



This tender floated in GeM Portal with GeM Bid No. GEM/2024/B/4575039 dt. 03/02/2024 with due date 24/02/2024 at 04:00 PM.

हिंदुस्तान ऑर्गेनिक केमिकल्स लिमिटेड  
**HINDUSTAN ORGANIC CHEMICALS LIMITED**  
(भारत सरकार का एक उद्यम)  
(A Government of India Enterprise)  
अंबालामुगल, एर्नाकुलम जिला, पिन - 682 302  
**AMBALAMUGAL, Ernakulam District, PIN – 682 302.**  
फोन: (0484) 2720911, फैक्स नंबर (0484) 2720893  
**Phone: (0484) 2720911, FAX No. (0484) 2720893**

**ई-निविदा सूचना**  
**E- TENDER NOTICE**

HOCL निम्नलिखित कार्य के लिए दो बोली प्रणाली के तहत ई-बोली आमंत्रित करता है:  
HOCL Invites e-Bids under the **Two Bid system** for the following work:

Sl. No.	Description of Item and Tender No.
1	कार्य का नाम : फिनोल संयंत्र में हीट एक्सचेंजर्स, कॉलम और जहाजों का रखरखाव HOCL निविदा संदर्भ : MEC30403  Name of Work : MAINTENANCE OF HEAT EXCHANGERS, COLUMNS & VESSELS IN PHENOL PLANT HOCL Tender Ref : MEC30403

निविदा दस्तावेज [www.hoclkochi.com](http://www.hoclkochi.com) या [www.eprocure.gov.in](http://www.eprocure.gov.in) से डाउनलोड किए जा सकते हैं।  
Tender documents may be downloaded from [www.hoclkochi.com](http://www.hoclkochi.com) or [www.eprocure.gov.in](http://www.eprocure.gov.in).

इच्छुक पार्टियां निविदा में भाग लाने के लिए कृपया एनआईसी ई प्रोक्योरमेंट पोर्टल (यूआरएल: <https://eprocure.gov.in/eprocure/app>) पर पंजीकृत हो सकती हैं। निर्दिष्ट ऑनलाइन प्रक्रिया का अलावा अन्य प्रस्तुत निविदाएं स्वीकार नहीं की जाएंगी। कृपया प्रस्ताव जमा करने पर प्रहल कि किसी भी परिशिष्ट/शुद्धिपत्र/विस्तार के लिए नियमित रूप से उपरोक्त साइटों पर जाएं।

Interested parties may please get registered with NIC e procurement portal (URL: <https://eprocure.gov.in/eprocure/app>) to participate in the tender. Tenders submitted other than through online procedure specified will not be accepted. Please visit the above sites regularly for any addendum/ corrigendum/ extension before submitting the offers.

कृपया विशेषताओं और नियमों और शर्तों की पुष्टि करता हुए **दो बोली प्रणाली** के तहत अपनी ई-बोली जमा करें।

Please submit your E-bids under the **Two Bid system** confirming to the specifications and the terms and conditions.

हिंदुस्तान ऑर्गेनिक केमिकल्स लिमिटेड के लिए और उनकी ओर से  
For and on behalf of Hindustan Organic Chemicals Limited  
(GSTN:32AAACH2663P1ZG),(CIN:I99999MN1960GOI011895)

मंगेश वी. शहासने MANGESH V. SHAHASANE  
महाप्रबंधक (यांत्रिक/यूटिलिटीस) GENERAL MANAGER (MECHANICAL/UTILITIES)



हिंदुस्तान ऑर्गेनिक केमिकल्स लिमिटेड  
**HINDUSTAN ORGANIC CHEMICALS LIMITED**  
(भारत सरकार का एक उद्यम)  
(A Government of India Enterprise)  
अंबालामुगल, एर्नाकुलम जिला, पिन - 682 302  
**AMBALAMUGAL, Ernakulam District, PIN – 682 302.**  
फोन: (0484) 2720911, फैक्स नंबर (0484) 2720893  
**Phone: (0484) 2720911, FAX No. (0484) 2720893**

Dear Sir,

हिंदुस्तान ऑर्गेनिक केमिकल्स लिमिटेड भारत सरकार का उपक्रम है जो कोच्चि, केरल, भारत में अपने संयंत्र में फिनोल, एसीटोन और हाइड्रोजन पेरोक्साइड का निर्माण करता है। एचओसीएल ने **फिनोल संयंत्र में हीट एक्सचेंजर्स, कॉलम और जहाजों का रखरखाव** के लिए ई-निविदाएं आमंत्रित की हैं। एचओसीएल ने मैसर्स एनआईसी के साथ एक समझौता किया है। अपने पोर्टल <https://eprocure.gov.in/eprocure/app> के माध्यम से ई-खरीद के लिए। आप कृपया इस निविदा में भाग लेने के लिए एनआईसी के साथ एक विक्रेता के रूप में पंजीकृत हो सकते हैं।

Hindustan Organic Chemicals Limited is a Government of India Undertaking manufacturing Phenol, Acetone & Hydrogen Peroxide at its plant at Kochi, Kerala, India. HOCL invites e-tenders for **MAINTENANCE OF HEAT EXCHANGERS, COLUMNS & VESSELS IN PHENOL PLANT**. HOCL has entered into an agreement with M/s. NIC for e-procurement through their portal <https://eprocure.gov.in/eprocure/app>. You may please get registered as a vendor with NIC for participating in this tender.

