

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



**“PRESS TENDER”**

**FOR**

**Schedule of rates for various jobs (Civil,Piling works, Cone roof tank, Floating roof tank, Piping works, Electrical HT,Electrical LT,LPG Equipment works) undertaken by BPCL Engineering and Projects (E&P) Entity in different States/Areas of India**

**Name of the State/Area :**

**BIHAR**

**CRFQ NO : 1000265143 E Tender no : 18966**

**Pre Bid Meeting on: 14.12.2016 (11:00 hrs) at BPCL Eastern Regional Office,Kolkata**

**DUE ON: 26.12.2016(15:00 hrs)**

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REF: E AND P.SOR.BIHAR

### **1.NOTICE INVITING TENDER**

Dear Sir/ Madam,

**SUB: TENDER FOR SCHEDULE OF RATES 2017-19 FOR VARIOUS JOBS (CIVIL,PILING WORKS, CONE ROOF TANKS, FLOATING ROOF TANKS, PIPING WORKS ,ELECTRICAL HT, ELECTRICAL LT ,LPG EQUIPMENT WORKS) UNDERTAKEN BY BPCL ENGINEERING AND PROJECTS ENTITY IN THE STATE/AREA OF BIHAR, EASTERN REGION VIDE CRFQ NO. 1000265143**

Due date/time of the tender 26.12.2016-15:00 hrs.

We propose to finalize a common Schedule of Rates (SOR) for the following category of jobs to be carried out at Retail Depots/ Installations/ LPG Plants/ Aviation fuelling stations/ Railway Consumer Depots/ Lubes Filling Plants/ Industrial customer premises, Refineries, etc, both in new and existing locations, in the state/ area of **BIHAR** by BPCL Engineering & Projects entity, for a period of two years from the date of finalization of SOR , with an option to extend for one more year on mutual consent :

- a. Civil & Structural
- b. Piling works
- c. Tankage - Fixed Roof
- d. Tankage - Floating roof
- e. Piping
- f. Electrical- HT
- g. Electrical- LT
- h. LPG Plant Equipment

Each of the above “**Category of Jobs**” shall have the following two “**Financial Slabs** ”

- a. Upto INR 10 lakhs
- b. Above INR 10 lakhs and upto INR 35 lakhs

In this connection, we hereby enclose our list of items with specifications indicating their estimated unit rates in different category of jobs. You are required to quote a percentage over the estimated unit rates in the range of -10 % to +10 % for the various categories of jobs (Bidder can quote separate percentage for each category of jobs opted for) through BPCL e – procurement website.

The various categories of jobs, bid qualifying criteria and the number of vendors required in each category of job / financial slab is listed in the special terms and conditions of the tender.

The tender document comprises of the following:

- Notice inviting tender
- General Conditions of Contract
- Special terms & conditions of Tender
- Instructions to bidders for e-tendering.
- Typical drawings and specifications
- Recommended makes
- Safety requirements at construction sites
- Estimated unit rates in different category of jobs.
- Corrigendum, if any.

You are requested to note the following:

1. The rates once finalized shall be applicable for a period of two years and BPCL shall have the option to extend the SOR for a further period of one year with mutual consent.
2. The successful bidder shall carry out and complete the works as may be entrusted to him by the Company from time to time. The Company may authorize any officer at any time to place orders.
3. Purchase orders (PO) for carrying out jobs on SOR on successful bidder(s) shall be issued for each job as under :

<b>Financial slabs</b>	<b>Purchase order value of each job</b>
Up to INR 10 Lakhs	Equal to or less than INR 10 Lakhs.
Above INR 10 Lakhs and up to INR 35 Lakhs	Above INR 10 Lakhs and up to INR 35 Lakhs.

If vendor opts for both the financial slabs the purchase order value of each job shall be equal to or less than INR 35 Lakhs

4. BPCL reserves the right to award work under SOR to any successful bidder.
5. BPCL reserves the right to accept/ reject any/ all the bid(s) without assigning any reason whatsoever and to negotiate with the bidder(s) in the manner BPCL considers suitable.
6. BPCL is not committed to give all the works of the above nature to the successful bidders. BPCL can also invite single tender, limited tender and public tender for any item or a group of items and award the works to any contractor.
7. Bidders are required to abide by all terms and conditions / specifications of BPCL / Explosives Department regulations, labor laws, and other local / statutory regulations and shall indemnify BPCL against any claim arising from Workmen Compensation Act and all statutory requirements. Bidders are also required to submit any documents sought by BPCL in compliance to any statutory requirement.
8. While quoting for the items, bidders may please note that the Escalation / De-escalation is applicable every year.

9. Please ensure to digitally accept the entire tender document including the attachments. The tender document broadly comprises of the following:
- Notice inviting tender
  - General Conditions of Contract
  - Special terms & conditions of tender
  - Instruction to bidders for e-tendering.
  - Typical drawings and specifications
  - Recommended makes
  - Safety requirements at construction sites
  - Estimated rates in different category of jobs.
  - Corrigendum, if any.
10. The details of EMD & SD are given in the special conditions of tender.
11. Any deviation between Special conditions and general conditions, the conditions stated in special conditions will prevail.
12. The approved rates attached, include all applicable taxes & duties, but are excluding Service Tax. Service Tax shall be paid as per applicable rates. In case of introduction of GST, the same shall be payable provided any benefit on account of GST accruing to the bidder should be passed on to BPCL.
13. Successful bidders shall be required to enter into an agreement with BPCL. The proforma of the agreement is attached as **Annexure VI**
14. It shall be understood that every endeavor has been made to avoid error which can materially affect the basis of 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 its account thereof.
15. Kindly note that this is an e-Tender and your Bids have to be submitted online. This is a Two part tender [Techno Commercial & Price]. Your offer is liable to be rejected if there is any deviation from the tender document and its attachments. Kindly contact us if you need any clarifications before submitting your offer.
16. Your offer, digitally signed, should be submitted at our e-procurement site, <https://bpcleproc.in> on or before 15:00 hrs on 26.12.2016. BPCL will not be responsible for any delays due to connectivity issues and availability of website.

Thanking you

Yours faithfully,  
For BHARAT PETROLEUM CORPN. LTD  
(Digitally Signed)  
SR. MANAGER CEC, CPO (M)

## **2. GENERAL CONDITIONS OF CONTRACT**

(Please refer **Annexure-I** for details)

## **3. SPECIAL TERMS AND CONDITIONS (CRFQ: 1000265143 )**

### **I. SCOPE OF WORK**

To finalize the Schedule of Rates (SOR) for the following category of jobs to be carried out at Retail Depots/ Installations/ LPG Plants/ Aviation fuelling stations/ Railway Consumer Depots/ Lubes Filling Plants/ Industrial customer premises, Refineries, etc in the state/ area of **BIHAR** by BPCL Engineering & Projects entity, for a period of two years with effect from the date of finalization of SOR, with an option to extend for one more year on mutual consent.

- a. Civil & Structural
- b. Piling works
- c. Tankage- Fixed Roof
- d. Tankage- Floating roof
- e. Piping
- f. Electrical- HT
- g. Electrical- LT
- h. LPG Plant Equipment

### **II. AWARD OF JOB UNDER SOR**

- The successful bidder shall carryout, construct and complete the works as may be entrusted to him by the Company from time to time. The Company may authorize any officer at any time to place orders directly on the contractor.
- Purchase orders (PO) for carrying out jobs on SOR on successful bidder(s) shall be issued for each job as under :

<b>Financial slabs</b>	<b>Purchase order value of each job</b>
Up to INR 10 Lakhs	Equal to or less than INR 10 Lakhs.
Above INR 10 Lakhs and up to INR 35 Lakhs	Above INR 10 lakhs and up to INR 35 Lakhs.

If vendor opts for both the financial slabs the purchase order value of each job shall be equal to or less than INR 35 Lakhs

- BPCL reserves the right to award work under SOR to any successful bidder.
- BPCL is not committed to give all the works of the above nature to the successful bidders. BPCL can also invite single tender, limited tender and public tender for any item or a group of items and award the works to any contractor.

**III. PERIOD OF CONTRACT :**

Schedule of Rates shall be valid for 2(Two) Years from the date of finalization of SOR, with an option to extend for one more year on mutual consent.

**IV. TYPE OF TENDER :**

This is an E- Tender under Two Bid System.

Part 1 – Techno- Commercial

Part 2 – Price Bid

**Contact Person :**

Gitesh Gangadhar, Deputy Manager Procurement, CPO (M)

Contact Nos. : 022-24176220 / 9222243818,

**E mail Id :** [giteshgangadhar@bharatpetroleum.in](mailto:giteshgangadhar@bharatpetroleum.in).

Vikas Chaudhary, Deputy Manager Procurement, CPO (M)

Contact Nos. : 022-24176048 / 8758082220,

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Rahul Pai, Assistant Manager Procurement, CPO (M)

Contact Nos. : 022-24176022 / 9047295999,

**E mail Id :** [rahulpai@bharatpetroleum.in](mailto:rahulpai@bharatpetroleum.in).

Akhil Gupta, Senior Manager, CEC, CPO (M),

Contact Nos. : 022-24176041/ 9869059054

**E mail ID:** [guptaa001@bharatpetroleum.in](mailto:guptaa001@bharatpetroleum.in))

**V. PRE- BID MEETING**

Pre - Bid Meeting shall be held on 14.12.2016 -11:00 Hours at BPCL EASTERN Regional Office in KOLKATA;

Address: Bharat Petroleum Corporation Limited,  
Eastern Regional Office, Bharat Bhavan, Plot No 31,  
Prince Gulam Shah Md. Shah road,  
Golf Green, Kolkata  
West Bengal- 700 095

**VI. DUE DATE AND TIME :**

Due date: 26.12.2016 Time: 1500 hrs

Bidders are advised in their own interest to ensure that bids are uploaded in eProcurement system well before the closing date and time of bid.

Techno Commercial Bid shall be opened on the due date and time.

VII. VALIDITY OF OFFER :

180 DAYS from the date of opening of the tender.

VIII. VENDOR REQUIREMENT UNDER 'CATEGORY OF JOB' AND 'FINANCIAL SLAB'

Estimated requirement of number of vendors is tabulated below. However, BPCL reserves the right to change the vendor requirement and to induct additional vendors during the tenancy of the contract.

(In Numbers)								
FINANCIAL SLAB	CIVIL & STRUCTURAL WORKS	PILING WORKS	CONE ROOF TANKS	FLOATING ROOF TANKS	PIPING WORKS	ELECTRICAL HT	ELECTRICAL LT	LPG EQUIPMENTS
Up to 10 Lakhs	10	4	5	5	7	5	7	5
Above 10 Lakhs up to 35 Lakhs	8	4	6	6	8	5	7	5

IX. EARNEST MONEY DEPOSIT (EMD):

EMD shall be payable as per the financial slab for which the bidder is bidding as below:

Up to INR 10 Lakhs: **INR 50,000/-**.

