Computer System communication shall be developed with available PLC/SCADA system at Pipeline locations and Pipeline EC SCADA System.**

Flow computers shall be multi-stream microprocessor based with alpha-numeric digital display & data entry key-board suitable for Turbine/Coriolis Mass Flow meter computations, alarm & status indications. Flow Computer electronics shall be protected from industrial interferences, shock and vibration proof and shall have low power supply consumption.

Flow Computer shall have:

- Minimum 64- bit microprocessor-based CPU with separate math co-processor 16 MHz operation, Real time clock

- RAM battery backup of 18 months without power and battery life of 5 to 7 years. Battery backup
- hold time shall be of 3 months
- 4 MB RAM expandable up to 8 MB & EPROM 256 MB expandable up .
- Mounting Flush panel mounting
- Vendor shall supply full particulars and drawings for the size of cut-outs required. Final drawings shall contain mounting details.
- Following functions shall be available in Flow Computers:
  - Flow computation after correction for temperature and pressure variations based on API/ASTM tables.
  - Displaying of all corrected & uncorrected volume flow, mass flow, totalized flow, pressure, temperature, density, alarm etc.
  - Data logging and storing of all data and reports
  - Generating of automatic, periodic and on demand reports of self-diagnostics
  - Flow Computer shall have the facility to enter report headings, frequency timings and parameters to be printed. The printout shall be provided for flow rates, integrated flows, alarms and also for the various parameters to which the Flow Computer has access.
  - The Flow Computer shall have provision to enter default values of all inputs, low / high alarms for all inputs and shall be user configurable. The Flow Computer shall use the default values in case of any input goes beyond low/high limit.
  - The Flow Computer shall have the functionality of time stamping the input process variables (from the field instruments).
  - Calculation accuracy shall be better than +/- 0.05% of full scale including linearity, hysteresis, repeatability and resolution. Accuracy for analog inputs to be minimum 0.05%, while for analog output accuracy should be +/- 0.1% of FSD for A/D and D/A converter.
  - Scan processing time of the interval between computer readings of process variables shall not exceed 1 sec.
  - The interval between each cycle for computation of instantaneous flow rate and totalized flow shall be less than 1 sec.
  - Algorithm and rounding off error for computation shall be within +/- 0.001% of computed
- Flow computers shall have online "configuration software" and the calibration method will be value.
  - software driven. All the necessary cable, port shall be supplied by the vendor as required. Flow computers shall be having stored report and data for archiving.
  - Flow computers shall have multi point (Min. 6 points) meter
  - Linearization. Flow computers shall have built in proving function in EPROM

Flow computer shall have the following typical signal & interface capability:

1. Pulse input signal from each Coriolis/Turbine Mass flow meter ((dual pulse as per ISO6551) representing uncompensated volume flow rate. Coriolis/Turbine Mass flow meter signals shall be a part of intrinsically safe circuit (Pulse isolating barrier required). Dual pulse input from flow meters with Frequency range upto 10 KHz. Dual pulse input shall comply with the principle of ISO6551

“Cable transmission of electric and/or electronic pulse data. Pulse security of level and B shall be complied and checking facility of type P as defined by ISO6551 shall be provided.

2. Minimum two common pulsed/frequency input from density meter (supplied by others)
3. 4-20 mA analog input signals (2 wire, HART protocol) from pressure transmitters – 2 Nos. (instruments supplied by others)
4. 4-20 mA analog input signals (2 wire, HART protocol) from temperature transmitters – 2 Nos. (instruments supplied by others)
5. Other analog and digital inputs & outputs as required in the datasheet.
6. Non-redundant Modbus TCP/IP communication with Station PLC and Existing BKPL PLC.
7. Transmitters shall have a load driving capability of 600 ohm at 24V DC. Vendor to note this while choosing the precision resistor inside the flow computer for converting 4-20 mA signal to voltage signal. Maximum value of this resistor shall not exceed 250 ohms.
8. Vendor shall supply the following interface electronics for each flow computer for BPCL Pipeline Locations.

Device	Signals	Quantity	Communications
TurbineFlow meter	Flow	02 numbers for each location	Pulse to Flowmeter
	1. Status, Diagnostics, Signal Validity	(2 Inline)	Modbus RS-485 and 4-20mA to PLC (Only Turbine Flow Meter)  Pulse From Turbine to Flow computer

Device	Signals	Quantity	Communications
Pressure Transmitter	Status, Diagnostics, Signal Validity	02 numbers for each location	4 20mA / HART
Temperature Transmitter	Temperature	02 numbers for each location	4 20mA / HART
Density Meter	Density	01 numbers for each location	Pulse
	All instantaneous and totalised flow values, all field transmitter instantaneous values	01 numbers for each location	MODBUS TCP/IP

Station PLC and Existing MMPL PLC	Common fault alarm	01 numbers for each location	Digital Input (potential free contact to PLC/RTU/DCS)
			Digital Input
	Density Interface alarm	01 numbers for each location	(potential free contact to flow computer)
	Batch Reset Input	01 numbers for each location	Digital Output (wet contact from PLC/RTU/DCS)

All configuration software and associated manuals for the flow computers shall be provided for installation on a client supplied laptop PC.