निविदा दस्तावेज एचओसीएल की वेबसाइट [www.hoclkochi.com](http://www.hoclkochi.com), <https://> बाजार और <https://eprocure.gov.in/eprocure/app> पर अपलोड किए जाते हैं।

**Tender documents are uploaded in HOCL website [www.hoclkochi.com](http://www.hoclkochi.com), <https://> market & <https://eprocure.gov.in/eprocure/app>**

संलग्न दस्तावेजों का सूचकांक इसके साथ संलग्न है। आपसे अनुरोध है कि कृपया अपनी निविदा तैयार करने/प्रस्तुत करने से पहले सभी दस्तावेजों को विस्तार से पढ़ लें।

**Index of documents enclosed is attached herewith. You are requested to kindly go through all the documents in detail before preparing/submitting your tender.**

आप अपना प्रस्ताव दो-बोली प्रणाली पर निर्दिष्ट नियत तारीख और समय से पहले ऑनलाइन जमा कर सकते हैं।

You may submit your offer on **Two-bid system** online before the due date and time specified.

धन्यवाद, Thanking you,

आपका आभारी, Yours Faithfully,  
हिंदुस्तान ऑर्गेनिक केमिकल्स लिमिटेड के लिए (CIN: L999999MH1960GOIO11895),  
For Hindustan Organic Chemicals Limited (CIN: L999999MH1960GOIO11895),

मंगेश वी. शहासने MANGESH V. SHAHASANE  
महाप्रबंधक (यांत्रिक/यूटिलिटीस) GENERAL MANAGER (MECHANICAL/UTILITIES)



## INDEX

कार्य का नाम: फिनोल संयंत्र में हीट एक्सचेंजर्स, कॉलम और वसतु का रखरखाव

### TENDER NOTICE FOR MAINTENANCE OF HEAT EXCHANGERS, COLUMNS & VESSELS IN PHENOL PLANT

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**ANNEXURE-I**

**GENERAL TERMS AND CONDITIONS OF THE TENDER**

**SPECIAL CONDITIONS**

HOCL is planning to take shutdown of the plant starting from 1<sup>st</sup> April, 2024.

In order to have a better control over the site and to ensure the completion of works as per schedule, the following will be the criteria for awarding the work for maintenance of heat exchanger columns and vessels, during the shutdown period.

The tender is floated in one lot, but group wise. HOCL will be engaging separate contracts for each group. i.e, a contractor will be engaged for only one group. (Individual Item L1 will not be considered for evaluation.)

The following are the criteria for selection of contractors

After opening of the price bids of technically qualified tenderers,

1. If different parties are L<sub>1</sub> in each group, the order will be placed on each party for the respective group.(on group wise overall L<sub>1</sub> basis)
2. If one party is L<sub>1</sub> in all groups, then that party will be called and he will be allowed to choose any one group at his discretion.
3. After the above party chooses his group, L<sub>2</sub> tenderer will be called for negotiation (If more than one tenderer is L<sub>2</sub> in the same group, preference will be given to overall L<sub>2</sub> tenderer in remaining groups). He will be allowed to choose the group where his quoted rate is the lowest among the remaining 3 groups. However, he will be asked to match the total amount quoted by the L<sub>1</sub> party, in that particular group.
4. For the remaining groups, If the overall L<sub>2</sub> tenderer chooses/gets allotted/rejects the proposal, then L<sub>3</sub> party will be called and procedure in SL no: 3 will continue till the works in all 4 groups are allotted to different contractors. If none of the parties are ready to match the price, the tender for that particular group will be refloated, excluding the contractor who is already awarded in any of the 4 groups.
5. HOCL reserves the right to cancel the work for individual equipments at its discretion, depending on site conditions.
6. Time of completion is 10 days from the date of intimation to start each equipment.
7. Liquidated damages will be applicable for each equipment after 10<sup>th</sup> day from the date of intimation to start each equipment.
8. During any stage, if HOCL feels that the work is not progressing /satisfactory, the work will be off loaded to other agencies at the cost and risk of the contractor.

**PRE-QUALIFICATION CRITERIA (TO BE INCLUDED IN THE TECHNICAL BID)**

**The Tenderers shall submit the following in the Technical bid (Un priced Bid) without which the tender will be rejected.**

- a. Scope of Work, General Terms and Conditions (**Annexure I, II, III, IV, V, VI, A, B & C**) to be **signed and stamped** on all pages, scanned and uploaded.
- b. Proforma of Declaration of Black Listing/ Holiday Listing (**Annexure D**) - duly filled, signed and stamped, scanned and uploaded.
- c. Bidder Information (**Annexure - E**) - put **✓ mark** in front of your confirmation, signed and stamped, scanned and uploaded.