Above INR 10 Lakhs up to 35 Lakhs : **INR 1,00,000/-**

In case a bidder is bidding for more than one " Category of job " or "Financial slab", EMD applicable shall be the maximum of the upper financial slab.

E.g. if a bidder quotes for Civil & Structural for INR 35 Lakhs, Electrical LT job for INR 10 Lakhs and Piping job for INR 35 Lakhs, then the EMD applicable shall be INR 1,00,000/-.

EMD shall be submitted by the way of Demand draft only from a nationalized/Scheduled bank in favor of 'Bharat Petroleum Corporation Limited' payable at Mumbai. In case the Bidder is exempted from paying EMD, such as registration under MSE (Micro and Small Enterprises), the Bidder shall upload the certificate of registration. Bidder of this tender shall upload a scanned copy as proof of EMD document (Demand draft or Exemption Certificate for EMD) in the Tender Document – Techno Commercial Bid while submitting the tender digitally in the e-tender Portal.



Original Demand Draft should be sealed in an envelope super scribed with "**SUBMISSION OF EMD FOR SCHEDULE OF RATES 2017-19 FOR VARIOUS(Civil, Piling works, Cone roof tank, Floating roof tank, Piping works, Electrical HT,Electrical LT,LPG Equipment works) JOBS UNDERTAKEN BY BPCL ENGINEERING AND PROJECTS ENTITY IN THE STATE/AREA OF BIHAR, EASTERN REGION VIDE CRFQ NO. 1000265143**". It should be addressed to "**Sr. Manager, CEC, CPO(M), Bharat Petroleum Corporation Limited, 'A' Installation , Sewree- Fort Road, Sewree (East), Mumbai, State Maharashtra, Pin code- 400015**".

This can be submitted either by dropping in the tender box kept for this purpose at the above office or by Registered Post. It should reach us before the due date / time. Postal delays will not be accepted. Mere uploading proof of EMD in the portal and non submission of the physical Demand draft for EMD at the given address, before the due date and time of the tender will lead to disqualification of the bid.

NOTE: No interest shall be paid by the Owner on the earnest money deposit by the bidder.

**X. SECURITY DEPOSIT (SD)**

Security Deposit (for successful bidders only) shall be payable as per the financial slab, as below:

Up to INR 10 Lakhs – **INR 50,000/-**

Above INR 10 Lakhs up to INR 35 Lakhs –**INR 1,00,000/-**

In case a bidder is qualified for more than one "Category of job" or "Financial slab", SD applicable shall be the maximum of the upper financial slab for which the bidder has qualified.

E.g. if a bidder qualifies for Civil & Structural for INR 35 lakh, Electrical LT job for INR 10 lakhs and Piping job for INR 35 lakhs, then the SD applicable shall be INR 1,00,000/-.

NOTE: No interest shall be paid by the Owner on the security deposit by the bidder.

XI. ACCEPTANCE OF THE TENDER DOCUMENT :

Please ensure to digitally accept the entire tender document including the attachments. The tender document broadly comprises of the following:

- Notice inviting tender
- General Conditions of Contract
- Special terms & Conditions of Tender
- Instruction to bidders for e tendering.
- Typical Drawings and specifications
- Recommended makes
- Safety requirement at construction sites
- Estimated rates in different category of jobs.
- Corrigendum, if any

Your offer is liable to be rejected if there is any deviation from the tender document and its attachments.

XII. BID QUALIFICATION CRITERIA (BQC)

The detailed bid qualification criteria for short listing bidders for further evaluation shall be as follows:

**A. Technical**

The Bidder shall have experience of having successfully completed \* **similar works** in separate contracts during the last 7 years ending on the last day of the month previous to one in which the tender is invited. The value of the works completed should be as follows:

**Up to INR 10 Lakhs category:**

One similar completed work order costing not less than INR 8.00 Lakhs

OR

Two similar completed work orders of value costing not less than INR 5 Lakhs each

OR

Three similar completed work orders of value costing not less than INR 4 Lakhs each

OR

Maximum of ten similar completed work orders of total value costing not less than INR 14 Lakhs.

**Above INR 10 Lakhs and Up to INR 35.0 Lakhs category:**

One similar completed work order costing not less than INR 28.00 Lakhs

OR

Two similar completed work orders of value costing not less than INR 17.5 Lakhs each.

OR

Three similar completed work orders of value costing not less than INR 14.0 Lakhs each.

\* **Similar Works** Implies

**For Civil & Structural Category**

Construction of buildings or structural steel sheds or road works or compound wall or any other RCC structure or earth work or site grading in Petroleum or any other industry.

**For Tankage- Fixed Roof**

Construction or Fabrication & Erection or mechanical repair/maintenance involving fabrication of above ground vertical/horizontal storage steel tank in Petroleum/Petrochemical Industry.

**For Tankage- Floating roof**

Construction or Fabrication & Erection or mechanical repair/maintenance involving fabrication of above ground floating roof vertical storage tank in Petroleum/Petrochemical industry.

**For Piping**

Fabrication & Erection of pipelines handling petroleum products in Petroleum/ Petrochemical Industry.

**For LPG Equipments**

Fabrication & Erection of chain conveyor system/ Installation of LPG equipments along with chain conveyor system in LPG Bottling Plants

**For Electrical- LT**

LT Electrical jobs involving installation and commissioning of panels with/without Transformers / Substations /DG sets / Industrial Motors or cable laying and termination works in Petroleum or any other industry.

For Electrical- HT

HT Electrical jobs involving installation and commissioning of HT breakers or two/four pole structures or transmission lines or substation in Petroleum or any other industry.

**Documents Required from Bidders**

Certificate from Practicing Chartered Accountant OR approved Third Party Inspecting Agency (TPIA) providing the list of invoices or work completion certificates from clients [pertaining to last 7 years ending on the last day of the month previous to the one in which tender is being floated as checked/verified and confirming qualification of this criterion.

BPCL reserves the right to demand for these invoices/additional documents as and when required from the bidders to “establish Technical experience & proven track record”.

The certificate is to be submitted for each category of Job separately, in the indicative format provided below.

**Category of Job:** .....

S. No.	PO No.	PO Date	Invoice No.	Invoice Date	Description of work	Name of the client	Type of Industry	Amount in Invoice
Total amount of works completed								

**B. Financial:**

- a. Annual Turnover: Bidder shall meet the minimum average annual turnover of the last three consecutive Financial years as follows:

Financial slab in INR	Minimum Average Annual Turnover of last three consecutive Financial years (30% of the upper limit of the Financial slab)
up to 10 Lakhs	INR 3.00 Lakhs
Above 10 Lakhs and up to 35 lakhs	INR 10.50 Lakhs

If a bidder quotes for more than one “Category of job” and different “Financial slabs”, the higher value of turnover shall be considered for qualification.

For e.g. if a bidder quotes for Civil & Structural for INR 35 Lakhs, Electrical LT job for INR 10 Lakhs and Piping job for INR 35 Lakhs, then he shall have an average annual turnover of minimum INR 10.50 Lakhs during the last three consecutive financial years.

If a bidder submits the turnover of less than the last three consecutive financial years, the bids submitted by such bidder shall be rejected.

- b. Net worth: The net worth of the bidder shall be positive during the last financial year.

**Documents Required from Bidders**

Audited Annual Reports/Balance sheet & Profit and Loss account for the last three consecutive financial years has to be submitted.

**OR**

If the bidder is not required to be audited as per statute, copy of Balance sheet & Profit and Loss account for the last three consecutive financial years certified by practicing Chartered Accountant has to be submitted.

- C. Undertaking on the letter head duly signed by the authorized signatory of the bidder that he/ she is not under liquidation, court receivership or similar proceeding.
- D. Undertaking on the letter head duly signed by the authorized signatory of the bidder that he/ she is not on ‘Holiday list of/ debarred from business dealings by BPCL/ MOP & NG/ Any other Oil PSE’.

**XIII. VENDOR CODE/ VENDOR MASTER DETAILS :**

BPCL Vendor code of the bidder is to be specified and uploaded on the letter head of the bidder duly signed by the authorized signatory or BPCL letter specifying the vendor code of the bidder. In case the bidder is not having a BPCL vendor code, the Vendor Master details including the NEFT form has to be downloaded, filled and uploaded. Hard copy of the NEFT Mandate form along with cancelled cheque to be submitted along with the EMD at CPO-M office.

**XIV. PROCEDURE AND METHODOLOGY FOR SELECTION OF BIDDER :****Submission of Mandatory Documents:**

Bidder will be required to fill in and upload the relevant documents as given in the Tender document. Bidders will be techno commercially evaluated on the basis of submission of the following:

- i. Submit the EMD details online. Please note that the Demand Draft towards EMD has to be physically submitted at our office before the due date and time of the tender.
- ii. Please ensure to digitally accept the entire tender document including the attachments. The tender document broadly comprises of the following :
  - Notice inviting tender
  - General Conditions of Contract
  - Special terms & conditions of tender
  - Instruction to bidders for e-tendering.
  - Typical drawings and specifications
  - Recommended makes
  - Safety requirements at construction sites
  - Estimated rates in different category of jobs.
  - Corrigendum, if any.
- iii. Bidder to specify the Category of Job(s) for which he/she is applying and to ensure that the financial slab should be selected for each category of job. Against each category of job, the bidder has to select amongst the following options:
  - Participating in both slabs
  - Participating in 10-35 Lakhs only
  - Participating up to 10 Lakhs only
  - Not participating

Note :

- ✓ A bidder can participate in any number of categories of jobs.
  - ✓ A bidder who wants to quote for both the financial slabs, i.e., Upto INR 10 Lakhs & Above INR 10 Lakhs and upto INR 35 Lakhs, in a category of Job, should select the option “Participating in both slabs”.  
For example, in case, the vendor selects the financial slab as 10- 35 Lakhs for a category of job i.e. Civil & Structural, the vendor will be considered only for jobs above INR 10 lakhs and upto INR 35 Lakhs and will not be considered for jobs less than or equal to INR 10 Lakhs.
  - ✓ A bidder, who wants to quote for 2 or more categories of jobs, should specify the financial slabs for each of the category of job separately.  
For example, a bidder who quotes for two categories of jobs i.e. “Civil and Structural” & “Piping” with financial slabs “Up to INR 10 Lakhs” & “above INR 10 lakhs and up to INR 35 Lakhs” respectively should specify the financial slabs for each of the Category of jobs separately. Accordingly the Price Bids of “Civil and Structural” & “Piping” shall be opened.  
Bidders, who do not mention the financial slab in any of the Category of jobs, their price bid, will not be considered for that Category of jobs.  
For example, if a bidder mentions his/her financial slab as 10-35 Lakhs for “Civil & Structural” and does not mention the financial slab for “Piping” category of jobs in Techno Commercial bid, even if the vendor has quoted in category of jobs “Piping” in price bid, the price bid for “Piping” will not be considered. Price bid for “Civil & Structural” will only be considered.
- iv. Upload a scanned copy (in pdf or jpeg format) of the relevant document for the compliance to Bid Qualification criterion of :
- a. Audited Annual Reports/Balance sheet & Profit and Loss account for the last three consecutive financial years has to be submitted.