At least three levels of security-coded access shall be provided on the flow computer:

Operator	Ability to read programmed data and print reports on demand.
Technician	As per Operator plus ability to manipulate parameters required for routine maintenance and calibration.
Engineering	As per Technician plus ability to change all meter constants and system configuration e.g. keyboard capability for feeding various parameters.

For audit purposes, it shall be possible to verify all flow calculation constants and configuration parameters while the meter is in service.

Each flow computer shall be provided with an integral digital display and keypad for monitoring and access to process, metering performance data, alarms & limits, calculated, current & stored data.

Non-resettable non-volatile counters shall be provided on the flow computer fascia or alternately panel mounted and driven directly from the flow computers. The following non-resettable counters shall be provided for each flow metering run:

Totalized Actual (uncompensated) Volumetric Flow - Totalizers shall have enough digits to prevent rollover occurring more than every 12 months. Flow computers shall be capable of occasional connection to a local printer (Supplied by Others) for printing of configuration listings and reports. Every effort will be made to make the power supply to the flow computers as reliable as possible, on power failure the flow computers shall:

- Not lose any captured readings
- Will not require reconfiguration or reset upon reinstatement of power
- Indicate the period where readings were not captured
- Re-start upon power restoration without manual intervention.

Each flow computer shall calculate the following parameters:

Engineering Units		
	Instantaneous	Totalized
▪ Actual volumetric fluid rate	m <sup>3</sup> / hr	m <sup>3</sup> / hr
▪ Corrected volumetric fluid rate(@15 °C)	m <sup>3</sup> / hr	m <sup>3</sup> / hr
▪ Mass flow rate	Tonnes/hr	Tonnes/hr
▪ Density	Kg/m <sup>3</sup>	Kg/m <sup>3</sup>
▪ Temperature	°C	-
▪ Pressure	Kg/cm <sup>2</sup> g	-

Full calculation execution shall be achieved every 5 seconds

A low flow cut-off, below which accumulated flow is not added to the totalizers, shall be configured. This shall be configured to 0.5% of the specified maximum design flow.

Coriolis/Turbine Mass Flow meter high pressure calibration correction factors shall be programmed into the flow computer and used in the calculations.

All measured and calculated parameters shall be capable of being displayed on the flow computer front screen and read by the SCADA RTU / Station PLC.

Flow computer shall have alpha numeric keyboard that shall have data feeding capability for pressure / temperature base factors, liquid density and scaling factor etc. along with following features:

1. Output for flow, pressure, temperature and density values and give compensated flow for any external conditions including at 15 °C.
2. Other standard features which are required for metering system.

**Flow computer shall have the following computational capabilities:**

- Calculate each stream volumetric flow, utilizing gross volume flow and density.
- ▪ Compensate gross volume for each stream for the effect of pressure and temperature to obtain net stream reporting volume at 15 °C and 1.01325 bar(a).
- Computation of volume flow rate at standard, normal or user defined base conditions. Calculation of
- VCF and volume total at a second user configurable reference temperature (29.5 deg c).
- Flow computer shall have provision for computing the following: volume flow rate at standard, nominal or operator specified base conditions and cumulative quantity and should be able
- to incorporate density correction factor for volume flow rate calculations.
- Liquid meter flow computers shall have calculations for temperature & pressure compensation as per API MPMS 11.1, API 2540 and ASTM D1250 and flow computation as per ISO 2715. Compressibility of liquid shall be compensated by using relevant API standards
- K-factor linearization shall be provided for the stream flow computers. Flow computer shall have the capability of providing

reporting data.