- d. Self Declaration of local content (**Annexure F**) - duly filled, signed and stamped, scanned and uploaded.
- e. Bid Security Declaration (**Annexure H**) - duly filled, signed and stamped, scanned and uploaded.
- f. Declaration of Compliance of Order (Public Procurement No.1, 2 & 3) dt. 23 Jul 2020 & 24 Jul 2020 on Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017 (**Annexure R**) - duly filled, signed and stamped, scanned and uploaded.
- g. Instructions to the contractors for use of vehicles (**Annexure - S**) - duly signed and stamped, scanned and uploaded.
- h. Scaffolding Checklist, Scaffolding Manual, Scaffolding parts and Erection Procedure (Annexure – AC).
- i. GCC duly filled in the relevant portions, signed and stamped all the pages by the tenderer (The tenderers have to download the GCC (General Conditions of Contract) from our web site [www.hockochi.com](http://www.hockochi.com) and the same has to be returned along with the technical bid duly signed and stamped in all pages.
- j. Experience on similar works executed during the last five years and details like monetary value, proof of satisfactory completion of works etc.
- k. Organization chart giving details of field management at SITE, the tenderer proposes to have for this work including bio-data of the Site-in Charge and key personnel.
- l. The bidder should have well qualified workforce in adequate numbers for handling various stages of the work. The staff/workers details are to be furnished.
- m. Details of current commitments with copies of Work Orders to be submitted along with Technical Bid.
- n. Any other technical information the Tenderer likes to furnish.
- o. Copies of work orders already completed or in progress.
- p. Completion certificates.
- q. Tools and tackles available.
- r. GSTN registration.

**Clause - 1 & 2 (not applicable to MSME)**

- 1. Average annual financial turnover during the last 3 years, ending 31st March of the previous financial year, should be at least **₹12.00 Lakhs**. (Details of annual financial turnover to be submitted with Documentary proof).



2. Experience of having successfully completed similar works during last 7 years ending last day of month previous to the one in which applications are invited should be either of the following:

Three similar completed works costing not less than the amount equal to **₹15.00 Lakhs.**

OR

Two similar completed works costing not less than the amount equal to **₹19.00 Lakhs.**

OR

One similar completed works costing not less than the amount equal to **₹30 Lakhs.**

3. The parties who have been blacklisted / put in holiday list or parties in respect of whom action has been initiated for Blacklisting / Holiday listing by HOCL/any government / Quasi government agencies or any PSUs shall not be considered for award of job. The tenderer should give a written declaration regarding the same.
4. In addition to Clause No.3.7 of our GCC, the tenderer who do not meet the basic requirements (technical / commercial) as per the tender enquiry document and any other important condition having significant bearing on the cost / utility / performance of the required goods, services etc. will be treated as unresponsive and the tender will be liable to rejection.

Quotation shall accompany an **EMD - ₹74,400/-** (Not applicable to NSIC / SSI / MSME) shall be paid by crossed DD/Bankers Cheque/thro' NEFT.

**Bank Details** - **Central Bank of India, Tripunithura**  
- **A/c No. 3580607136**  
- **IFSC - CBIN0284515**

Details of bank transfer should be indicated in your technical offer. Quotations not accompanied with EMD, are liable to be rejected.

**EMD of the tenderer will be forfeited under the following conditions:-**

1. If after opening of the tender, the tenderer revokes his tender or increase his quoted rates.
2. If the tenderer does not commence the work after awarding the contract.
3. No interest on EMD will be paid.
4. EMD of the successful tenderer will be adjusted against the security deposit.
5. EMD of unsuccessful bidders shall be refunded after finalization of the contract and no interest shall be payable.
6. The tender is revoked or varied during its validity period.
7. The Prices are increased unilaterally after the tender opening and during its validity.
8. The tenderer after intimation of acceptance of the tender fails to execute the agreement/or furnish security deposit within the stipulated time.

**RATES**

Rates quoted shall be inclusive of all taxes, duties, octroi and other levies etc. GST, in case applicable shall be paid extra. The bidder should have GST registration with Central Excise Department.

**SECURITY DEPOSIT**

- Total security deposit shall be 5% of total contract value. This shall be recovered through deductions at the rate of 5% (Five percent) of the value of each running account bill till the total security deposit amount is collected, after which no further deductions shall be made on this account.
- Security Deposit shall be refunded not later than 60 days to the contractor without any interest after the completion of contract in all respects and completion of all such obligations under the contract.



### **PERFORMANCE SECURITY**

Performance security shall be 10% of total work order value of the contract. It shall be furnished within 21 days after notification of award and it shall be released after the defect liability period.

Performance Security shall be furnished in the form of Account Payee Demand Draft/ Bank Guarantee issued from any Commercial Bank in India/ on online payment in an acceptable form.

### **LIQUIDATED DAMAGES**

In case the contractor fails to complete the work within the stipulated period, contractor shall be liable to pay a LD of ½% (half percent) of the contract value per day for the delay or part thereof subject to a maximum of 5% (Five percent) of the contract value.

### **PERIOD OF CONTRACT**

The period of the contract shall be 6 Months from the date of issue of work order/issue of instruction to start the work.