**OR**

If the bidder is not required to be audited as per statute, copy of Balance sheet & Profit and Loss account for the last three consecutive financial years certified by practicing Chartered Accountant has to be submitted.

- b. Certificate from Practicing Chartered Accountant OR approved Third Party Inspecting Agency (TPIA) providing the list of invoices or work completion certificates from clients [pertaining to last 7 years ending on the last day of the month previous to the one in which tender is being floated] as checked/verified and confirming qualification of this criterion.

The certificate is to be submitted for each category of Job separately, in the indicative format provided below.

**Category of Job** :.....

S. No.	PO No.	PO Date	Invoice No.	Invoice Date	Description of work	Name of the client	Type of Industry	Amount in Invoice
<b>Total amount of works completed</b>								

BPCL reserves the right to demand for these invoices/additional documents as and when required from the bidders to “establish Technical experience & proven track record”.

- c. Undertaking on the letter head duly signed by the authorized signatory of the bidder that he/ she is not under liquidation, court receivership or similar proceeding.
- d. Undertaking on the letter head duly signed by the authorized signatory of the bidder that he/ she is not on ‘Holiday list of/ debarred from business dealings by BPCL/ MOP & NG/ Any other Oil PSE’.

v. **VENDOR CODE/ VENDOR MASTER DETAILS :**

BPCL Vendor code of the bidder is to be specified and uploaded on the letter head of the bidder, or BPCL letter specifying the vendor code of the bidder is to be uploaded. In case the bidder is not having a BPCL vendor code, the Vendor Master details including the NEFT form has to be filled and uploaded on the e-tendering portal. Hard copy of the NEFT Mandate form along with cancelled cheque to be submitted with the EMD at CPO-M office.

The documents and details submitted may be verified by BPCL or any other authorized representative of BPCL. BPCL reserves the right to seek any original/ additional document which it deems necessary for evaluating the bid.

In the event document / information submitted by the bidder is found to be forged or incorrect at any stage, such bidder will be rejected and / or the contract with such bidder shall be terminated and EMD and / or SD submitted shall be forfeited. Such bidder may also be put on Holiday List by BPCL



**Methodology of selection of Contractor:**

- Only the Techno Commercial Bid, of those bidders submitting their bids before due date and time of submission, shall be opened.
- The bid will be rejected if requisite EMD document is not uploaded or the Original Demand draft is not submitted offline to our office on or before the due date/time of submission.
- Deviation/ Non acceptance to the tender document including the attachments shall render the bid liable to be rejected.
- The bid shall be scrutinized and evaluated based on the Bid qualifying criteria mentioned in the tender document, requisite documents/ certificates uploaded and verification of the documents/ certificates for the Category of Jobs and the corresponding financial slab. Non submission of requisite documents/ certificates shall render the bid liable to be rejected or the bid shall be evaluated according to the documents/ certificates submitted.
- The Price Bid of only those bidders shall be opened who qualify as per the Techno commercial Bid criteria after evaluation.
- After opening of the price bid, on the basis of their original quoted % rate, a comparative price report shall be prepared based on the Category of job only. The price report shall be arranged in an ascending order of the % rate quoted by the bidders. The lowest % rate shall mean the lowest acceptable % rate quoted by the L-1 Bidder for that Category of Job. If same % is quoted by more than one Vendor, all these vendors will be treated at par.
- All the L1-bidder(s) shall be selected in the respective category of jobs.
- In case, the required number of vendors ( as defined in the tender document) is not met by L1 bidder(s), the next set of bidder(s) i.e. the L2 bidder(s) shall be given an offer to revise their original quoted % rate in order to match the L1 bidder(s) % rate.
- Confirmation of the revised offer by the bidder has to be submitted to BPCL within 5 days of the BPCL offer.
- The bidder who does not accept the BPCL offer to match the L1 bidder % rate, or does not submit the revised offer within 5 days of BPCL offer, shall be rejected for the respective category of job and corresponding financial slab. The bidders who match the L1 bidder % rate shall be selected in that category of job and corresponding financial slab.
- In case the required number of vendors is not met by L2 bidder(s) also, the process shall be repeated serially with L3,L4,L5.....Ln bidders till the total number of vendors required in the respective category of job and corresponding financial slab are met.
- The same process shall be followed for all the category of jobs and corresponding financial slabs.

For Example:

Category of job				Civil and Structural works		
Required number of vendors in the financial slab upto 10 Lakhs				10		
Required number of vendors in the financial slab 10-35 Lakhs				7		
<b>Financial slab : upto 10 lakhs</b>				<b>Financial slab : 10-35 lakhs</b>		
Description	Number of Bidders	Number of bidders who agreed to match the L1 bidder % quoted rate	Balance requirement	Number of Bidders	Number of bidders who agreed to match the L1 bidder % quoted rate	Balance requirement
Required number of vendors			<b>10</b>			<b>7</b>
Number of L1 bidders	4	<b>NA</b>	6	0	<b>NA</b>	7
Number of L2 bidders	6	4	2	4	3	4
Number of L3 bidders	5	2	<b>0</b>	4	2	2
Number of L4 bidders	5	NA as Requirement met		3	2	<b>0</b>
Number of L5 bidders	6	NA as Requirement met		6	NA as Requirement met	
Number of Ln bidders	6	NA as Requirement met		6	NA as Requirement met	

**Note :** The bidders who have opted for both the financial slabs will appear in both the financial slabs of upto 10 lakhs and 10-35 lakhs.

#### XV. ESCALATION/ DE-ESCALATION CLAUSE

There shall be escalation/ de-escalation (as the case may be depending upon increase/decrease in WPI & CPI) uniformly applicable on all items over the schedule of rates based on WPI (All India Wholesale Price Index) and CPI (All India Consumer Price Index) as per the methodology enumerated below.

- A) The bidder has to accept escalation as well as de-escalation in rate based on WPI & CPI.
- B) The weightage of WPI & CPI shall be in the ratio of 70% and 30% respectively.
- C) The rate finalized for subject tender shall be valid for initial 12 (twelve) months from the date of finalization of SOR. It means there shall not be any change in rate for placing of order on Vendor for individual work during the period of initial 12 months.
- D) Exactly after completion of 12 months, the escalation / de-escalation shall be applicable based on WPI & CPI, on the weightage given above.
- E) Since, WPI & CPI are published after a gap of around 3 months; the indices of 9<sup>th</sup> month will be taken for calculating the escalation /de-escalation. E.g. if the SOR for the first year is valid from April 2017 to March 2018, for calculating the escalation/de-escalation, the indices of December 2016 shall be considered.

- F) The percentage increase & decrease shall be the same for all items in the contract irrespective of the material, labour, fuel or any other input/component. The rate so arrived at shall remain unchanged and valid for next 12 months.
- G) Once the purchase order is placed on the Vendor for individual works based on the finalized rates, the rate shall remain firm for that work irrespective of the completion period or extension granted on whatsoever reason/ground even if the work extends beyond 12 months.
- H) The method for calculating escalation/de-escalation is enumerated below.

**METHOD FOR CALCULATING ESCALATION / DE-ESCALATION is provided below:**

Method of calculating escalation/ de-escalation		
S.No.	Item	Index
1	WPI available at the end of 9 <sup>th</sup> month of SOR agreement.	W2
2	WPI 12 months prior to the WPI available at the end of the 9 <sup>th</sup> month of SOR agreement.	W1
3	% increase in WPI	$W3=(W2-W1)/W1 \times 100$
4	CPI available at the end of 9 <sup>th</sup> month of SOR agreement.	C2
5	CPI 12 months prior to the CPI available at the end of the 9 <sup>th</sup> month of SOR agreement.	C1
6	% increase in CPI	$C3=(C2-C1)/C1 \times 100$
7	The escalation/de-escalation to be applied in % (Weightage of 70% of WPI and 30% of CPI)	$E1 = 0.7* W3 + 0.3* C3$
8	Rate of any item	R1
9	Increase/Decrease applicable on any rate from 13 <sup>th</sup> month to 24 <sup>th</sup> month	$V1 = R1 * E1$
10	Revised rate applicable from 13 <sup>th</sup> month to 24 <sup>th</sup> month	$R2= R1+V1$

**Note : The same escalation/de-escalation methodology shall be applicable for the third year (25<sup>th</sup> month to 36 month) also.**

**The percentage of escalation/de-escalation shall be taken upto two decimals.**

**XVI. PRICE BID**

- The Estimated unit rates for every item are enclosed as a part of the tender document. Bidder to go through these published rates.
- Bidder to select the category of jobs he/she is applying. Bidder can select and quote for one or more than one category of jobs.
- Rates quoted are applicable for the State/Area.
- Bidder to quote CHANGE IN RATE in percentage band **-10% (Maximum percentage below estimate) to +10% (Maximum Percentage above estimate)** for each of the category of job. Any Vendor quoting beyond the range of -10% to +10% shall be disqualified.
- Bidder shall be allowed to quote the percentage change in rate up to a maximum of 2 decimal places.
- The percentage rate quoted by the bidder under a particular category of job shall be applied to all the unit rates of the items under that category of job.

**Illustration**

- For example if a vendor quotes **-4%**, then the unit price of an item of published rate of Rs 100/- reduces to Rs **96/-**.
- For example if a vendor quotes **+4%**, then the unit price of an item of published rate of Rs 100/- increases to Rs **104/-**.
- The SOR rates shall be finalized on the L1 bidder % change in rate quoted for each category of job.
- The finalized rate after applying the percentage variation shall be rounded off to the nearest Rupee.

**XVII. ESCALATION FOR SPECIFIC AREAS/ STATES**

No escalation for specific state/areas is applicable for this tender.

**XVIII. STATUTORY COMPLIANCES:**

You are required to abide by all terms and conditions / specifications of BPCL / Explosives Department regulations, labour laws, and other local / statutory regulations etc and shall indemnify BPCL against any claim arising from Workmen Compensation Act and all statutory requirements etc. You are also required to submit any documents as and when sought by BPCL in compliance to any statutory requirement.

