

NOTICE INVITING TENDER

TENDER NO. - 8000054-HD-46009 Tube Bundles for Over Head Condensers of PRU

Sealed tenders are invited under two bid system for Supply of Tube Bundles for Over Head Condensers (07-E-4A/B/C) of PRU as detailed in the tender document.

Bid document fee (non refundable) : **Rs 3,000/-**
Earnest Money deposit (EMD) : **Rs 10,50,000/-**
Last date & time of receipt of bids : **13.06.2008 at 15.00 hrs**
Unpriced bid opening : **13.06.2008 at 15.30 hrs**

Bid document can be purchased from the office of DGM - Project Materials, HPCL, Visakh Refinery, Visakhapatnam - 530 011 on submission of a written application and payment of a Demand Draft in favour of HPCL, payable at Visakhapatnam for **Rs 3,000** /-. Bid document can also be down loaded from Web Site <http://www.hindustanpetroleum.com> and the bid document price as mentioned above shall be paid by the tenderer at the time of submission of his tender. Details of submission of tender shall be obtained from the tender document. HPCL takes no responsibility for delay or non receipt of tender document sent by post. Late bids will be rejected.

The tender document consists of the following sections, in addition to this Notice Inviting Tender:

Section - 1	:	Modality of submission of Bids
Section - 2	:	Bidders eligibility and qualification criteria
Section - 3	:	Specifications & requirements
Section - 4	:	Agreed Commercial Terms & Conditions (ACTC)
Section - 5	:	Assignments and General Provisions
Section - 6	:	Arbitration Clause
Section - 7	:	Cancellation / Risk Purchase Clause
Section - 8	:	Integrity Pact
IP Agreement	:	Annexure - IP -I & IP -II
Annexure - A	:	Format for Bank Guarantee in lieu of Earnest Money
Annexure - B	:	Format for Bank Guarantee for Advances
Annexure - C	:	Format for Bank Guarantee for Performance obligations
Section F 9	:	Schedule of Prices

SECTION - 1

MODALITY OF SUBMISSION OF BIDS

Bids shall be prepared in two bid system i.e. Priced and Un-Priced offers as detailed below:

Un-Priced bid:

The unpriced bid shall contain two envelopes as detailed below:

Envelope 1 :

This shall contain the Earnest Money Deposit EMD and cost of tender document . The EMD shall for Rs. 10,50,000/- (Rupees Ten Lakhs fifty thousand only) shall be submitted in the form of D.D payable to M/s HPCL, Visakhapatnam or in the form of Bank Guarantee as per the format attached to this tender document (**Annexure-A**, Format for Bank Guarantee in lieu of Earnest Money).The Bank Guarantee shall be non revocable bank guarantee from any scheduled bank (other than co-operative bank). The Bank Guarantee shall be valid for six months from the date of opening of the unpriced bid.

Public sector enterprises and vendors registered with National Small Scale Industries Corporation (NSIC) are exempted from submitting EMD for this purpose, in the event of the tendering company being Public Sector Enterprise, a declaration to that effect and in the case of vendor registered with NSIC, a copy of the registration certificate should be submitted along with the unpriced bid.

Bids without EMD of tenderers (other than those exempted as stated above) shall be summarily rejected.

Tenderers may note that the tender documents issued from the office of DGM - Project Materials, HPCL, Visakh Refinery, Visakhapatnam - 530 011 are not transferable.

In case the tender document was down loaded from the web site, the tenderer shall enclose a non refundable fee of **Rs 3,000/-** in the form of a crossed Demand Draft in favour of HPCL payable at Visakhapatnam, towards the cost of tender documents.

Enclose the EMD and tender document fee in Envelope - 1 and superscribe the same with “ **8000054-HD-46009**” - Supply of Tube Bundles for Over Head Condensers (07-E-04 A/B/C) of PRU due on **13.06.2008** at 15.00 hrs - EMD and tender document price enclosed ”

Envelope 2 :

The complete tender document shall be duly filled up (prices shall be blanked in Section F 9) and stamped in all pages and submitted along with supporting documents as sought in the tender. This shall be submitted in triplicate (**ie. 1 original + 2 copies**). Superscribe the envelope 2 with “

8000054-HD-46009 Supply of Tube Bundles for Over Head Condensers (07-E-04 A/B/C) of PRU - due on **13/06/2008** at 15.00 hrs - Unpriced bid enclosed“.

Integrity Pact : Duly signed Integrity Pact agreement shall be submitted along with the unpriced offer . Failure to sign the Integrity Pact shall lead to outright rejection of Bid.

Priced bid:

Enclose the duly filled up Section - F 9. The priced bid shall be submitted in an envelope marked **Envelope - 3** and superscribe the same with “ **8000054-HD-46009** -Supply of Tube Bundles for Over Head Condensers of PRU due on **13/06/2008** at 15.00 hrs - Priced bid enclosed“.

Bids prepared as above shall be made available at the office of DGM - Project Materials, HPCL, Visakh Refinery, Visakhapatnam - 530 011, India before the bid due date ie **13/06/2008** 15.00 hrs. Bids received after the bid due date ie. **13/06/2008** at 15.00 hrs will be rejected. HPCL shall not be responsible for delay in receipt of bids due to postal delay or any other reason. Telex / fax / e-mail offers are not acceptable.

The unpriced part of the tenders, of those bidders who have submitted the required EMD and cost of tender document will be opened on **13/06/2008** at 15.30 hrs in presence of the bidders/their authorised representatives. The representative of the bidder witnessing the bid opening shall have the authorization from the bidder authorizing the representative to witness the bid opening. The date and time of opening of the priced bid will be intimated subsequently to the technically and commercially acceptable bidders.

It is to be noted that if the bidder is in the holiday list of HPCL, then the offer of such bidder for this tender shall be rejected.

HPCL reserves the right to reject any or all bids without assigning any reason whatsoever thereof and also reserve the right to give purchase preference to Indian Public Sector Enterprises/Undertaking, price preference to Small Scale Units or any other preference / relaxation as admissible under the guidelines of Govt. of India.

Deviations if any shall be indicated separately. Such deviations will lead to loading of prices or rejection of offer, at the sole discretion of HPCL without any reference to the bidder.

GRIEVANCE REDRESSAL: There is a grievance redressal mechanism in HPCL for vendors participating in the tender, the details of which are available on **www.hindustanpetroleum.com**.

Technical Clarifications, if any, can be obtained from Sr.Manager-Minor Projects, HPCL, Visakh Refinery, Visakhapatnam. Phone No.:0891-2894874 /4875, Fax: 0891 - 2577768.

SECTION - 2 :

BIDDERS ELIGIBILITY AND QUALIFICATION CRITERIA

1. The bidder shall be a manufacturer of tube bundles and/or full exchangers. The existence of such manufacturing facilities shall be certified by any one of the Agencies namely EIL / BVIS / LLOYDS. Copy of the same shall be provided.
2. The bidder should have manufactured & supplied tube bundles to any petroleum refinery / petrochemicals plant, during the last 7 (Seven) years ending last day of month previous to the one in which applications are invited as per the details given below.

The minimum single basic order value of Rs. 420 lakhs (Rs. Four hundred and twenty Lakhs Only)

Or

Minimum two orders of basic value Rs. 265 lakhs each (Rs. Two hundred and sixty four Lakhs Only).

Or

Minimum three orders of basic value Rs. 210 Lakhs each (Rs. Two hundred ten lakhs only).

Copies of such orders and completion certificates shall be provided.

3. The bidder should have manufactured & supplied at least one tube bundle of following metallurgy, or different tube bundles which together included the following metallurgy.

Tubes = Ti (SB 338 Gr.2 Welded)

Tube sheets = Ni Al Br (SB 171 UNS No. 63000).

Copies of such orders and completion certificates shall be provided.

4. Bidder shall have an annual Financial turnover of not less than Rs.5 Crores (Rupees Five Crores only) in any one of the financial years ie. 2005-06, 2006-07 and 2007-08. The complete documentary evidence, duly attested by a notary of purchase order, completion certificates, TPIA certificate, As built drawings and balance sheets etc., shall be provided along with the technocommercial bid in support of the bidder prequalification criteria as given above.

5. Parties who are affiliates of one another can decide which Affiliate will make a bid. Only one affiliate may submit a bid. Two or more affiliates are not permitted to make separate bids directly or indirectly. If 2 or more affiliates submit a bid, then any one or all of them are liable for disqualification. However up to 3 affiliates may make a joint bid as a consortium, and in which case the condition applicable to a consortium shall apply to them..

“Affiliate” of a party shall mean any company or legal entity which:

- (a) Controls either directly or indirectly a party, or
- (b) Which is controlled directly or indirectly by a party; or
- (c) Is directly or indirectly controlled by a company, legal entity or partnership which directly or indirectly controls a party. “Control” means actual control or ownership of at least a 50% voting or other controlling interest that gives the power to direct, or cause the direction of, the management and material business decision of the controlled entity.

6. Bids may be submitted by:

- (a) a single person / entity (called sole bidder);
- (b) a newly formed incorporated joint venture (JV) which has not completed 3 financial years from the date of commencement of business;
- (c) a consortium (including an unincorporated JV) having a maximum of 3 (three) members;
- (d) an Indian arm of a foreign company.

7. Fulfillment of eligibility criteria and certain additional conditions in respect of each of the above 4 types of bidders is stated below, respectively:

(a) The sole bidder (including an incorporated JV which has completed 3 financial years after date of commencement of business) shall fulfill each eligibility criteria.

(b) In case the bidder is a newly formed and incorporated joint venture and which has not completed three financial years from the date of commencement of business, then either the said JV shall fulfil each eligibility criteria or any one constituent member / promoter of such a JV shall fulfil each eligibility criteria. If the bid is received with the proposal that one constituent member / promoter fulfils each eligibility criteria, then this member / promoter shall be clearly identified and he/it shall assume all obligations under the contract and provide such comfort letter / guarantees as may be required by owner. The guarantees shall cover inter alia the commitment of the member / promoter to complete the entire work in all respects and in a timely fashion, being bound by all the obligations under the contract, an undertaking to provide all necessary technical and financial support to the JV to ensure completion of the contract when awarded, an undertaking not to withdraw from the JV till completion of the work, etc.

(c) In case of bidder(s) is / are a consortium (including an unincorporated JV), then the following conditions shall apply:

- 1) Each member in a consortium may only be a legal entity and not an individual person;
- 2) The bidder shall specifically identify and describe each member of the consortium;
- 3) The consortium member descriptions shall indicate what type of legal entity the member is and its jurisdiction of incorporation (or of establishment as a legal entity other than as a corporation) and provide evidence by a copy of the articles of incorporation (or equivalent documents);
- 4) One participant member of the consortium shall be identified as the “ member” and contracting entity for the consortium;
- 5) This prime member shall be solely responsible for all aspects of the Bid/Proposal including the execution of all tasks and performance of all consortium obligations;
- 6) The prime member shall fulfill each eligibility criteria;
- 7) A consortium shall be given from each of the consortium member in the form of a letter signed by a duly authorized officer clearly identifying the role of the member in the Bid and the member’s commitment to perform all relevant tasks and obligations in support of the prime / lead member of the consortium and a commitment not to withdraw from the consortium;
- 8) No change shall be permitted in the number, nature or share holding pattern of the Consortium members after pre-qualifications, without the prior written permission of the owner.
- 9) No change in project plans, time tables or pricing will be permitted as consequence of any withdrawal or failure to perform by a consortium member;
- 10) No consortium member shall hold less than 25% stake in a consortium;
- 11) Entities are affiliates of one another are allowed to bid either as a sole bidder or as a consortium only;
- 12) Any person or entity can bid either singly or as a member of only one consortium.