### **SCOPE OF SUPPLY**

#### **Materials**

##### **a. HOCL's Scope**

1. HOCL shall issue hoses, gaskets, fasteners, pressure gauges, tube plugs, air, water, electricity at one point free of cost to the contractor.
2. HOCL shall provide only the gasket sheets (CAF) (free of cost) to the contractor. The contractor has to make arrangements to cut the gaskets to the required size.
3. Fasteners (if required) for the final box up work shall be issued by HOCL at free of cost.

##### **b. Contractor's Scope**

1. All skilled & Unskilled manpower require for the work is to be arranged by the contractor. All machines, tools, tackles, lifting equipments such as crane, chain pulleys, slings, D shackles, Hydraulic test pumps and other tools and equipments required for the completion of the work is to be arranged by the contractor.
2. **CRANE / DERRICK required for the successful completion of the entire work shall be arranged by the contractors at his own cost.** HOCL shall permit the contractor to hire the HOCL's mobile crane/Forklift on chargeable basis, if it is available and the rate shall be ₹1000/hr. + GST for mobile crane of capacity 18T and ₹600/hr. + GST for Forklift of 3T Capacity.
3. **Scaffolding material (pipe, clamps and base plates) and its erection if required should be arranged by the contractor.**

### **TOOLS AND TACKLES**

##### **a. Contractor's Scope**

All machines, tools, tackles, lifting equipments such as crane, chain pulleys, slings, D-shackles, hydraulic test pumps and other tools and equipments required for the satisfactory completion of the work shall be arranged by the contractor.

**CRANE / DERRICK required for the successful completion of the entire work shall be arranged by the contractors at his own cost.** HOCL shall permit the contractor to hire the HOCL's mobile crane/Forklift on chargeable basis, if it is available and the rate shall be ₹1000/hr. + GST for mobile crane of capacity 18T and ₹600/hr. + GST for Forklift of 3T Capacity.



NON-AVAILABILITY OF HOCL CRANE SHALL IN NO WAY RELIEVE THE VENDOR OF HIS RESPONSIBILITY IN MEETING ALL THE PROVISIONS OF THE ENQUIRY CONDITIONS).

**b. HOCL's Scope**

Calibrated pressure gauges for hydrotest shall be given by HOCL which shall be returned back without any damage.

**WATER & POWER**

HOC will provide water and power at one point free of cost.

**Testing & Inspection**

HOCL shall inspect the equipments during the work in progress along with the 3<sup>rd</sup> party inspection agency arranged by HOCL. All the necessary assistance shall be provided by the contractor to the Inspectors during inspection of the equipments. Contractor has to follow all the instruction given by HOCL Engineer-in-Charge, Inspection Engineer & 3<sup>rd</sup> party Inspector.

**GENERAL SITE CLEANING**

Working site should always be kept cleaned up to the entire satisfaction of the Engineer/Officer-In-Charge. Upon completion of the work, all materials shall be transported to designated locations in HOCL premises as directed by the Engineer/Officer-In-Charge on daily basis. Material reconciliation has to be carried out before submitting the bill.

**TIME OF COMPLETION**

Time of Completion for each work shall be **1 to 10 days** from the date of clearance to start the job depending upon the size and urgency of job. Deviations will be permitted as per the work permits issued by HOCL. Works shall commence within 24 hrs. from the time of intimation.

**VALIDITY OF THE TENDER**

The tender shall be kept valid for acceptance for a period of **THREE months** from the last date prescribed for receipt of the tender.

A Tenderer shall not be entitled during the said period of three months without the consent in writing of the company to revoke or cancel his tender or to vary the tendered rate or any terms thereof.

**PRICE**

The Contract will be awarded on fixed all-inclusive price unless otherwise specified. All rates in the tender shall cover applicable taxes, levies and duties. However applicable GST will be paid by HOCL subject to the successful tenderer having GST registration with Central Excise.

The price shall be quoted both in figures and words. In case a tenderer has quoted two different prices in words and figures the lower of the two will be considered valid and binding on the tenderer.

**PAYMENT TERMS**

- 95% payment will be made on pro rata basis after completion of work and certification by Engineer-in-Charge. (If the work is completed in all respective, otherwise Clause 'X' will be applicable.)
- Balance 5% payment will be kept as security deposit and it will be released after the completion of contract in all respects & completion of all obligations under the contract.



### **CONTRACT PREFERENCE**

Contract / Price Preference or any other concessions applicable for **MSME / SSI Units / PSUs** will be as per latest Government of India Directives. For availing this benefit, the bidder shall make their claim in the Technical Bid itself and enclose necessary documentary evidence to prove their eligibility.

### **DEFECT LIABILITY PERIOD**

As per GCC.

### **AGREEMENT**

The contractor has to execute an agreement with HOCL in the prescribed format on a non judicial stamp paper of ₹200/- in case of placement of work order.

### **OTHER TERMS AND CONDITIONS**

#### **GENERAL CONDITIONS OF CONTRACT (GCC) OF HOCL**

The General Conditions of Contract of the company is applicable to, and forms part of the contract. The General Conditions of Contract of HOCL is available in the office of The Chief General Manager (P&A) of HOCL, Ambalamugal or can be downloaded from our Web site [www.hoclkochi.com](http://www.hoclkochi.com).

