

Contact person Name: Sunil Pandhare,
Designation: Ch. Procurement Manager-CPO(R),
Address: BPCL – Mumbai Refinery, Mahul, Mumbai-400074, India.
Tel no. 022-25533131, Mo. No. 9920896446,
e-mail: sunilpandhare@bharatpetroleum.in



CPO (REFINERIES)

CHEMICAL CLEANING IN CDU-4 COMPLEX DURING TURNAROUND AT MUMBAI REFINERY

REQUEST FOR QUOTATION – CRFQ NO: 1000328916 – E-Tender System ID: 57099

Tender Calendar Details		
Stage Name	Start Date	End Date And Time
Tender Release	16.04.2019	23.04.2019 (11:00 Hrs IST)
Pre-bid meeting	19.04.2019 at 10:00 Hrs (IST), Mumbai Refinery	
Un-Priced Bid Opening	23.04.2019 (11:05 Hrs IST)	
Priced Bid Opening	Will be intimated	

SECTION 1

NOTICE INVITING TENDER

CHEMICAL CLEANING IN CDU-4 COMPLEX AND ARU & SWS-4 COMPLEX DURING TURNAROUND AT MUMBAI REFINERY

CRFQ NO: 1000328916 – E-Tender System ID: 57099 **(PACKAGE-1: CDU-4 COMPLEX)**

1.0 INTRODUCTION:

This tender document pertains to Package-1 – CHEMICAL CLEANING IN CDU-4 COMPLEX DURING TURNAROUND AT MUMBAI REFINERY (PACKAGE 1).

During upcoming Turnarounds of CDU4 / ARU / SWS4, decontamination with chemical cleaning of process loops / equipment is planned as detailed in scope of work for quicker and cleaned handing over of the equipment.

This is a limited E-tender and only the bidder(s), who have been issued this e-tender, can submit their bid through e-platform.

Electronic digitally signed & sealed (encrypted) E-Bids are invited in 2 part bid system for the subject tender in complete accordance with tender documents and its attachments.

2.0 E-TENDER

- 2.1 E-Bids in 2 parts are invited for the subject tender in complete accordance with tender documents and its attachments.
- 2.2 All prospective bidders are requested enroll onto our e-tendering platform <https://bpcleproc.in> maintained by M/s. E-Procurement Technologies Ltd, our authorized Service Provider for E-tendering.
- 2.3 Upon logging in to the e-procurement website, bidder can download the bid documents and shall thoroughly go through the same. All documents required for the bid, shall be uploaded on the appropriate place in the E-Procurement web site, digitally signed. No physical scanned documents need to be uploaded except those specifically indicated.
- 2.4 As a pre-requisite for participation in the tender, bidders are required to obtain a valid Digital Signature Certificate of Class 2B or 3 (Signing and Encryption/Decryption) and above 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 bidder.

- 2.5 Bidder is advised to read the Instructions for participating in the electronic tenders directly through internet (Bid Submission Manuals are available on the above mentioned e-procurement site) and get conversant with the process of online submission of the offer well in time so as to submit offer by the due date.

E-Bidding instructions are also provided along with the tender document for reference and guidance

3.0 SITE CONDITIONS AND SITE SURVEY / PRE-BID MEETING:

- 3.1 Site visit/ Pre-bid meeting is scheduled on **19.04.2019 at 10:00 Hrs (IST), Mumbai Refinery**. All interested bidders are requested to reach before 10.00 AM. The purpose of the pre-bid meeting is to clarify any doubts of the Bidders on the interpretation of the provisions of tender. Bidder(s) are requested to submit their queries at least 2 days prior to pre-bid meeting, mentioning firm name, clause no. & clause by a letter/ e-mail to the Engineer-in-charge in order to have fruitful discussions during the meeting. All Bidders are requested to acquaint themselves for better clarity about the site and tender conditions, before submitting their bids. Necessary clarifications (if any), may be obtained prior to submission of the bid.

Contact Persons:

Shri. Piyush Juneja, Manager (Maint - Planning),
BPCL – Mumbai Refinery, Mahul, Mumbai.
Tel. No. 022 – 25524166,
Mob - 9769111518
Email: junejapiyush@bharatpetroleum.in

Shri. D P Chandramore, GM (Maint - Planning),
BPCL – Mumbai Refinery, Mahul, Mumbai.
Tel. No. 022 – 25533153,
Mob – 9892155580.
Email: chandramoredp@bharatpetroleum.in;

- 3.2 Bidders shall visit the location, at their own expense to see the site conditions before quoting for the job. Bidders should contact Engineer-in-charge / above contact persons for getting information required for visiting the site locations well in advance. Bidders to obtain all the information required for executing the contract from site. No request will be entertained on this count even if bidders choose not to visit. No claim what so ever may be shall be entertained on this ground.

The description as to the job-site and/ or local conditions given in the TENDER ENQUIRY are to serve and to be taken by the Bidders as the reference information only, and the BPCL shall not be liable for the correctness or authenticity thereof. The Bidders are required to make whatsoever necessary arrangement, in order to be fully aware and informed of any and all job-site and local conditions being existing and anticipated to in any way affect the performance of the works and the cost, time schedule, etc. therefore.

Failure of the Bidders to be fully aware and informed of such conditions shall not be the ground of or the reason for change or correction of the prices, unit rates and/or any other substance of the bid having once been received by BPCL or for withdrawal of the bid.

Should it be necessary for the Bidders to survey and investigate the jobsite and its surrounding areas, the Bidders shall arrange such survey by themselves and at their own cost.

4.0 EARNEST MONEY DEPOSIT (EMD) :

- 4.1 Indian bidders are required to submit interest free EMD of **Rs. 1,00,000.00 (Rs. One Lakh only)** and Foreign Bidders are required to submit interest free EMD of **US \$ 1,435.00 (US \$ One thousand four hundred thirty five only) or EURO 1,265.00 (Euro One thousand two hundred sixty five only)**. The EMD shall be arranged prior to the due date & time of opening of the "Technical Bid".

The following categories of bidders are however exempted from depositing EMD:

- a) Units registered with National Small Industries Corporation (NSIC);
- b) Units falling under Micro & Small Enterprises (MSEs) category and registered with authorities specified under Public Procurement Policy for MSEs and as defined under the MSME Act 2006. Vendor shall submit the EMI and EMII certificate from DIC or Verified Udyog Aadhar Certificate along with their offer.
- c) Contractors registered with BPCL under similar job category

The above are subject to the fulfilling of under mentioned conditions:

- a) Units should be registered with National Small Scale Industrial Corporation Limited (NSIC) or with any of the Authorities specified under the Public Procurement Policy for MSE's. (DIC/KVIC/KVIB/Coir Board/NSIC/Directorate of Handicrafts and Handloom or any other body specified by Ministry of MSME.)
- b) The Unit should be registered for the item tendered.
- c) The monetary limit, if any, indicated in the registration certificate should cover value of items ordered.
- d) Registration Certificate is valid for a period at least up to validity of the offer.
- e) Self-attested copy of valid relevant registration certificate should be submitted in support.
- f) Registration with DGS&D will not entitle a Bidder to claim above exemption.
- g) Units registered with National Small Industries Corporation (NSIC) or MSE subject to:

Such bidders must upload appropriate proof along with their bid, to show that they are eligible for the exemption from EMD (application for registration as NSIC / MSE or for renewal will not be acceptable), failing which such bid will be treated as bid received without EMD and liable to be rejected.

- a) All MSEs who are having Udyog Aadhaar Memorandum (UAM) shall be given all benefits available under Public Procurement Policy for MSEs order 2012. Therefore, UAM shall also be accepted as a valid document for vendors seeking benefits under PPP for MSEs order 2012

- b) Registration with DGS&D will not entitle the Bidder to claim exemption from payment of EMD.
- 4.2 **Indian Bidder:** EMD can be submitted only by Bank Guarantee executed by any Scheduled Bank approved by Reserve Bank of India as per pro-forma. The Bank Guarantee shall be valid for a period of six months from the due date of the tender.
- 4.3 **Foreign Bidders –** EMD can be submitted only by Bank Guarantee executed by any Scheduled Bank approved by Reserve Bank of India as per pro-forma. The Bank Guarantee shall be valid for a period of six months from the due date of the tender. Bank Guarantee from foreign bank is acceptable only if the same is countersigned by their Indian branches (provided the Indian branch of the foreign bank is recognized Scheduled Bank by Reserve Bank of India) or any Indian Scheduled Bank.
- 4.4 The Bank Guarantee in lieu of EMD shall be furnished on non-judicial stamp paper of Rs.500/- and in the prescribed Performa given in the Tender Document.
- 4.5 Bank Guarantee (BG) shall be executed by any Scheduled Bank approved by Reserve Bank of India as per the pro forma. The BG shall remain valid for a period of six months from the due date of opening the tender.
- 4.6 Original BG towards EMD shall be sent separately to –
- CPO-Refineries (Head),
c/o Sunil Pandhare, Ch. Manager Proc. (CPO-R)
Administration Building, North Block, 1st Floor,
Mumbai Refinery,
Bharat Petroleum Corp Ltd,
Mahul, Chembur,
Mumbai – 400 074.**
- Copy the BG along with proof of dispatch to be uploaded along with bid. Bids without EMD are liable to be rejected.
- 4.7 EMD of other unsuccessful bidders shall be released after issuance of LOA/Contract Order against this tender. However, in case of successful bidder the EMD shall be released on award of LOA / Contract, whichever is earlier and acknowledgement from vendor.
- 4.8 Forfeiture of EMD - A tenderer who has submitted their bid shall not be permitted to alter/ amend or withdraw the bid, notwithstanding that the bid(s) has/ have not yet been opened/ finalized. A tenderer who purports to alter/ modify withdraw their offer after submission, within the validity of the offer shall be liable to have their offer rejected and their EMD forfeited/encashed.
- 4.9 The Earnest Money deposited by successful tenderer shall be forfeited if the successful tenderer fails to honour the offer terms prior to ordering and Contractual terms after issuance of FOA/LOA/Contract Order.
- 4.10 Offers received without scan copy of EMD (BG/Valid NSIC Certificate/Bank transfer details) in the e-tender and physically not received within 7 days after "Technical Bid" opening date (as indicated in the NIT or corrigendum thereof) are liable to be rejected.

- 4.11 EMD shall be valid for a period of 6 (Six) Months from the due date and in compliance with the terms provided in General Conditions of Contract (GCC) for the same. EMD format provided in GCC shall be complied.
- 4.12 The EMD of Rs.1 Lakh shall be against the tender consisting of 2 packages irrespective of the number of packages quoted by the bidder i.e. even if the bidder quotes for a single package or both packages, the EMD applicable shall be only Rs. 1 Lakh.

5.0 OFFER VALIDITY:

The Offers shall be valid for a period of 120 days from Tender Due Date/Extended Tender Due Date for placement of order.

6.0 TAXES AND DUTIES:-

Your quoted rates shall be inclusive of all applicable taxes and duties except Goods and Services Tax (GST) which shall be quoted separately in the enclosed form (Form-A). Please note that submission of this form along with Technical / Un-priced Bid is mandatory.

Your rates shall remain firm till completion of work. The applicability of GST as a percentage rate of total quoted price shall be clearly mentioned in this form. If the information is not provided, it will be assumed that GST is included in your quoted price. No claim for GST will be entertained subsequently. Please note that registration for GST is mandatory for receipt of GST payments from BPCL. In absence of valid registration, your offer will remain invalid and will not be considered for evaluation. In case GST is not applicable, please indicate the same as "Nil" while submitting this form.