(d) In case the bidder is an Indian arm (Subsidiary, authorized agent, branch office or affiliate) of a foreign bidder, then the foreign bidder shall have to fulfill each eligibility criteria. If such foreign company desires that the contract be entered into with the Indian arm, then proper back to continuing (parent company) guarantee shall be provided by the foreign company clearly stating that in case of any failure of any supply or performance of the equipment, machinery, material or plant or completion of work in all respects and as per the warranties / guarantees that may have been given, then the foreign company shall assume all obligations under the contract. Towards this purpose, it shall provide such comfort letter/ guarantees as may be required by Owner. The guarantees shall cover inter alia the commitment of the foreign company to complete the entire work in all respects and in a timely fashion, being bound by all the obligations under the contract, an undertaking to provide all necessary technical and financial support to the contract when awarded, an undertaking not to withdraw from the contract till completion of the work, etc.

Note to tenderers: Offers of Bidders failing to submit the prescribed documents in support of the above prequalification criteria shall be rejected.

SECTION - 3 :

Tube Bundles for Over Head Condensers of PRU

1.0 SCOPE OF JOB :

Residual design / engineering, fabrication, testing, supply of spare gaskets & internals, procurement of material (**except tubes which will be supplied by HPCL at free of cost**), transportation of tubes from HPCL store to vendor work shop and supply of the following 3 nos. Tube Bundles as per the enclosed Drawings & Material of Construction as given in the tender document.

The proposal includes supply of tube bundles of following Over Head Condensers at PRU.

Item No.	Eqpt. No.	Description	Qty. Reqd. Nos.	Proposed Material of Construction (MOC)			
				Tubes	Tube Sheets	Cage	Bolting Material
1	7-E-04A	Split Over Head Condenser	ONE	SB 338 Gr.2 Ti Welded	SB 171 UNS No.63000	SB 127 UNS No.4400 (Monel)	SB 164 UNS No.4400
2	7-E-04B	Split Over Head Condenser	ONE	SB 338 Gr.2 Ti Welded	SB 171 UNS No.63000	SB 127 UNS No.4400 (Monel)	SB 164 UNS No.4400
3	7-E-04C	Split Over Head Condenser	ONE	SB 338 Gr.2 Ti Welded	SB 171 UNS No.63000	SB 127 UNS No.4400 (Monel)	SB 164 UNS No.4400

Vendor to supply 3 sets of gaskets (Monel Jacketed Asbestos Filler) for each exchanger as given below.

1. Channel to Tube sheet
2. Tube sheet to Shell
3. Floating head cover

2.0 SPECIAL NOTES TO VENDOR :

1. The tubes (3120 nos.) will be supplied by HPCL at free of cost. Vendor has to arrange for transportation of the same from HPCL store to his work shop at his cost. Required no. of tubes as per drawing only will be issued. In case any tube gets damaged due to any reason and the tubes required for spacer and for any other purpose, the same has to be purchased by vendor and installed at his own cost. Before usage of such tubes, approval has to be taken from HPCL. Except tubes

procurement, all the other material like tube sheets, baffle plates, bolts etc. are in vendor scope.

2. Vendor has to submit **Bank Guarantee** for the equivalent amount of tubes which will be issued from HPCL store before lifting the same from the HPCL store. The Value of the tubes to be considered for the purpose of BG is Rs. 95 Lakhs only.
3. The existing tube bundle metallurgy is follows:
Tubes : Cu-Ni
Tubesheets : Cu-Ni
Baffles, Tie rods : IS:226
Spacers : IS:1239
Impingment Plate : IS:226

The new (proposed) tube bundle metallurgy is as follows:

Tubes : **Ti (SB 338 Gr.2, welded)**
Tubesheets : **Ni Al Br (SB 171 UNS 63000)**
Baffles, Tie rods : **Monel (SB 127 UNS 4400)**
Spacers : **Titanium (SB338 Gr.2)**
Impingment Plate : **Monel (SB127 UNS 4400)**

The dimensions of Ti tubes (SB 338 Gr.2 Welded) is as follows:

Dia = 20 mm
Thk = 20 BWG
Length = 6000 mm

4. The dwgs enclosed with the enquiry show the existing tube metallurgy. Vendors to note that all the dimensional details will remain same excepting the metallurgy of some parts as indicated.
5. Vendor shall ensure that all alloy steel & Stainless Steel materials are properly identified and finally check tested by a PMI (Positive Material Identification) analyser.
6. **OEM drawings & EIL tube layout sheets for 07-E-04 A/B/C are enclosed. These documents are being provided along with the enquiry for quoting purpose. Vendor to study the same before quoting. If the information in the dwgs & tube layout sheets is not sufficient for quoting purpose, vendors need to visit site and collect necessary details to satisfy themselves before quoting.**
7. After placement of order on successful bidder, before commencement of fabrication dwg of the tube bundle, vendor to visit site and collect all details required for preparation of the fabrication dwg, if necessary.

8. Vendor to submit fabrication drawing of the above tube bundles for HPCL approval prior to fabrication.
9. Vendor shall strictly follow material of construction, as indicated in the enquiry for the Tube Bundles. Deviation in material specification will not be allowed.
10. Vendor shall arrange test jigs, dummy shell (at his own cost) and carryout testing of tube bundles as per the instructions of Third Party Inspection agency.
11. Vendor should review the tender & attachments carefully, duly signed & stamped and submit with enquiry.

3.0 INSPECTION :

The fabrication of tube bundles shall be carried under Third Party Inspection (TPI) like M/s.EIL / Bureau Veritas / LRIS. HPCL shall reimburse necessary inspection charges on submission of documentary evidences. However, the responsibility for arranging Third Party Inspection Agency and subsequent co-ordination for inspection lies with the vendor only. Vendor shall indicate ceiling for TPI charges in their priced bid. No delivery extension on this account shall be entertained.

3.1 INSPECTION

Inspection points shall include but not limited to the following:-

GENERAL :

1. Review of QAP
2. Raw material identification (PMI)
3. Welding procedure & qualification (incl. TTP welding)
4. NDT Procedures
5. Heat Treatment
6. Execution of major repairs
7. Testing of tubebundles as per stds & drgs.
8. Surface protection / painting
9. Sling location marking for lifting
10. Capping of all openings
11. Packing
12. Final Documentation and issue of despatch clearance

TUBE SHEET :

13. Alloy verification
14. Heat Treatment if any

15. Visual and Dimensional check
16. Final Inspection of Tube Sheet

BAFFLES :

17. Visual and Dimensional check

BUNDLE ASSEMBLY :

18. Mock up test for tube to tube sheet joint
19. Skeleton Assembly of Bundle
20. Tube Alignment and Dimensional check
21. Tube to tube sheet expansion (check % expansion)
22. DP test on tube to tube plate joint
23. Final Inspection

Vendor shall provide all inspection reports to HPCL on the same day as and when inspection has been carried out for HPCL reference and records.

4.0 GUARANTEE:

Vendor should provide guarantee for a period of 18 months from the date of supply or 12 months from the date of commissioning, whichever is earlier, against defective material, poor workmanship.

5.0 DELIVERY PERIOD :

Vendor shall deliver the Tube Bundles (3 nos.) within **9 months** from the date of FOI. The delivery schedule, as stated above should be strictly adhered to. The bid of parties not meeting the delivery schedule shall be liable to be rejected.

In case of delay in delivery schedule, a LD of 0.5% per week subject to a maximum of 5% of the total PO value shall be levied. Details of LD Clause are specified in ACTC.

6.0 PAYMENT TERMS:

- a. 10% against approval of drawings against submission of Bank Guarantee for equivalent amount.
- b. 20% against identification of raw materials by TPI (like tubes, tube sheets, baffel plates etc.) against submission of Bank Guarantee for equivalent amount.
- c. 60% against receipt of material at site
- d. 10% against submission of PBG after receipt of material at HPCL stores

Payment shall be made as follows :

75% of the bill amount duly recommended by user shall be paid within 7 days of receipt of bill

Balance 25% to be paid after verification/certification in 15 days of receipt of bill.

7.0 VENDOR'S SCOPE :

- i. Procurement of all necessary raw materials such as tube sheet, plates, bolts & nuts, pipes, rods, fittings, gaskets, fasteners, backing rings, fish plates internals etc. **(except tubes)**
- ii. Fabrication & Supply of tube bundles assembly with baffle, support plates, tie rod, spacer, stationery tube sheet and floating head tube sheet etc., as per applicable drawing.
- iii. Arrangement to transport tubes from HPCL store to vendor's work shop.
- iv. Vendor shall arrange test zigs, dummy shell and carryout testing of tube bundles as per the instructions of Third Party Inspection agency & drawings.
- v. Temporary facilities for transportation, if required.
- vi. Documentation & drawings as per Clause "requirements for documents".
- vii. Tests and inspections of tube bundles.
- viii. Marking.
- ix. Packing.
- x. Inland transportation.
- xi. Mechanical guarantee.

8.0 HPCL'S SCOPE :

- i. Supply of Ti tubes (3120 nos. only).

9.0 GENERAL NOTES FOR TUBE BUNDLES :

1. All dimensions are in 'mm' unless otherwise specified.
2. The tube-to-tubesheet joint shall be expanded type.
3. All Bolt holes shall straddle the principal center lines.
4. Wherever Radiography is spot, it shall include 100% - "T" Joints.
5. Carbon content of all welded C.S. materials shall not exceed 0.25%.
6. All machined surfaces shall be D.P checked.
7. All plates above 20mm & forgings above 50mm thk. shall be ultrasonically tested.
8. Equipment No. empty weight & plant shall be painted on relevant side of Exchanger (letter size 150 mm).
9. Tube Sheet surfaces to be machined to 4.8 Micron surface finished all over except Gasket Surface.
10. For pressure parts to non-pressure parts welding electrode shall be E 7018 for carbon steel.
11. All welds which are not required to be radiographed as per code shall be subjected to DP/MP test.
12. Protect all machined surfaces and threaded connection with rust preventive immediately after machining. Install wood or steel protectors for fittings immediately after testing.
13. Fabrication tolerances shall be indicated on drawings and are non cumulative.