#### **RIGHT TO ISSUE ADDENDUM**

The company reserves the right to issue any addendum to the tender document to clarify/amend/supplement and/ or delete any of the conditions, clauses or terms stated in the tender documents. Each addendum issued shall be distributed to the tenderer or his authorized representative and each such addendum shall become part of the tender documents.

**DUE DATE & TIME:** Due date for submission of tender is (Closing date) **24/02/2024 at 02.00 PM.**

**VALIDITY OF OFFER:** Offer shall be valid for a minimum period of 90 days from the last date of submission stipulated for the tender.



## ANNEXURE-II

### SCOPE OF WORK

The scope of work includes maintenance of various Heat Exchangers, Vessels and Columns on annual shutdown 2024. The Period of Contract of the work will be 6 months from the date of issue of work order/ issue of instruction of start the work Therefore the rate quoted by the party shall be valid for the above period. The Exchangers, Vessels & Columns will be released for maintenance as per the requirement/ shutdown. Party must be ready to do the work at any point of time during the period of contract. .

The scope of work includes, but not confined to the following-

#### General

1. Once the equipment is ready for maintenance, isolation of equipment by putting blinds/spectacle blinds in feed (inlet) and out let nozzles and all other nozzles indicated/instructed by engineer-in-charge for the purpose and fix blind number tags and record the same in blind register.
2. Provide necessary hose connections (if required) for draining, purging, steaming and water washing and airing of the equipment as the case may be as per the instruction of Engineer-in-Charge.
3. Opening all the man ways for pre-inspection for columns after issue of permit.
4. Providing hoses, fixing and operating eductors for ventilation & removal of hydrocarbon traces from the equipment.
5. Record the blind tag Nos. in the blind register and obtain signature in the register by Engineer-in-Charge.
6. Removal and refixing including to and fro transportation to central workshop of Pressure safety valve on the equipment and connected pipe lines as per the instruction of the Engineer in Charge.
7. Providing/retaining a standby person near the man way when man entry permit is live.
8. Assisting the inspecting team engaged in the inspection of Heat Exchanger and Columns.
9. **CRANE / DERRICK required for the successful completion of the entire work shall be arranged by the contractors at his own cost.** HOCL shall permit the contractor to hire the HOCL's mobile crane/Forklift on chargeable basis, if it is available and the rate shall be ₹1000/hr. + GST for mobile crane of capacity 18T and ₹600/hr. + GST for Forklift of 3T Capacity.
10. **Scaffolding material (pipe, clamps and base plates) and its erection if required should be arranged by the contractor.**
11. All tools and tackles, consumables, safety appliance for their working personnels shall be in the scope of contractor.



## I. Heat Exchanger Maintenance

### Floating Head Exchanger

1. Once the equipment is ready for maintenance, isolation of equipment by putting blinds/spectacle blinds in feed and out let nozzles and all other nozzles indicated for the purpose and fix blind number tags.
2. Open and remove channel head cover
3. Open and remove channel head
4. Open and remove shell cover and floating head cover.
5. Pull out the tube bundle as per the instruction of Engineer-in-Charge.
6. Clean the tubes and shell, channel head cover, channel head shell, floating head, floating head cover and dish end cover using hydro blasting machine (Karcher Pump) available in HOCL and all flange serration were cleaned by scrappers / wire brushes. If further cleaning by hydro blasting with higher capacity machine is required for cleaning, the same will be arranged by HOCL at their cost.
7. Preparation for man entry if required ie. provide necessary hose connections for draining, and water washing of the equipment as the case may be.
8. Blinding shell side and tube side in the required sequence and stages suitable for hydrotest of tube side and shell side separately.
9. Assemble the tube bundle, channel head shell, channel head cover, floating head, floating head cover and dish end cover in required sequence and stages suitable for Hydrotest of tube side and shell side separately.
10. Hydrotest the exchanger on shell side and tube side and floating head gasket, dish end cover gasket.
11. Leaking tubes if any noticed during hydrotest should be plugged using CS/SS/Brass plugs as per the instruction of Engineer-in-charge. Required plugs will be supplied by HOC at free of cost. Repeat the hydrotest if any leak at shell side / tube side.
12. You shall get the hydrotest witnessed by Engineer – in-charge / 3<sup>rd</sup> party Inspector.
13. Test rings should be used for testing floating head type exchangers tube bundle. Test rings are available in main store yard / maintenance workshop, the same has to be identified, cleaned, transported to the heat exchanger. After testing, the test rigs are to be transported back to the original location.
14. Test pressure for hydrotesting should be as per the inspection of the Inspector/Engineer-in-charge.
15. Removal of isolations (ie. blind, spectacle blinds, blind tags etc.) for normalizing the Heat Exchanger.
16. Hot bolting of the flanges after putting the equipment in line if it is required. However, this activity will not be counted for the completion time for the work.