GST, if applicable, shall be paid after verifying GST Registration no. Break up of Basic cost, GST as applicable shall be provided in all your invoices along with GST registration no. & SAC code for the services provided.

Any statutory variation in GST or introduction of any new taxes and duties within the contractual completion period shall be to BPCL account, against submission of documentary evidence for substantiating the variation by way of relevant notification. However in case of delay in completion period beyond the contractual date, for reasons attributable to contractor, any increase in these rates or any new taxes and duties introduced during the period beyond the contractual completion date shall be borne by the contractor, whereas any decrease shall be passed on to BPCL.

Input tax credit towards GST, if available to BPCL, shall be considered for evaluation.

7.0 TAX DEDUCTION AT SOURCE (TDS) :-

Income Tax / GST deduction at source (TDS) at the applicable rates will be deducted from the running bills. Necessary certificates in this regard will be issued.

8.0 FIRM PRICES:

The Contract Price shall remain firm and fixed till the completion of Work in all respects and no escalation in prices on any account shall be admissible to the BIDDER/ CONTRACTOR.

9.0 CONTRACT AGREEMENT:-

The successful Bidder shall be required to execute a formal Agreement as per the Format available in GCC, with Owner. All pages of the tender document including General Conditions of Contract shall to be signed and stamped. The Contract document shall consist of the following:

- i) Agreement signed on non-judicial stamp paper by Owner and Contractor.
- ii) Detailed Contract Order/LOA along with enclosures.
- iii) Tender Document along with the drawings, annexures, attachments, etc.
- iv) Amendments to Bidding Document, if any.
- v) All forms which were uploaded in the web (technical bid & price bid)

10.0 COMPLETION PERIOD / CONTRACT DURATION:

Refer attached Scope of work & SCC completion period.

11.0 GENERAL CONDITIONS OF CONTRACT (GCC):

Attached BPCL General Conditions of Contract (GCC) and addendum to GCC shall be applicable to this contract.

12.0 SCOPE OF WORK & SPECIAL CONDITIONS OF CONTRACT (SCC):

Attached Scope of work & SCC shall be applicable for this contract.

13.0 SUBMISSION OF TENDER:

13.1 Bids should be submitted in "TWO BID SYSTEM", i.e., "Technical/Unpriced Bid" & "Priced Bid" through e-tendering portal.

13.2 "Un-Priced Bid", i.e. Techno-Commercial Bid, shall be complete with all technical and commercial details (other than price) duly filled, signed and stamped essentially containing the following documents shall be submitted/uploaded:-

- i) Details of taxes and duties as per the format FORM -A attached.
- ii) Un-Priced copy of Price Schedule with an indication "Quoted" or "Not-Quoted" against each item. Please do not indicate prices in Un-Price Bid.
- iii) Acceptance, Compliance, Deviations and Exceptions: Bidders are requested to have all their queries clarified before bidding. Bidders are required to confirm and accept all the terms and conditions of the RFQ. However, if they still have deviations from our RFQ and the attachments (GCC, SCC, specifications, scope of work, special instructions to bidders, etc.), they can indicate deviations in the Form B provided along with Instruction to Bidders giving reference to clause no.
- iv) Duly signed and stamped RFQ/Tender document, Special conditions of contract, scope of work etc shall be uploaded as a token of acceptance.
- v) Pro forma of Holiday List to be submitted properly filled.

- vi) Contact details of Vendor duly filled, signed and stamped.
- vii) Integrity pact duly signed and stamped.
- viii) Any other supporting documents/ information in support of the Un-priced Bid.

- 13.3 "Priced Bid" shall be submitted online. Bidders shall input their prices online in the template created in the E Tendering portal.
- 13.4 Bids complete in all respects should be uploaded in BPCL e-tendering portal on or before the due date & time. Each page of all documents, submitted by the bidder, shall be duly signed & stamped, and then scanned and uploaded in the portal. The offer shall be submitted in the Portal under the digital signature of the bidder.
- 13.5 Offer submitted by Telex/ Telegraphic/ Fax/ E-Mail or Hard copy in sealed covers, shall not be accepted.
- 13.6 BPCL shall not be responsible for any delay in uploading of offer.

14.0 TENDER OPENING:-

The deadline for bid submission is on the due date & time mentioned/ extended due date & time (if any). The bids can be submitted in the e-procurement website up to the tender due date and time. The technical bids will be opened online through e-procurement website on the same day at the time specified.

- 14.1 Un-priced bids: The Un-priced bids shall be opened on the due date and time mentioned. Bidders, who have submitted their bids, can view/ witness the " Un-priced bids" opening through the e-portal. The offers of those bidder(s) whose offer meet the techno-commercial requirements, will only be considered for further evaluation, while those not meeting the techno-commercial criterion, will be rejected without any clarification.
- 14.2 Price bids: The date and time of opening Price Bids shall be intimated separately to the techno-commercially acceptable bidders and the price bids shall be opened through e-portal. Such Techno-Commercially accepted bidders can view / witness the "Price Bids" opening through the e-portal.

The Methodology as described below shall be adopted in opening of the tenders.

15.0 TENDERING METHODOLOGY & METHODOLOGY FOR AWARD OF CONTRACT:

Jobs in the complexes are grouped in 2 packages as below:

E-Tender System ID	Package Details	Complex / Units Description
57099	Package 1	CHEM CLEANING IN CDU4 TA
57100	Package 2	CHEM CLEANING IN ARU-SWS4 TA

- 1. Bidders can bid for any package or any combination of packages or all packages by quoting in the e-tenders. However, bidders have to bid for all

items in a package.

2. Technical / Un-priced bids of both packages shall be opened first and Based on Techno commercial evaluation, price bids of qualified bidders for respective packages shall be opened one after other in the following sequence:
 - Price bids of techno-commercially qualified bidders of Package-1 will be opened first and evaluated. The recommended bidder based on evaluation for this package will not be considered for Package No. 2, even if the bidder is qualified for Package-2.
 - Finally, price bids of techno-commercially qualified bidders of Package 2, except one who have been successful against Package 1, will be opened next and evaluated.

The successful bidders shall provide required discount on overall basis during closing of the contract so that L1/L2 parity is maintained.

This RFQ document no. CRFQ 1000328916 with General Conditions of Contract, E-bidding Instructions, and Integrity Pact are common for both the packages. Scope of Work and Special Conditions of Contract, Form of Compliance / Deviation, Unpriced bid Schedule, Drawings and Form-A are specific to each package.

16.0 CONTACT PERSONS:

Please note that this tender enquiry is invited through e-tendering mode. In case of any clarification regarding the tender, following are the contact persons:-

17.1 FOR E-TENDERING RELATED ISSUES:

If tenderer need some clarifications or are experiencing difficulties while enrolling or while participating in this e-Tender, please E-Mail to the following E-Mail ID along with the snapshots of the errors being faced to:

Mr. Ajay Nandangi - ajay.nandangi@eptl.in Mob: 91 8433615195.

with copy to sunilpandhare@bharatpetroleum.in

OR Contact the Common Helpdesk No. (HQ) +91 - 79 – 40270573, Email id - support@bpclproc.in,

17.2 FOR TECHNICAL CLARIFICATIONS:

For any technical clarifications regarding this RFQ, please contact:

Shri. Piyush Juneja, Manager (Maint - Planning),

BPCL – Mumbai Refinery, Mahul, Mumbai.

Tel. No. 022 – 25524166,

Mob - 9769111518

Email: junejapiyush@bharatpetroleum.in

Shri. D P Chandramore, GM (Maint - Planning),

BPCL – Mumbai Refinery, Mahul, Mumbai.
Tel. No. 022 – 25533153,
Mob – 9892155580.
Email: chandramoredp@bharatpetroleum.in;

17.3 **FOR COMMERCIAL CLARIFICATIONS:**

For any commercial clarifications regarding this RFQ, please contact:

Shri Sunil Pandhare, Ch. Manager Procurement -CPO(R),
BPCL – Mumbai Refinery, Mahul, Mumbai-400074
Tel no. 022-25533131,
Mob - +91 9920896446
Email: sunilpandhare@bharatpetroleum.in

Shri G R Senthilkumar, Procurement Leader-CPO(R),
BPCL – Mumbai Refinery, Mahul, Mumbai-400074
Tel no.: 022-25533102,
Mobile No.: +91 7738203335
Email: senthilkumargr@bharatpetroleum.in

17.0 **INTEGRITY PACT (IP):**

- a) Pro forma of Integrity Pact (IP) shall be returned by the Bidder/s along with the bid documents, duly signed by the same signatory who is authorized to sign the bid documents. All the pages of the Integrity Pact shall be duly signed, scanned and uploaded along with other documents. Bidder's failure to upload the IP duly signed along with bid documents shall result in the bid not being considered for further evaluation. This IP shall be part & parcel of the Purchase Order / Contract Agreement.
- b) If the Bidder has been disqualified from the tender process prior to the award of the contract in accordance with the provisions of the IP, BPCL shall be entitled to demand and recover from Bidder Liquidated Damages amount by forfeiting the EMD/ Bid Security as per provisions of IP.
- c) If the contract has been terminated according to the provisions of the IP, or if BPCL is entitled to terminate the contract according to the provisions of the IP, BPCL shall be entitled to demand and recover from Contractor Liquidated Damages amount by forfeiting the Security Deposit/Performance Bank Guarantee as per provisions of the IP.
- d) Bidders may raise disputes/complaints, if any, with the nominated Independent External Monitors (IEM), appointed by Central Vigilance Commission (CVC). The IEM's name, address & contact number is given below:

Shri. Shantanu Consul	Shri. Vikram Srivastava	Shri. Virendra Bahadur Singh
ADDRESS	ADDRESS	ADDRESS
No.9MCHS (IAS Officers Colony), 16 th Main, 5 th C Cross, BTM 2 nd stage, Bangalore – 560 076	E-202, Second Floor , Greater Kailash Part 2, New Delhi – 110048	H.No. B-5/64, Vineet Khand, Gomati Nagar, Lucknow – 226010

shantanuconsul@gmail.com	vikramsrivastava1973@gmail.com	vbsinghips@gmail.com
Mob. 09740069318	Mob. 09810642323	Mob.8853760730

For seeking clarifications / details related to tender, the concerned BPCL official whose name and contact number is given in the tender document (Point No. 17) should only be contacted.

18.0 MSE PREFERENCE:

Owner reserves its right to allow Micro and Small Enterprises (MSEs), purchase preference as admissible/applicable from time to time under the existing Govt. policy.

19.0 ARBITRATION CLAUSE:

GCC Arbitration clause is revised as below:

Arbitration clause as per GCC stands replaced and shall be as mentioned below:

“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 (Standing Conference of Public Enterprises) 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 Mumbai
- (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 ”

20.0 GENERAL POINTS:

20.1 BPCL reserves the right to extend due dates of tender, accept or reject any tender in part or full, without assigning any reason whatsoever. BPCL also reserves its right not to accept the lowest rates quoted by the bidders and also to give purchase/price preference to eligible Enterprises, as admissible under the existing policies of Government of India and to JVs/ Subsidiaries as per BPCL guidelines.

20.2 COST OF BIDDING: The Bidder shall bear all costs associated with the preparation and submission of Bid, all activities in connection with bidding. BPCL will in no case be responsible or liable for these costs regardless of the conduct or outcome of the bidding process. Each Bidder accept and agrees, as a

condition of submitting its Bid that it waives any and all claims against BPCL, its Co-ventures and their affiliates, for remuneration or restitution relating to its costs and expenses in.