14. The Gaskets used during Hydraulic testing shall be of same specification as service gaskets.
15. All sharp corners shall be suitably rounded off and ground flush.
16. All applicable standards / specifications shall be indicated in vendor drawings.
17. All Plates/Forgings/Tubes used for pressure parts shall be normalized / solution annealed condition for C.S./S.S materials respectively.
18. Assembly Instruction : Orientation angles 0° , 90° , 180° & 270° of all components shall match with that of Exchanger Assembly.
19. The Tube holes in tube sheet, baffles and support plates shall be rounded off.
20. All internal welds to be ground flush.
21. All the Tube Sheets shall be 100% ultrasonically tested.
22. The Tube Bundles shall be finally tested with service gaskets and shall be despatched in tested condition. The Tube Bundles shall be thoroughly dried by passing hot air after Hydraulic Test.
23. Vendor shall confirm that the tear and pull out test shall be carried out during mock up test.
24. Sliding strips, shim plates, sealing strips, pulling eye bolts, jack bolts, blocks, dowel pins, pipe davits, lifting lugs etc., shall be in Vendor's Scope of supply.
25. Test Ring / Test Flanges shall be in Vendor's Scope of supply.
26. Vendor to furnish the Drawings and Documents as per "Requirements for Documents".
27. All the Tubes are to be hydrotested and non-ferrous tube shall be eddy-current tested in addition to Hydro Testing.
28. All the raw materials shall undergo tests as specified under relevant ASTM specifications.

10.0 REQUIREMENTS FOR DOCUMENTS :

Part- 1 : Following Documents shall be furnished with quotations :

1. Complete Tender Document and drawings duly signed and stamped on each page.
2. Fabrication Schedule
3. Quality Assurance Manual
4. Inspection Plan (Typical)
5. Filled out Check List, Technical Evaluation Format & Memorandum
6. Estimated Shipping Weights and Dimensions
7. List of Exceptions to Purchase Specifications

Part- 2 :Following Documents shall be furnished on placing P.O. :

1. General arrangement Drawings
2. List of Drawings
3. Construction / Fabrication Drawings
4. Documentation for Authority approval
5. List of Contact Name(s) and Work Reference(s)
6. Fabrication Schedule
7. Bi-Weekly Progress Report
8. Heat Treatment Procedure

9. Non-Destructive Testing Procedure
10. Pressure Testing Procedure
11. Repair Procedure (if applicable)
12. Shipping Weights and Dimensions

Part- 3 : Following Documents shall be furnished on or before delivery date :

Four sets of Final Document Folder consisting of the following documents (1 set with original documents + 3 sets with xerox copies) plus soft copy of the same:

1. Inspection test reports
2. Material test certificates
3. Manufacturing Report
4. Certificate of Compliance
5. As-built Drawings
6. Transparencies for the as-built Drgs.
7. CAD drawings as soft copy
8. Standard Guarantee Certificate
9. Packing List

11.0 APPLICABLE SPECIFICATIONS :

11.1 GENERAL SPECIFICATIONS FOR HEAT EXCHANGER TUBE BUNDLE :

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<u>SECTION</u>	<u>DESCRIPTION</u>
11.1.1	GENERAL
11.1.2	DESIGN
11.1.3.	DESIGN DETAILS
11.1.4	FABRICATION
11.1.5	TESTING AND NAME PLATE
11.1.6	PREPARATION FOR SHIPMENT

11.1.1 GENERAL :

11.1.1.1 SCOPE :

The requisition, this specification, the data sheets and the “Requirements for Documents” define the technical requirements the vendor shall meet in the design, fabrication, inspection testing and preparation for shipment of the Tube Bundle equipment within his scope of supply. In case of conflict between this specification and the data sheets, the latter will govern. The vendor shall specify in his tender any of such cases.

11.1.1.2 DATA :

11.1.1.2.1 Vendor shall furnish all data required to complete HPCL’s tube bundle data sheet including baffle pitch and cut.

11.1.1.2.2 Designs which are not fully defined by the nomenclature in Tabular Exchanger Manufacturers Association (TEMA) standards, Section-I, shall be accompanied by drawings sufficient to describe the details of construction.

11.1.1.3 DRAWINGS :

11.1.1.3.1 The kind and number of documents & drawings to be submitted to HPCL for review, approval and reference, are specified on the “requirements for documents” sheet attached to the requisition.

11.1.1.3.2 Vendor shall prepare detailed fabrication drawing and shall submit for approval from HPCL as specified in the requisition and HPCL's purchase order. Also final as-built drawings shall be submitted as required.

11.1.1.3.2.1 Each of these documents and drawings shall have been checked by vendor's qualified engineers and marked & signed to that effect.

11.1.1.3.2.2 Vendor shall not start fabrication prior to HPCL's approval of these documents and drawings.

11.1.1.3.2.3 HPCL's approval of vendor's documents does not relieve vendor of his responsibilities for the services as covered in HPCL's purchase order.

11.1.1.3.3 Outline drawings shall atleast cover the following information :

- a) Applicable code, TEMA class and HPCL's specifications.
- b) Overall dimensions.
- c) Tube Bundle removal clearance, if applicable.
- d) Empty weight of tube bundle.
- e) Design pressure, test pressure, design temperature, joint efficiency and corrosion allowance for both sides of the exchanger.
- f) Service, HPCL's item number, project name and location, HPCL's order number and vendor's shop order number.
- g) Postweld heat treatment, radiographic and other non-destructive examination requirements to be performed.
- h) Surface preparation and painting requirements.
- i) Material specification for all components.
- j) Welding details and reference to WPS.
- k) Revisions shall be clearly indicated with a revision mark as close as possible to the modification.

11.1.1.4 CODES, STANDARDS, SPECIFICATIONS AND STATUTORY REQUIREMENTS:

The following codes, standards & specifications, including applicable addenda, in effect as of 1999 (as date of purchase, in case of statutory / regulations) shall form a part of this specification to the extent specified herein.

11.1.1.4.1 Tubular Exchanger Manufacturer Association (TEMA) standards, class "R".

11.1.1.4.2 **American Society of Mechanical Engineers (ASME) :**

Boiler and Pressure Vessel Code :

Section-II : Material Specifications

Section-VIII, : Pressure Vessels

Div. I or II

Section-IX : Welding and Brazing Qualifications

Vendor may use equivalent code specifications as an alternate, when economically attractive. However, this is subject to HPCL's approval.

11.1.1.4.3 American National Standards Institute (ANSI) :

B2.1	Pipe Threads
B16.5	Steel Pipe Flanges, Flanged Valves and Fittings
B16.11	Forged Steel Fittings, Socket Welding and Threaded
B46.1	Surface Texture

11.1.1.4.4 Steel Structures Painting Council (SSPC) :

SP2	Hand Cleaning
SP3	Power Tool Cleaning
SP5	Blast Cleaning to "White" metal
SP10	Blast Cleaning to "Near White" metal

11.1.1.4.5 American Welding Society (AWS) :

D1.1	Structural Welding Code.
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11.1.1.4.6 All conflicts between the requirements of this specification, the heat exchanger data sheet or drawing and any applicable local or governmental regulations, shall be called to the HPCL's attention for resolution before proceeding with manufacture.

11.1.1.4.6.1 Any deviation from the HPCL's approved drawings, specification sheets, specifications or standards must be submitted in writing to the HPCL for approval prior to start fabrication.

11.1.1.4.6.2 When fabrication to a code is required, it shall be vendor's responsibility to comply with all requirements of this code. Should any feature of the HPCL's drawings, specification sheets, specification or standards violate the intent, or not meet the requirements of the code, the vendor is to bring such points to the attention of the HPCL for resolution prior to fabrication.

11.1.1.4.6.3 The vendor shall supply properly certified manufacturer's data reports or other documents, as required by the applicable code. Copies of these manufacturer's data reports as well as mill test reports for the materials of construction, shall be furnished to the HPCL as required by the purchase order.

11.1.1.4.6.4 It shall be vendor's responsibility to obtain the required approval of the inspection authority having jurisdiction at the locality of installation (i.e., state authorities active with the administration and enforcement of the code rules, where applicable).

11.1.1.5 UNITS OF MEASUREMENT :

11.1.1.5.1 The MKS system of measurement shall be used.

11.1.2 DESIGN :

11.1.2.1 MATERIALS :

11.1.2.1.1 Materials shall conform to the requirements of the TEMA standards. All materials subject to internal or external pressure shall also conform to the specifications given in ASME, Section-VIII, Div-I. Carbon content of all weldable carbon steel shall be limited to 0.25%. Materials shall be supplied with test certificates as required by code.

11.1.2.1.2 In case the material does not confirm the indicated standards, the vendor shall obtain design data from the supplier of such material, verify all calculations, show source of data & obtain HPCL's approval.

11.1.2.2 BOLTING :

11.1.2.2.1 Materials for internal bolting for units with design temperatures below -30°C shall be selected from a suitable grade of ASME SA-320.

11.1.2.2.2 Threads for bolting shall be in accordance with ANSI B1.1 Class 2A fit. Sizes 1" smaller shall be coarse thread series and sizes 1 1/8" and large 8 pitch thread series.

11.1.2.3 GASKETS :

11.1.2.3.1 Gaskets shall be specified in HPCL's heat exchanger data sheet and shall be furnished in accordance with the specified TEMA standards.

11.1.2.3.2 Material for metal clad gaskets shall be selected by the vendor for the design service conditions and shall be subject to HPCL's approval.

11.1.3 DESIGN DETAILS :

11.1.3.1 TUBES AND TUBE BUNDLES :

11.1.3.1.1 Shells with removable tube bundles shall in principal, be limited to 1220 mm outer tube limit, unless otherwise specified on the individual exchanger data sheet.

11.1.3.1.2 The standard tube length shall be 6m.. Deviations are not acceptable.

11.1.3.1.3 Rolled tubes shall project 3mm + 0.5mm, - 0.0 mm beyond the tube side face of the tube sheet of horizontal exchangers.

11.1.3.1.4 The inside edge of the tube holes in the tube sheet shall be chamfered to prevent cutting of the tubes.

11.1.3.1.5 Pulling eye bolts or lugs shall be provided to removable type tube bundles.

11.1.4 FABRICATION :

11.1.4.1 WELDING :

11.1.4.1.1 Welding procedures, welding performance and welding processes shall be qualified in accordance with ASME, Section IX. All welding shall be carried out by metal arc welding process and consumables like electrodes and fluxes shall be of the low hydrogen type for C.S.

11.1.4.1.2 Vendor shall furnish HPCL prior to fabrication, detailed welding and weld overlaying procedures to be employed in fabrication, giving description of welding method, details of joint preparation and the electrode or filler metal classification per code. Welder's

performance qualifications must be made available for hpcl's review prior to fabrication.

11.1.4.1.3 Tie rods shall be screwed into tube sheet and subsequently seal welded / tack welded into tube sheet.

11.1.4.2 TOLERANCES :

Dimensional tolerances shall be in accordance with the TEMA standards.

11.1.5 TESTING :

11.1.5.1 The hydrostatic test pressure shall be as specified on the exchanger data sheet. The test pressure shall be held for atleast 60 minutes.

11.1.5.2 Test gaskets shall be the same type as the service gasket, but need not be of the same material if the seating characteristics are similar. Use of a sheet test gasket in lieu of a spiral wound, metal jacketed or similar gasket is permitted. Ring type joints shall be tested using a metallic ring of similar cross section and hardness.