**XIX. LIST OF APPROVED TPIA FOR THE TENDER DOCUMENT**

- LRIS (Lloyds Register Industrial Services) (India)
- SGS (Société Générale de Surveillance) (India)
- GLISPL (Gulf Lloyds Inspection Services-India Pvt. Ltd.) (GLIS- INDIA)
- IRS (Indian Register of Shipping)
- DNV (Det Norske Veritas)
- EIL (Engineers India Ltd)
- TATA PROJECTS
- PDIL (Projects and Development India Ltd)
- ULIPL (Underwriters Laboratories)
- RITES LTD (Rail India Technical and Economic Service)
- ITSIPL
- MECON (Metallurgical & Engineering Consultants (India) Limited)
- ICS (International Certification Services)
- ICSPPL
- BVIS (Bureau Veritas (Ind.) Pvt. Ltd)
- CEIL (Certification Engineers International Private Limited)

## INSTRUCTIONS TO BIDDERS FOR E-TENDERS

1. Interested parties may download the tender from BPCL website (<http://www.bharatpetroleum.in>) or the CPP Portal (<http://eprocure.gov.in>) or from the e-tendering website (<https://bpcleproc.in>) and participate in the tender as per the instructions given herein, on or **before the due date and time of the tender. The tender available on the BPCL website and the CPP Portal can be downloaded for reading purpose only.** **For participation in the tender, please fill up the tender on-line on the e-tender system available on <https://bpcleproc.in>.**

2. For registration on the e-tender site <https://bpcleproc.in>, you can be guided by the "Instructions to Vendors" available under the download section of the homepage of the website. As the first step, bidder shall have to click the "Register" link and fill in the requisite information in the "Bidder Registration Form". Kindly remember your e-mail id (which will also act as the login ID) and the password entered therein. Once you complete this process correctly, you shall get a system generated mail. Login in to the portal using your credentials. When you log in for the first time, system will ask you to add your Digital Signature. Once you have added the Digital Signature, please inform us by mail to the vendor administrator [vendoradmin@bpcleproc.in](mailto:vendoradmin@bpcleproc.in) with a copy to [support@bpcleproc.in](mailto:support@bpcleproc.in) for approval. Once approved, bidders can login in to the system as and when required.
3. As a pre-requisite for participation in the tender, vendors are required to obtain a valid Digital Certificate of Class IIB and above (having both signing and encryption certificates) as per Indian IT Act from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCIA), Controller of Certifying Authorities (CCA). The cost of obtaining the digital certificate shall be borne by the vendor.

In case any vendor so desires, he may contact our e-procurement service provider M/s. E- Procurement Technologies Ltd., Ahmedabad (Contact no. Tel: +91 79 4001 6868 for obtaining the digital signature certificate.

4. Corrigendum/amendment, if any, shall be notified on the site <https://bpcleproc.in>. In case any corrigendum/amendment is issued after the submission of the bid, then such tenderers, who have submitted their bids, shall be intimated about the corrigendum/amendment by a system-generated email. It shall be assumed that the information contained therein has been taken into account by the tenderer. They have the choice of making changes in their bid before the due date and time.
5. Tenderers are required to submit their bid on-line on or before the due date and time of closing of the tender. The general **process for submitting the bid** is as follows:

- vi. Submit the EMD details online. Please note that the Demand Draft towards EMD has to be physically submitted at our office before the due date and time.
  - vii. Accept the entire tender document including the attachments.
  - viii. Bidder to specify all the Categories of Jobs and the corresponding Financial slab for which he/ she is applying.
  - ix. Upload a scanned copy (in pdf or jpg format) of :
    - a. Audited Annual Reports/Balance sheet & Profit and Loss account for the last three consecutive financial years has to be submitted.

**OR**

If the bidder is not required to be audited as per statute, copy of Balance sheet & Profit and Loss account for the last three consecutive financial years certified by practicing Chartered Accountant has to be submitted.
    - b. Certificate from Chartered Accountant / Approved Third Party Inspecting Agency listing invoices / work completion certificates for last 7 years in specified format (format given in special conditions of tender)
    - c. Undertaking on the letter head duly signed by the authorized signatory of the bidder that he/ she is not under liquidation, court receivership or similar proceeding.
    - d. Undertaking on the letter head duly signed by the authorized signatory of the bidder that he/ she is not on 'Holiday list of/ debarred from business dealings by BPCL/ MOP & NG/ Any other Oil PSE'.
    - e. BPCL Vendor code of the bidder is to be specified and uploaded on the letter head of the bidder signed by the authorized signatory of the bidder or BPCL letter specifying the vendor code of the bidder. In case the bidder is not having a BPCL vendor code, the Vendor Master details including the NEFT form has to be filled and uploaded. Hard copy of the NEFT Mandate form along with cancelled cheque to be submitted with the EMD at CPO-M office.
6. Directions for submitting on-line offers, electronically, against e-procurement tenders directly through internet:

- (i) Bidders are advised to log on to the website (<https://bpcleproc.in>) and arrange to register themselves
  - (ii) The system time (IST) that will be displayed on e-Procurement web page shall be the time considered for determining the expiry of due date and time of the tender and no other time shall be taken into cognizance.
  - (iii) Bidders are advised in their own interest to ensure that their bids are submitted in e-Procurement system well before the closing date and time of bid. If the vendor intends to change/revise the bid already submitted, they shall have to withdraw their bid already submitted, change / revise the bid and submit once again. In case vendor is not able to complete the submission of the changed/revise bid within due date & time, the system would consider it as no bid has been received from the vendor against the tender and consequently the vendor will be out of contention. The process of change /revise may do so any number of times till the due date and time of submission deadline. However, no bid can be modified after the deadline for submission of bids.
  - (iv) Once the entire process of submission of online bid is complete, they will get an auto mail from the system stating you have successfully submitted your bid in the following tender with tender details..
  - (v) Bids / Offers shall not be permitted in e-procurement system after the due date / time of tender. Hence, no bid can be submitted after the due date and time of submission has elapsed.
  - (vi) No manual bids/offers along with electronic bids/offers shall be permitted.
7. (i) Once the BQ (or) techno-commercial (or) un-priced commercial bids are opened, bidders can see the list of bidders who have participated in the bid by logging on to the portal under their user ID and password, click on the "dashboard" link against the tender and choose the "Results" tab.
- (ii) Subsequently, once the price bids are opened, tenderers can see the rates quoted by all the participating bidders using the same option.
8. No responsibility will be taken by BPCL and/or the e-procurement service provider for any delay due to connectivity and availability of website. They shall not have any liability to tenderers for any interruption or delay in access to the site irrespective of the cause. It is advisable that tenderers who are not well conversant with e-tendering procedures, start filling up the tenders much before the due date /time so that there is sufficient time available with him/her to acquaint with all the steps and seek help if they so require. Even for those who are conversant with this type of e-tendering, it is suggested to complete all the activities ahead of time. It should be noted that the individual bid becomes viewable only after the opening of the bid on/after the due date and time. Please be reassured that your bid will be viewable only to you and



nobody else till the due date/ time of the tender opening. The non availability of viewing before due date and time is true for e-tendering service provider as well as BPCL officials.

9. BPCL and/or the e-procurement service provider shall not be responsible for any direct or indirect loss or damages and or consequential damages, arising out of the bidding process including but not limited to systems problems, inability to use the system, loss of electronic information etc.

**In case of any clarification pertaining to e-procurement process, the tenderer may contact the following agencies / personnel:**

**1. For system related issues :**

a.M/s. E-Procurement Technologies Ltd at contact no. Tel: +91 79 40016868 followed with an e-mail to id [support@bpclproc.in](mailto:support@bpclproc.in).

CPO(M) Office :

Satyanarayan Behera (90040 14223) [satyanarayan@procuretiger.com](mailto:satyanarayan@procuretiger.com)  
Shyam Kale (77158 14897) [mumbai.support@abcprocure.com](mailto:mumbai.support@abcprocure.com)

**2. For tender related queries following can be contacted via e-mail :**

Gitesh Gangadhar, Deputy Manager Procurement, CPO (M)  
Contact Nos. : 022-24176220 / 9222243818,  
**E mail Id : [giteshgangadhar@bharatpetroleum.in](mailto:giteshgangadhar@bharatpetroleum.in).**

Vikas Chaudhary, Deputy Manager Procurement, CPO (M)  
Contact Nos. : 022-24176048 / 8758082220,  
**E mail Id : [vikaschaudhary@bharatpetroleum.in](mailto:vikaschaudhary@bharatpetroleum.in).**

Rahul Pai, Assistant Manager Procurement, CPO (M)  
Contact Nos. : 022-24176022 / 9047295999,  
**E mail Id : [rahulpai@bharatpetroleum.in](mailto:rahulpai@bharatpetroleum.in).**

Akhil Gupta, Senior Manager, CEC, CPO (M),  
Contact Nos. : 022-24176041/ 9869059054  
**E mail ID: [guptaa001@bharatpetroleum.in](mailto:guptaa001@bharatpetroleum.in)**

**TYPICAL DRAWINGS AND SPECIFICATIONS**

(Please refer Annexure-II and Annexure III of the tender document)

<b>1.CIVIL AND STRUCTURAL WORKS 2.PILING WORKS</b>	
<b>SR NO</b>	<b>Drawings</b>
C11	Barbed Wire Fencing
C12	Chainlink Fencing
C13	Septic tank
C14	Soak pit
<b>3.CONE ROOF TANKS</b>	
<b>SR NO</b>	<b>DRAWINGS</b>
C1	Internal tank structure for cone roof tanks
C2	Tank spiral staircase drawing with hand rail-S/CE/0081
C3	Tank Nozzles/Product & Water draw off nozzle - S/CE/0080
C4	Tank centre sump - S/CE/0050
C5	Tank Manhole - S/CE/0079
C6	Standard drawing for expansion pipeline
C7	AG Tank PV Valve
C8	Free Vent : Drawing no 4.03.18
C9	Anchor Bolts : S/CE/0083
C10	Still well :E&P(HQ)/STD/ CR / INST NOZZLE Rev 1 sheet 1 & 2
C11	Typical Drawing for Inline Foam Inductor
C12	Foam maker
C13	Foam pourer nozzle with deflector
C14	Holding down arrangement :Drg.No.D-2949
C15	Manometer for UG tanks
C16	UG Tank drain sump : S/CE/0002
C17	UG Tank fill pipe
C18	UG Tank dip pipe
C19	UG tank free vent
C20	UG Tank PV Valve
C21	Indicative GA drawing for foam tank
C22	Standard fabrication drawing for 100 KL Tanks with manhole,earthing boss & structurals details S/CE/0001
C23	Standard fabrication drawing for 200 KL Tanks with manhole, earthing boss & structurals details S/CE/0002
C24	Standard fabrication drawing for 45 &70 KL Tanks with manhole, earthing boss & structurals details S/CE/104
<b>4. FLOATING ROOF TANK</b>	
<b>SR NO</b>	<b>DRAWINGS</b>
F1	Typical GA drawing of floating roof tanks
F2	Typical deck fabrication drawing of floating roof tanks
F3	Typical drawing for Auto bleeder assembly
F4	Typical drawing for Emergency drain