17. In case of cleaning of heat exchanger tubes by hydro blasting (by HOCL through other agencies), there will be a gap of 1 or 2 days (for cleaning) in between opening / boxing up of exchanger. However, time taken for this activity will not be counted for the completion of the work.
18. If any leak is observed after normalizing the equipment, the same has to be arrested by the contractor. However, this activity will not be counted for the completion time for the work.
19. Floating head testing is not applicable in case of straight tube heat exchanger

**Clause No. X : 50% of the quoted rate only will be paid to the party if the tube bundle is not pulled out and brought to the ground (ie. only hydro testing of the tube side and shell side and plugging of the leaking tube is done in position)**

#### **'U' Tube Heat Exchanger & Ejectors**

1. Once the equipment is ready for maintenance, isolation of equipment by putting blinds/spectacle blinds in feed and out let nozzles and all other nozzles indicated for the purpose and fix blind number tags.
2. Open and remove channel head cover
3. Open and remove channel head
4. Open and remove shell cover if available.
5. Pull out the tube bundle as per the instruction of Engineer-in-Charge.
6. Clean the tubes, channel head cover, channel head shell and end cover using hydro cleaning machine (Karcher Pump) available in HOCL and all flange serration by scrappers / wire brushes. If Hydroblasting is required for cleaning, the same will be arranged by HOCL at their cost.
7. Blinding shell side and tube side in the required sequence and stages suitable for hydrotest of tube side and shell side separately.
8. Assemble to tube bundle, channel head, channel head cover, shell cover (if available) etc., in the required sequence and stage. Leaking tubes if any noticed during hydrotest should be plugged using CS/SS/Brass plugs as per the instruction of Engineer-in-charge. Required plugs will be supplied by HOC at free of cost. Repeat the hydrotest if any leak at shell side / tube side.
9. You shall get the hydrotest witnessed by Engineer – in-charge / 3rd party Inspector.
10. Test pressure for hydro test should be as per the inspection of the Inspector/Engineer-in-charge.
11. Removal of isolations (ie. blind, spectacle blinds, blind tags etc.) for normalizing the Heat Exchanger.)
12. Test rings should be used for testing floating head type exchangers tube bundle.(Test rings are available in main store yard / maintenance workshop, the same has to be identified, cleaned, transported to the heat exchanger. After testing, the test rings are to be transported back to the original location).
13. Hot bolting of the flanges after putting the equipment in line if it is required. However, this activity will not be counted for the completion time for the work.



14. In case of cleaning of heat exchanger tubes by hydroblasting (by HOCL through other agencies), there will be a gap of 1 or 2 days (for cleaning) in between opening / boxing up of exchangers. However, this activity will not be counted for the completion of the work.
15. If any leak is observed after normalizing the equipment, the same has to be arrested by the contractor. However, this activity will not be counted for the completion time for the work.

**Clause No. X : 50% of the quoted rate only will be paid to the party if the tube bundle is not pulled out and brought to the ground (ie. only hydro testing of the tube side and shell side and plugging of the leaking tube is done in position)**

### **Column Maintenance**

1. After receipt of man entry permit and positioning of a standby person at the man way man entry and opening all the tray man ways.
2. Cleaning the shell, trays, internals and other surfaces for visual inspection and replacement of internals (Demister Pad /trays downcomer/weir areas/tray gaskets. (if required) as per the instruction of Engineer-in-Charge. Muck /rust / residue accumulated inside the columns shall be collected in bags, weighed and dumped in a location as instructed by the Engineer-in-Charge.
3. Surface preparation for NDT as per the instruction of the Inspector/ Engineer-in-charge.
4. Assisting the inspecting team engaged in the inspection of equipment.
5. Minor repair /replacement of complete tray, tray fasteners and washers as required, leveling of trays/ weirs / down comers shall be done as per the instruction of Engineer-in-Charge.
6. Boxing up of tray / column man ways with/ without gaskets as per instruction of Engineer-in-Charge after getting clearance from Engineer in Charge/third party & box-up permit.
7. Removal of isolations i.e. blind, spectacle blinds, blind tags and normalizing the column.
8. Record in the blind register and obtain signature in the register by Engineer-in-Charge.

### **Vessel Maintenance**

1. Opening of all man-way after getting instruction of engineer -in-charge.
2. After receipt of man entry permit and positioning of a standby person at the man-way, Man entry through shell man-way.
3. Cleaning the shell and internals including renewal and cleaning of Demister Pads/packing and replace internals if any if required. Silt / residue/ rust accumulated inside the vessel shall be collected in bags, weighed and dumped to a location as instructed by the Engineer-in-Charge.
4. Surface preparation for NDT as per the instruction of the Inspector/ Engineer-in-charge.
5. Assisting the inspecting team engaged in the inspection of equipment.



6. Boxing up the man ways and nozzles using new gaskets for preparing the vessel for Hydro test after getting clearance from engineer-in-charge/third party inspector & box-up permit. Hydro tests the vessel at the test pressure as per the instruction of Engineer-in-charge. You shall get the hydro test witnessed by Engineer # in-charge / 3rd party Inspector. After hydro-test, release the pressure and drain the water. Removal of isolations ie. blind, spectacle blinds, blind tags and normalizing of vessels. Record in the blind register and obtain signature in the register by Engineer-in-Charge.