11.1.6 PREPARATION FOR SHIPMENT :

11.1.6.1 Vendor must ensure that equipment is properly located and secured to the carrier, to ensure that clearance requirements are met and to prevent any damage from improper shipment such as cradles or hold-down devices.

11.2 GENERAL SPECIFICATION FOR EXPANDED TUBE TO TUBESHEET JOINTS

CONTENTS

SL.NO.	DESCRIPTION
11.2.1	GENERAL
11.2.2	TYPES OF JOINTS
11.2.3	MATERIALS FOR MOCK UP
11.2.4	CARE OF TUBES
11.2.5	TUBE HOLES IN TUBE SHEETS
11.2.6	ASSEMBLY OF TUBES
11.2.7	TUBE EXPANDERS & EXPANDING OF TUBES
11.2.8	PRESSURE TESTING
11.2.9	PROCEDURE TESTING
11.2.10	PERCENTAGE THINNING REQUIREMENTS
11.2.11	SHEAR LOAD TESTS
11.2.12	INSPECTION STATES AND INSPECTION

11.2.1 GENERAL :

This specification covers the expanded tube-to-tube sheet joints for heat exchangers. For the purpose of this specification, the term “Joints” shall be construed to mean “tube-to-tubesheet joints”. The fabrication procedures contained in this specification are for the purpose of outlining procedures, which when used with proper workmanship, will produce leak-free joints. However, it is the fabricator’s responsibility to furnish sound, leak-free joints.

11.2.2 TYPES OF JOINTS :

Joints with Two grooves shall be standard unless specified otherwise.

11.2.3 MATERIALS FOR MOCK UP :

Materials for mock up shall be as specified on the drawing. Generally, same materials shall be used for procedure testing. Alternate materials are acceptable only if written approval of HPCL has been granted. Tubesheet thickness for procedure testing shall be equal to be maximum thickness of the tube sheet except that it need not exceed 55mm.

11.2.4 CARE OF TUBES :

Ends of the tubes (tubesheet thickness + 100 mm) shall be subjected to careful visual inspection. These shall have no scaling, scoring or rough surface. Repairs if required, shall be carried out, only after permission from HPCL / Inspection Agency has been sought. Repairs if carried out, shall be such that tube dimensions are within the tolerances specified for the tube material. Otherwise the tube shall be discarded.

11.2.5 TUBE HOLES IN TUBESHEETS :

Tube holes in tubesheets shall be drilled as per TEMA Special close fit. Wherever standard fit is desired, same shall be indicated specifically on the drawings. For metric tube of size 20mm O.D the nominal size of holes shall be 20.20 mm with tolerances as ± 0.05 mm. For 25 mm O.D. tubes, nominal size of holes shall be 25.25 mm with tolerance as ± 0.05 mm.

11.2.6 ASSEMBLY OF TUBES :

Clean the holes and ends of tubes of any rag, dirt or any other solid matter, oil or grease etc. Care shall be taken during assembly to avoid scoring of tube holes in tubesheet or outer surface of the tubes. The tubes shall be positioned so that their projection from the tubesheet is as per drawing.

11.2.7 TUBE EXPANDERS & EXPANDING OF TUBES :

Tube expanders used by the fabricators shall be electronically controlled type and shall be in good condition and shall have the inspector's approval. The tube expanders shall have 'stops' to prevent the rollers approaching nearer than 3 mm to the back of the tube sheet. Tubes shall be expanded into the tubesheet by using the equipment and settings as previously agreed between the inspector and the fabricator. Such settings may be required to be proved by procedural testing or at the discretion of the inspector, fabricator's established settings may be used. Tubes shall be expanded for the full thickness of the tube sheet less than 3 mm at the back side of face of the tubesheet. However, for tubesheet thickness more than 5 x Tube OD, the expansion may be limited to 4 x Tube OD on the front side and 1 x Tube OD on the back side of the tube sheet. Care shall be taken to avoid any distortion of the tubesheet or gross deformation of the ligaments. It is suggested that tubes be expanded systematically in small, diametrically opposite groups.

11.2.8 PRESSURE TESTING :

After expansion of all tube joints in exchanger is completed, tubesheet face and the internal surfaces of the tubes to a length of about 15 mm shall be thoroughly cleaned. Any grease or oil shall be suitably removed by the use of proper solvent or by steam jets. These joints shall then be subjected to pneumatic air-soap solution test of 1.25 kg/cm²g. Leaking tubes shall be further expanded in the presence of Third Party's authorised inspector after reasons for the leakage have been ascertained and accepted by the inspector. If excessive thinning ($\geq 15\%$) is required to check the leakage, same shall be reported to Third Party Inspection Agency before such expansion is carried out. Expanded joints shall also be subjected to hydrostatic leakage test at a test pressure indicated in the drawing. Leakage if any, shall be reported to Third Party Inspection Agency. However leaking tubes if any may be further expanded keeping the guidelines above in view.

11.2.9 PROCEDURE TESTING :

Procedure testing is required to be carried out when (a) the inspector requires it, or (b) for those combinations of tube and tubesheet materials and sizes of tubes for which torque value for optimum expansion have not been established by vendor to the satisfaction of inspection authority or (c) it is a requirement of the code / purchase order / equipment drawing or (d) load carrying capacity of the tube to tubesheet joints is required to be certified. In all above cases, complete procedure testing to demonstrate the following shall be carried out : (a) % thinning Vs machine setting. (b) Shear load test.

11.2.10 PERCENTAGE THINNING REQUIREMENTS :

Percentage thinning shall be defined as follows :

$$\% \text{ thinning} = \left(1 - \frac{D_h - I D_f}{O D_i - I D_i} \right) \times 100$$

Where

Dh = Hole diameter in tubesheet
 I Df = ID of tube after complete expansion
 O Di = OD of tube before expansion
 I Di = ID of tube before expansion

A sample tubesheet of same material and thickness as required for regular production shall be drilled, reamed and grooved as per drawing. Hole diameter shall be as specified. Tubesheet thickness used for procedural testing shall be as per drawing except that it need not exceed 55 mm for tubesheets having thickness higher than 55 mm. Diameter of hole drilled in the sample tubesheet shall be measured accurately. A sample tube shall be selected which represents average dimensions for the lot and its O.D and I.D shall be measured.

Tube shall be positioned in the hole and assembly held in the same position as shall be adopted for production. Tube expander to be used for production shall be set at an estimated low value and tube shall be expanded inside the tubesheet hole. Expander setting shall be increased until the thinning is in the range of 8-10% for the materials except stainless steel in which case it shall be 6-8%.

Expander setting thus found shall be tested on the following combinations and thinning shall be checked to be within the range specified above :

COMBINATIONS REQUIRED FOR CHECKING THE EXPANDER SETTING :

<u>Combination No.</u>	<u>Hole dia with Tolerance</u>	<u>Tube with O.D</u>	<u>Tolerance on Thk</u>
1	+	+	+
2	+	+	-
3	+	-	+
4	+	-	-
5	-	+	+
6	-	+	-
7	-	-	+
8	-	-	-

Combination selected will use tubes with extreme tolerances as far as obtainable from the given lot of tubes. Great accuracy shall be used in drilling holes in sample tubesheet with extreme tolerances. Results of these tests (reporting combination number and % thinning

achieved and various diameters used for calculation of thinning) shall be reported to Third Party Inspection.

Vendor is advised to satisfy himself that settings reported and to be used in the production shall be the best for the job and would enable him to give workmanship guarantee for the

equipment. Third Party's approval shall in no way relieve the vendor of his responsibility and guarantee to supply the equipment as per the conditions of the purchase order.

Samples prepared above, shall be cut in two halves along the axis of the tubes to show the flow of metal into the grooves. These cut-sections shall be presented to the inspector who shall check the samples for flow of metal into the grooves and also check the expansion length. Inspector's approval shall be sought before expander setting is approved.

11.2.11 SHEAR LOAD TESTS :

Shear load tests shall be carried out as per Appendix A of ASME Boiler and Pressure Vessels Code, Section-VIII Division-I. Factor of reliability of the joint shall be established and shall be demonstrated to be greater than or equal to F_r (Test) as per Appendix A table. Actual value shall be reported in the test reports.

11.2.12 INSPECTION STAGES AND INSPECTION :

Inspection of the equipment shall be carried out as per the Purchase Order by an authorised inspector of the client. For expanded tube joints, following stages of inspection shall be observed and reported :

- a. Inspection of tubes and tube sheet material. Special attention shall be paid to tube dimension. These shall be within the specified tolerances.
- b. Agreement regarding expansion procedure. If previously established procedure of the vendor is to be used, inspector has the option of asking for a demonstration of the procedure to satisfy himself of its accuracy or to confirm the suitability of the expanding equipment or control unit. With time, the equipment used for expansion may change its characteristics and inspector may like to check this by actual procedure tests. If procedure testing is to be carried out, all tests preparations etc., shall be inspected by the inspector.
- c. When holes in the tubesheet have been drilled, reamed and grooved, all holes shall be given a careful check for :
 1. Tube layout pattern.
 2. Holes being perpendicular to tubesheet surface, circular with parallel sides, free from any scoring marks, grooves being properly located and of required dimension and surface finish of holes to be atleast 1.6 microns (average) or better.
 3. Minimum ligament width as per drawing or code.
- d. Check the tubes and their ends before assembly is complete and before expansion is to be started.
- e. Agree to the sequence of expanding tubes into the tubesheet holes.

f. Check for distortion of tubesheet and thinning of tubes after expansion is complete.

g. Witnessing of pneumatic & hydrostatic testing.

12.0 LIST OF ENCLOSURES :

12.1 DRAWINGS :

SL. NO.	EQUIPMENT	DRAWING NO.	NO. OF SHEETS
1	07-E-04 A/B/C	4 HE - B - 496 Rev 6 (sheet no. 1 of 4 & 2 of 4)	TWO
6	07-E-04 A/B/C	EIL - TUBE LAYOUT	ONE

12.2 Technical Evaluation Format - Deviation schedule (Annexure-I)

12.3 QAP Format (Annexure - II)

TECHNICAL EVALUATION FORMAT**DEVIATION SCHEDULE – TECHNICAL (TUBE BUNDLE)**

Bidders are requested to mark thus V as applicable

- NO DEVIATION IS REQUIRED
- DEVIATION IS REQUIRED

List of deviations (exceptions and / or additions requested by bidder) from specification, standards and / or drawings etc.