F5	Typical drawing of roof legs
F6	Typical drawing of deck manhole 600 mm/750 mm
F7	Typical drawing of rim vent nozzle
F8	Typical drawing of deck centre sump
F9	Typical drawing of bottom centre sump
F10	Typical drawing of pressure release line
F11	Typical drawing of rolling ladder
F12	Typical drawing for liquid mounted foam seal
F13	Typical drawing for vapour mounted foam seal
F14	Typical drawing for secondary seal
F15	Typical drawing for foam maker
F16	Typical drawing for foam pourer
F17	Typical drawing of submerged shunt
F18	Typical drawing of bypass conductors
F19	Typical drawing of Gauge hatch
F20	Typical drawing of gauge pole cover
F21	E&P(HQ)/STD/FR/INST NOZZLE Rev 3. sheet 1 of 3,
F22	E&P(HQ)/STD/FR/INST NOZZLE Rev 3. sheet 2A of 3,
F23	E&P(HQ)/STD/FR/INST NOZZLE Rev 3. sheet 2B of 3
F24	E&P(HQ)/STD/FR/INST NOZZLE Rev 3. sheet 3 of 3

#### 5.PIPING WORKS

SR NO	Drawings
P1	Earthing boss for pipelines
P2	Pipeline protection shield
P3	Mounting of HVLR 1000/2000 USGPM
P4	VAPOUR extraction hood
P5	AIR VESSEL DRAWING
P6	Loading Arm LPG
P7	Typical vapour extraction system drawing

#### 6. ELECTRICAL HT

SR NO	Drawings
HT 1	Four pole structure (6.6 KV)
HT 2	Four pole structure (11KV)
HT 3	Four pole structure (22 KV)
HT 4	Four pole structure (33 KV)
HT 5	Two pole structure (6.6 KV)
HT 6	Two pole structure (11KV)
HT 7	Two pole structure (22 KV)
HT 8	Two pole structure (33 KV)
HT 9	Lightning arrestor

**7. ELECTRICAL LT**

<b>SR NO</b>	<b>Standard Drawings</b>
LT 1	Typical Layout drawing of DG Set showing plan and elevation
LT 2	Generic drawing of LT Panels
LT 3	Typical GA of DG set
LT 4	Typical drawing for Outdoor bus ducts
LT 5	Typical drawing of LT Panels
LT 6	Drawing of street light poles : Single arm and double arm
LT 7	Drawings of Earthing: GI Pipe, GI Plate, Copper plate
LT 8	Drawing of cable route marker
LT 9	Typical drawings of Castle key Interlock system

**8. LPG EQUIPMENTS**

<b>SR NO</b>	<b>Drawings</b>
LPG 1	STRAIGHT SECTION
LPG 2	REVERSIBLE DRIVE SECTION
LPG 3	90 DEGREE BEND CONVEYOR SECTION
LPG 4	120/135/150 DEGREE BEND CONVEYOR SECTION
LPG 5	CONVEYOR Y-SECTION CONVERGING TYPE
LPG 6	CONVEYOR Y-SECTION DIVERGING TYPE
LPG 7	TAIL END SECTION
LPG 8	2X2 COMBINATION DRIVE
LPG 9	4X2 COMBINATION DRIVE
LPG 10	Telescopic conveyor
LPG 11	PNEUMATIC ARRANGEMENT anti jammer
LPG 12	PNEUMATIC STOPPER
LPG 13	PNEUMATIC ARRANGEMENT paralalled conveyor
LPG 14	PNEUMATIC ARRANGEMENT T section
LPG 15	PNEUMATIC ARRANGEMENT Stopper and Pushe
LPG 16	CHAIN DETAILS
LPG 17	CAP FIXING MACHINE
LPG 18	CAROUSAL FOUNDATION
LPG 19	CENTRALLY LOCATED DRIVE ASSEMBLY
LPG 20	COMMON TAIL END
LPG 21	WASHING UNIT
LPG 22	TEST BATH
LPG 23	PURGING UNIT
LPG 24	24 END DRIVE SECTION
LPG 25	CYLINDER DRYING UNIT
LPG 26	TYPICAL DRAWING FOR DRIVE UNIT

<b>LIST OF TYPICAL SPECIFICATIONS attached as Annexure III</b>	
<b>1.CIVIL AND STRUCTURAL WORKS &amp; 2. PILING WORKS</b>	
S-CI1	QAP for civil,road works and site grading
S-CI2	QAP for structural steel works
S-CI3	Specifications for flexible pavements
S-CI4	Specifications for civil and structural works
S-CI5	Specifications for RCC Bored cast in situ piles
<b>3. CONE ROOF TANKS</b>	
S-C1	Procedure for fabrication of CRVT tanks
S-C2	Procedure for fabrication and welding of centre sump.
S-C3	Painting manual for tanks
S-C4	Procedure for carrying out NDT testing on tanks
S-C5	Scope of work for carrying out TPIA inspection on tanks.
S-C6	BPCL philosophy for MV Spray system
S-C7	Procedure for radiographic examination of CRVT Tanks
S-C8	Procedure for fabrication of underground tanks
S-C9	Painting scheme for underground tank
S-C10	QAP for fixed roof tanks
S-C11	QAP for underground tanks
S-C12	Scrap accounting procedure for wastage calculations
S-C13	Philosophy for Providing Centralized Foam System
<b>4. FLOATING ROOF TANKS</b>	
S-F1	Fabrication of floating roof tanks
S-F2	NDT testing of floating roof tanks
S-F3	Testing of roof deck and bottom plates
S-F4	Welding procedure of oil storage tanks
S-F5	Specifications for procurement of Pivot master
S-F6	Specifications of liquid mounted foam seal
S-F7	Specifications of vapour mounted foam seal
S-F8	Specifications of secondary seal
S-F9	Specifications of gauge pole cover
<b>5. PIPING WORKS</b>	
SP-1	Procedure for welding and testing of CS pipeline
SP-2	Procedure for welding and testing of GI pipeline
SP-3	Procedure for welding and testing of SS pipeline
SP-4	Procedure for laying and testing of UG piping
SP-5	Painting manual and revised painting circulars/manual
SP-6	Specification for protective coating of underground piping
SP-7	Typical Datasheet for SS Globe Valves
SP-8	Specifications and approved Makes for welding electrodes

SP-9	QAP for piping
SP-10	Specifications of pressure gauges
SP-11	Typical Datasheet for Butterfly valves
SP-12	Typical Datasheet for Foam Tank
SP-13	Typical Datasheet for Foam pump
SP-14	Typical Datasheet for SS Pipes
SP-15	Typical Datasheet for CS Pipes
SP-16	Typical Datasheet for FSS Non return Valves
SP-17	Typical Datasheet for CS Non return Valves
<b>6. ELECTRICAL HT WORKS</b>	
S-HT 1	Four pole structure (6.6 KV)
S-HT 2	Four pole structure (11KV)
S-HT 3	Four pole structure (22 KV)
S-HT 4	Four pole structure (33 KV)
S-HT 5	Two pole structure (6.6 KV)
S-HT 6	Two pole structure (11KV)
S-HT 7	Two pole structure (22 KV)
S-HT 8	Two pole structure (33 KV)
S-HT 9	Specifications/Makes for HT cables (all sizes)
S-HT 10	Laying procedure for HT cables
S-HT 11	Specifications/Makes of indoor heat shrinkable HT jointing kits
S-HT 12	Specifications/Makes of outdoor Joining HT kits
S-HT 13	Vacuum circuit breaker (6.6 KV 400/600/1000/1250 A)
S-HT 14	Vacuum circuit breaker (11 KV 400/600/1000/1250 A)
S-HT 15	Vacuum circuit breaker (22 KV 400/600/1000/1250 A)
S-HT 16	Vacuum circuit breaker (33 KV 400/600/1000/1250 A)
S-HT 17	Installation procedure for VCB
S-HT 18	Transformer erection procedure
S-HT 19	Specifications fir lightning arrestor
<b>7. ELECTRICAL LT WORKS</b>	
S-LT 1	DG SET Erection installation/testing procedure and guidelines
S-LT 2	Acoustic enclosures construction details
S-LT 3	Aluminium cladding specifications for DG piping
S-LT 4	Technical specification of DG Set for capacity less than 30 KVA
S-LT 5	Makes/Specifications for LT switchgear
S-LT 6	Typical specifications for Panels and Bus ducts
S-LT 7	Procedure for installation of panels
S-LT 8	Specifications for LED lights
<b>8. LPG EQUIPMENTS</b>	
S-LPG 1	Typical specifications 14.2 and 19kg LPG conveyor and equipments
S-LPG 2	Typical Specifications for 35 and 47.5 Kg cylinder

S-LPG 3	Typical Painting specifications for conveyor
S-LPG 4	Typical technical specifications for Chain conveyor components
S-LPG 5	Scope of Third Party Inspection for LPG conveyors

**9.QUALITY ASSURANCE PLAN**

**RECOMMENDED MAKES****1. Mechanical Items**

SR NO	DESCRIPTION OF MATERIAL	BPCL MAKES
<b>SECTION I : PIPELINES</b>		
<b>1</b>	<b>API PIPELINES</b>	1. M/s. Jindal Pipes 2. M/s. Steel Authority of India 3. M/s. Surya Roshni 4. M/s. Asian Mills 5. M/s. Ratnamani 6. M/s. Zenith Birla Ltd. 7. M/s. Welspun Corp.Ltd. 8. M/s. Jindal Industries Ltd. 9. M/s. Maharashtra Seamless Ltd. 10. M/s. S. Balubhai & Co. 11. M/s. The Bengal Mill Stores Supply Co. 12. M/s. Sadaf Trading Co. 13. M/s. Simplex Metal & Alloys 14. M/s. N-Pipe Solutions INC 15. M/s. Hind Metal Syndicate Pvt.Ltd. 16. M/s. S. Sevantilal & Co. 17. M/s. Venus Trading Co.
<b>2</b>	<b>SEAMLESS PIPES</b>	1. M/s. Maharashtra Seamless Ltd. 2. M/s. Jindal Saw Limited 3. M/s. The Indian Seamless Metal Tubes 4. M/s. Simplex Metal & Alloys 5. M/s. Sadaf Trading Company 6. M/s. Hind Metal Syndicate Pvt.Ltd. 7. M/s. N-Pipe Solutions Inc. 8. M/s. Evergreen Seamless Pipes and Tubes Pvt.Ltd. 9. M/s. Venus Trading Company
<b>3</b>	<b>IS PIPES</b>	1. M/s. Jindal Pipes 2. M/s. Steel Authority of India 3. M/s. Surya Roshni 4. M/s. Tata Iron and Steel Co.Ltd. 5. M/s. Zenith Birla Ltd. 6. M/s. Indus Tubes 7. M/s. Advance Steel Tubes 8. M/s. Asian Mills 9. M/s. Ratnamani 10. M/s. Jindal Industries Ltd. 11. M/s. APL Apolo Tubes Ltd. 12. M/s. Man Industries (I) Ltd. 13. M/s. Maharashtra Seamless Ltd. 14. M/s. S. Babubhai & Co. 15. M/s. The Bengal Mill Stores Supply Co. 16. M/s. Sadaf Trading Co. 17. M/s. Venus Trading Co. 18. M/s. Simplex Metal & Alloys 19. M/s. N-Pipe Solutions INC 20. M/s. Hind Metal Syndicate Pvt.Ltd. 21. M/s. S. Sevantilal & Co.