- Transmit data via non-redundant MODBUS TCP/IP on purchaser station control system (BKPL & BPPL PLC / SCADA RTU), selected measured and calculated variables.
- Output alarm messages to the station control system (PLC / SCADA RTU) for logging and control. Watchdog timer to monitor internal circuits and signal to station control system (PLC / SCADA RTU) via hardwiring when a fault is detected. This shall enable the station control system to deduce when a stream flow computer data link is faulty and enable it to take appropriate action.
- Generate an alarm when flow computing is detected but the meter stream is not selected (i.e. meter stream is off-line).
- Manual entry of meter calibration factors should be time stamped. The flow computer should also hold the previous meter calibration factor used.
- Multi-stream flow computer shall provide the combined outputs of compensated volume flow rate & mass flow rate by adding both streams.
- Compile flow data in agreed format for generation of standard and user defined reports and feed this on demand from station control system (PLC / SCADA RTU).
- Display all measured and calculated variables.
- Permanently display the totalized quantity (corrected volume, mass flow) with sufficient digits to accumulate three months maximum flow without roll-over.
- Display on demand the totalized daily flow (reset to zero daily).
- Store in memory the applicable tables detailed in ASTM D1250 (or the appropriate formula and procedures), for use in compensated volume during normal throughput flow.
- Downloading of meter calibration factors with time stamping shall be possible. The flow computer shall also hold the previous meter calibration factor used.
- Computation of density (actual and corrected for pressure, temperature etc). the flow computer shall accept density input from density transducers of reputed make (like Emerson, Solartron, Sarasota, Peek Measurements, Anton Parr, etc.)
- An independent batch setting (for minimum 2 batches of different density) shall be possible for next batch when one batch is running. batch can be ended manually or automatically on size of batch or change of product.
- Network printing of reports: Flow computer to have capability of network printing of reports (using flow computer software). Printing to be done using an open protocol such as LPD, etc.
- Flow computers shall have cyber security features.

**Displays and reports shall be configurable type and flow computer shall have followed display capability:**

The flow computer shall have the capability to display any two of the following parameters at a time:

- Uncorrected volume  
flow rate  
Uncorrected  
totalized volume



- Corrected volume flow rate & corrected totalized volumeMass flow rate
- Integrated mass Density/Specific gravityPressure
- Temperature
- Engineering units as per selected parameterData entry
- Error codes
- Selected parameter codes
- Alarms (process and systems) including diagnostic message Indication of Mass meter, which is in active mode
- Other standard displays available

#### **Diagnostics:**

Flow computers shall have elaborated and sufficient on-line diagnostics to ascertain accurate and proper functioning of the flow computer. Results of diagnostics/checking shall be displayed. Facility for easy testing of the accuracy shall be provided. Provision for high and low limit check for each input, sensor break, saturation and alarms shall be provided.

#### **1.1.1 Meter factor in the flow computer**

- The flow computer shall have K factor (meter factor) adjustment, from the keyboard as per the API guidelines.
- Flow computer shall have provision to have different K factors for each product.
- Flow computer shall automatically change the K factor, depending on the density of the product for calculation, as specified below. The different K factor for different product can be entered manually from the flow computer keyboard.
- Flow computer shall have the provision for storing calibration curve.
- The total range of density is 600-900 kg/m<sup>3</sup> Density for MS product is 720-775 kg/m<sup>3</sup> > Density for SKO product is 780-830 kg/m<sup>3</sup> Density for HSD product is 810-845 kg/m<sup>3</sup> Density for ATF product is 780 kg/m<sup>3</sup> @ 45 °C
- Flow computer shall have K factor locking facility with sealing for custody transfer approval.
- Flow computer shall have audit trail feature for the detailed historical records of the changes done in the flow computer parameter. Audit trail shall be accessible through higher-level password only. Six points calibration for 10% to 100% of meter maximum at normal pressure shall be configured in the flow computer for the respective Mass Flow meter as per the calibration at time of supply.
- During detail engineering vendor shall furnish flow computer engineering / configuration data sheets for OWNER/BPCL review. Vendor shall furnish engineering ranges, pulse count etc. for each flow computer as applicable for each corresponding Coriolis/Turbine Mass

flowmeter.

### 1.1.2 Alarms

As a minimum, the following alarms shall be available in the computers system and for data exchange with the station PLC / SCADA.

#### Alarm Type

- Common fault alarm
- Transmitters out of high-low limit (for all transmitters) Flow computer alarm (for each flow computer) Calculated K-factor out of range specific alarms (if any)

### 1.1.3 Language

Flow computers display shall be available in English language.

### 1.1.4 Flow metering Panel

Flow computers shall be used in existing in control (CP) cabinet for installation. Vendor shall supply all interface electronics i.e. IS isolated barriers & surge/transient protectors for Turbine Mass flow meter pulse signals. All the interface electronics shall be suitable for DIN rail mounting inside Control panel supplied by others. IS barriers for pressure & temperature transmitters & density meter signals will be provided by PLC vendor. All the flow computer details like dimensions, display size, power supply requirements, No. of signals connected to flow computers, any specific installation requirements shall be provided by Coriolis/Turbine Mass Flow meter vendor to PLC vendor for panel building.

## 2 INSPECTION & TESTING:

### 2.1 General

The VENDOR shall maintain up-to-date documentation at all times reflecting the inspection/testing status of the equipment. However, the submitted documentation shall not be regarded as the total requirement. The OWNER may wish to inspect retained documentation such as internal test results, equipment logs and fault/correction records.