SL. No.	DOCUMENT(S) / DRAWING (S)		DEVIATION PROPOSED
	No. AND TITLE PARAGRAPH / CLAUSE/DETAIL		

**NOTE : DEVIATIONS SHALL BE LISTED IN THIS FORMAT ONLY.
DEVIATIONS APPEARING ELSEWHERE IN THE OFFER SHALL NOT
BE CONSIDERED.**

**BIDDER'S NAME :
BIDDER'S SIGNATURE
WITH SEAL/STAMP**

DATE : _____



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QUALITY ASSURANCE PLAN

Tube Bundle for Heat Exchangers 07-E-04 A/ B/ C

Purchaser	:	M/s. HINDUSTAN PETROLEUM CORPORATION LIMITED			Work Order No.	:			
Vendor	:				Equipment No.	:	07-E-04 A / B / C		
P.O. No.	:				PROJECT	:	HPCL - Visakh Refinery		
Doc. No.	:				Equipment Type	:			
Vendor Drawing No.	:				Inspection By	:			
S. NO.	INSPECTION ACTIVITY	DESCRIPTION	REFERENCE DOCUMENT	ACCEPTANCE CRITERIA	DOCUMENT REQUIRED	INSPECTION			
						VENDOR	TPIA	HPCL	
1.0	Design and Drawings	Review and Approval	PO, Equipment Data Sheets/ Drawings	ASME Sec. VIII Div. 1, TEMA CL-R / PO	Drawing	H	A	A	
2.0	CONTRACT SPECIFICATION INSPECTION & TEST PLAN (QAP)	Review and Approval	PO, Drawing	PO, ASME Sec. VIII Div. 1	Approved QAP	H	A	A	
3.0	Procedures for NDT (UT, PT), TTP Mock UP, Pneumatic Test, Hydrostatic Test etc.	Review and Approval	Drawing, PO, Procedures, ASME Sec. V, ASME Sec. VIII Div. 1 &2	PO, ASME Sec. VIII Div. 1, ASME Sec. V	Approved Procedure	H	R	...	
4.0	PREFABRICATION REQUISITES								
4.1	WPS and PQR	Review and Approval for Conformity of Qualification Requirement	Drawing, PO., ASME Sec. IX		WPS / PQR	H	R	...	
4.2	WPQ	Review and Approval for Conformity of Qualification Requirement	ASME Sec. IX	ASME Sec. IX	WPQ	H	R	...	
4.3	Welding Consumables	Review of Batch Certificate of welding consumables	ASME Sec. II - C, PO	PO, ASME Sec. II - C	Batch wise TC	H	R	...	
4.4	Mock up test for Tube to Tube Sheet Joint	Review and Approval for Conformity of Qualification Requirement	Drawing, PO.	PS, ASME Sec. VIII Div. 1	Approved Test Report	H	H	...	
5.0	MATERIAL INSPECTION								
5.1	MATERIALS INSPECTION AT MILLS: Plate, Tube sheet Forging & Tubes, Fasteners etc.	Raw material identification w.r.t. MTC, Chemical Analysis.	PO, ASME Sec. II - A & ASME Sec. VIII Div. 1	PO., ASME Sec. II - A & ASME Sec. VIII Div. 1	Certified Material Test Report (CMTR) in accordance with EN. 10204. 1B	Inspection by Mills / TPIA as applicable at mfgs place. Review of Manufacturing Test certificates by vendor and TPIA.			
		Mechanical Tests (Tensile, Hardness, as applicable etc.)							
		Tubes- Hydro Test & Eddy Current testing of tubes (Extent of check - 100%)							
		Visual & Dimensional Inspection, Surface finish (Extent of check - 100%)	ASTM A 388	ASTM A 388: Para AM-203.2 of VIII, Div.2					
		UT- Plate above 20mm thk & forging above 50mm thk + Tube sheet Forgings UT required (Extent of check - 100%)							
	PMI - All Alloy Steel materials PMI test are required	PO, Drawing,	PO, Drawing,	PMI Report	H	W	...		
5.2	MATERIALS INSPECTION AFTER RECEIPT Pressure Parts Plate Tube sheet Forgings & Tubes, Fasteners etc.	Review of Test Certificates (Extent of check - 100%)	ASME Sec. II - A, Drawing, PO.	ASME Sec. II - A, Drawing, PO.	Inspection Report	H	H	...	
		Identification Correlation & Transfer of Markings and stamp (Extent of check - 100%)	ASME Sec. VIII Div. 1	ASME Sec. VIII Div. 1					
		Non Pressure Parts Baffles, Tie rods, Spacers, Structural etc.	Identification Correlation & Transfer of Markings, Visual and Dimensional Inspection.	Drawing, PO. ASME Sec. II - A & ASME Sec. VIII Div. 1	Drawing, PO., ASME Sec. II - A & ASME Sec. VIII Div. 1	Inspection Report	H	R	...



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QUALITY ASSURANCE PLAN									QAP: Page 2 of 2
Tube Bundle for Heat Exchangers 07-E-04 A/ B/ C									
S. NO.	INSPECTION ACTIVITY	DESCRIPTION	REFERENCE DOCUMENT	ACCEPTANCE CRITERIA	DOCUMENT REQUIRED	INSPECTION			
						VENDOR	TPIA	HPCL	
6.0	INSPECTION OF MACHINED COMPONENTS								
6.1	Tube Sheet final inspection after reaming & grooving	Visual and Dimensional Inspection (Extent of check - 100%)	Drawing, TEMA CL-R	PO, Drawing, TEMA CL-R	Inspection Report	H	H	...	
6.2	Machining of Baffles	Visual and Dimensional Inspection (Extent of check - 100%)	Drawing, TEMA CL-R	Drawing, TEMA CL-R	Inspection Report	H	R	...	
7.0	INSPECTION DURING FABRICATION								
7.1	a) Inspection of skeleton assembly.	Visual and Dimensional Inspection (Extent of check - 100%)	Drawing	Drawing, PO	Inspection Report	H	H	...	
	B) Inspection of complete Tube Bundle before insertion	Visual and Dimensional Inspection for completeness of assembly. (Extent of check - 100%)	Drawing	Drawing, PO	Inspection Report	H	H	...	
	C) Inspection of Tube-to-Tubesheet Expanded joints	Expansion check of tube to tube sheet expanded joints (Min. 10%)	Drawing	Drawing, PO, ASME Sec. VIII Div. 1	Inspection Report	H	W	...	
7.2	PT of all fillet weld	PT test of baffle to strip, tube sheet to jack screw & dowel pin cleats (Extent of check - 100%)	Drawing, ASME Sec. V	ASME Sec. VIII Div. 1	Inspection Report	H	W	...	
8.0	TESTING								
	Pneumatic Test to check Tube to Tube Sheet joint (with Dummy Shell)	Check for leakage if any	Drawing, PO, ASME Sec. VIII Div. 1, Hydrotest procedure	Drawing, PO., ASME Sec. VIII Div. 1, UG-99	Pneumatic Test / Hydro Test Report	H	H	...	
	Shell side Hydro Test (With Dummy Shell)								
	After Hydrotest Drying Equipment	Dryness of Internal Surfaces	Drawing, Approval Procedure	Drawing, PO	Inspection Report	H	R	...	
9.0	DOCUMENTATION								
9.1	Material Test Records	Records for submission to Client	Drawing	Drawing	QC Dossier	H	H	...	
9.2	Certification of As-built drawings								
9.3	Heat Treatment charts as applicable								
9.4	Hydrostatic Test Reports								
9.5	Stamping of Equipment.	Verifying Stamping Details	Drawing	Drawing	Rub off	H	H	...	
10.0	DISPATCH								
		Verification of Packing, Marking etc.	PO, Drawing	PO, Drawing	Spare List	H	R	...	
		Dispatch Release Clearance	PO	PO	Inspection Release Note	R	ISSUE	...	
Legends: H: 'Hols' Point (Not to proceed unless the stage is witnessed and cleared by Manufacturer QA, TPI / Client as applicable) R: Review of Records A: Review / Approval W: 'Witness' Point (Inspection by Manufacture's QA, TPI / Client but no to 'hold') RW: Random Witness Check PO: Purchase Order MTC: Material Test Certificate			VENDOR :		CLIENT: M/s. HPCL - VISAKH REFINERY				

SECTION - 4 :

AGREED COMMERCIAL TERMS & CONDITIONS (ACTC)

CLAUSE NO	TERMS & CONDITIONS		VENDOR'S CONFIRMATION
1	It is noted that deviations to Terms and Conditions shall lead to loading of prices or rejection of offer.	:	
2	Confirm that you meet all the "Bidders eligibility and qualification criteria" as mentioned in section- 2 of this tender. Also confirm that you have attached relevant documents & certificates in proof of the same.	:	
3	Bidder to give a declaration that they have not been banned or delisted by any government agencies or PSUs. If the bidder has been banned by any Government agencies or PSU, this fact must be clearly stated and it may not necessarily be a cause for disqualifying him. If this declaration is not given, the bid will be rejected as non-responsive.	:	
4	Confirm that quoted prices are FOT place of despatch inclusive of Packing & Forwarding charges. Indicate despatch point	:	
5a	<u>Excise Duty</u> : Included / Excluded in the quoted price.	:	
5b	In either case indicate the excise duty rate in terms of %	:	
5c	Indicate tariff No.	:	
5d	Confirm furnishing Excise Duty Gate Pass / Transporter's copy of Invoice along with the material for HPCL to avail CENVAT Benefit. In case valid documents as required are not received, the Excise Duty component claimed by you shall not be payable.	:	

CLAUSE NO	TERMS & CONDITIONS		VENDOR'S CONFIRMATION
6	<p>SALES TAX : Included / Excluded in the quoted price</p> <p>In either case indicate the CST / VAT in terms of %.</p> <p>Our C form shall be furnished if applicable (one 'C' form for all supplies against a given P.O. in one financial year)</p>		
6b	<p>In case of APVAT : Indicate TIN</p> <p>Confirm that you shall furnish proper Tax Invoice so that HPCL can claim input tax credit as per rules.</p> <p>In case HPCL is not able to get the input tax credit basis your Invoice/documents APVAT component claimed by you shall not be payable.</p>		—
7	<p>In case of a proprietary concern or a business owned by a HUF , the name of the proprietor or Karta of the Hindu Undivided Family , as the case may be , shall also be mentioned in the invoice</p> <p>In case of failure to comply with this requirement , HPCL shall not pay the Excise Duty / Service Tax included in the invoice. In case such Excise Duty / Service Tax is paid by HPCL and at a later date Cenvat credit is denied to HPCL due to noncompliance with the above requirement , HPCL shall recover the applicable Excise Duty / Service Tax from any amounts due to supplier / contractor or encash any BG</p>		
8	<p>If there is any variation in Excise duty / Sales tax at the time of supplies for any reasons (including turnover) <u>other than statutory</u>, confirm the same will be borne by the vendor.</p> <p>Any increase in Excise duty / Sales tax beyond the contractual delivery period will be to vendor's account.</p>	: :	
9	<p>If Excise Duty / or Sales Tax is presently not applicable confirm the same will be borne by the vendor in case it becomes leviable later.</p>	:	