**Note: 1) For vessels like Pressure Sand filters, Side Stream filters, Air Driers, ACF, SBA and SAC -**

Cleaning the shell and internals including replenish/replacement and cleaning of Demister Pads/packing, pebbles, silex, sand, activated carbon, and resins etc and replace internals if required. Silt / residue/ rust accumulated inside the vessel shall be collected in bags, weighed and dumped to a location as instructed by the Engineer-in-Charge.

**2) For Oxidiser V2502 & V 2503 -** Cleaning the shell and internals including removing of sparer's and replace the internals if required. Silt / residue/ rust accumulated inside the vessel shall be collected in bags, weighed and dumped to a location as instructed by the Engineer-in-Charge.

**Maintenance of Pressure Safety Valves**

1. Removal of PSV from the location, which are mounted on vessel and or its connected piping.
2. Blinding inlet/outlet nozzle of the PSV immediately and put blind tags without disturbing the flare system and record in the blind register and obtain signature of the Engineer-in-Charge in the register.
3. Dropping the PSV to the ground level.
4. Transportation of PSV from site to HOCL Central Workshop.
5. After overhauling, testing and third party inspection by HOCL, collect the valves from Central Workshop and transport it to the respective locations.
6. Removal of isolations ie. blind, spectacle blinds, blind tags and fix the PSVs at respective locations using new gaskets and fasteners and normalizing.
7. Record in the blind register and obtain signature in the register by Engineer-in-Charge. Cost of these works shall be absorbed in the quoted rate for the maintenance of vessels incase that equipment is in the list.

Cost of these works shall be absorbed in the quoted rate for the maintenance of columns incase that equipment is in the list.

**Testing & Inspection**

HOCL shall inspect the equipments during the work in progress along with the 3rd party inspector arranged by HOCL. All the necessary assistance shall be provided by the contractor to the Inspectors during inspection of the equipments. Contractor has to follow all the instruction given by HOCL Engineer-in-Charge, Inspection Engineer & 3rd party Inspector.



## ANNEXURE- III

### SPECIAL CONDITIONS OF CONTRACT – FOR SHUTDOWN

HOCL is planning to take 30 days shutdown in 2024. Since the external environment is favourable to HOCL, all works has to be completed within the stipulated period for early startup of plant. The contractor has to put people as 12 hrs. shift basis (2 shifts – 8.00AM – 8.00PM, 8.00PM – 8.00AM) in full strength. Contractor has to take care the same while submitting their offer. Any deviation will be viewed very seriously. Also please note that the completion period spelt in NIT is for each work. (Hence, the LD Clause will be applicable to each work also.)

1. Contractor has to ensure that one electrician and one safety officer should be available in both the shifts in each site.
2. Contractor has to ensure that there should not be any delay in shift change overtime. The work has continue in same momentum during shift change time (8.00AM & 8.00PM). Measures to be made by the contractor to bring workers in advance for the same.
3. All manpower, tools, tackles, hydraulic test pumps, lifting tools, ropes, wire brushes, chain pulley block, wheel barrows etc. whatever required for the work are to be arranged by the contractor. **A list of tools and tackles intended to be brought for the work by the contractor has to be kept along with the bid.**
4. Spiral wound Gaskets, bolts, nuts, fasteners required for the work will be supplied by HOCL free of cost **as per requirement**. But HOC will issue only the gasket sheets for initial blinding. It has to be cut to the correct size by the contractor at his cost.
5. Safety Helmets, safety shoes, goggles, safety belts and other PPEs etc. for the workmen and supervisor employed for the work are to be arranged by the contractor.
6. No work to be carried out without wearing safety gadgets (PPE's), work order, confined space entry record and safety work permit by the employees of the contractor.
7. This work is a **shutdown activity** and you have to put all efforts to complete the work in time. Also you have to deploy people on round the clock basis as per the instruction of Engineer-in-Charge.
8. The entire work is to be carried out as per the standard engineering practice and subjected to stage inspection by HOC/3rd party inspection agency.
9. All debris, waste etc. arising out of the job should be segregated weighed, transported and dumped into the scrap yard as per the instruction of Engineer-in-Charge at your cost. The contractor also has to abide by the guidelines for Environmental Protection.
10. **HOC has every right to stop the work if the progress and quality of work is found unsatisfactory.** The balance work will be carried out by HOC through another agency at the cost and risk of the first contractor.
11. Contractor has to mobilise the complete team with necessary tools and tackles within 24 hours from the time of intimation to start the work.
12. Either the contractor or his authorised supervisor shall be available at work site throughout the work in both shifts.



13. Being a shutdown job, the quantity shown can vary i.e. Increase or decrease depending upon the situation. However, the rate and other terms and conditions shall be same throughout the pendency of the contract for which the contractor shall be ready.
14. Appropriate insurance shall be arranged by the contractor for the coverage of the liability to the people employed by them, arising out of any accident occurring during the execution of the work.
15. The Contractor shall follow all clauses in Annexures – ESI, Safety Regulations and General Conditions of Contract, Workmen Compensation, Personal Protective Equipments (PPE), Labour Laws, PF, Guidelines to contractors/suppliers for environmental protection & Confined Space Entry, Scaffolding Checklist, Scaffolding Manual & Scaffolding Parts & Erection Procedure (Tube & Clamp).
16. Contractor shall get prior permission from the Engineer-in-Charge for bringing the material to HOC.
17. Contractor shall ensure that a standby person is kept outside the man-way nozzle when the work is inside a confined space.
18. You are requested to visit the site to ascertain the exact quantum of work/site condition and get acquainted before submitting your offer.