All testing to be carried out in accordance with the approved procedures.

Third Party design verification may be required. Where this is required it shall be performed at the VENDOR's cost by an organization nominated by the BPCL and identified in the technical requisition.

The VENDOR shall ensure that workmanship, materials and quality control are to the highest standards for all delivered equipment and that only proven techniques and design are utilized.

The VENDOR shall demonstrate that it operates a quality system in accordance with an internationally recognized standard. The effectiveness of the quality system and the VENDOR's compliance with it shall be subject to monitoring by the BPCL and may be audited following an agreed period of notice.

The VENDOR shall provide facilities for and cooperation with the BPCL and Inspectors during manufacturing, assembly and testing.

#### 2.1.1 Inspection and Test Plan (ITP)

The VENDOR shall be responsible for the planning and execution of all inspections and tests, but the BPCL representative shall have the right to witness any of the manufacturing activities inspections or tests.

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The VENDOR shall submit an Inspection and Test Plan (ITP) for BPCL review and mark-up following purchase order placement. The ITP shall list all inspections and tests proposed for the equipment by the VENDOR, between the date of ordering and the date of delivery.

The BPCL and the VENDOR shall sign off the final version of the ITP, which, thereafter, shall form part of the contract documents.

### **2.1.2 Inspection**

The BPCL or its authorized representatives shall be permitted at all times free access to all parts of the Vendors workshop that concerns assemblies and testing with prior notice.


Inspection by the BPCL shall not relieve the VENDOR of any guarantees, responsibilities or obligations to furnish equipment / materials to this specification and the appropriate Instrument Data Sheets.

### **2.1.3 General**

The VENDOR shall devise and execute a test programme during all stages of fabrication. Results of such testing shall be fully documented.

All stages of testing may be subject to witness and approval by the BPCL and / or a third-party verifier as identified by the BPCL / Verifier in the inspection and test plan.