CLAUSE NO	TERMS & CONDITIONS		VENDOR'S CONFIRMATION
10	<p><u>FREIGHT CHARGES :</u></p> <p>Indicate the maximum road freight charges. Freight charges will be reimbursed to you at actuals against documentary evidence subject to the maximum freight charges quoted by you.</p>	:	
11	Transit risk Insurance shall be in HPCL scope	:	
11	<p><u>PAYMENT TERMS :</u></p> <p>10% against approval of drawings against submission of Bank Guarantee for equivalent amount.</p> <p>20% against identification of raw materials by TPI (like tubes, tube sheets, baffel plates etc.) against submission of Bank Guarantee for equivalent amount.</p> <p>60% against receipt of material at site</p> <p>10% against submission of PBG after receipt of material at HPCL stores</p> <p>Payment shall be made as follows :</p> <p>75% of the bill amount duly recommended by user shall be paid with in 7 days of receipt of bill.</p> <p>Balance 25% to be paid after verification/certification in 15 days of receipt of bill</p>	:	
12	Third Party Inspection: Confirm whether the quoted prices are inclusive or exclusive of third party inspection charges. In case the quoted prices are exclusive of third party inspection charges, indicate the maximum ceiling towards the same in % of order value. Payment shall be made at actuals against documentary evidence subject to the above maximum ceiling	:	
13	<p>Guarantee:</p> <p>Vendor should provide guarantee for a period of 18 months from the date of supply or 12 months from the date of commissioning, whichever is earlier, against defective material, poor workmanship.</p>	:	

CLAUSE NO	TERMS & CONDITIONS		VENDOR'S CONFIRMATION
14	Confirm that you shall furnish Performance Bank Guarantee in favour of HPCL issued by a scheduled bank (other than co-operative bank) as per our format for 10% of the order value. This bank guarantee shall be valid for the guarantee period.	:	
15	Confirm acceptance of part order.	:	
16	In case of part orders / split orders, lumpsum charges if any quoted by you, shall be pro-rated based on value	:	
17	Confirm acceptance of repeat order, up to 100% of original ordered quantity, within one year from the date of original order on same terms and conditions		
18	Please Confirm acceptance for the delivery Period of 9 months from date of Fax of Intent	:	
		:	
19	<p><u>LD CLAUSE:</u> In case of delayed delivery, prices will be reduced @ 1/2% of the total basic order value for every week of delay or part thereof subject to a maximum of 5% of the total basic order value.</p> <p>Note : 1. Request and Grant of Time Extension should be well before expiry of Contractual Delivery Date (CDD)</p> <p>2. Provisional time Extension shall be granted against submission of Bank Guarantee (BG) for LD amount , with approval of GM well in advance .</p> <p>3. LD Shall be applicable only on the basic cost and full complete weeks and for the fractional days LD shall be applicable on pro-rata , if any.</p> <p>4. Initially LD shall be applicable for total contract value and final LD settlement to be on unexecuted portion in the contractual completion period.</p>	:	
20	Quoted prices shall remain firm and fixed till complete execution of the order.	:	

21	<p>If offer is based on certain imported materials required for equipments / materials offered , confirm that the following details are indicated as per the format attached</p> <p>i. itemwise maximum CIF value</p> <p>ii. the custom Tariff No</p> <p>iii. Rate of customs duty considered and included in the quoted price</p> <p>iv. Exchange rates considered.</p> <p>FE / CD VARIATION SHALL BE APPLICABLE AS ATTACHED.</p>		
21.1	In case of non submission of details for the clause No 21.0 , please confirm that the prices are firm on account of CD variation and FE Variation .		
22	Confirm acceptance of the attached Arbitration clause.	:	
23	Confirm acceptance of the attached Cancellation / Risk purchase clause.	:	
24	Offer shall be valid for 4 months from the due date / extended due date of this tender enquiry.	:	
25	If SSI / NSIC furnish copy of certificate.	:	

FOREIGN EXCHANGE (FE)VARIATION CLAUSE

The CIF value in indian Rupees / Foreign currency to be declared should cover the currencies of the countries from which import material / components are envisaged to administer foreign currency variation .

The FE Variation will be paid for if imports are made at the listed currency subject to ceiling limit

The list of foreign currency , country of origin , ceiling of foreign value of import envisaged against each item of material / component for import and rate of conversion into Rupees envisaged to be furnished in the tender. The period within which import shall be made after placement of FOI (Contractual Completion date of imports ,CDD) shall also be indicated in the offer

For reimbursement of foreign exchange variation , documentary evidence like bank certificates of remittance showing the date of payment and rate of foreign currency to indian rupees to be furnished along with a copy of bills of entry duly attested by Customs department . All downward variations in conversion rate will be to owner's account.

Variation will be paid only if imports are made within the period as specified in offer for import . For imports made beyond that period , foreign currency variation will be paid basis the conversion rates prevailing on the last date of the period agreed to for imports . The last date for imports agreed to will be the import landing date in India as envisaged by bill of entry.

Vendor shall indicate the maximum CIF component along with currency of import . In case vendor imports less than the CIF value indicated in the bid , Duty , FE variation etc , shall be reimbursed only on the actual import carried out.

Foreign Exchange Variation will be paid only if imports are made within the last date of the period agreed to in the offer for imports, as mentioned

- i) For the purpose of Foreign Exchange variation reimbursement , SBI selling rate applicable on the bill of Entry date or SBI selling rate on Bank remittance date or actual remittance rate , whichever is lower shall be considered . The following clause also to be considered :
The BOE date may fall within Contractual Completion Date or beyond , it has already been stipulated as above conditions that no reimbursement for FE/CD variation will be paid if the actual import is beyond Contractual completion Date . In such a case , the variation reimbursement will be restricted to the difference between the rate quoted in the tender and the lower of the following :
 - a. The actual remittance rate
 - b. SBI Bill Selling rate on the date of CDD.

CUSTOMS DUTY (CD) VARIATION CLAUSE

The prices mentioned in offer are subject to Customs Duty (CD) variation. In case of any increase in rates of Custom Duty, Countervailing Duty, Special Additional Duty by the Indian Government through Gazette notification after the submission of last priced offer but within time Schedule for import of material, as mentioned, HPCL shall reimburse the increase in taxes & duties at actuals against satisfactory supporting documents.

All downward variations in the rates of all such duties shall be to HPCL's account and same shall be calculated on actual CIF value of imported material subject to the limit mentioned. Vendor shall submit all relevant documents to HPCL for the proof of duty paid by them within one month from the date of Bill of Entry.

CD Variations will be paid only if the imports are made within the period as agreed in the offer for import. For imports made beyond the period specified CD variation will be paid based on CD rate prevailing on the last date of the period agreed to for imports, in the offer. The actual date for import will be the import landing date in India as evidenced by Bill of Entry.

Custom Duty variation shall be paid by HPCL upto the limit of maximum CIF value of imported components as indicated in the offer.

Rates of Custom Duty along with tariff not considered by vendor in the prices shall be indicated in the offer.

SECTION - 5

ASSIGNMENTS & GENERAL PROVISIONS

Assignment:

- 1.0 The bidder shall not assign any of its rights or obligations hereunder without the prior written consent of owner.

General Provisions:

- 1.1 The bidder agrees that he has visited the site and inspected the place and/or obtained all such information as necessary to quote for the present contract. The rates stated therein are firm and fixed and that no escalation on any ground shall be permitted till completion of the work for any reason whatsoever whether under the nomenclature of loss of profit, loss of overhead, idle time etc.
- 1.2 If any provision of the tender becomes invalid, such invalidity shall not affect the other provisions of the tender. If the invalidity of one or more provisions or other circumstances concerning the performance of this tender reveals a situation not provided for this tender, the parties shall jointly seek an arrangement having a valid legal and economic effect which will be as similar as possible to the ineffective provisions and will cover the scope of any missing provision in a manner reasonably directed the purpose of this tender.
- 1.3 No benefit or right accruing to either party under the tender shall be waived unless the waiver is reduced to writing and signed by both parties. The waiver, in one instance, of any act, condition or requirement stipulated in this tender shall not constitute a continuing waiver or a waiver of any other act, unless specifically so stated. Nothing contained in the invitation to bid or the tender shall be construed as creating partnership, unincorporated association or other separate legal entity between the parties. The bidder shall be an independent contractor with respect to the work under this tender. Neither the bidder, any subcontractor, nor the personnel of either of them shall be deemed to the servants, agents or employees of owner.
- 1.4 The tender and subsequent Purchase Order that will be placed and/or the contract which will be entered into, shall be governed by the laws of India. The laws prevalent and in force in India shall also govern and control the interpretation and performance of the tender, Purchase Order and/or contract regardless of where it is entered into or performed.

SECTION - 6

ARBITRATION CLAUSE

All disputes and differences of whatsoever nature, whether existing or which shall at any time arise between the parties hereto touching or concerning the agreement, meaning, operation or effect thereof or to the rights and liabilities of the parties or arising out of or in relation thereto whether during or after completion of the contract or whether before after determination, foreclosure, termination or breach of the agreement (other than those in respect of which the decision of any person is, by the contract, expressed to be final and binding) shall, after written notice by either party to the agreement to the other of them and to the Appointing Authority hereinafter mentioned, be referred for adjudication to the Sole Arbitrator to be appointed as hereinafter provided.

® 2) The appointing authority shall either himself act as the Sole Arbitrator or nominate some officer/retired officer of Hindustan Petroleum Corporation Limited (referred to as owner or HPCL) or a retired officer of any other Government Company in the Oil Sector of the rank of Ch. Manager & above or any retired officer of the Central Government not below the rank of a Director, to act as the Sole Arbitrator to adjudicate the disputes and differences between the parties. The contractor/vendor shall not be entitled to raise any objection to the appointment of such person as the Sole Arbitrator on the ground that the said person is/was an officer and/or shareholder of the owner, another Govt. Company or the Central Government or that he/she has to deal or had dealt with the matter to which the contract relates or that in the course of his/her duties, he/she has/had expressed views on all or any of the matters in dispute or difference.

® 3) In the event of the Arbitrator to whom the matter is referred to, does not accept the appointment, or is unable or unwilling to act or resigns or vacates his office for any reasons whatsoever, the Appointing Authority aforesaid, shall nominate another person as aforesaid, to act as the Sole Arbitrator.

® 4) Such another person nominated as the Sole Arbitrator shall be entitled to proceed with the arbitration from the stage at which it was left by his predecessor. It is expressly agreed between the parties that no person other than the Appointing Authority or a person nominated by the Appointing Authority as aforesaid, shall act as an Arbitrator. The failure on the part of the Appointing Authority to make an appointment on time shall only give rise to a right to a Contractor to get such an appointment made and not to have any other person appointed as the Sole Arbitrator.

5) The Award of the Sole Arbitrator shall be final and binding on the parties to the Agreement.

6) The work under the Contract shall, however, continue during the Arbitration proceedings and no payment due or payable to the concerned party shall be withheld (except to the extent disputed) on account of initiation, commencement or pendency of such proceedings.

7) The Arbitrator may give a composite or separate Award(s) in respect of each dispute or difference referred to him and may also make interim award(s) if necessary.

@ 8) The fees of the Arbitrator and expenses of arbitration, if any, shall be borne equally by the parties unless the Sole Arbitrator otherwise directs in his award with reasons. **The lumpsum fees of the Arbitrator shall be Rs. 40,000/- per case for transportation contracts and Rs. 60,000/- for engineering contracts and if the sole Arbitrator completes the arbitration including his award within 5 months of accepting his appointment, he shall be paid Rs. 10,000/- additionally as bonus. Reasonable actual expenses for stenographer, etc. Will be reimbursed. Fees shall be paid stagewise i.e. 25% on acceptance, 25% on completion of Pleadings /documentation, 25% on completion of arguments and balance on receipt of award by the parties.**

9) Subject to the aforesaid, the provisions of the # Arbitration and Conciliation Act, 1996 or any statutory modification or re-enactment thereof and the rules made thereunder, shall apply to the Arbitration proceedings under this Clause.