- 20.3 CONTENTS OF BIDDING DOCUMENT: The Bidder is expected to examine carefully all instructions, conditions, forms and terms given in the Bidding Documents. Failure to furnish all information required by the Bidding Document or not responsive to the requirements of the Bidding Document will be at the Bidder's risk, and may result in rejection of the bid.

Amendment of Bidding document

BPCL may, for any reason either at their own initiative or in response to the clarification requested by prospective bidders, issue amendment in the form of addendum during the bidding period or subsequent to receiving the bids. Any addendum thus issued shall become part of bidding document and Bidder shall submit 'Original' addendum duly signed and stamped in token of his acceptance. If addendum is issued during the bidding period, Bidder shall consider the impact in his bid. If addendum is issued subsequent to receiving the bids, Bidder shall follow the instructions issued along with addendum with regard to submission of impact on quoted price/ revised price, if any.

- 20.4 OWNER'S RIGHTS TO ACCEPT / REJECT ANY OR ALL BIDS: BPCL reserves the right to reject any or all the tenders without assigning any reasons whatsoever. Also BPCL reserves the absolute right to reject any or all the bids/tenders solely based upon the past unsatisfactory performance by the bidder/bidders in BPCL, the opinion/ decision of BPCL regarding the same being final and conclusive.

- 20.5 CONFIDENTIALITY OF BID DOCUMENT: The bidder shall not disclose any information contained in the bid document or otherwise supplied in connection with this bid to any third party, except for the purpose of preparing its bid and shall require any such third party to treat such information as confidential.

- 20.6 All changes / alterations / corrections in the BID shall be signed in full by the person or persons signing the Bid, with date. No erasure, use of correction fluid and / or overwriting is permitted. All blank spaces shall be filled in by typewriter /printed or in ink and inter-lineations, alterations or erasures, if any occur, shall be formally explained over the signature of authorized representative. "Non-compliance/ violation" of this requirement may be cause for the rejection of the Bid.

Where there is a discrepancy between amounts in figures and words, the amount in words will govern. Where there is a discrepancy between the lump sum prices and price break up, in that event lump sum prices will be considered final and break up of prices adjusted accordingly.

- 20.7 PROCESS TO BE CONFIDENTIAL: After the opening of bids, information relating to the examination, clarification, evaluation and comparison of bids and recommendations concerning to award of contract shall not be disclosed to Bidders. Canvassing in any form by the Bidder or by any other Agency on behalf of the Bidder after submission of the Bid may disqualify the said Bid. Any effort

by a Bidder to influence the owner in the process of examination, clarification, evaluation and comparison of Bids, and in decisions concerning award of contract, may also result in the rejection of the said Bid.

20.8 WRONG INFORMATION: If the Bidder deliberately gives wrong information in his Bid to create circumstances for the acceptance of his Bid, Owner reserves the right to reject such Bids without any reference to the Bidder.

20.9 CLARIFICATIONS OF BIDS: In the event of finding any discrepancies in or omissions from the Bid Documents, or should the Bidder be in doubt as to the meaning of such documents, Bidder shall immediately notify BPCL, either by facsimile/ letter/ E mail, at the address shown above, who will thereupon, if required, send necessary written instructions to all Bidders. Any such request shall reach BPCL not later than seven (7) days prior to the 'closing date". As part of examination, evaluation and comparison of Bids, the Owner may at his discretion, ask Bidders individually for clarification or call them for discussion of their Bid. For Techno-Commercial clarifications, bidders shall normally be given a cutoff date for furnishing clarifications. Clarifications received after the specified cutoff date is liable not to be considered for evaluation.

Technical Query (TQ)/Commercial Query (CQ) shall be issued to bidders through E-Mail/E Tendering platform. Reply of TQ/CQ shall also be received through E-Mail/E-Tendering platform.

20.10 SIGNING OF BID: The Bid must contain the name, designation, residence and place of business of the person or persons submitting the Bid, and must be signed and sealed by the Bidder with his usual signature. The names of all persons signing should also be typed or printed below their signature Satisfactory evidence of authority of the person signing on behalf of the Bidder shall be furnished with the Bid. The Bidder's name stated in the Bid shall be the EXACT LEGAL NAME OF FIRM / COMPANY / CORPORATION, etc. as registered or incorporated.



**(For) Central Procurement Organization (Refineries),
Mumbai Refinery, Mahul, Mumbai-400 074**

SECTION 2**ATTACHMENTS TO THE TENDER FOR****CHEMICAL CLEANING IN CDU-4 COMPLEX DURING TURNAROUND AT MUMBAI
REFINERY**

Section No	Description
1	NOTICE INVITING E-TENDER
2	ATTACHMENTS TO THE TENDER
3	INTEGRITY PACT AGREEMENT FORMAT
4	SCOPE OF WORK & SPECIAL CONDITIONS OF CONTRACT (SCC)
5	PROFORMA OF DECLARATION OF HOLIDAY LISTING
6	FORM A - FORMAT FOR TAXES AND DUTIES
7	FORM B – ACCEPTANCE -DEVIATION FORM
8	E-BIDDING INSTRUCTIONS
9	FORMAT FOR BIDDER'S INFORMATION
10	QEHS POLICY
11	POLICY OF HOLIDAY LISTING OF VENDORS IN BPCL
12	GENERAL CONDITIONS OF CONTRACT (BPCL) AND ADDENDUM TO GENERAL CONDITIONS OF CONTRACT
13	PROFORMA OF BANK GUARANTEE FOR EARNEST MONEY DEPOSIT
14	SAFETY AND SECURITY – REFINERY, FINANCIAL DETERRENT FOR VIOLATION OF SAFETY NORMS BY CONTRACTORS AND SPECIAL SAFETY CONDITIONS
15	PURCHASE PREFERENCE POLICY LINKED WITH LOCAL CONTENT (PP-LC)

SECTION 3
INTEGRITY PACT AGREEMENT FORMAT

INTEGRITY PACT

Between

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

And

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

Preamble

The Principal intends to award, under laid down organization procedures, contract/s for Tender for **"CHEMICAL CLEANING IN CDU-4 COMPLEX AND ARU & SWS-4 COMPLEX DURING TURNAROUND AT MUMBAI REFINERY"** (CRFQ NO: 1000328916). The Principal values full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s, Contractor/s and Supplier/s.

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

Section 1 - Commitments of the Principal

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

- (2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the relevant Anti-Corruption Laws of India, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

S.T. Parthasarathy

Section 2 - Commitments of the Bidder/ Contractor/ Supplier

(1) The Bidder/ Contractor/ Supplier commits itself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

- a) The Bidder/ Contractor/ Supplier will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person, any material or immaterial benefit which he/she is not legally entitled to, in order to obtain in exchange, any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- b) The Bidder/ Contractor/ Supplier will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- c) The Bidder/ Contractor/ Supplier will not commit any offence under the relevant Anti-Corruption Laws of India; further the Bidder/ Contractor/ Supplier will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- d) The Bidder/ Contractor/ Supplier will, when presenting his bid, disclose any and all payments he has made, is committed to, or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- e) The Bidder/ Contractor/ Supplier shall make sure that the terms of this Integrity Pact are also adopted by its sub-contractors, sub-sub-contractors etc, if any and submit such adoption confirmation proof to the Principal.

(2) The Bidder/ Contractor/ Supplier will not instigate third persons to commit offences outlined above or be an accessory to such offences.

S.T. Pandhane

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

If the Bidder, before contract award, has committed a transgression through a violation of Section 2 or in any other form such as to put his reliability or credibility as Bidder into question, the Principal is entitled to disqualify the Bidder from the tender process or to terminate the contract, if already signed, for such reason.

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

Section 4 - Compensation for Damages

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

S.T. Parbhare

the Principal only to the extent of the damage in the amount proved.

Section 5 - Previous Transgression

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

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

- (1) The Bidder/ Contractor/ Supplier undertakes to demand from all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.
- (2) The Principal will enter into agreements with identical conditions as this one with all Bidders, Contractors/ Suppliers and Subcontractors.
- (3) The Principal will disqualify from the tender process all Bidders who do not sign this Pact or violate its provisions.

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

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

Section 8 - Independent External Monitors

- (1) The Principal has appointed competent and credible Independent External Monitors for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- (2) The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairperson of the Board of the Principal.

S.T. Parthare

- (3) The Bidder/ Contractor/ Supplier accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Bidder/ Contractor/ Supplier. The Bidder/ Contractor/ Supplier will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to this project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder/ Contractor/ Supplier/ Subcontractor with confidentiality.
- (4) The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Bidder/ Contractor/ Supplier. The parties offer to the Monitor the option to participate in such meetings.
- (5) As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or heal the violation, or to take other relevant action. The Monitor can in this regard submit non-binding recommendation. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action. However, the Independent External Monitor shall give an opportunity to the Bidder/ Contractor/ Supplier to present its case before making its recommendations to the Principal.
- (6) The Monitor will submit a written report to the Chairperson of the Board of the Principal within 8 to 10 weeks from the date of reference or intimation to him by the 'Principal' and, should the occasion arise, submit proposals for correcting problematic situations.
- (7) If the Monitor has reported to the Chairperson of the Board a substantiated suspicion of an offence under relevant Anti-Corruption Laws of India, and the Chairperson has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- (8) The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration

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

S.T. Parthare

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

Section 10 - Other Provisions

- (1) This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. Mumbai. The Arbitration clause provided in the main tender document/ contract shall not be applicable for any issue/ dispute arising under Integrity Pact.
- (2) Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- (3) If the Bidder/ Contractor/ Supplier is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- (4) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- (5) If any Bidder/ Contractor/ Supplier entering into Integrity Pact, aggrieved by any decision / action of the Principal, shall approach the IEMs and await their decision before pursuing any other remedy available to him in law.


Sunil Pandhare
For the Principal

.....
For the Bidder/ Contractor/
Supplier

Place

Witness 1 :
(Signature/Name/Address)

Date

Witness 2 :
(Signature/Name/Address)

SECTION- 4

SCOPE OF WORK & SPECIAL CONDITIONS OF CONTRACT (SCC)

E-Tender System ID	Package Details	Complex / Units Description
57099	Package 1	CHEM CLEANING IN CDU4 TA

SCOPE OF WORK & SPECIAL CONDITIONS OF CONTRACT

JOB DESCRIPTION: DECONTAMINATION, PASSIVATION AND PYROPHORIC IRON TREATMENT OF PROCESS EQUIPMENTS IN INTEGRATED CDU-VDU-4 DURING SHUTDOWN IN JUNE 2019

A) Introduction:

During forthcoming turnaround of INTEGRATED CDU-VDU-4 (BPCL Mumbai Refinery) in 2019, it is planned to carry out decontamination with chemical cleaning of certain process loops / equipment as detailed in scope of work to reduce the time taken in conventional cleaning. Decontamination implies sludge / residual oil removal, hydrocarbon freeing, removal of toxic gases like H₂S; removal of pyrophoric irons, passivation of austenitic stainless steel surfaces to avoid acid attack.

B) Purpose of decontamination is as follows:

1. To clean the equipment internal and restore the efficiency of the equipment.
2. Reduction of quantity and toxicity of cleaning waste.
3. To allow for inspection and repair of the equipment in the unit immediately on completion of the decontamination without any further cleaning.
4. To minimize corrosion and extend the equipment life time.