4	GI PIPES	TATA ZENITH GST JINDAL
5	SS PIPES	1 Apex Tubes Pvt. Ltd. India 2 Heavy Metals & Tubes Limited India 3 Jindal Saw Pipes Ltd. (Seamless Tube Div.) 4 Nuclear Fuel Complex India 5 Rajendra Mech Industries Ltd. India 6 Ratnamani Metals & Tubes Ltd. India 7 Sandvik Asia Limited India 8 Suraj Stainless Ltd. India
6	Instrument Tubing	Heavy Metals & Tube Limited (Mehasana) Jindal Saw Limited (Nashik Works) Nuclear Fuel Complex Ratnamani Metal & Tubes Ltd Sandvik Asia Ltd. REMI EDELSTAHL TUBULERS LTD. (FROM RMIL)
<b>SECTION II : VALVES</b>		
7	CARBON STEEL GATE/CHECK/GLOBE VALVES	2.KSB Pumps Ltd. 2. M/s. Larsen & Toubro Ltd. 3. M/s. Bharat Heavy Electricals Ltd. 4. M/s. NSSL Limited 5. M/s. Steel Strong Valves (I) Pvt.Ltd. 6. M/s. J.K.Industries 7. M/s. Oswal Industries Ltd. 8. M/s. Hawa Engineers Ltd. 9. M/s. Fluidline Valves Co.Pvt.Ltd. 10. M/s. Flow Chem Industries
8	BUTTERFLY VALVES	1.Keystone (India) Pvt.Ltd, 2.Fluid Line Valves Co. Pvt.Ltd, 3.Larsen & Toubro Ltd, 4.Avcon Controls Pvt.Ltd. 5.Intervalves Ltd
9	PLUG VALVES	1.Larsen & Toubro Ltd 2.Xomox Sanmar Ltd. 3.Econo Valves
10	PRESSURE BALANCED PLUG VALVES	1.Larsen & Toubro Ltd 2.M/s Flowserve
11	CS BALL VALVES	1. M/s. Larsen & Toubro Ltd. 2.Xomox Sanmar Ltd 3. M/s. Flow Chem Industries 4.Microfinish Valves Ltd. 5.Virgo Engineers Ltd. 6. Belgaum Aqua Valves Pvt Ltd
12	EXCESS FLOW CHECK VALVE	1. Keystone (India) Pvt.Ltd. 2 Anil Engg. Co. 3. Special Steel Comp.Corporation.

13	PV VALVE/TYROS VALVE	<ul style="list-style-type: none"> <li>1.Metal Power</li> <li>2.Wess Level Controls Pvt.Ltd.</li> <li>3.India Tube Mills &amp; Metals Ind.Ltd.</li> <li>4.Tahira Industries (I) Pvt.Ltd.</li> <li>5.Petrole Service (India)Pvt.Ltd.</li> <li>6.Protego Equipments Pvt.Ltd.</li> </ul>
14	SAFETY RELEASE VALVE	<ul style="list-style-type: none"> <li>1.Tyco Sanmar Ltd</li> <li>2.Keystone (India) Pvt.Ltd.</li> <li>3.Special Steel Comp.Corporation.</li> <li>4.Fainger Leser Valves (P) Ltd.</li> <li>5.Darling Muesco (India) Pvt.Ltd.</li> </ul>
15	THERMAL SAFETY SAFETY VALVE	<ul style="list-style-type: none"> <li>1.Tyco Sanmar Ltd</li> <li>2.Keystone (India) Pvt.Ltd.</li> <li>3.Special Steel Comp.Corporation.</li> <li>4.Fainger Leser Valves (P) Ltd.</li> <li>5.Darling Muesco (India) Pvt.Ltd.</li> </ul>
16	MOTOR OPERATED VALVE GATE/GLOBE/CHECK VALVE	<ul style="list-style-type: none"> <li>1.Bharat Heavy Electricals Ltd.</li> <li>2.KSB Pumps Ltd.</li> <li>3.Larsen &amp; Toubro Ltd.,</li> <li>4.Neco Schubert &amp; Salzer Ltd.</li> <li>5.Steel Strong (I) Pvt.Ltd.</li> <li>6.J.K. Industries Ltd.</li> <li>7.Oswal Industries Ltd.</li> <li>8.Flowserve.</li> <li>9. Rotork.</li> <li>10.Virgo Valves (Emerson process)</li> <li>11.Limitorque</li> <li>12.Auma Valves</li> </ul>
17	PNEUMATIC CONTROL VALVE (PISTON TYPE)	<ul style="list-style-type: none"> <li>1.Darling Muesco (India) Pvt.Ltd.</li> <li>2.Avcon Controls Pvt.Ltd.</li> <li>3.Instrumentation India Ltd.</li> </ul>
18	PNEUMATIC CONTROL VALVE(DIAPHRAGM TYPE)	<ul style="list-style-type: none"> <li>1.Darling Muesco (India) Pvt.Ltd.</li> <li>2.Avcon Controls Pvt.Ltd.</li> <li>3.Instrumentation India Ltd.</li> <li>4.Bermud</li> </ul>
19	STRAINERS Y-TYPE AND BASKET	<p>Y-Type and Basket Type Strainers</p> <ul style="list-style-type: none"> <li>1. M/s. Sungov Engg. Pvt.Ltd.</li> <li>2. M/s. Superflo Filters Pvt.Ltd.</li> <li>3. M/s. Multitex Filtration Engrs. Pvt.Ltd.</li> <li>4. M/s. H.Sarkar &amp; Co.</li> <li>5. M/s. Otoklin Global Business Ltd.</li> </ul>
<b>SECTION III : PIPE FITTINGS</b>		

20	PIPE FITTINGS	<ol style="list-style-type: none"> <li>1. M/s. Pipefit Engineers</li> <li>2. M/s. S&amp;G Engineers Pvt.Ltd.</li> <li>3. M/s. Tube Bend (Calcutta) Pvt.Ltd.</li> <li>4. M/s. Tube Product Incorporate</li> <li>5. M/s. Teekay Tubes Ltd.</li> <li>6. M/s. True Forge</li> <li>7. M/s. Super Forge</li> <li>8. M/s. M.S.Fittings Manufacturing Co.</li> <li>9. M/s. Sawan Engineers</li> <li>10.M/s.ABASI Engineering Works</li> <li>11.M/s J.K. Forgings</li> <li>12.M/s Jindal Forging</li> <li>13.M/s.The Punjab Steel Works.</li> <li>14.Golden Iron &amp; Steel Works.</li> <li>15.Shree Trimurti Technologists Pvt.Ltd.</li> </ol>
<b>SECTION IV : SAFETY ITEMS</b>		
20	HOSE BOXES/NOZZLES	<ol style="list-style-type: none"> <li>1. Newage Fire Protection Pvt. Ltd.</li> <li>2. HD Fire Protect Pvt. Ltd.</li> <li>3. Vimal Fire Protection Pvt. Ltd.</li> <li>4.Safex Fire Services Ltd</li> <li>5.Gunnebo India Ltd.</li> <li>6.Zenith Fire Services</li> <li>7.Nitin Fire Protection Industries Ltd.</li> <li>8.Fire Stone Industries</li> </ol>
21	INLINE INDUCTORS/PROPTIONERS	<ol style="list-style-type: none"> <li>1. Newage Fire Protection Pvt. Ltd.</li> <li>2. HD Fire Protect Pvt. Ltd.</li> <li>3. Firetech Equipment &amp; Systems Pvt. Ltd.</li> <li>4. Integrated Fire Protection Pvt. Ltd.</li> <li>5. Vimal Fire Protection Pvt. Ltd.</li> </ol>
22	SPRAY NOZZLE- FIRE FIGHTING	<ol style="list-style-type: none"> <li>1. Newage Fire Protection Pvt. Ltd.</li> <li>2. HD Fire Protect Pvt. Ltd.</li> <li>3. Firetech Equipment &amp; Systems Pvt. Ltd.</li> <li>4. Integrated Fire Protection Pvt. Ltd.</li> <li>5. Vimal Fire Protection Pvt. Ltd.</li> </ol>
23	FOAM PUMPS	<ol style="list-style-type: none"> <li>1. Del Pd Pumps &amp; Gears Pvt. Ltd.</li> <li>2. Excel Pumps</li> <li>3. PEC pumps.</li> <li>4. JeePumps</li> <li>5. Tushaco Pumps</li> <li>6. Roto Pumps Ltd.</li> <li>7. PD Pumps &amp; Systems</li> <li>8. Del Engineers Pvt. Ltd.</li> <li>9. UT Pumps &amp; systems Ltd.</li> </ol>
24	BRANCH PIPE (FIRE WATER SERVICE ONLY)	<p>BRIJBASI HI-TECH UDYOG  GUNNEBO INDIA LIMITED  NITIN FIRE PROTECTION INDUSTRIES  SUPREMEX EQUIPMENTS  SHAH BHOGILAL JETHALAL &amp; BROTHERS  VIMAL FIRE CONTROLS PVT. LIMITED  ZENITH FIRE SERVICES (INDIA) PVT. LIMITED</p>