10) The Contract shall be governed by and constructed according to the laws in force in India. The parties hereby submit to the exclusive jurisdiction of the Courts situated at _____ (Visakhapatnam) for all purposes. The Arbitration shall be held at _____ (preferably the location where the work is being carried out, or nearest major controlling city or from where PO is placed, say Visakhapatnam) and conducted in English language.

11) The Appointing Authority is the Functional Director - Refineries of Hindustan Petroleum Corporation Limited.

SECTION - 7

CANCELLATION / RISK PURCHASE CLAUSE

The Owner reserves the right to cancel this Purchase Order or any part thereof and shall be entitled to rescind the contract wholly or in a written notice to the Vendor if:

(i) The Vendor fails to comply with the terms of this Purchase Order. (ii) The Vendor fails to deliver the goods on time and or replace the rejected goods promptly. (iii) The Vendor becomes bankrupt or goes into liquidation. (iv) The Vendor makes a general assignment for the benefit of creditors. (v) A receiver is appointed for any of the property owned by the vendor.

Upon receipt of the said cancellation notice, the Vendor shall discontinue all work on the Purchase Order and matters connected with it. The Owner in that event will be entitled to procure the requirement in the open market and recover the excess payment over the Vendor, agreed price, if any, from the Vendor's reserving to itself the right to forfeit the security deposit, if any made by the Vendor against the contract.

The Vendor is aware that the said goods are required by the Owner for the ultimate purpose of materials production and that non delivery may cause loss of production and consequently loss of profit to the Owner. In this event of the Owner exercising the option to claim damages for non-delivery other than by way of difference between the market price and the contract price, the Vendor shall pay to the Owner the fair compensation to be agreed upon between the Owner and the Vendor.

The provision of this clause shall not prejudice the right of the Owner from invoking the provisions of clause "Delayed Delivery" as aforesaid.

SECTION - 8

INTEGRITY PACT

The Integrity Pact duly signed by the authorized official of HPCL and the Contractor, will form part of this supply order. Proforma of Integrity Pact (which is issued along with the bidding document - Annexure - IP-I & IP- II) shall be returned by the bidder along with technical bid, duly signed by the same signatory who signs the bid i.e. Who is duly authorized to sign the bid. All the pages of the Integrity Pact shall be duly signed by the same signatory. Bidder' failure to return the Integrity Pact along with the bid, duly signed, shall lead to outright rejection of such bid.

If the Bidder has been disqualified from the tender process prior to the award of contract according to the provisions under Integrity Pact, HPCL shall be entitled to demand and recover from bidder Liquidated damages amount by forfeiting the EMD/Bid security (Bid Bond) as per provisions of Integrity Pact.

If the contract has been terminated according to provisions of the Integrity Pact, or if HPCL is entitled to terminate the contract according to provisions of Integrity Pact, HPCL shall be entitled to demand and recover from the Contractor liquidated damages amount by forfeiting the Performance Bank Guarantee / Security Deposit as per Integrity Pact.

Annexure - 1E-1

**AGREEMENT
(Under Integrity Pact)**

No. _____ Dated _____
To,
HINDUSTAN PETROLEUM CORPORATION LIMITED
Sub : Purchase of Bidding Documents
Ref. Tender no. _____

HPCL and the Bidder agree that the Notice Inviting Tender (NIT) is an offer made on the condition that the bidder will sign the Integrity Pact and the Bid would be kept open in its original form without variation or modification for a period of (state the number of days from the last date for the receipt of tenders stated in the NIT) days and the making of the bid shall be regarded as an unconditional and absolute acceptance of this condition of the NIT.

We confirm acceptance and compliance with the Integrity Pact in letter and spirit. We further agree that the contract consisting of the above conditions of NIT as the offer and the submission of Bid as the Acceptance shall be separate and distinct from the contract which will come into existence when bid is finally accepted by HPCL.

The consideration for this separate initial contract preceding the main contract is that HPCL is not agreeable to sell the NIT to the Bidder and to consider the bid to be made except on the condition that the bid shall be kept open for days after the last date fixed for the receipt of the bids and the Bidder desires to make a bid on this condition and after entering into this separate initial contract with HPCL.

HPCL promises to consider the bid on this condition and the Bidder agrees to keep the bid open for the required period. These reciprocal promises form the consideration for this separate initial contract between the parties.

If Bidder fails to honour the above terms and conditions, HPCL shall have unqualified, absolute and unfettered right to encash / forfeit the bid security submitted in this behalf.

Yours faithfully,

(BIDDER)

Yours faithfully

(PURCHASER)

(One copy of this agreement duly signed must be returned alongwith offer).

Annexure 16 (AGREEMENT)
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Annexure - IP-II

(To be executed on plain paper and applicable for all tenders of value above Rs.1 crore)

INTEGRITY PACT

Between

Hindustan Petroleum Corporation Limited (HPCL) hereinafter referred to as "The Principal",
and

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

Preamble

The Principal intends to award, under laid down organization procedures, contract/s for The Principle 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 Bidders/s and Contractor/s.

In order to achieve these goals, the Principal cooperates with the renowned international Non-Governmental Organisation "Transparency International" (TI). Following TI's national and international experience, the Principal will appoint an external independent 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:

1. No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for him/herself or third person, any material or immaterial benefit which he/she is not legally entitled to.

2. 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.

Annexure 17 (INTEGRITY PACT)
Purchase Manual

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3. 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.

Section 2 – Commitments of the Bidder / Contractor

(1) The Bidder / Contractor 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.

1. The Bidder / Contractor 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.

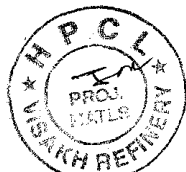
2. The Bidder / Contractor will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelisation in the bidding process.

3. The Bidder / Contractor will not commit any offence under the relevant Anti-corruption Laws of India; further the Bidder / Contractor 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.

4. The Bidder / Contractor will, when presenting his bid, disclose any and all payment 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.

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

Section 3-Disqualification from tender process and exclusion from future contracts



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

- (1) If the Bidder/Contractor has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal is entitled also to exclude the Bidder / Contractor 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 evidence, 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 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 Principle is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor 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 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 shall compensate the Principal only to the extent of the damage in the amount proved.

Section 5 – Previous Transgression

- (1) The Bidder declares that no previous transgression occurred in the last 3 years 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 / Subcontractors

- (1) The Bidder / Contractor 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 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 – Criminal charges against violating Bidders/Contractors/Subcontractors

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

Section 8 – External Independent Monitor / Monitors (three in number depending on the size of the contract)

(to be decided by the Chairperson of the Principal)

- (1) The Principal appoints competent and credible external independent Monitor 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.

Annexure 17 (INTEGRITY PACT)
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HPCL, Mumbai

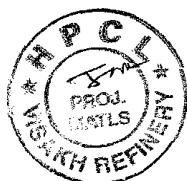
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- (3) The Contractors accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration 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 / 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 Contractor. 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 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) Monitor shall be entitled to compensation on the same terms as being extended to / provided to Outside Expert Committee members / Chairman as prevailing with Principal.
- (8) 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.
- (9) The word 'Monitor' would include both singular and plural.

Section 9 – Pact Duration

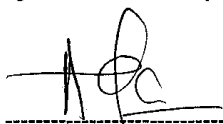
This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the respective contract, and for all other Bidders 6 months after the contract has been awarded.



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 Contractor 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.



For the Principal

Place... Visakhapatnam

Date... 16/5/08

For the Bidder/Contractor

Witness 1:

Witness 2:



ANNEXURE - A

(specimen)

BANK GUARANTEE IN LIEU OF EARNEST MONEY

(On Non-Judicial stamp paper of appropriate value)

TO : Hindustan Petroleum Corporation Limited

(Address as applicable)

IN CONSIDERATION OF MESSRS. HINDUSTAN PETROLEUM CORPORATION LIMITED a Government of India Company registered under the Companies Act, 1956, having its registered office at 17, Jamshedji Tata Road, Bombay-20 (hereinafter called "The Corporation" which expression shall include its successor in business and assigns) issued a tender on Messrs. A partnership firm/sole proprietor business/a company registered under the Companies Act, 1956 having its office at (hereinafter called "the Tenderer" which expression shall include its executors, administrators and assigns) against Tender dated (hereinafter called the tender" which expression shall include any amendments/ alterations to "the tender" issued by "the Corporation") for the supply of goods to/execution of services for "the Corporation" and "the Corporation" having agreed not to insist upon immediate payment of Earnest Money for the fulfilment of the said tender in terms thereof on production of an acceptable Bank Guarantee for an amount of Rs..... (Rupees Only).

We, Bank having office at..... Bombay (hereinafter referred to as "the Bank" which expression shall include its successors and assigns) at the request and on behalf of "the Tenderer" hereby agree to pay to the Corporation without any demur on first demand an amount not exceeding Rs..... (Rupees only) against any loss or damage, costs, charges and expenses caused to or suffered by "the Corporation" by reason of non performance and fulfilment or for any breach on the part of "the Tenderer" of any of the terms and conditions of the said "tender".

2. We, Bank further agree that "the Corporation" shall be sole Judge whether the said "Tenderer" has failed to perform or fulfill the said "tender" in terms thereof or committed breach of any of the terms and conditions of "the order" and the extent of loss, damage, cost, charges and expenses suffered or incurred or would be suffered or incurred by "the Corporation" on account thereof and we waive in favour of "the Corporation" all the rights and defences to which we as guarantors and/or "the Tenderer" may be entitled to.

3. We, Bank further agree that the amount demanded by "the Corporation" as such shall be final and binding on "the Bank" as to "the Bank" 's liability to pay and the amount demanded and "the Bank" to undertake to pay "the Corporation" the amount so demanded on first demand and without any demur notwithstanding any dispute raised by "the Tenderer" or any suit or other legal proceedings including arbitration pending before any court, tribunal or arbitrator relating thereto, our liability under this guarantee being absolute and unconditional.

4. We, Bank further agree with "the Corporation" that "the Corporation" shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said "tender"/or to extend time of performance by "the Tenderer" from time to time or to postpone for any time to time any of the powers exercisable by "the Corporation" against "the Tenderer" and to forbear to enforce any of the terms and conditions relating to "the tender" and we shall not be relieved from our liability by reason of any such variation or extension being granted to "the Tenderer" or for any forbearance, act or omission on the part of "the Corporation" or any indulgence by "the Corporation" to "the tenderer" or by any such matter or things whatsoever which under the law relating to sureties would but for this provision have the effect of relieving us.

5. NOTWITHSTANDING anything hereinbefore contained, our liability under this Guarantee is restricted to Rs..... (Rupees..... only). Our liability under this guarantee shall remain in force until expiration of six months from the due date of opening of the said "tender". Unless a demand or claim under this guarantee is made on us in writing within said period, that is, on or before all rights of the Corporation" under the said guarantee shall be forfeited and we shall be relieved and discharged from all liabilities thereunder.