C) Key Performance Indicator (KPI) for decontamination process:

1. Cleanliness of the equipment after decontamination is the essence of the contract and contractor shall carry out vapor/liquid phase decontamination in Column/Vessel/Heater/ associated piping and other equipments to meet the KPI's with respect to quality.

All Columns & Overhead systems shall be cleaned by Vapor phase decontamination only.

However all Columns/Stripers bottom circulation loops & other systems shall be cleaned as far as possible by vapor phase or shall be suitably decided by vendor.

Contractor shall select suitable process like vapor phase or circulation phase for product loops and remaining circuits to meet the KPI's with respect to quality.

2. Decontamination, Passivation and Pyrophoric iron treatment process shall be completed as per time schedule given below (in maximum 60 hours) under responsibility chart for each on individual process block basis. The time period shall include all the activities like Decontamination of individual loops, Passivation of austenitic steel and pyrophoric iron treatment, steaming, venting and water washing if required after decontamination process. Any deviation on this scheduled time shall disqualify the offer. The time period for each block shall commence on draining of the equipments / process circuits and cooling down of unit and initial water washing (if required) for Ph control / to reduce the system oil level. Below mentioned is the responsibility chart for the total process and KPI's which shall determine the decontamination process evaluation and guarantee its terms.

I. Time related :

" ACTIVITY (BPCL): Unit shutdown, draining of equipments, cooling down of the unit to 60-70 deg Centigrade & Initial Water Washing (vendor assisted) for Ph control / to reduce the system oil level if required. Time required will be 72 Hours# approx. (Individual process blocks will be handed over between 24 to 72 hrs)

" ACTIVITY (Vendor): Bidder shall complete all the following activities in a time period of 60 hrs
Decontamination, Passivation, Pyrophoric iron treatment, Steaming and venting.

Contractor shall complete De-emulsification activity (if applicable) in a time period of 36 hrs.

Note:

1. Various units / equipments in the complex shall be handed over for execution of the jobs in a period starting from 24 hrs after Feed Cut Out spread over a total period of 72 hrs.
2. Time period shall be applicable for individual process blocks which require separate decontamination / Passivation / KMNO₄ washing loop in a particular system.
3. Bidder shall mobilize enough experienced staff, all resources and equipments to complete the work as per scope within the time schedule mentioned above and shall carry out simultaneous work in all the systems and shall work simultaneously on different process blocks of same complex. Details for the total number of loops / process blocks shall be finalized during pre engineering stage and the same shall be approved by BPCL.
4. All electrical equipments including control panels should be flame proof (As per BPCL, MR standard). All the required electrical cables for flame proof applications will be under vendor's scope.

5. During initial water washing for Ph control / to reduce the system oil level, contractor shall assist the BPCL for water washing of the system. Contractor shall support BPCL (with his earlier experience) in "oil push" stage and will participate in making related scheme. Adequacy of the existing pumps / piping/ resources available in plant that shall be used during decontamination should be confirmed by vendor. Contractor should mobilize resources well in advance so that their pumps, hoses and skids are ready to use at site in "oil-push" stage. Also contractor's circulation pump shall be used during the water washing phase.
The oil de-inventory procedure / scheme and required temporary piping of steam / water along with field locations has to be prepared by vendor along with BPCL inputs. Checking the adequacy of the existing piping / pumps for meeting decontaminations KPIs has to be ensured by the vendor. Temporary hoses, pumps if required for decontamination shall be estimated and arranged by vendor. The vendor should have regular visits at site to ensure that the temporary piping layout is as per the requirement for decontamination and to have a correct estimation of hoses (size, length etc), connections, fittings etc as required.
6. The unit turnaround is planned tentatively from 1st June 2019. Exact date shall be communicated one month in advance of job start date.

II. Quality related:

Criteria and Acceptable Limit:

1. Residual sludge after decontamination shall be minimum and free of hydrocarbon.
2. LEL: 0
3. Benzene level: <0.5 PPM
4. Hydrocarbon: Nil
5. Odor: Nil
6. H2S: 0 PPM
7. Pyrophoric Iron: Nil

Contractor shall note that at the end of decontamination works, above mentioned parameters shall be obtained in each equipment. Failure to meet Quality Criteria on one or more parameters will be treated as failure in performance of the contract. There shall be joint inspection from Contractor and BPCL for each equipment and inspection records shall be duly signed by both Contractor and BPCL at the end of completion.

D) Scope of Work:

The units which shall be shut down for planned turnaround and requires decontamination, passivation and KMnO₄ washing are as below:

"CDU-VDU-4 integrated unit along with LPG amine absorber and LPG caustic treater."

1. Marked up P&ID's and drawings indicating various process loops and equipments (like piping network, exchangers, vessels, pump around loops and connected equipment) shall be as per P & ID given along with tender. All marked loops in P&ID to be considered for decontamination except specifically mentioned. All marked up sections as per P& ID and drawings along with pump around loops will be coming under the scope of contractor for Decontamination / Passivation / Kmno₄ washing / for Pyrophoric iron treatment as per the list of equipment and requirement of process (Like decontamination / Passivation / Pyrophoric iron treatment) as indicated in Annexure I. Major loops are mentioned in Annexure 1; whereas all the loops in P&ID needs to be considered under the scope for decontamination.
2. Contractor shall note that for all the unit equipments, Annexure I indicates the requirement for treatment of the pyrophoric iron. It is responsibility of contractor to select suitable method like only decontamination or combination of decontamination and KMNO₄ washing to meet the KPI's. If decontamination chemical is able to remove the pyrophoric iron, then there is no requirement of separate KMnO₄ washing, otherwise contractor shall carry out KMnO₄ washing to treat the pyrophoric irons. Contractor shall explicitly guarantee the removal of all pyrophoric irons during decontamination / KMnO₄ washing process.

E) Bidder's scope of work and general requirement of scope:

1. Bidder shall prepare and submit copy of procedure and major equipment wise bar chart for individual systems along with technical bid.
2. Bar chart should contain sufficient details drilled down to equipments handing over time. Activity bar chart along with duration should indicate pre engineering time, Lead time for supply of chemical and actual decontamination process including passivation and KMNO₄ washing.
3. Bidder shall visit the job site for understanding the jobs, equipment involved, positive isolation and temporary piping requirement, chemical injection points finalizations, water wash scheme etc before giving quotation.

4. Necessary job specific chemicals, equipments and tools with necessary safety devices used by bidder shall comply with BPCL safety and environmental norms. MSDS for chemicals should be supplied along with the chemicals for necessary display at work place.
5. Bidder shall note that for major equipment, stripping steam connections are using superheated MP steam; other equipment has only 2" LP steam connections whose wetness fraction may be varying. Vendor shall consider this for finalization of his requirement.
6. Bidder shall select the motors capable of running on 415 volt, 300A, TPN, AC power supply and submit the driving equipment details (system wise) in following format else arrange for diesel driven equipment. Diesel driven equipment and Non flame proof electric driven equipment shall be allowed to keep on the road shoulders and not inside the plant and accordingly bidder shall select the capacity of the pump and engine / motor. Diesel required for their diesel driven equipments must be arranged by bidder.

Details Required:

No of pumps	
No of motors	
Type of motor (Star delta / direct on line)	
Type of enclosure (Flame proof / non flame proof)	
Motor Power (KW)	
Voltage (Volt)	
Current (Ampere)	
RPM	
Frequency (HZ)	
Type of Motor (Ht / LT)	
Insulation class	
Make of Motor	
Motor mounting (Horizontal / vertical)	

7. On award of contract, carry out pre engineering, identify the requirement of temporary piping, connections, and prepare schematic piping drawings,

no. of loops / process blocks etc and same shall be approved by the decontamination expert from the bidder. The approved scheme / plan shall be presented to BPCL team in detail for fabrication / erection of temporary piping & execution of the process during turnaround. Before commencing the decontamination job, the contractor shall also identify & check all the battery limit spades to avoid the chance of any oil coming to the system from the downstream of the battery limit.

8. Fabrication and erection of temporary piping as per schematic drawing shall be carried out by BPCL. However bidder shall arrange flexible hoses for end connection of temporary piping with main process equipments. All flexible hoses shall be supplied with material test certificate indicating operating / design pressure and temperature. Flexible hoses shall be compatible with pressure and chemical being used in all processes.
9. Bidder shall prepare schematic sketch well in advance for BPCL review and fabrication. All the connections shall be made ready / tested prior to shutdown.
10. Bidder shall arrange necessary connections for direct chemical injections; for making the chemical batch and for circulation of chemicals.
11. Bidder shall arrange sufficient number of tanks for preparation of the chemical batch. Tank shall be provided with electric motor driven stirrer / mixer for proper mixing and all electrical fitting shall be flame proof type and shall be checked and approved by BPCL electrical department. Pneumatic driven mixers will be preferred; with compressed air supply in contractor scope.
12. Bidder shall supply all chemicals, equipment and personnel for doing the jobs.
13. Bidder shall make all the necessary arrangement sufficiently in advance before starting the job.
14. Bidder shall indicate organogram & manpower to be deployed during entire operations including pre engineering time.
15. Necessary Personal protective equipment (PPE) shall be arranged by bidder to carry out the operation safely and in time as per BPCL safety action plan and guidelines.
16. Arrange and take safety work authorizations and permits as required by BPCL.
17. Bidder shall arrange for all other facilities like food, transportation, local accommodation for their direct and indirect staff / manpower.

18. Bidder shall list all necessary safety requirements for carrying out the jobs and finalize the same after discussions with BPCL.
19. Bidder shall carry out decontamination, Passivation and treatment of Pyrophoric irons of unit as per scope as detailed in Annexure I.
20. Water washing of the equipment after decontamination for entry purpose shall be carried out by bidder.
21. Bidder shall ensure and take necessary precautions to avoid mixing of two incompatible chemicals.
22. The bidder shall ensure that the slop oil/VR/Waxy header does not get plugged at any point while transferring de-contamination waste to designated disposal location.
23. Bidder shall provide approximate volume of effluent for disposal with procedure. Based on this input, disposal of effluent shall be planned.
24. Bidder shall note that equipment associated with columns like overhead trim coolers/condensers, AFCs will condense the steam used and hence care shall be taken to ensure effectiveness of chemical cleaning in this zone.
25. Bidder shall ensure proper pressure built up to ensure contaminant flow to flare and necessary arrangement to prevent backflow from flare shall be considered while finalizing the schemes. Local venting will be allowed only after major part of Hydrocarbon removal from overhead systems is ensured.
26. Ensure safety and integrity of the equipment so as to avoid any sort of damage to shell or internals, thinning of parent metal etc.
27. Chemical effluent from equipment to be removed by draining as per ISO guideline.
28. Maintaining area cleanliness on continuous basis will be the bidder responsibility limited to his work area.
29. Bidder shall ensure that residual sludge after completion of the decontamination shall be free of H₂S / disulphide in addition to HC and Pyrophoric irons.
30. Bidder shall be allowed to set up the VHF communication system while execution of the job after obtaining necessary permission from Fire and Safety. Bidder shall arrange sufficient number of hand set for the same.