DATASHEET FOR FLOW COMPUTER					
GENERAL	1	Tag No:	10-FC-1201 Wshala, 80-FC-1801, 90-FC-1901. 70-1701/1751, 22-FC-2201/2251, 76-FC-2601/2651, 77-FC-2701/2751. 10-FC-1101, 40-FC-1301, 50-FC-1401		
	2	Quantity			
	3	P & ID Number:			
	4	Service:	Multi-Product (HSD, MS, SKO, ATF(Future))		
	5	Location	Mumbai & Manmad		
	6	Hazardous area classification:	Safe Area		
ENVIRONMENTAL CONDITIONS	7	Amb. Temperature (Min/Max) °C	10	50	
	8	Operating Humidity Range	15 to 90 % RH (Non- condensing)		
	9	Operating RFI Range	Vibration Effect	VTA	VTA
PARAMETERS	10	Type	Micro processor based Non-volatile memory, Multi Stream Flow meter		
	11	Measurement standards	ASTM D 1250 for Temp. compensation & Density correction API MPMS chapter 11 for Pressure correction ISO 2715 for Volumetric measurement by Turbine flowmeters		
	12	Mounting	Flush Panel Mounting		
	13	Enclosure type	IP 50		
	14	Processor (CPU)	64-bit		
	15	Flash Memory	256 MB		
	16	RAM - Non Volatile	4 MB with battery backed. Battery shall holdup memory for 18 Months in idle condition. Mains power failure shall not affect the clock-calendar nor the time stamping of data, report archive & audit trail.		
	17	Battery backup life for RAM & Real Time Clock	5 - 7 years		
	18	Real Time Clock Accuracy	Better than + 1 second per day over operating range.		
	19	Watchdog Timer	Processor Independent for general protection of the flow computer correct operation.		
	20	Display & Keypad	LCD with backlite & keypad		
	21		Flow meter shall be provided with Multi stream (Min. 3 streams) Flow Computers		
	22		ABB PLC-PM 864A (AC800M Family) at Washala & Rockwell RS Logix Family PLC at Manmad with RTU560 DNP 3 Module, Schneider make PLC M580 HSBY Processor at Gujri, Manglya, Piyalas & Scadavantage HMI System, Schneider (Vijeo Citect 8.0) along with M340 RTU at Mathura & Bijwasan, Schneider PLC 2048/7168K at Cochin, Irugur, Karur/ ECIL& ABB PIPELINE SCADA interface- Non-Redundant Modbus TCP/IP protocol.		
	23		Provision must be there to read/write parameters, default values and alarm limits etc. of various parameters by manually through key pad or local interface using laptop/PC or through DCS / SCADA network		
	24	Functionality Required	The Flow Computer shall have facilities to carry on calculation during calibration mode on default values entered. The provision for mode selection may be provided by software or through hardware.		
	25		The Flow Computer should have sufficient automatic online diagnostics to ascertain proper and accurate functioning of the computer. Facility of easy testing of the accuracy of the computer should be provided. Low & High limit check facility for each input to safeguard against transmitter fault. Flow computer should have self testing facility and incase of any malfunction, it should generate an alarm. Flow Computer shall have pulse input minimum 4 Nos as per ISO 6551(Pulse inputs for each turbine / Coriolis : 2 nos. for stream no. 1 as per ISO6551). It means One Flow Computer shall be compatible to configure minimum 2 no of streams of turbine/Coriolis as per ISO6551). Two no streams shall be considered for each flow computer while selecting/designing a flow computer.		
	26		The Flow Computer should have software as well as hardware security provision to prevent unauthorized mishandling / data entry.		
	27	Security & Protection	The Flow Computer electronics shall be protected from industrial interferences; shock and vibration proof and have low power consumption. The Flow Computer should be able to work in conjunction with galvanic isolators and isolating relays to provide contacts for switched output.		
	28		The flow computer should have protected against over current of input signals.		
	29	Calculation Accuracy	Refer General Note 2		
	30	Diagnostics	Refer General Note 3		
	31	Alarm	Flow computer shall generate alarms when the process parameters goes beyond the users set value.		
	32	Calibration	The Flow Computer shall have on line calibration of process inputs without affecting the performance / calculation. Flow Computer shall be provided with facilities of auto zero, auto calibrate.		
	33	Surge Protection	Required (Refer General Note 6)		
	34	Scan Processing Time	Refer General Note 7		
	35	Baud rate	Software selectable		
INPUTS/ OUTPUTS	36	Analog Inputs	1 - 5 V / 4-20 mA with HART, optoisolated, Minimum 12 Nos .		
	37	Analog Outputs	Minimum 4 Nos.		
	38	Digital Inputs	Minimum 16 Nos.		
	39	Digital Outputs	Minimum 8 Nos.		
	40	RTD Inputs	2 Nos RTD Input channels		
	41	Pulse Input	Minimum 4 Nos as per ISO 6551.(Pulse inputs for each turbine / Coriolis : 2 nos. for stream no. 1 as per ISO6551). One Flow Computer shall be compatible to configure minimum 2 no of streams of turbine/coriolis as per ISO6551).		
	42	Pulse Output	Minimum 4 Nos.		
	43	Other Standard Inputs / Outputs	Required like small volume prover, etc. (provision to be provided)		
POWER	44	HART Protocol	Flow computer shall accept 4-20 mA HART inputs. (Note 10)		
	45	Available Power Options	240 VAC,Single Phase, 3wire, 50Hz (UPS)		
	46	Current Draw	Less than 500 mA in calculation mode		
	47	Power Fail	Restart with no logic loss & Restore in last position.		
	48	Pulse Barrier	4 nos with each Flow Computer		
	49	SPD	4 nos with each Flow Computer		
	50	Redundant power supply	1 No		
1		BHARAT PETROLEUM CORPORATION LIMITED (BPCL)			
		BPCL PIPELINE PROJECT			
		Project No:	SHEET		
		Datasheet No:	1 OF 3		

DATA SHEET FOR FLOW COMPUTER			
COMMUNICATIONS	51	No. of standard Communication Ports	Two Nos. Modbus TCP/IP Ports. ( different port for Station PLC and existing Pipeline ECIL SCADA). Two Nos. EIA-422/485 (RS-422/RS-485) ( different port for Station PLC and existing Pipeline ECIL SCADA). serial ports (up to 57600 bps baud) for connection to intelligent meters, Modbus SCADA data networks, or a PLC/DCS Supervisory System.
	52	PC Port	USB 2.0 port for downloading reports and alarm/event logs, Two configurable EIA-232 (RS-232) serial ports for connection to a printer or RTU.
	53	Ethernet Port	Two independent Ethernet 10/100baseT ports.
	54	Network access	All instantaneous values of the inputs (including the spare AI, DI points as well as Density Parameters / Uncorrected, pressure, and temperature), outputs, calculated values, and configurable constants are available. Alarm and event messages and historical log information are also available over the neMork.
SOFTWARE FUNCTIONS	55	Audit Trials	Storage of 300 audit trail alarms (e.g. high pressure) and events. All messages to be date and time stamped.
	56	Daily log	30 days of information, maintained on a daily basis, default items as follows: •Date and Time •Flowing Pressure - average •Flowing Temperature - average •Flow Rate •Accumulated Volume
	57	Periodic log	Minimum of 30 days of information, maintained on an hourly basis or 13 days maintained on a 15 minute basis (user-selectable), as follows: •Date and Time •Flowing Pressure - average •Flowing Temperature - average •Flow Rate •Accumulated Volume
	58	Trend log	For use by trend display softMare, the following instantaneous information is logged every 15 minutes and maintained for eight days: •Pressure •Temperature •Flow Rate
OTHERS	59	Accessories to be supplied	a) Software for retrieving the stored data, programming through the flow computer, software based on latest Windows operating system shall be supplied in the form of CD's/DVD. b) The communication modules for serial Communication port for flow computer shall be configurable. d) Commissioning and On- site Training of the Flow Computer System for including Calibration checking , SofMare Configuration, Flow Computation Checking, & Serial Communication checking with DCS/RTU etc. Communication cable with lap top.
PURCHASE	60	Manufacturer	
	61	Model	
	62	PO No.	
	63	Requisition No.	
		BHARAT PETROLEUM CORPORATION LIMITED (BPCL)	
		BPCL PIPELINE PROJECT	
		Project No:	CONTINGENCY PDR PIPELINE PROJECT
		Datasheet No:	FLOW COMPUTER
		SHEET 2 OF 3	