6. We, Bank further undertake not to revoke this guarantee during its currency Except with the previous consent of "the Corporation" in Writing.

7. We, Bank lastly agree that "the Bank" 's liability under this guarantee shall not be affected by any change in the constitution of "the Tenderer".

8. "The Bank" has power to issue this guarantee in favour of "the Corporation" in terms of the documents and/or the Agreement/Contract or MOU entered into between "the Tenderer" and "the Bank" in this regard.

IN WITNESS WHEREOF the Bank has executed this document on this day of

For Bank
(by its constituted attorney)
(Signature of a person authorised
to sign on behalf of "the Bank")

ANNEXURE - B

(specimen)

BANK GUARANTEE FOR ADVANCES

(on non-judicial stamp paper of appropriate value)

To,

Hindustan Petroleum Corporation Ltd.,

(Address as applicable)

In CONSIDERATION OF MESSRS. HINDUSTAN PETROLEUM CORPORATION LIMITED, a Government of India Company registered under the Companies Act 1956, having its registered office at 17, Jamshedji Tata Road, Bombay - 400 020 (hereinafter called "the Corporation" which expression shall include its successors in business and assigns) having placed an order on Messrs _____ a partnership firm/sole proprietor business/ a company registered under the Companies Act, 1956 having its office at _____ (hereinafter called "the Supplier" which expression shall include its successors and assigns) vide Order No. _____ dated _____ (hereinafter called "the Order" which expression shall include any amendments/alterations thereto as issued by "the Corporation") for the supply of goods/to the execution of Service for "the Corporation" and having agreed to pay the supplier as and by way of advance upto a sum of Rs. _____ (Rupees _____ only) being _____ % of the value of the order in terms of "the Order" on production of an acceptable Bank Guarantee for an amount of Rs. _____ (Rupees _____ only)

1. We, _____ Bank having office at _____ (hereafter referred to as "the Bank") do at the request and on behalf of "the Supplier's" hereby agree to pay "the Corporation" without any demur on first demand an amount not exceeding Rs. _____ (Rs. _____ only) against any loss or damage, costs, charges and expenses caused to or suffered or would be caused to or suffered by "the Corporation" by reason of any breach on the part of "the Supplier" of any of the terms and conditions of the said order.

2. We, _____ Bank further agree that "the Corporation" shall be sole judge whether the said "Supplier" has committed breach of any of the terms and conditions of "the Order" and the extent of loss, damage, cost charges and expenses suffered or incurred or would be suffered or incurred by "the Corporation" on account thereof and we waive in favour of "the Corporation" all the rights and defences to which we as guarantors and/or "the Supplier" may be entitled to.

3. We, _____ Bank further agree that the amount demanded by "the Corporation" as such shall be final and binding on "the Bank" as to "the Bank's" liability to pay and amount demanded and "the Bank" undertake to pay "the Corporation" the amount so demanded on first demand and without any demur notwithstanding any dispute raised by "the Supplier" or any suit or other legal proceedings including arbitration pending before any court tribunal or arbitrator relating thereto, our liability under this guarantee being absolute and unconditional. (We _____)

Bank further agree that the guarantee herein contained shall remain in full force and continue to have full effect so long as the said amount remains unadjusted, provided, however, the value of the guarantee shall progressively reduce upon any adjustments being made by "the Corporation" against the said advance and "the Corporation" rights shall extend only to the value of the unadjusted amount.

4. We, _____ Bank further agree with "the Corporation" that "the Corporation" shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said "order"/or to extend time of performance by "the Supplier" from time to time or to postpone for any time or from time to time any of the powers exercisable by "the Corporation" against "the Supplier" and to forbear to enforce any of the terms and conditions relating to "the Order" and we shall not be relieved from our liability by reason of any such variation or extension being granted to "the Supplier" or for any forbearance, act or omission on "the Supplier" or by any such matter or things whatsoever which under the law relating to sureties would be for this provisions have the effect of relieving us.

5. Notwithstanding anything contained herein above :

i) Our liability under this guarantee shall not exceed Rs.....

ii) This Bank Guarantee shall be valid upto and including; and

iii) We are liable to pay the guarantee amount or any part thereof under this

Bank Guarantee only and only if you serve upon us a written claim or demand on or *# before the expiry of 30 days from the date of expiry of this guarantee*

6. We, _____ Bank further undertake not to revoke this guarantee during its currency except with the previous consent of "the Corporation" in writing.

7. We, _____ Bank lastly agree that "the Bank" liability under this guarantee shall not be affected by any change in the constitution of "the Supplier".

8. We, _____ Bank has power to issue this guarantee in favour of "the Corporation" in terms of the documents and/or the agreement/contract or MOU entered into between "the supplier" and "the Bank" in this regard.

IN WITNESS WHEREOF the Bank has executed this document on this _____ day of _____

authorized

(FOR _____ BANK)
(by its constituted attorney)
(signature of a person

to sign on behalf of "the Bank")

ANNEXURE - C

(specimen)

BANK GUARANTEE FOR PERFORMANCE OF THE OBLIGATIONS OF SUPPLIER

(on non-judicial stamp paper of appropriate value)

To,
Hindustan Petroleum Corporation Ltd.,
Visakh Refinery, Visakhapatnam

IN CONSIDERATION OF THE HINDUSTAN PETROLEUM CORPORATION LTD. A Government of India Company registered under the Companies Act, 1956, having its registered office at 17, Jamshedji Tata Road, Bombay - 400 020 (hereinafter called "the Corporation" which expression shall include its successors and assigns) having awarded to M/s _____ a partnership firm/sole proprietor business/a company registered under the Companies Act, 1956 having its office at _____ (hereinafter referred to as "the Supplier" which expression shall wherever the subject or context so permits includes its successors and assigns) a supply contract in terms inter alia, of "the Corporation's" Order No. _____ dated _____ and the General purchase conditions of "the Corporation" and upon the condition of "supplier's" furnishing security for the performance of "the Supplier's" obligations and/or discharge of "the supplier's" liability under and/or in connection with the said supply contract upto a sum of Rs. _____ (Rupees _____) amounting to 10% (ten percent) of the total contract value.

We, _____ (hereinafter called "the Bank" which expression shall include its successors and assigns) hereby jointly and severally undertake and guarantee to pay to "the Corporation" in rupees forthwith on demand in writing and without protest or demur of any and all moneys anyway payable by "the Supplier" to "the Corporation" under, in respect of or in connection with the said supply contract inclusive of all the Corporation's losses and damage and costs, (inclusive between attorney and client) charges, and expenses and other moneys anyway payable in respect of the above as specified in any notice of demand made by "the Corporation" to the Bank with reference to this Guarantee upto and aggregate limit of Rs. _____ (Rupees _____) and "the Bank" hereby agrees with "the Corporation" that:

1. This Guarantee/Undertaking shall be a continuing Guarantee / Undertaking and shall remain valid and irrecoverable for all claims of "the Corporation" and liabilities of "the Supplier" arising upto and until midnight of _____
2. This Guarantee/Undertaking shall be in addition to any other guarantee or security whatsoever that "the Corporation" may now or any time anyway have in relation to "the Supplier's obligation/liabilities under and/or connection with the said supply contract, and "the Corporation" shall have full authority to take recourse to or enforce this security in preference to the other security(ies) at its sole discretion and no failure on the part of "the Corporation" to enforcing or requiring enforcement to any other security shall have the effect of releasing "the Bank" from its full liability hereunder.
3. "The Corporation" shall be at liberty without reference to "the Bank" and without affecting the full liability of "the Bank" hereunder to take any other security in respect of "the Supplier's" obligation and/or liabilities under or in connection with the said supply contract and to vary the term vis-a-vis "the supplier" of the said supply contract or to grant time and/or indulgence to "the Supplier" or to reduce or to increase

or otherwise vary the prices of the total contract value or to release or to forebear from enforcement of all or any of the obligations of "the supplier" under the said supply contract and/or the remedies of "the Corporation" under any other security(ies) now or hereafter held by "the Corporation" and no such dealing(s), variation(s) or other indulgence(s) or agreement(s) with "the supplier" or release of forbearance whatsoever shall have the effect of releasing "the Bank" from its full liability to "the Corporation" hereunder or of prejudicing rights of "the Corporation" against "the Bank".

4. This Guarantee/Undertaking shall not be determined or affected by the liquidation or winding up, dissolution or change of constitution or insolvency of "the supplier" but shall in all respects and for all purposes be binding and operative until payment of all moneys payable to "the Corporation" in terms hereof.

5. "The Bank" hereby waives all rights at any time inconsistent with the terms of this Guarantee /Undertaking and the obligations of "the Bank" in terms hereof shall not be anywhere affected or suspended by reason of any dispute having been raised by "the suppliers" (whether or not pending before any arbitrator, officer, tribunal or court) or any denial of liability by "the supplier" or any other order of communication whatsoever by "the supplier" stopping or preventing or purporting to stop or prevent any payment by "the Bank" to "the Corporation" in terms hereof.

6. The amount stated in any notice of demand addressed by "the Corporation" to "the Bank" as liable to be paid to "the Corporation" by "the supplier" or as suffered or incurred by "the Corporation" on account of any losses or damages or costs, charges/and/or expenses shall be as between "the Bank" and "the Corporation" be conclusive of the amount so liable to be paid to "the Corporation" or suffered or incurred by "the Corporation", as the case may be, and payable by "the Bank" to "the Corporation", in terms hereof.

7. Notwithstanding anything contained herein above :

- i) Our liability under this guarantee shall not exceed Rs.....
- ii) This Bank Guarantee shall be valid upto and including; and
- iii) We are liable to pay the guarantee amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or # *before the expiry of 30 days from the date of expiry of this guarantee.*

8. "The Bank" has power to issue this guarantee in favour of "the Corporation" in terms of the documents and/or the agreement/contract or MOU entered into between "the supplier" and "the Bank" in this regard.

IN WITNESS Where of _____ Bank, has executed this document at _____
on _____ 200 .

(by its constituted
attorney) (signature of a
person authorized to sign
on behalf of "the Bank")

SECTION - F 9
Schedule of Prices

SI No.	Item Description	Qty	Price FOT despatch point basis (Rs)	Freight charges (unloading by HPCL) (Rs)	TPI Charges (Rs)
	Supply of Tube Bundles for Over Head Condensers at PRU as specified in Section - 3 and other requirements of tender document (Eqpt. no.)				
1	7-E-04 A	1 no.			
2	7-E-04 B	1 no.			
3	7-E-04 C	1 no.			

NAME

SIGNATURE

DATE

COMPANY SEAL

DETAILS OF IMPORT CONTENT INCLUDED IN THE QUOTED PRICES

S.No	Description /Tag No	CIF value of materials included in quoted price (Rs)	Rate of custom duty included in quoted price	Exchange Rate considered

Note : If No import content is envisaged or supplier wants to keep the prices firm on account of FE and CD Variation , Supplier shall mention as “NOT APPLICABLE”

Supplier's Signature _____
Date _____