31. Air requirement for running the pneumatic operated injection pump / equipments will be met by bidder by arranging Diesel Engine driven Mobile air compressors.
32. Bidder is required to have necessary testing skids as needed by him for checking pH, chemical concentration or any other parameter. pH control if required for effective decontamination , the same shall be done by the bidder.
33. Bidder shall arrange all equipment/meters for measurement of LEL, H2S and Oxygen etc.
34. Bidder shall submit ongoing job progress report every day and final report after job completion.
35. Carry out disposal of the empty or unused chemical drums outside BPCL premises once the job gets finished.
36. On completion of the job, submit the final report on the complete process and result there off as per KPI.
37. Bidder shall complete and coordinate all the gate pass formalities for entry of the material / equipments and manpower required for completion of the job.
38. For entry of foreign nationals, on award of contract, contractor shall submit the photocopy of Passport and visa at least 45 days in advance of the actual entry date in BPCL premises for obtaining the necessary permission from Ministry of Petroleum and Natural Gas.
39. All pre-engineering activities such as site visit, fabrication/laying of temporary pipelines etc. to be completed at least 2 months before the main activity date.

F) BPCL shall provide the following assistance for carrying out jobs:

1. Depressurize, flush with flushing oil in case of congealing fluids & naturally drained equipments/piping. Columns / equipments may contain small quantities of residual oil / flushing oil.
2. Necessary scaffolding for approach if required.
3. Sufficient lighting.
4. Space for keeping chemicals, equipment and tool if required.
5. Facility for disposal of waste effluent water.
6. Following utilities will be supplied for decontamination, KMnO4 washing and Passivation. No other utility shall be supplied by BPCL and bidder shall make their own arrangement for any other utility required for completion

of the jobs. The various utilities beyond the below mentioned flow rate/quality can not be provided.

LP steam: 2.5-3 kg/cm²g, 140 Deg C, 50 T/D

MP steam: 16-17 kg/cm², 300 Deg C, 300-400 T/D

DM water: 4 Kg /cm², 40 Deg C, 300 T/D

Boiler feed water: 21 Kg /cm² , 90 Deg C, 500 T/D

Raw water: 4.0 Kg /cm², 35 Deg C, 500 T/D

7. Free Electric power for operating the circulation pump 415 volt, 300A, TPN, AC and lighting. Bidder shall supply the extension cables from BPCL main distribution board, ELCB and Power supply board. All the electrical equipments checked and approved by BPCL only shall be permitted for usage in this job.
8. Fabrication and erection of the temporary piping, blinding & deblinding for decontamination, Passivation, KMnO₄ washing will be carried out by BPCL as per approved scheme based on the pre engineering carried out by the bidder.
9. BPCL shall allow the use of minimum possible available circulation pumps during decontamination, Passivation and KMnO₄ washing jobs. However the requirement of such pumps shall be firmed during pre engineering stage.
10. BPCL shall ensure one process, one maintenance and one technical person during pre-engineering stage for schemes and resources finalization. BPCL team will work with bidder as integrated team for task completion during turnaround.
11. Bidder shall clearly identify the temporary piping requirement, blinding / deblinding and submit the same to BPCL for fabrication and connection. Any changes and addition or services required to complete the job beyond this shall be within the scope of bidder.
12. Removal of these temporary pipe lines and blinds after decontamination also will be carried out by BPCL.
13. BPCL shall provide assistance by way of crane only for loading / unloading of your equipment and chemicals if required. However during execution of the job, movement of the material, equipment, chemicals within the BPCL premises shall be carried out by the contractor.

G) Process Details:

1. Decontamination and KMnO₄ washing:

" Carry out decontamination including treatment of pyrophoric irons of the units as per marked P & ID and Annexure I to meet the Key performance indicators.

" Carry out KMnO₄ washing (if required) of the units as per P & ID and Annexure I to meet the Key performance indicators.

2. De-emulsification

" All the effluent so generated during the Decontamination process shall be separated in slop tank provided by BPCL which is located at approximately 1000 meter distance from the plant. The decontaminated emulsion shall be pumped to the slop tank. Bidder shall ensure that the existing slop header does not get plugged and shall provide arrangement for Calcium chloride injection closer to our slop tank identified for this job.

" Bidder shall arrange for de-emulsification of the effluent at the end of the process and shall clearly indicate the Residence time, Separation efficiency in following parameter:

" Oil in Water in PPM

" % of Water in Oil

H) Special Instructions:

The bidders shall take note of all the following points and provide the following information / data in their bid:

1. Activities during pre-engineering stage
2. Chemicals to be used.
3. Describe full details of decontamination activities indicating equipments / facilities to be put by bidder. This shall include brief description of temporary piping required if any, tanks/pumps and other associated facilities to be arranged by bidder.
4. Bidder shall clearly indicate the composition of effluent after decontamination and how it is to be disposed off. Also, bidder shall indicate composition of sludge and methods of disposal of the same.
5. Bidder shall indicate the effect of chemicals such as corrosion or otherwise on the metallurgy of the plant equipments/piping. Also bidder shall indicate the effect of processing this effluent in CDU4 (after start up) and its effects on the downstream secondary units like CCU / FCCU/ Hydrocracker catalysts.

6. Bidder shall indicate and give guarantee of extent of cleaning of system.
7. Bidder shall indicate whatever any odor/smell shall remain in the system, which may hamper start of engineering
8. Bidder shall furnish the patent details for chemical and process to BPCL if available. In case of the patent is not available then, BPCL shall be absolved from any infringement of the patent rights of chemical / process which shall be used for the jobs under this tender. It shall be the total responsibility of the bidder to use the chemical without giving rise to any legal implication to the BPCL
9. No advance payment shall be made against any request.
10. A Kick off Meeting shall be organized with BPCL Operation department within two weeks of award of contract to finalize the schedule of preparatory works. The meeting shall be attended by OWNER's representatives
11. Bidder to finalize and hand over the approved isometric drawings/sketches of temporary piping within 1 month from the kick off meeting.
12. Bidder shall remove unused/empty chemical drums from site within 10 days of completion of job at site.

I) Completion period and LD clause:

LD clause and Completion period shall be as detailed below:

Completion period is divided in two parts as follows,

Part A: Entire job which includes Washing, Rinsing, Decontamination including treatment of Pyrophoric irons / KMNO₄ washing, passivation for austenitic stainless steel systems, excluding de-emulsification shall be completed in 60 hours time from the time contractor is instructed to start the work at site.

The completion of decontamination process will be confirmed only after the concerned equipments are opened and are found to decontaminate jointly by BPCL and vendor site in charge.

Part B: De-emulsification of the effluent stored shall be completed in 36 hours on completion of all decontamination jobs in the process units.

Contract shall remain valid till Dec'2019.

LD clause shall be applicable as detailed below:

In case of delay beyond completion period as described in Part A and B as above, due to reasons attributable to the bidder, Liquidated Damages shall be recovered @ 1 % per day of PO value and part there off for delay subject to maximum of 5 % of PO value.

Note: Any stoppage of the processes during shift change over shall not be considered for calculation of the time taken for Decontamination / Passivation / KMNO₄ washing.

J) Payment Terms:

1. Payment shall be made as per following terms:
 - a. 20 % on completion of pre engineering (including submission of temporary piping sketches) and approval of the process by BPCL.
 - b. 20 % on receipt of the entire chemical in BPCL Mumbai refinery Premises.
 - c. 60 % on successful completion of the decontamination / passivation and Kmno₄ washing. (Includes successful completion of the demulsification)
2. To get the payment against points (a) and (b) mentioned above , contractor shall submit the bank guarantee for an amount equivalent to 40% of contract price towards pre engineering activities & supply of chemical valid till 30.11.2019. This bank guarantee shall be revoked by the OWNER if contractor fails to complete the job as per tender specification & quality criteria. In case the contractor is not able to satisfy tender specification / quality criteria, then contractor shall not be liable for any payment. On successful completion of the job and release of all the payments, this bank guarantee shall be returned to the contractor.

K) Scope of Supply:

BPCL:

Returnable: Hand Lamps, Transformer

Chargeable: Nil

Contractor:

All Equipments , manpower ,supervision, PPE's , circulation pumps , chemicals , and all other things which are required , and not included in BPCL's scope of supply , for completion of the job.

ANNEXURE I

COLUMNS

Sr. No.	Columns	Description	Volume (M3)	Only Vapor phase Decontamination	KMnO4 washing/Pyrophoric iron treatment	Passivation
1	144-C-101	Crude Column	2520	Yes	Yes	NR
2	144-C-102	HN Stripper	51.35	Yes	Yes	NR
3	144-C-103	LT Kero Stripper	96.5	Yes	Yes	NR
4	144-C-104	Heavy kero Stripper	91.12	Yes	Yes	NR
5	144-C-105	LGO Stripper	69	Yes	Yes	NR
6	144-C-106	Naphtha Stabilizer	236.1	Yes	Yes	NR
7	144-C-107	Vacuum Column	3296	Yes	Yes	Yes
8	144-C-108	LPG Amine Absorber	46	Yes	Yes	NR
9	144-C-109	Off gas Amine Absorber	28.95	Yes	Yes	NR
	Total		6435.02			

VESSELS

Sr. No.	Vessels	Description	Volume (M3)	Decontamination	KMnO4 washing/Pyrophoric iron treatment	Passivation
1	144-V-101	Preflash Drum	456	Yes	Yes	NR
2	144-V-102	Crude Column Reflux Drum	367.7	Yes	Yes	NR
3	144-V-103	Overhead Naphtha Drum	10.5	Yes	Yes	NR
4	144-V-104	Stabilizer Reflux Drum	49.08	Yes	Yes	NR
5	144-V-109	Amine Settler Drum	17	Yes	Yes	NR
6	144-V-116	Fuel Gas KOD	24	Yes	Yes	NR
7	144-V-117	Flare Gas KOD	139	Yes	Yes	NR
8	144-V-119	Closed blow down Drum	28	Yes	Yes	NR
9	144-V-123	Heavy flushing oil Drum	21	Yes		NR
10	144-V-126	Hot well	74	Yes	Yes	NR
11	144-V-127	Hot well catch pot	2.8	Yes	Yes	NR
12	144-V-129	Slop drum	11.5	Yes	Yes	Yes
13	144-V-131	Slop oil coalescer	0.5	Yes	Yes	NR
14	144-V-136	LGO Coalescer	2.45	Yes		NR
15	144-V-140	Off gas KOD	1.46	Yes	Yes	NR
16	144-V-141	Rich Amine Break Vessel	2.55	Yes	Yes	NR
17	144-LZ-101	Desalter 1st Stage	270	Yes	Yes	NR
18	144-LZ-102	Desalter 2nd Stage	270	Yes	Yes	NR

19	144-V-150A	LRVP Vessel	2.6	Yes	Yes	NR
20	144-V-150B	LRVP Vessel	2.6	Yes	Yes	NR
21	144-V-150C	LRVP Vessel	2.6	Yes	Yes	NR
22	144-V-150D	LRVP Vessel	2.6	Yes	Yes	NR
23	144-G-101A/B	VD CR Filter	1	Yes		NR
24	144-G-102A/B	VD IR Filter	0.1	Yes		NR
25	144-G-103A/B	LVGO CR Filter	1.16	Yes		NR
26	144-G-104A/B	HVGO CR+LVGO IR Filter	2.44	Yes		NR
27	144-G-105A/B	HVGO IR Filter	0.44	Yes		NR
28	144-G-109 A/B	Heavy flushing oil Filter	0.22	Yes		NR
	Total II		1763.3			