# GENERAL NOTES FOR FLOW COMPUTER

Notes: NA - Not applicable, VTA - Vendor to Advise.

1. Datasheet shall be read in conjunction with, Specification For flow meter.
2. Calculation accuracy shall be better than +/- 0.05% of full scale including linearity, hysteresis, repeatability and resolution. Accuracy for analog inputs to be minimum 0.05%X, while for analog output accuracy should be +/- 0.1% of FSD.
3. Flow Computer shall have elaborate and sufficient online diagnostics to ascertain accurate and proper functioning of the flow computer. Results of diagnostics / checking shall be displayed. Facility for easy testing of the accuracy shall be provided.
4. The Flow Computer shall have capability with K factor (meter factor) adjustment, from the keyboard as per the API guidelines.
5. The Flow Computer should be protected against over current of input signals.
6. Individual surge protector shall be provided for all inputs of Flow Computer.
7. Scan processing time shall be:
  - a) Scan processing time of the interval between computer readings of process variables shall not exceed 1 sec.
  - b) The interval between each cycle for computation of instantaneous flow rate and totalized flow shall be less than 1 sec.
  - c) Algorithm and rounding off error for computation shall be within +/- 0.001% of computed value.
8. Flow Computer shall be supplied along with required isolation barriers.
9. Flow Computer and all the related accessories shall be free issue material to PLC/SCADA vendor for installation in Control (CP) panel.
10. Transmitters shall have a load driving capability of 600 ohm at 24 VDC. Vendor to note this while choosing the precision resistor inside the flow computer for converting 4-20mA signal to voltage signal. Maximum value of this resistor shall not exceed 250 ohm.
- 11.. Flow computer along with its accessories like surge protectors shall be supplied be free issue material to PLC/SCADA vendor for installation in Control panel (CP) by PLC/SCADA vendor
- 12.Vendor shall co-ordinate with density meter, Turbine and coriolis mass flowmeter vendor for seamless integration of flowmeter with flow computer



BHARAT PETROLEUM CORPORATION LIMITED (BPCL)

BPCL PIPELINE PROJECT

Project No: CONTIGENCY PDR PIPELINE PROJECT

Datasheet No: FLOW COMPUTER

SHEET

3 OF 3

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**VENDOR DATA REQUIREMENT**

Sr. No.	Description	With Proposal ( Prints)	After Purchase Order		Final Documentation /As Build
			Prints	Data Needed	
1	Dimensional details with mounting details and model number	1	1	1	3
2	Connections by purchase ( Piping, Electrical Etc.,)		1	1	3
3	Wiring diagrams		1	1	3
4	Parts list				3
5	Recommended spare parts list ( for ten year operation)	1			
6	Installation, Operation and maintenance manual				3
7	Sizing calculations for Flow Computer system	1	1	1	3
8	Test certificates		1	1	3
9	Certificate from statutory body for Flow Computer system /accessories	1			
10	Assembly details		1	1	3
11	Catalogues in English	1	1	1	3
12	Testing and Inspection procedures		1	1	3
13	Compliance Statement and deviation list( if any)	1			
14	Proven Track Record	1			
15	Filled in Data Sheet	1			
16	Tubing hook-up drawing		1	1	3
17	Design data manual				3
18	Calibration and maintenance procedures				3
19	Final documentation in soft copies				3
20	Doc./Dwgs review	1	1	1	3