25	<b>DELUGE VALVE AND HEAT DETECTORS</b>	FIRETECH EQUIPMENTS & SYSTEM PVT. LTD HD FIREPROTECT PVT. LTD. UTC FIRE & SECURITY INDIA LIMITED De's Technico
<b>SECTION V : OTHER ITEMS</b>		
26	<b>STEEL PLATES</b>	1. Welspun Corp Limited 2. Steel Authority Of India Ltd. 3. The Tata Iron & Steel Co.Ltd. 4. Essar Steel Ltd. 5. Ispat Industries Ltd. 6. JSW
27	<b>THIRD PARTY INSPECTION AGENCY</b>	1.Bureau Veritas Industrial Services 2.SGS India Pvt.Ltd 3.Germanischer Lloyds Industrial Services Pvt. Ltd. 4.Indian Register of Shipping 5.Det Norske Veritas 6.Lloyds Register Industrial Services Ltd. 7.Tata Projects Ltd. 8.Engineers India Ltd. 9.Projects & Development India Ltd. 10.UL India Pvt. Ltd. 11.MECON Engineers 12.RITES Ltd. 13.Intertek Testing Services India Pvt.Ltd
28	<b>GAUGES(PRESSURE/TEMP.)</b>	1. A.N.Instruments 2. General Instruments 3. Switzer 4. Hillerkar 5. Waree. 6. H.Guru 7.Pricol
29	<b>PRESSURE GAUGES (300 Class)</b>	AN INSTRUMENTS PVT. LTD. ASHCROFT INDIA PVT. LTD FORBES MARSHALL (HYD) PVT. LTD GENERAL INSTRUMENTS CONSORTIUM, H.GURU INDUSTRIES, MANOMETER (INDIA) PVT. LTD WAAREE INSTRUMENTS LIMITED WIKA INSTRUMENTS INDIA PVT. LTD WALCHANDNAGAR INDUSTRIES LTD. (TIWAC DIVN)
30	<b>PAINT</b>	a. BERGER PAINTS(I) LTD b. CDC CARBOLINE c. ASIAN PAINTS(I)LTD d. GOODLAS NEROLAC PAINTS LTD e. SHALIMAR PAINTS f. BOMBAY PAINTS g. AKZO NOBEL COATINGS INDIA LTD h. SIGMA COATINGS i. COROMANDEL PAINTS AND CHEMICALS LTD

31	<b>Structural Steel</b>	TISCO SAIL Vizag Steel IISCO Jindal Essar
32	<b>FASTENERS</b>	TVS UNBRAKO LPS TATA
33	<b>Studs &amp; Nuts</b>	a) M/s. AEP Engineering b) M/s. Fix Fit Fasteners c) M/s. Console Engineering
34	<b>GASKET : NON ASBESTOS</b>	1 Champion Jointings Ltd. India 2 Goodrich Gasket Pvt. Ltd. India 3 IGP Engineers Ltd India 4 Jayem Industries India 5 Madras Industrial Products India 6 Star Flex Sealing India Pvt.Ltd. India 7 Unique Industrial Packing India 8 Vircap Sealing Tech.Pvt. Ltd.
35	<b>GASKET: METALLIC &amp; SOFT IRON</b>	IGP ENGINEERS PVT. LIMITED MICRO PRECISION PRODUCTS PVT. LTD. MADRAS INDUSTRIAL PRODUCTS STARFLEX SEALING INDIA PVT. LTD.
36	<b>GASKET: SPIRAL WOUND</b>	IGP ENGINEERS PVT. LIMITED MICRO PRECISION PRODUCTS PVT. LTD. MADRAS INDUSTRIAL PRODUCTS STARFLEX SEALING INDIA PVT. LTD.
37	<b>Welding Electrodes</b>	Advani Orlikon IOL Philips D&H L&T ESAB mailam GEE
38	<b>Pressure Relief Valve</b>	Anderson Greenwood crosby BHEL (Trichy) Curtiss Wright Flow Control Corporation Dresser IncFukui Siesakusho Co Ltd Instrumentation Ltd. PalghatLeser GMBH & Co. KGMekaster Engineering Ltd Nakakita Seisakusho Co. Ltd Safety Systems UK Ltd Tyco Sanmar Ltd

39	Reduction Gearbox	Redicon Elicon Shanthy Greaves
40	Telescopic conveyor: Chain conveyor	NORD Redicon Elicon? Shanthy
41	Telescopic conveyor: Single worm gearbox	NORD SEW
42	Bearing	SKF TINKEN
44	Drive Chain	TI Diamond Rolon Kosan
45	Normal Chain	TI Diamond Rolon Kosan
46	Ultra High Molecular Weight Polyethelene	Kaveri Polymers khanna Brothers Polyhi Solidur plastics India Pvt Ltd

## 2. Civil Items

SR NO	DESCRIPTION OF MATERIAL	BPCL MAKES
1	ADHESIVES	FEVICOL- MR & SR-998 VAMICOL
2	Admixtures	CICO Feb Roffe FOSROC
3	ALUMINUM SECTIONS	JINDAL HINDALCO
4	ASBESTOS CEMENT SHEETS & ACCESSORIES	EVEREST ARMSTRONG
5	Ceiling Fans/Exhaust Fans	Usha Crompton Bajaj Khaitan Orient Havells

6	Cement	CORAMANDAL ACC BIRLA ULTRA TECH LAFARGE AMBUJA JK LAXMI SHREE
7	Cement Paint	SNOWCEM BERGER NITCO ASIAN PAINT BIRLA JK
8	WINDOW AND SPLIT AC	Bluestar Carrier Ogeneral Hitachi Daikin Voltas LG WHIRLPOOL SAMSUNG LLYODS
9	CERAMIC TILES	ASIAN GRANITO KAJARIA NITCO JOHNSON SOMANI
10	COLOR COATED SHEETS AND ACCESSORIES	CRIL BHP STEEL INTERARCH METACOLOR
11	CP FITTINGS	JAGUAR KOHLER HINDWARE CERA ROCA
12	CPVC PIPES & FITTINGS / SWR PIPES	ASTRAL HINDWARE ASHIRVAD FINOLEX SUPREME PRINCE
13	GI PIPES	ATC ZENITH TATA JINDAL PIPES SURYA PIPES

14	GLASS / MIRROR	SAINT GOBAIN MODIFLOAT
15	GLAZED TILES	ASIAN GRANITO JOHNSON KAJARIA NITCO SOMANI
16	METAL LAMINATE	WILSON ART VIR
17	DECORATIVE LAMINATE	GREENLAM MARINO FORMICA
18	PAINT	a. BERGER PAINTS(I) LTD b. CDC CARBOLINE c. ASIAN PAINTS(I)LTD d. GOODLAS NEROLAC PAINTS LTD e. SHALIMAR PAINTS f. BOMBAY PAINTS g. AKZO NOBEL COATINGS INDIA LTD h. SIGMA COATINGS i. COROMANDEL PAINTS AND CHEMICALS LTD
19	TEAKWOOD	C.P.TEAK OLD BURMA BTC
20	PLYWOOD	CENTURY ANCHOR NATIONAL KITPLY GREENPLY DONEAR
21	PUTTY	BIRLA WHITE SNOWCEM JK
23	REINFORCEMENT STEEL	TISCO SAIL IISCO JINDAL VIZAG ESSAR RATHI KAMDHENU



24	SANITARY FIXTURES	HINDWARE PARRYWARE JOHNSON JAGUAR CERA KOHLER
26	STRUCTURAL STEEL (IS 2062)	SAIL TATA IISCO JINDAL VIZAG ESSAR
27	TOILET FITTINGS	HINDWARE CERA JAGUAR PARRYWARE KOHLER EQUIVALENT
28	VITRIFIED TILES	KAJARIA JOHNSON NITCO LTD ASIAN SOMANI
29	WATER PROOFING COMPOUND	DR FIXIT HYGUARD SUNANDA AQUASEAL DURATITE
30	WHITE CEMENT	BIRLA JK ULTRATECH ACC
31	<b>Switches &amp; sockets</b>	L&T CPL MDS HAVELLS ANCHOR CRABTREE SCHENIDER WIPRO
32	<b>NON FLP LIGHT FITTINGS</b>	Philips Crompton Wipro Bajaj Surya Havells

## 3. Electrical Items

SR NO	DESCRIPTION OF MATERIAL	BPCL MAKES
1	<b>LT SWITCHGEAR AND ACCESSORIES FOR SWITCHBOARDS</b>	Control & Switchgear Crompton L&T Siemens Schneider ABB GE Telemechanic
2	<b>DG SETS</b>	1. M/s. Kirloskar Electric Co. 2. M/s. Jakson Engineers Limited 3. M/s. Bhaskar Power Project 4. M/s. Powerica Ltd. 5. M/s. F.G.Wilson (I) Ltd. 6. M/s. Deev Genset Sales & Services 7. M/s. Sudhir Genset Ltd. 8. M/s. Goel Power Engineers 9. M/s. Kirloskar Oil Engines Ltd. 10. Greaves (check with cpo) 11. Parrys
3	<b>MEASURING INSTRUMENTS</b>	AEP Rishab AE IMP MECO Schenider Kaayee
4	<b>ATS</b>	Socomec ABB Havells L&T ASCO (Emerson) GE
5	<b>Battery</b>	EXIDE AMCO AMARA RAJA HBL NIFE
6	<b>FLP Cable Glands</b>	Baliga FCG Flameproof control gears Ltd FCG power industries Ltd Prompt engineering works Sudhir switchgears Pvt Ltd Flexpro eletricals Pvt Ltd

7	<b>NON FLP Cable Glands</b>	Comet industries HMI Gripwell Forward Engineering Cosmos
8	<b>CABLE LUGS</b>	1) DOWELL'S ELECTRICALS 2) FORWARD ENGG INDUSTRIES 3) POWER ENGG CO 4) JAINSON 5) USHA MARTIN INDUSTRIES LTD
9	<b>Cable Termination &amp; Jointing Kit</b>	Raychem RPG Yamuna Gases & chemicals Heat Shrunk technologies 3M
10	<b>POWER AND CONTROL CABLES</b>	1. M/s. Universal Cables Ltd. 2. M/s. Finolex Cables Ltd. 3. M/s. Nicco Corporation Ltd. 4. M/s. Torrent Cables Ltd. 5. M/s. Crystal Cables Industries Ltd. 6. M/s. KEI Industries Ltd. 7. M/s. Gemscab Industries Ltd. 8. M/s. TCL Cables Ltd. 9. M/s. Vijaya Cables 10. M/s. Polycab Wires P.Ltd. 11. M/s. RPG Cables Ltd.
11	<b>HT CABLES</b>	1. M/s. Universal Cables Ltd. 2. M/s. Finolex Cables Ltd. 3. M/s. Nicco Corporation Ltd. 4. M/s. Torrent Cables Ltd. 5. M/s. KEI Industries Ltd. 6. M/s. Polycab Wires P.Ltd. 7. M/s. RPG Cables Ltd.
12	<b>LT CAPACITORS</b>	L&T Asian Lash Capacitor Shakti Capacitor Epcos Shreem MDS
13	<b>Ceiling Fans</b>	Usha Crompton Bajaj Khaitan Orient Havells