LPG TREATER

Sr. No.	Equipment	Description	Volume	Decontamination	KMnO4 washing/Pyrophoric iron treatment	Passivation
1	146-C-101	Caustic Prewash Column	24.54	Yes (Vapor phase)	Yes	NR
2	146-C-102	Regeneration Column	37.97	Yes (Vapor phase)	Yes	NR
3	146-R-101	Caustic wash column	2.03	Yes	Yes	NR
4	146-V-101	Caustic wash Separator	13.21	Yes	Yes	NR
5	146-R-102	DSO Extraction Column	0.86	Yes	Yes	NR
6	146-V-102	Solvent Separator	8.51	Yes		NR
7	146-V-103	Catalyst Addition Vessel	0.07	Yes		NR
8	146-V-104	Off gas Knock out drum	0.8	Yes	Yes	NR
9	146-V-105	LPG sand filter	32	Yes		NR
10	146-V-106	Solvent sand filter	6.4	Yes		NR
11	146-V-108	Spent caustic degassing Vessel	12.7	Yes		NR
12	146-G-101 A/B	LPG Filter	0.2	Yes		NR
13	146-G-102 A/B	Regenerated Caustic Filter	0.04	Yes	Yes	NR
14	146-G-104 A/B	Fresh Solvent Filter	0.04	Yes	Yes	NR
15	146-G-105 A/B	Fresh Caustic Filter	0.04	Yes	Yes	NR

16	146-T-101	12% Caustic Tank	9.5	Yes	Yes	NR
17	146-T-102	20% Caustic Tank	0.76	Yes	Yes	NR
18	Piping Network	Piping Network	40	Yes		NR
	Total		189.67			

EXCHNAGER

Sr. No	Exchanger name	Equipment Name	Volume, m3	Decontamination	KMnO4 washing/Pyrophoric iron treatment	Passivation
1	144-E-101	CRUDE/VD CR EXCHANGER	9.61840875	Yes		NR
2	144-E-102 A	CRUDE/ATM COL OVHD EXCHANGER	9.82192	Yes	Yes	NR
3	144-E-102 B	CRUDE/ATM COL OVHD EXCHANGER	9.82192	Yes	Yes	NR
4	144-E-102 C	CRUDE/ATM COL OVHD EXCHANGER	9.82192	Yes	Yes	NR
5	144-E-102 D	CRUDE/ATM COL OVHD EXCHANGER	9.82192	Yes	Yes	NR
6	144-E-103	CRUDE/HN PDT EXCHANGER	3.805827188	Yes		NR
7	144-E-104 A	CRUDE/LGO PDT EXCHANGER	4.93271235	Yes		NR
8	144-E-104 B	CRUDE/LGO PDT EXCHANGER	4.93271235	Yes		NR
9	144-E-105	CRUDE/LK PDT EXCHANGER	5.442982446	Yes		NR
10	144-E-106	CRUDE/HK PDT EXCHANGER	4.58360715	Yes		NR
11	144-E-107 A	CRUDE/HK CR EXCHANGER	6.406500788	Yes		NR
12	144-E-107 B	CRUDE/HK CR EXCHANGER	6.406500788	Yes		NR
13	144-E-108	CRUDE/LVGO CR EXCHANGER	9.931182188	Yes		NR
14	144-E-109	CRUDE/LVGO PDT EXCHANGER	11.93903753	Yes		NR
15	144-E-110	CRUDE/LVGO CR EXCHANGER	10.7830269	Yes		NR
16	144-E-111	CRUDE/LGO CR EXCHANGER	11.1073104	Yes		NR
17	144-E-112	CRUDE/HGO CR EXCHANGER	3.61315875	Yes		NR

18	144-E-113	CRUDE/VR PDT+QUENCH EXCHANGER	6.508189688	Yes		NR
19	144-E-114	CRUDE/LVGO CR EXCHANGER	9.7429176	Yes		NR
20	144-E-115 A	CRUDE/LGO PDT EXCHANGER	5.2029486	Yes		NR
21	144-E-115 B	CRUDE/LGO PDT EXCHANGER	5.2029486	Yes		NR
22	144-E-116 A	CRUDE/HVGO CR EXCHANGER	12.19441078	Yes		NR
23	144-E-116 B	CRUDE/HVGO CR EXCHANGER	12.19441078	Yes		NR
24	144-E-116 C	CRUDE/HVGO CR EXCHANGER	12.19441078	Yes		NR
25	144-E-116 D	CRUDE/HVGO CR EXCHANGER	12.19441078	Yes		NR
26	144-E-116 E	CRUDE/HVGO CR EXCHANGER	12.19441078	Yes		NR
27	144-E-116 F	CRUDE/HVGO CR EXCHANGER	12.19441078	Yes		NR
28	144-E-117 A	CRUDE/VR PDT+QUENCH EXCHANGER	8.64756	Yes		NR
29	144-E-117 B	CRUDE/VR PDT+QUENCH EXCHANGER	8.64756	Yes		NR
30	144-E-117 C	CRUDE/VR PDT+QUENCH EXCHANGER	8.64756	Yes		NR
31	144-E-117 D	CRUDE/VR PDT+QUENCH EXCHANGER	8.64756	Yes		NR
32	144-E-118	CRUDE/HGO CR EXCHANGER	8.290998281	Yes		NR
33	144-E-119	CRUDE/VR PDT+QUENCH EXCHANGER	9.383203125	Yes		NR
34	144-E-120 A	CRUDE/HVGO PDT EXCHANGER	4.41385875	Yes		NR
35	144-E-120 B	CRUDE/HVGO PDT EXCHANGER	4.41385875	Yes		NR
36	144-E-121 A	CRUDE/VR PDT+QUENCH EXCHANGER	9.383203125	Yes		NR
37	144-E-121 B	CRUDE/VR PDT+QUENCH	9.383203125	Yes		NR

		EXCHANGER			
38	144-E-122	CRUDE/VR PDT+QUENCH+SLOP EXCHANGER	10.30560953	Yes	NR
39	144-E-123	CRUDE/LVGO PDT EXCHANGER	11.27125373	Yes	NR
40	144-E-124 A	CRUDE/LGO CR EXCHANGER	10.54296703	Yes	NR
41	144-E-124 B	CRUDE/LGO CR EXCHANGER	10.54296703	Yes	NR
42	144-E-124 C	CRUDE/LGO CR EXCHANGER	10.54296703	Yes	NR
43	144-E-124 D	CRUDE/LGO CR EXCHANGER	10.54296703	Yes	NR
44	144-E-125	CRUDE/VR PDT+QUENCH EXCHANGER	7.941943125	Yes	NR
45	144-E-126 A	CRUDE/HGO CR EXCHANGER	8.88817035	Yes	NR
46	144-E-126 B	CRUDE/HGO CR EXCHANGER	8.88817035	Yes	NR
47	144-E-127	CRUDE/HVGO PDT EXCHANGER	3.17117235	Yes	NR
48	144-E-128 A	CRUDE/HVGO CR EXCHANGER	12.19441078	Yes	NR
49	144-E-128 B	CRUDE/HVGO CR EXCHANGER	12.19441078	Yes	NR
50	144-E-128 C	CRUDE/HVGO CR EXCHANGER	12.19441078	Yes	NR
51	144-E-128 D	CRUDE/HVGO CR EXCHANGER	12.19441078	Yes	NR
52	144-E-128 E	CRUDE/HVGO CR EXCHANGER	12.19441078	Yes	NR
53	144-E-128 F	CRUDE/HVGO CR EXCHANGER	12.19441078	Yes	NR
54	144-E-128 G	CRUDE/HVGO CR EXCHANGER	12.19441078	Yes	NR
55	144-E-128 H	CRUDE/HVGO CR EXCHANGER	12.19441078	Yes	NR
56	144-E-128 I	CRUDE/HVGO CR EXCHANGER	12.19441078	Yes	NR
57	144-E-128 J	CRUDE/HVGO CR EXCHANGER	12.19441078	Yes	NR
58	144-E-129	HN STRIPPER REBOILER	2.4221175	Yes	NR

59	144-E-130	LK STRIPPER REBOILER	3.805827188	Yes		NR
60	144-E-131	HK STRIPPER REBOILER	9.61840875	Yes		NR
61	144-E-132 A	STAB FEED BOTTOM EXCHANGER	3.1003104	Yes	Yes	NR
62	144-E-132 B	STAB FEED BOTTOM EXCHANGER	3.1003104	Yes	Yes	NR
63	144-E-133	NAPHTHA STABILISER REBOILER	11.570115	Yes	Yes	NR
64	144-E-134 A	OVHD NAPHTHA TRIM COOLER	5.0868	Yes	Yes	NR
65	144-E-134 B	OVHD NAPHTHA TRIM COOLER	5.0868	Yes	Yes	NR
66	144-E-134 C	OVHD NAPHTHA TRIM COOLER	5.0868	Yes	Yes	NR
67	144-E-134 D	OVHD NAPHTHA TRIM COOLER	5.0868	Yes	Yes	NR
68	144-E-135 A	SOUR WATER COOLER	0.353679335	Yes		NR
69	144-E-135 B	SOUR WATER COOLER	0.353679335	Yes		NR
70	144-E-135 C	SOUR WATER COOLER	0.353679335	Yes		NR
71	144-E-135 D	SOUR WATER COOLER	0.353679335	Yes		NR
72	144-E-136 A	DESALTER WATER BRINE EXCHANGER	2.56480224	Yes		NR
73	144-E-136 B	DESALTER WATER BRINE EXCHANGER	2.56480224	Yes		NR
74	144-E-137 A	BRINE COOLER	1.471225256	Yes		NR
75	144-E-137 B	BRINE COOLER	1.471225256	Yes		NR
76	144-E-137 C	BRINE COOLER	1.471225256	Yes		NR
77	144-E-137 D	BRINE COOLER	1.471225256	Yes		NR
78	144-E-138 A	NAPHTHA STABILISER OVHD CONDENSOR	3.621048	Yes		NR
79	144-E-138 B	NAPHTHA STABILISER OVHD CONDENSOR	3.621048	Yes		NR
80	144-E-138 C	NAPHTHA STABILISER OVHD CONDENSOR	3.621048	Yes		NR

81	144-E-138 D	NAPTHA STABILISER OVHD CONDENSOR	3.621048	Yes		NR
82	144-E-139	HVGO PDT/MP STEAM GENERATOR	6.5593344	Yes		NR
83	144-E-140	VR+SLOP/MP STEAM GENERATOR	9.931182188	Yes		NR
84	144-E-141 A	STAB NAPTHA TRIM COOLER	1.8653955	Yes		NR
85	144-E-141 B	STAB NAPTHA TRIM COOLER	1.8653955	Yes		NR
86	144-E-142 A	HEAVY NAPTHA TRIM COOLER	1.1871555	Yes		NR
87	144-E-142 B	HEAVY NAPTHA TRIM COOLER	1.1871555	Yes		NR
88	144-E-143 A	LK TRIM COOLER	1.5072	Yes		NR
89	144-E-143 B	LK TRIM COOLER	1.5072	Yes		NR
90	144-E-144 A	HK TRIM COOLER	1.5072	Yes		NR
91	144-E-144 B	HK TRIM COOLER	1.5072	Yes		NR
92	144-E-145 A	LGO TRIM COOLER	1.7824995	Yes		NR
93	144-E-145 B	LGO TRIM COOLER	1.7824995	Yes		NR
94	144-E-146 A	VD CR+PDT TRIM COOLER	3.117601988	Yes		NR
95	144-E-146 B	VD CR+PDT TRIM COOLER	3.117601988	Yes		NR
96	144-E-146 C	VD CR+PDT TRIM COOLER	3.117601988	Yes		NR
97	144-E-146 D	VD CR+PDT TRIM COOLER	3.117601988	Yes		NR
98	144-E-147 A	LPG AMINE COOLER	0.342196009	Yes		NR
99	144-E-147 B	LPG AMINE COOLER	0.342196009	Yes		NR
100	144-E-148 A	EJECTOR 1st STAGE INTERCONDENSOR	17.14087885	Yes	Yes	NR
101	144-E-148 B	EJECTOR 1st STAGE INTERCONDENSOR	14.05099199	Yes	Yes	NR
102	144-E-149	EJECTOR 2nd STAGE INTERCONDENSOR	4.434212544	Yes	Yes	NR