**Note:**

1. Fold all drawings to 216mm X 279mm and roll transparencies.

**4. Annexure Flow Computer System TECHNICAL – QUESTIONNAIRE**  
**Annexure 4**

ANSWER 'YES' 'NO' OR 'NOT APPLICABLE'		
SR No.	DESCRIPTION	BIDDER'S RESPONSE
1	Have you any deviations to the following:	
	i) Technical specifications (clause wise)	
	ii) General Specifications and Special terms and conditions (clause wise)	
	iii) Instrument specifications indicated in the data sheets.	
	iv) The scope of supply as indicated in the material requisition. If 'yes' have you included the list of deviations? (If no deviations are furnished, it will be assumed that all the specifications and requirements of the subject requisition are complied with and no deviations whatever will be accepted after the placement of order.)	
2	Have you quoted for the spare parts including consumable items required for the startup and 2 years normal operation/maintenance of the Instruments?	
3	Have you quoted for the mounting accessories, special calibration kits and equipment's (complete with technical details) required if any, for the erection, commissioning and maintenance of the instruments?	
4	(a) Have you enclosed the relevant technical catalogue/Literature in ENGLISH language including model decoding details, drawings etc. necessary for the evaluation of your offer? (NOTE: In case of line mounted instruments, viz. control valves for all the lines quoted, relevant dimensional details required for the installation must be furnished along with the offer). (b) Have you confirmed that the documents required as per vendor data Requirements shall be supplied after the placement of order. If so, have you indicated the extra price applicable, if any?	
5	Have you furnished sizing, noise level calculations and certified capacity curves for the instruments, wherever applicable?	
6	Have you furnished, separately the 'Shop inspection charges, if any, for inspection at your works by Third party? (The details of the tests to be carried out on the instruments during shop inspection are to be furnished)	
7	Have you considered the charges for arranging the Third Party Inspection Agency	
8	Have you furnished the certificates from statutory bodies viz. ATEX, FM, CSA, etc. for the Explosion proof construction / intrinsically safe design of the instruments, wherever specified?	
9	Have you furnished the certificates from statutory authority i.e., CCE certificate for all electrical equipment's for intrinsically safe/ explosion proof design wherever specified?	
10	Have you confirmed that IBR certification in Form III(C) or equivalent certification from statutory bodies viz. Lloyds, Bureau veritas, TUV etc. will be furnished wherever specified?	
11	Have you indicated separately the installation and commissioning charges, in case the same are included in your scope of work?	
12	Have you furnished the estimated power / utility consumptions and special cable requirements, if any, for the instruments quoted?	
13	Have you furnished the customer reference list in India/Abroad.	

NOTE: If the answer is 'NO', then furnish reasons thereof.

[ ] Deviation [ ] No Deviation

**Vendor Seal and Signature.**



## **ANNEX 5 (SPECIAL CONDITIONS)**

### **1.0 SPECIAL CONDITIONS OF CONTRACT**

#### **1.1 PAYMENT TERMS**

##### **1.1.1 SUPPLY OF MATERIALS & SERVICE**

**Delivery Period:**

**Supply Part: Before 6 months after issue of LOI.**

**Service Part: Before 12 Months after issue of LOI.**

##### **Supply:**

100% payment within 30 days on receipt, acceptance of material at the site against submission of Performance Bank Guarantee (PBG).

##### **Services:**

100 % payment within 30 days of installation and successful commissioning of the complete Flow Computer system, against submission of Performance Bank Guarantee (PBG).

PBG shall be for as per GCC and GPC.

#### **1.2 CLAUSE FOR DELAYED SUPPLY & SERVICE:**

##### **1.2.1 SUPPLY**

In the event of delay on the part of the Vendor in effecting deliveries as agreed contractually, Owner will levy a reduction in price for delayed completion @1/2% (one half of one percent) of delayed order value per week of delay or part thereof subject to a maximum of 5% of total supply order value separately for supply.

Material should reach the site before 6 months starting from the date issue of LOI, after which the above LD shall be applicable.

##### **1.2.2 COMPLETION FOR INSTLLATION AND COMMISSIONING:**

In the event of delay on the part of the Vendor in effecting deliveries as agreed contractually, BPCL shall levy a reduction in price for delayed completion @1/2% (one half of one percent) of delayed order value per week of delay or part thereof

subject to a maximum of 5% of total installation and commissioning order value per site.

If all the supply material reaches BPCL site before 6 months and BPCL gives front for installation and commissioning the system, then any delay beyond the total window of 6 months will be counted under the above LD clause.

However if BPCL is unable to provide front for installation and commissioning due to any reason then those unavailable days shall be deducted from the overall delay period and LD shall be calculated for accordingly.