**ANNEXURE- IV**

**COMPLIANCE / NO-DEVIATION STATEMENT**

**It is hereby stated that the quotation/offer submitted by us is in full compliance with all the documents issued against the enquiry and also further confirmed that there is no deviation from all the terms and conditions as per the enquiry.**

Signature of the Tenderer :

Name of the Tenderer :

Address :

Place :

SEAL

Date :



**ANNEXURE - V**

**COMPLIANCE OF GENERAL CONDITIONS OF CONTRACT (GCC)**

**It is hereby stated that we have read and understood General Conditions of Contract (GCC) and confirm that we abide by all the terms and conditions of GCC.**

Signature of the Tenderer :

Name of the Tenderer :

Address :

Place : SEAL

Date :



## ANNEXURE- VI

### CHECK LIST

#### PRE-QUALIFICATION CRITERIA (TO BE INCLUDED IN THE TECHNICAL BID)

**The Tenderers shall submit the following in the Technical bid (Un priced Bid) without which the tender will be rejected.**

- a. Scope of Work, General Terms and Conditions (Annexure I, II, III, IV, V, VI, A, B & C) to be signed and stamped on all pages, scanned and uploaded (YES/NO).
- b. Proforma of Declaration of Black Listing/ Holiday Listing (Annexure D) - duly filled, signed and stamped, scanned and uploaded (YES/NO).
- c. Bidder Information (Annexure - E) - put ✓ mark in front of your confirmation, signed and stamped, scanned and uploaded (YES/NO).
- d. Self Declaration of local content (Annexure F) - duly filled, signed and stamped, scanned and uploaded. (YES/NO).
- e. Bid Security Declaration (Annexure H) - duly filled, signed and stamped, scanned and uploaded (YES/NO).
- f. Declaration of Compliance of Order (Public Procurement No.1, 2 & 3) dt. 23 Jul 2020 & 24 Jul 2020 on Restrictions under Rule 144 (xi) of the General Financial Rules (GFRs), 2017 (Annexure R) - duly filled, signed and stamped, scanned and uploaded (YES/NO).
- g. Instructions to the contractors for use of vehicles (Annexure - S) - duly signed and stamped, scanned and uploaded (YES/NO).
- h. Scaffolding Checklist, Scaffolding Manual, Scaffolding parts and Erection Procedure (Annexure – AC) (YES/NO).
- i. GCC duly filled in the relevant portions, signed and stamped all the pages by the tenderer (The tenderers have to download the GCC (General Conditions of Contract) from our web site [www.hoclkochi.com](http://www.hoclkochi.com) and the same has to be returned along with the technical bid duly signed and stamped in all pages.
- j. Experience on similar works executed during the last five years and details like monetary value, proof of satisfactory completion of works etc. (YES/NO).
- k. Organization chart giving details of field management at SITE, the tenderer proposes to have for this work including bio-data of the Site-in Charge and key personnel. (YES/NO).
- l. The bidder should have well qualified workforce in adequate numbers for handling various stages of the work. The staff/workers details are to be furnished. (YES/NO).
- m. Details of current commitments with copies of Work Orders to be submitted along with Technical Bid. (YES/NO).
- n. Any other technical information the Tenderer likes to furnish. (YES/NO).



- o. Copies of work orders already completed or in progress (YES/NO).
- p. Completion certificates (YES/NO).
- q. Tools and tackles available (YES/NO).
- r. GSTN registration (YES/NO).

**Clause - 1 & 2 (not applicable to MSME)**

1. Average annual financial turnover during the last 3 years, ending 31st March of the previous financial year, should be at least **₹12.00 Lakhs**. (Details of annual financial turnover to be submitted with Documentary proof).
2. Experience of having successfully completed similar works during last 7 years ending last day of month previous to the one in which applications are invited should be either of the following:  
  
Three similar completed works costing not less than the amount equal to **₹15.00 Lakhs**.  
OR  
Two similar completed works costing not less than the amount equal to **₹19.00 Lakhs**.  
OR  
One similar completed works costing not less than the amount equal to **₹30 Lakhs**.
3. The parties who have been blacklisted / put in holiday list or parties in respect of whom action has been initiated for Blacklisting / Holiday listing by HOCL/any government / Quasi government agencies or any PSUs shall not be considered for award of job. The tenderer should give a written declaration regarding the same.
4. In addition to Clause No.3.7 of our GCC, the tenderer who do not meet the basic requirements (technical / commercial) as per the tender enquiry document and any other important condition having significant bearing on the cost / utility / performance of the required goods, services etc. will be treated as unresponsive and the tender will be liable to rejection.

Signature of the Tenderer :

Name of the Tenderer :

Address :

Place :

Date :