103	144-E-151	HVGO PDT/LP STEAM GENERATOR	6.5593344	Yes		NR
104	144-E-152 A	VR+SLOP/LP STEAM GENERATOR	10.57174219	Yes		NR
105	144-E-152 B	VR+SLOP/LP STEAM GENERATOR	10.57174219	Yes		NR
106	144-E-153 A	LVGO PDT/TW COOLER	2.4023355	Yes		NR
107	144-E-153 B	LVGO PDT/TW COOLER	2.4023355	Yes		NR
108	144-E-154	STAB FEED/LGO PDT EXCHANGER	3.3885624	Yes		NR
109	144-E-157 A	RCO/TW COOLER	1.15395	Yes		NR
110	144-E-157 B	RCO/TW COOLER	1.15395	Yes		NR
111	144-E-158 A	HVGO/TW COOLER	2.014996875	Yes		NR
112	144-E-158 B	HVGO/TW COOLER	2.014996875	Yes		NR
113	144-E-161 A	VR/TW COOLER	3.251371875	Yes		NR
114	144-E-161 B	VR/TW COOLER	3.251371875	Yes		NR
115	144-E-161 C	VR/TW COOLER	3.251371875	Yes		NR
116	144-E-161 D	VR/TW COOLER	3.251371875	Yes		NR
117	144-E-161 E	VR/TW COOLER	3.251371875	Yes		NR
118	144-E-161 F	VR/TW COOLER	3.251371875	Yes		NR
119	144-E-161 G	VR/TW COOLER	3.251371875	Yes		NR
120	144-E-161 H	VR/TW COOLER	3.251371875	Yes		NR
121	144-E-163 A	HFLO/TW COOLER	0.792222	Yes		NR
122	144-E-163 B	HFLO/TW COOLER	0.792222	Yes		NR
123	146-E-101 A	LPG COOLER	0.261970244	Yes		NR
124	146-E-101 B	LPG COOLER	0.261970244	Yes		NR

125	146-E-102	CAUSTIC HEATER	0.012651979	Yes		NR
126	E-180 A	LIQUID RING COOLER	0.247324063	Yes		NR
127	E-180 B	LIQUID RING COOLER	0.247324063	Yes		NR
128	E-180 C	LIQUID RING COOLER	0.247324063	Yes		NR
129	E-180 D	LIQUID RING COOLER	0.247324063	Yes		NR
TOTAL			760.2582359			

Air Fin Coolers (AFC)

Sr.No	Exchanger name	Equipment Name	Total Volume, m3	Decontamination	KMnO4 washing/ Pyrophoric iron treatment	Passivation
1	144-EA-101 A	ATM COLUMN OVHD AIR COOLER(WITH WASH WATER)	0.5459832	Yes	Yes	NR
2	144-EA-101 B	ATM COLUMN OVHD AIR COOLER(WITH WASH WATER)	0.5459832	Yes	Yes	NR
3	144-EA-101 C	ATM COLUMN OVHD AIR COOLER(WITH WASH WATER)	0.5459832	Yes	Yes	NR
4	144-EA-101 D	ATM COLUMN OVHD AIR COOLER(WITH WASH WATER)	0.5459832	Yes	Yes	NR
5	144-EA-102 A	OVHD NAPHTHA AIR COOLER	1.8884745	Yes	Yes	NR
6	144-EA-102 B	OVHD NAPHTHA AIR COOLER	1.8884745	Yes	Yes	NR
7	144-EA-102 C	OVHD NAPHTHA AIR COOLER	1.8884745	Yes	Yes	NR
8	144-EA-102 D	OVHD NAPHTHA AIR COOLER	1.8884745	Yes	Yes	NR
9	144-EA-103	HEAVY NAPHTHA AIR COOLER	0.21352	Yes	Yes	NR
10	144-EA-	LK AIR COOLER	0.356076	Yes		NR

	104					
11	144-EA-105	HK AIR COOLER	0.514332	Yes		NR
12	144-EA-106 A	LGO AIR COOLER	0.52752	Yes		NR
13	144-EA-106 B	LGO AIR COOLER	0.52752	Yes		NR
14	144-EA-107 A	CRUDE/VR PDT+QUENCH EXCHANGER	0.79128	Yes		NR
14	144-EA-107 B	CRUDE/VR PDT+QUENCH EXCHANGER	0.79128	Yes		NR
14	144-EA-107 C	CRUDE/VR PDT+QUENCH EXCHANGER	0.79128	Yes		NR
14	144-EA-107 D	CRUDE/VR PDT+QUENCH EXCHANGER	0.79128	Yes		NR
14	144-EA-107 E	CRUDE/VR PDT+QUENCH EXCHANGER	0.79128	Yes		NR
15	144-EA-107 F	CRUDE/LVGO CR EXCHANGER	0.79128	Yes		NR
16	144-EA-107 G	CRUDE/LGO PDT EXCHANGER	0.79128	Yes		NR
17	144-EA-108	STAB NAPHTHA AIR COOLER	0.501144	Yes	Yes	NR
			17.9169028			

The volume of piping has been estimated to be: 5100 M3

TOTAL = 6435.02+ 1763.3 + 189.67+760.25+ 17.91 + 5100 = 14266.15 M3

If 10% losses are to be considered, **TOTAL Volume for Decontamination = 15693 cubic meters**

TOTAL Volume for KMnO4 washing/Pyrophoric iron treatment = 9222 cubic meters

Passivation loop consist of piping (SS316L):

1	VD CR and IR from filter to column
2	LVGO CR/LT LVGO from filter to column
3	HVGO CR/LVGO IR from filter to column

4	HVGO IR from filter to column
5	F102 Transfer line and C-107
6	VR EX 273A/B up to C-107
7	VD/LVGO/HVGO/VS/VR pumps casing vent up to C-107
8	Vacuum slop loop piping network and slop drum
9	LRVP Piping network
10	Hotwell piping network
11	HN to demulsifier drum
12	Stab Naphtha to Filming amine drum

Total Volume for Passivation: 3785 cubic meters

SECTION- 5

**PROFORMA OF DECLARATION OF HOLIDAY
LISTING**

This Declaration should be produced on Vendor's Letter Head.

PROFORMA OF DECLARATION OF HOLIDAY LISTING

SUBJECT: CHEMICAL CLEANING IN CDU-4 COMPLEX AND ARU & SWS-4 COMPLEX DURING TURNAROUND AT MUMBAI REFINERY

REF. : CRFQ NO: 1000328916

In the case of a Proprietary Concern:

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

(Here give particulars of holiday listing and in absence thereof state "NIL").

In the case of a Partnership Firm

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

(Here give particulars of holiday listing and in absence thereof state "NIL").

In the case of Company

We hereby declared that we have not been placed on any holiday list declared by Bharat Petroleum Corporation Limited/MOP&NG/any other Oil PSEs, except as indicated below:

(Here give particulars of holiday listing and in absence thereof state "NIL").

It is understood that if this declaration is found to be false in any particular, Bharat Petroleum Corporation Limited shall have the right to reject my / our bid, and, if the bid has resulted in a contract, the contract is liable to be terminated.

Place: _____

Signature of the Bidder _____

Date: _____

Name of the Signatory _____

SECTION-6

FORM A – FORMAT FOR TAXES AND DUTIES

FORM-A

A	NAME OF WORK :	CHEMICAL CLEANING IN CDU-4 COMPLEX DURING TURNAROUND AT MUMBAI REFINERY
B	E-tender	CRFQ NO: 1000328916 – E-Tender System ID: 57099
C	NAME OF BIDDER :	
D	SAC Code	
E	CGST Rate (Percentage of total quoted price)	
F	SGST Rate (Percentage of total quoted price)	
G	IGST Rate (Percentage of total quoted price)	
H	UTGST Rate (Percentage of total quoted price)	
I	INVOICING LOCATION	

SIGNATURE
NAME & ADDRESS

Note:

1. Filling up and submission of this form is mandatory for Indian Bidders.
2. A copy of GST registration certificate to be provided along with this form, for Indian Bidders.
3. If more than one SAC codes are applicable for different items, bidder to indicate the same against each item in above table.
4. TDS / Withholding tax deduction shall be applicable as per Govt. guidelines.
5. For foreign bidders, Service Tax / GST, if applicable, shall be paid by BPCL directly to Indian Govt. Authorities.

GENERAL TERMS AND CONDITIONS FOR FOREIGN BIDDERS

It is mandatory for the foreign bidder to furnish the documents for the compliance to requirement of PAN No. , Tax Residency Certificate and Form No.10F (applicable for foreign bidder in case of services in India is required as per scope of bidding document) as per Income Tax Act in case his receipts are subject to tax deduction at source in India:

(a) PAN No.

PAN as per the Indian Income Tax requirements shall be submitted, failing which the Consultant shall be responsible for any additional tax deduction at source as per the provisions of the Indian Income Tax Act/Rules and the same shall be deducted from the payment made to Consultant.

(b) Tax Residency Certificate (TRC)

TRC containing prescribed particulars as per the **Annexure-A** from the Government of foreign country in order to claim the benefits of DTAA as per the Indian Income Tax requirements shall be submitted, failing which the relief under DTAA will not be available and consequently the actual rate of withholding tax will be applicable and deducted from the payment made to Consultant (i.e., non-resident taxpayer). The TRC shall be duly verified by the Government of the country of which the assessee claims to be a resident for the purposes of tax.

(c) Form 10F

In addition to TRC, in order to claim the benefits of DTAA, bidder shall also submit additional information in form no. 10F as per **Annexure-B**. Form 10F has to be signed & verified by the assessee himself.

The above shall be furnished before release of any payment or within one month of the release of Order, whichever is earlier. In case of failure to submit the above information, any additional tax liability on Owner, will be deducted from the payment due to the Consultant.

Please note that, foreign bidders should submit PAN details and PE (Permanent Establishment) Certificate along with their technical bids. Format of PE certificate is attached along with tender annexures.

ANNEXURE A

TAX RESIDENCY CERTIFICATE

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

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

ANNEXURE B**FORM NO. 10 F**

[See sub-rule (1) of rule 21AB of the Income-tax Act, 1961]

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

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

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

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

Signature: _____

Name: _____

Address: _____

Permanent Account Number : _____

Verification

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

Verified today the _____ day of _____

Signature of the person providing the information

Place: _____

Notes:

1. * Delete whichever is not applicable.
2. #Write N.A. if the relevant information forms part of the certificate referred to in sub-section (4) of section 90 or sub-section (4) of section 90A.