14	<b>PROTECTION AND METERING RELAYS</b>	L&T ALSTOM SIEMENS Areva Universal Electrical Jyoti ABB Easun Reyrolle Alind
15	<b>CONTROL SWITCHES</b>	L&T Siemens GE Power Kaycee
16	<b>CURRENT TRANSFORMERS</b>	Kappa Pragati Indcoil Precise AE G&M
17	<b>Digital Meter</b>	Conzerve Siemens AE RISHAB
18	<b>FLP EQUIPMENTS (Light fittings, Push buttons, Junction boxes and DB's)</b>	BALIGA FCG Flameproof control gears Ltd FCG power industries Ltd FLEXPRO SUDHIR SWITCHGEAR GOVAN INDUSTRIES FLAMEPROOF EQUIPMENTS CROMPTON BAJAJ ELECTRICALS
19	<b>TERMINALS/ CONNECTORS</b>	ELMEX PHOENIX
20	<b>PANEL FABRICATORS</b>	CPRI approved fabricators
21	<b>NON FLP LIGHT FITTINGS</b>	Philips Crompton Wipro Bajaj Osram
22	<b>GI PIPES &amp; CONDUITS</b>	1) JINDAL PIPES LTD 2) TATA 3) ATC 4) ZENITH
23	<b>High Mast Lighting System</b>	Bajaj Crompton Greaves Philips

24	Indicating lamp	BINAY TEKNIC PRECIFINE
25	M.C.B. / ELCB	Standard Kopp Legrand Hager Havell's S&S Versatrip L&T Indiana Current Control GE
26	VFD/ SOFT STARTER	ABB Siemens Eurotherm Danfoss L&T

#### 4. Instrumentation items

SR NO	DESCRIPTION OF MATERIAL	BPCL MAKES
1	ANALYSER SHELTER	ABB LTD- BANGALORE AXIS SOLUTIONS PVT.LTD. CHEMTROLS INDUSTRIES LTD EMERSON PROCESS MANAGEMENT INDIA PVT LTD PYROTECH ELECTRONICS PVT LTD,
2	ANALYSERS (HYDROGEN SULPHIDE)	AMETEK SICK MAIHAK GMBH THERMO FISHER SCIENTIFIC
3	CATHODIC PROTECTION SYSTEM (Anodes)	a) M/s. Raychem RPG Limited, Mumbai b) M/s. Titanor Components Pvt. Ltd., Goa c) M/s. CTS Pvt Ltd., New Delhi
4	Cables for C.P. System	a) M/s. KEI Industries Ltd., New Delhi b) M/s. Specialty Cables, New Delhi c) M/s. Suyog, Barodad) M/s. Radiant, Hyderabad e) M/s. Incab Industries, Jamshedpur f) M/s. Fort Gloster, Calcuttag) M/s. NITCO, New Delhi.
5	Differential pressure guage	AN instruments General Instruments Switzer Hillerkar WAREE

6	<b>Digital Control Valve</b>	Bermad OCV IDEX FMC Darling MUESCO IS OIL Daniel Brodie
7	<b>Field Instruments (D, DP, F,L, T, TD)</b>	AN Instruments Pvt Ltd Ashcroft India Pvt Ltd Baumer Bourdon Haenni S.A.S Badotherm Process Instruments B.V.Dresser Inc Forbes Marshall (Hyd) Pvt Ltd General Instruments Consotium H. Guru Instruments (South India) Pvt Ltd H. Guru Industries Nagano Keiki Seisakusho Ltd Pyro-Electric Instruments Goa Pvt Ltd Solartron ISA Wika Instruments India Pvt Ltd Walchandnagar Industries Ltd Wika Alexander Weigand & Co GMBH Field Instruments (D, DP, F,L, T, TD) ABB Automation Ltd Emerson Process Mgmt India Pvt Ltd Fuji Electric Systems Co Ltd Honeywell Automation India Ltd Honeywell Inc Yokogawa India Ltd ABB Automation Ltd Emerson Process Mgmt India Pvt Ltd Fuji Electric Systems Co Ltd Honeywell Automation India Ltd Honeywell Inc Yokogawa India Ltd Yokogawa Electric Corporation
8	<b>Gas Detection System</b>	Chemtrols Industries Ltd Crowcon Detection Instruments Ltd Detection Instruments (I) Pvt Ltd Detector Electronics Corp. (Kidde Co) Drager Safety AG & Co KGAAGeneral Monitors Ireland Ltd Honeywell Analytics Industrial Scientific Oldham MSA (India) Ltd Mine Safety Appliances Company Riken Keiki Co. Ltd Simrad Optronics Icare Bliss Anand Pvt Ltd

9	<b>Instrument Valves &amp; Manifold</b>	Astec Valves & Fittings Pvt Ltd. Aura Inc Arya Crafts & Engineering Pvt Ltd Autoclave Engineers Fluid Components Anderson Greenwood Crosby Chemtrols Industries Ltd Circor Instrumentaton Ltd Excelsior Engineering Works Excel Hydro Pneumatics Pvt Ltd Ham-let (Israel-Canada) ltd Micro Precision Products Pvt Ltd Precision Engineering Industries Prime Engineers Panam Engineers Parker Hannifin Corporation Swastic Engineering Works Swagelok Co Tecnomatic India Pvt Ltd
10	<b>Interface Devices</b>	Camille Bauer Messinstrumente AG Hans Turck GMBH & Co. AG IFM Electronic GMBH MLT India Osna Electronics Pvt Ltd Pepperl + Fuchs GMBH R Stahl Pvt Ltd R Stahl Schaltgerate GMBH
11	<b>Mass Flow meters</b>	EPM E&H Hendrics BOPP &REUTHER GE (RHEONIK)
12	<b>MCT Blocks</b>	BRATTBERG ROXTEX
13	<b>OPTICAL FIBRE CABLE &amp; ASSOC.ITEM</b>	ABB INDUSTRI AS BIRLA ERICSSON OPTICAL LIMITED FINOLEX CABLES LTD HIMACHAL FUTIRISTIC COMMUNICATIONS LTD KABEL RHEYDT PIRELLI CAVI SPA RPG CABLES LTD STERLITE OPTICAL TECHNOLOGIES LTD UNIFLEX CABLES LIMITED U M CABLES LTD VINDHYA TELELINKS LIMITED

14	<b>Pressure Gauges (15KA)</b>	AN Instruments Pvt Ltd Ashcroft India Pvt Ltd Baumer Bourdon Haenni S.A.S Budenberg Gauge Co Ltd Badotherm Process Instruments B.V.British Rototherm Co Ltd Dresser IncForbes Marshall (Hyd) Pvt Ltd General Instruments Consortium Gluck (India) Mfg. Co. H. Guru Instruments (South India) Pvt Ltd H. Guru Industries Manometer (India) Pvt Ltd Nagano Keiki Seisakusho Ltd Waaree Instruments Ltd Wika Instruments India Pvt Ltd Walchandnagar Industries Ltd Wika Alexander Weigand & Co GMBH
15	<b>PRESSURE SWITCHES</b>	DAG PROCESS INSTRUMENTS PVT LTD GENERAL INSTRUMENTS CONSORTIUM INDFOS INDUSTRIES LIMITED SWITZER INSTRUMENT LTD.
16	<b>SOLENOID VALVES</b>	AVCON CONTROLS PVT. LTD ASCO NUMATICS (INDIA) P. LIMITED ASCO JOUCOMATIC LTD ALCON ALEXANDER CONTROLS LIMITED ASCO JOUCOMATIC SA HERION WERKE PRECISION INSTRUMENT COMPANY ROTEX AUTOMATION LTD. SCHRADER DUNCAN LIMITED THOMPSON VALVES LTD VERSA BV
17	<b>Strainer cum Vapor Eliminator</b>	IDEX BROOKS BOPP & REUTHER TOSHNIWAL HYVAC FLASH POINT FMC CRYOGENIC



18	<b>Temp Gauges (Bi Metallic, Filled System)</b>	AN Instruments Pvt Ltd Ashcroft India Pvt Ltd Baumer Bourdon Haenni S.A.S Badotherm Process Instruments B.V.Dresser Inc Forbes Marshall (Hyd) Pvt Ltd General Instruments Consotium H. Guru Instruments (South India) Pvt Ltd H. Guru Industries Nagano Keiki Seisakusho Ltd Pyro-Electric Instruments Goa Pvt Ltd Solartron ISA Wika Instruments India Pvt Ltd Walchandnagar Industries Ltd Wika Alexander Weigand & Co GMBH
19	<b>TEMP.ELEMENTS,THERMOWELLS</b>	ABB AUTOMATION LTD BAUMER BOURDON HAENNI S.A.S. DETRIV INSTRUMENTATION & ELECTRONICS LTD DAILY THERMETRICS CORPORATION GENERAL INSTRUMENTS CONSORTIUM GAYESCO LLC INVENSYS SOFTWARE SYSTEMS (S) PTE LTD JAPAN THERMOWELL CO LTD PYRO- ELECTRIC INSTRUMENTS GOA PVT LTD TEMP- TECH, TEMPSENS INSTRUMENTS INDIA PVT LTD THERMO ELECTRIC CO. INC. TM TECNOMATIC SPA THERMO- COUPLE PRODUCTS CO THERMO- ELECTRA B.V WIKA ALEXANDER WIEGAND & CO GMBH
20	<b>Terminal Blocks</b>	Elmex Siemens L & T Phoenix Connectwell Wago
21	<b>Transformer Rectifier Units (TRU) for C.P. System</b>	a) M/s. Canara Electric Co. Mumbai b) M/s. Control Systems, Mumbai c) M/s. Ruttonshaw Simpson, Pune d) M/s. Advance Electronics, Baroda e) M/s. Star Electricals, Calcutta f) M/s. Uptron, New Delhi
22	<b>Valves Actuators</b>	Rotork Limitorque Auma Biffi EIM

23	PRESSURE CONTROL VALVE	1. Tyco Sanmar Ltd 2. Keystone (India) Pvt.Ltd. 3. Special Steel Comp.Corporation. 4. Fainger Leser Valves (P) Ltd. 5. Darling Muesco (India) Pvt.Ltd.
24	SELF ACTUATED PR.CONTROL VALVES	DRESSER VALVE INDIA PVT LTD FISHER SANMAR LIMITED NIRMAL INDUSTRIAL CONTROL PVT. LTD.

**Note : Any other equivalent make can be used only after prior approval from BPCL.**

### **SAFETY REQUIREMENTS AT CONSTRUCTION SITE**

(Please refer **Annexure-IV** of the tender document)

### **ESTIMATED UNIT RATES IN DIFFERENT CATEGORY OF JOBS**

(Please refer **Annexure-V** of the tender document)

- 1. Civil and structural works**
- 2. Piling works**
- 3. Cone Roof Tanks**
- 4. Floating Roof Tanks**
- 5. Piping works**
- 6. Electrical HT**
- 7. Electrical LT**
- 8. LPG Equipments**