### **1.3 WARRANTY**

- 1.3.1 The total contractual period for supply (6 months) and installation of the Flow Computer system shall be 12 months from the date of award of LOI.
- 1.3.2 Warranty period shall be 24 months from the date of commissioning.
- 1.3.3 24 months Warranty shall be followed by 5 years of AMC. This will be paid Yearly AMC for which bidder will quote for yearly breakdown visit charges. Payment shall be made against AMC after the approval from Engineer Incharge.
- 1.3.4 Apart from any physical damage which might be caused during normal operation all other material defects shall be covered under warranty and shall be repaired/replaced free of cost under warranty period.
- 1.3.5 During warranty period, vendor to visit on call basis if breakdown of equipment is reported by BPCL site officer at each location for breakdown maintenance. For breakdown maintenance vendor to report at site within 48 hours. During warranty period or any breakdown of instrument, vendor to carry out replacement/repair within a week. Vendor shall visit BPCL site whenever breakdown of system is reported by BPCL officer. No limit on free breakdown visits during warranty period.
- 1.3.6 During Post warranty AMC period vendor to visit on call basis at each location for breakdown maintenance. For breakdown maintenance vendor to report at site

within 48 hours. For any breakdown of instrument, vendor to carry out replacement & spare will be provided by BPCL during post warranty period.

- 1.3.7 For any breakdown visit during post warranty period, vendor will be paid based on Breakdown Maintenance Man Day visit rate site wise quoted by bidder during tendering. This breakdown rate will be valid for complete post warranty period of 5 years. Breakdown visit will be on call basis, as and when required by BPCL. Five no of visits for each site for five years for post warranty years is considered.

1.3.8 CLAUSE FOR DELAYED SERVICE IN WARRANTY PERIOD:

In the event of delay on the part of the Vendor in effecting deliveries of service during warranty period as agreed contractually, Owner will levy a reduction in price for delayed completion @1/2%( one half of one percent) of delayed order value per week of delay or part thereof subject to a maximum of 5% of total (supply + service) order value from vendors submitted Bank Guarantee.

1.3.9 CLAUSE FOR DELAYED SERVICE IN POST WARRANTY PERIOD:

In the event of delay on the part of the Vendor in effecting deliveries of service during post warranty period as agreed contractually, Owner will levy a reduction in price for delayed completion @1/2%( one half of one percent) of delayed order value per week of delay or part thereof subject to a maximum of 5% of total (Post warranty service PO) order value from vendors submitted Bank Guarantee.

Warranty Clause:

Vendor shall be responsible for the manufacture in respect of proper design, quality workmanship & maintenance of all equipment, accessories etc. supplied by the vendor including all services, spares for a period of **24 Months** after delivery of Flow Computer at site. To fulfill the same, it shall be obligatory on the part of vendor to modify / upgrade, rectify any hardware problems in the system or replace any hardware from the supplied equipment's, supply the required spares and attend to the troubleshooting & maintenance of the complete system, free of cost, during start-up and online operation & maintenance of the Flow Computer within the Warranty

period. Warranty shall include emergency maintenance, on-call maintenance, replacement of failed components etc. Bidder shall indicate the location of service center where, after sales service will be provided. Nature of service available from this location shall be indicated. During warranty period, in case of issue of calibration and inaccuracies with flow computation and as per the calibration schedule prepared by the BPCL, bidder shall carryout the calibration and testing of Flow Computer. Any work during/visits during warranty period shall also be covered under this scope at no extra cost during warranty period.

**i. EMERGENCY SERVICE (WARRANTY PERIOD):**

In the event of any malfunction of the Flow Computer system during warranty period, Service Engineer must report at site within 24 hours of report of failure. The system must be brought back within 24 hours after reporting at site. Any work during/visits during warranty period shall also be covered under this scope at no extra cost during warranty period

**ii. SOFTWARE MAINTENANCE/ SUPPORT:**

Bidder to maintain the existing application software to improve upon performance of the system. Software modification and up gradation, as & when required, shall also be covered under this scope at no extra cost during warranty period.

**1.4 PRE BID MEETING**

- 1.4.1 BPCL highly recommends to the bidders to attend the Pre Bid Meeting is for this tender and BPCL shall inform about the date, time and the link for the online of pre-bid meet.

## **1.5 Packing and Forwarding**

- 1.5.1 Charges towards quality packing, forwarding from vendors works to the Delivery Address shall be borne by the vendor

## **1.6 Travel, Lodging and Boarding**

- 1.5.2 Charges towards Travel, Lodging and Boarding during the site commissioning, breakdown maintenance during the warranty & post warranty AMC period to be borne by the vendor.

## **1.7 Contact Personnel Details**

### **1.7.1 Washala, Manmad, Sanghvi, Gujar, Manglya**

Engineer In Charge: Head Pipelines West

### **1.7.2 Kota, IP1 Sherpur, Malarna**

Engineer In Charge: Head Pipelines Central

### **1.7.3 Bharatpur, Mathura, Piyala, Bijwasan**

Engineer In Charge: Head Pipelines North.

### **1.7.4 Kochi, Irugur, Karur.**

Engineer In Charge: Head Pipelines South.