SECTION 7
FORM-B – ACCEPTANCE - DEVIATION
FORM

FORM B**FORMAT FOR ACCEPTANCE AND DEVIATION**

A	NAME OF WORK :	CHEMICAL CLEANING IN CDU-4 COMPLEX DURING TURNAROUND AT MUMBAI REFINERY
B	E-tender	CRFQ NO: 1000328916 – E-Tender System ID: 57099
C	NAME OF BIDDER :	

TABLE – 1

Sl. No.	DOCUMENT	ACCEPTED	
		WITHOUT ANY DEVIATIONS	WITH DEVIATIONS
1	NOTICE INVITING TENDER		
2	SCOPE OF WORK & SPECIAL CONDITIONS OF CONTRACT		
3	GENERAL CONDITIONS OF CONTRACT		
4	ADDENDUM TO GENERAL CONDITIONS OF CONTRACT		

Note:- Bidders are required to confirm acceptance of all terms and conditions mentioned in the tender document. Duly filled in, Signed, stamped and scanned copies of Tender, special Conditions of Contract (SCC)/ Special Purchase conditions, special instructions to bidders, scope of work, specification, Scalable requirements, Agreed Terms & Conditions , unpriced part of price schedule are to be uploaded in the web. The format given above in Table 1 is to be filled for all other documents. Any deviations, taken may be stipulated in the format given in Table 2 (below). **If there are no deviations, kindly mention 'NIL' in below table-2.**

TABLE – 2

DEVIATIONS				
Sl. No.	Bid Document Reference		Subject	Deviation
	Page	Clause		
1				
2				
3				

I/We confirm that I/ we have studied all the Terms and Conditions of the RFQ/ tender document and confirm our acceptance of the same except for the clauses mentioned above in this deviation form.

In case our offer is successful, we will submit hard copies of all documents duly signed and stamped on all pages.

SIGNATURE WITH NAME & ADDRESS, SEAL AND DATE.

Note:

1. Filling up and submission of this form is mandatory.
2. If a document is accepted without any deviation, the vendor is required to put a tick mark in the respective column against the document. If there are deviations, the vendor is required to put a tick mark in the respective column against the document and indicate the deviation(s) in the format given for indicating the same.
3. Successful bidder is required to submit hard copies of all documents duly signed and stamped on all pages.

SECTION-8
E-BIDDING INSTRUCTIONS

INSTRUCTIONS TO BIDDERS ON E-TENDERING

1.0 GUIDELINE FOR E-PROCUREMENT SYSTEM:

Bharat Petroleum Corporation Ltd. has gone for online submission of bid through e-procurement system on <https://bpcleproc.in>. Bidders are advised to read the Instructions for participating in the electronic tenders directly through internet (Bid Submission Manuals are available on the above mentioned e-procurement site).

To participate on tenders hosted by BPCL on e-procurement site, bidders are required to have a digital certificate and do “Enrollment” (Register on site) by creating one User Id on the above site.

Bidders shall make their own arrangement for e-bidding. The Un-priced Technical Bids along with all the copies of documents should be submitted in e-form only through BPCL e-Procurement system. Before the bid is uploaded, the bid comprising of all attached documents should be digitally signed using digital signatures issued by an acceptable Certifying Authority (CA) in accordance with the Indian IT Act 2000. If any modifications are required to be made to a document after attaching digital signatures, the digital signature shall again be attached to the modified documents before uploading the same.

Late and delayed Bids / Offers after due date / time shall not be permitted in E-procurement system. However if bidder intends to change the bid already entered may change / revise the same on or before the last date and time of submission deadline. No bid can be submitted after the last date and time of submission has reached. The system time (IST) that will be displayed on e-Procurement web page shall be the time and no other time shall be taken into cognizance. Bidders are advised in their own interest to ensure that bids are uploaded in e-Procurement system well before the closing date and time of bid. No bid can be modified after the dead line for submission of bids.

BPCL shall not be responsible in any way for failure on the part of the bidder to follow the instructions. Further BPCL in any case will not be responsible for inability of the bidder in participating in the event due to ignorance, failure in Internet connectivity or any other reason. It is advised that the bidder uploads small sized documents preferably (up to 5 MB) at a time to facilitate in easy uploading into e-Procurement site. BPCL does not take any responsibility in case of failure of the bidder to upload the documents within specified time of tender submission.

Bidders are required to Login with their User ID & Password (along with Digital Certificate) on e-tendering site (<https://bpcleproc.in>), then click on “Dashboard”, click on “Action” button against required Tender, If the required tender number/ details are not available in the first displayed page, then they can click on “more” button, for proceeding to next page(s). They will get “Download files” as well as “Tender Common Forms” on the same page. For participating in tender and for download Tender Documents, click on “Participate”. In the same menu, one can upload the scanned, signed stamped documents in “Edit Bid Common Forms”.

For downloading Java, please click on “Download JRE 6” on login page or more details about Bidding steps. Also, “New User Instruction Manual” from log in page can be referred.

Bidders are required to save / store their bid documents for each item into their computers before submitting their bid into e-tender.

2.0 CONTACT PERSONS:-

FOR E-TENDERING RELATED ISSUES:

If tenderers need some clarifications or are experiencing difficulties while enrolling or while participating in this e-Tender, please E-Mail to the following E-Mail ID along with the snapshots of the errors being faced to:

Email - support@bpcleproc.in

(OR) Contact the following helpdesk numbers: All India +91 79 4027 0573.

SECTION-9
FORMAT FOR BIDDER'S INFORMATION

FORMAT FOR BIDDER'S INFORMATION

Name of the Bidder	
Address	
Type of Organization: Government Dept. / Public Sector Undertaking / Public Limited Company / Private Limited Company / Partnership / Proprietorship / Others (Pl. specify)	
Location of Registered Office , in the case of Company	
Place and Year of the Incorporation	
Person Authorized to sign the bid document	
Phone, e-mail	
Does bidder has permanent establishment in India. If yes, please provide the address.	
Indian PAN No. (if available)	
In case of Foreign ,Tax Residency CERTIFICATE	
GST Registration number	
Whether the bidder falls under the category of Micro & Small Enterprises (MSE) as per the MSME Policy of Govt. of India. If YES, whether proof for the same enclosed with the bid?	
Indicate relationship with any of our Directors.	

SIGNATURE OF BIDDER :**STAMP OF THE BIDDER :**

SECTION 10
QEHS POLICY
(ATTACHED)

SECTION 11

**POLICY OF HOLIDAY LISTING FOR
VENDORS IN BPCL**

(ATTACHED)

SECTION 12

BPCL GENERAL CONDITIONS OF CONTRACT (12.1) AND ADDENDUM TO GENERAL CONDITIONS OF CONTRACT (12.2)

(ATTACHED)

SECTION 13

PROFORMA OF BANK GUARANTEE FOR EARNEST MONEY DEPOSIT

PROFORMA OF BANK GUARANTEE for EARNEST MONEY DEPOSIT
(On non-judicial paper of Rs. 500/-)

To
Bharat Petroleum Corporation Ltd.
(CPO) Refineries
Mumbai Refinery, Mahul
MUMBAI 400074

Dear Sirs,

M/s. _____
(hereinafter referred as "BIDDER") (Bidder's name and address) have taken tender for the WORK of _____ (Name of Work) for Bharat Petroleum Corporation Limited, with registered office in Bharat Bhavan, 4 & 6 Currimbhoy Road, Ballard Estate, Mumbai, India and having Refinery at Kochi (hereinafter referred as "OWNER").

The tender conditions provide that the BIDDER shall pay a sum of Rs. _____ (Rupees) _____ as earnest money /initial/ full security deposit in the form therein mentioned .

The form of payment of earnest money / initial / full security deposit includes guarantee executed by schedule "A" Bank, undertaking full responsibility to indemnify OWNER in case of default. The said BIDDER have approached us and at their request and in consideration of the premises, we _____ (Bank's name) having our office at _____ (hereinafter referred as "GUARANTOR') have agreed to give such guarantee as hereinafter mentioned.

1. GUARANTOR hereby undertake and agree that if default shall be made by BIDDER in performing any of the terms and conditions of the tender, GUARANTOR do hereby irrevocably bind themselves and undertake to pay the OWNER on first demand in writing by OWNER without protest or demur or proof or condition and without reference to the BIDDER / CONTRACTOR, the said amount of Rs. _____ (Rupees _____).
2. OWNER will have the full liberty without reference to GUARANTOR and without effecting this guarantee to postpone for any time or from time to time the exercise of any of the powers and rights conferred on OWNER under the tender with the said BIDDER and to enforce or to forbear from endorsing any powers or rights or by reason of time being given to the

said BIDDER which under law relating to the sureties would but for provision have the effect of releasing the GUARANTOR.

3. OWNER will have the right to recover the said sum of Rs. _____(Rupees _____) from GUARANTOR in manner aforesaid and such rights will not be affected or suspended by reason of the fact that any dispute or disputes have been raised by the said BIDDER 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 _____ (Bidder's Name).
5. _____ GUARANTOR'S liability under this guarantee is restricted to Rs. _____(Rupees _____). This guarantee shall remain in force until _____ unless a demand (3 months beyond bid validity) under guarantee is made against GUARANTOR within the aforesaid date, in which event the validity of this bank guarantee shall automatically be extended for another 3 (three) months, all rights under the said guarantee shall be forfeited and GUARANTOR shall be relieved and discharged from all liabilities thereunder.
6. GUARANTOR 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.

SECTION 14

**SAFETY AND SECURITY – REFINERY (14.1),
FINANCIAL DETERRENT FOR VIOLATION OF
SAFETY NORMS BY CONTRACTORS (14.2)
AND SPECIAL SAFETY CONDITIONS (14.3)**

(ATTACHED)

Important Safety Requirements for working in Refinery Plant Areas – H2S Gas Detectors

- (1) Minimum two numbers of portable H2S gas detectors per work location shall be ensured by contractors while working in refinery plant areas.
- (2) It shall be contractor's responsibility to evacuate the area if the detector alarm is sounded and inform local operation department.
- (3) Existing penalty for "Violation of permit conditions" as per Sr No 3 of existing "financial deterrents" shall be applicable for the non-compliance of above.
- (4) BPCL reserve the right to check calibration of any meter at site and reject the detector if it's response is not satisfactory.
- (5) The portable H2S gas detectors brought / used by contractors shall meet the following requirements:
 - i) Display: continuous display of real time gas concentration with manual backlight lit option.
 - ii) On start up: display the full function self test of the sensor, battery, circuit integrity, current alarm set points & days until calibration due.
 - iii) Switching off: to prevent accidental switching off, detector should not switch off by operation of single button, it should have a timed off function that provides audible and visual off indication.
 - iv) Area: ex-proof, class I, div.1, gas group A, B, C, D & T4 as per NEC 500
 - v) Audible alarm: buzzer output of 95 db.
 - vi) Visual alarm: flashing alarm shall be visible from multiple angles.
 - vii) Shall show and warn in the event of a gas alarm condition (low, high, STEL & TWA), low battery, sensor fault.
 - viii) Calibration: vendor to calibrate detectors quarterly with certified calibration gas from reputed agency. Vendor to keep record of calibration certificate at site. Certificate must clearly indicate the drift observed during calibration and calibration gas concentration & validity.
 - ix) History: should record all events and data must be stored in detector memory.
 - x) History storage period: minimum up to 250 events. when full, wraparound memory feature should replace oldest data with most recent data.
 - xi) Alarms: HI =10 ppm (non latching), HI HI =15 ppm (latching).
 - xii) The portable H2S gas detectors should be from reputed make such as Honeywell, Drager, MSA.

SECTION 15

**PURCHASE PREFERENCE POLICY LINKED
WITH LOCAL CONTENT (PP-LC)**

(ATTACHED)