



**OIL INDIA LIMITED**  
(A Government of India Enterprises)  
PO : Duliajan – 786602  
Assam (India)

TELEPHONE NO. (91-374) 2808719  
Email: [ankurjyoti\\_sarmah@oilindia.in](mailto:ankurjyoti_sarmah@oilindia.in); [erp\\_mm@oilindia.in](mailto:erp_mm@oilindia.in)

**FORWARDING LETTER**

Tender No. : SDI5127P21 DT: 16.09.2020  
Tender Fee : NIL  
Bid Security : Applicable  
Bidding Type : SINGLE STAGE TWO BID SYSTEM  
Bid Closing on : 22.10.2020 (11.00 HRS IST)  
Bid Opening on : 22.10.2020 (14.00 HRS IST)  
Performance Security : Applicable  
Integrity Pact : Applicable

The complete bid documents and details for purchasing bid documents, participation in E-tenders are available on OIL's e-procurement portal <https://etender.srm.oilindia.in/irj/portal> as well as OIL's website [www.oil-india.com](http://www.oil-india.com).

**NOTE:** All addenda, Corrigenda, time extension etc. to the tenders will be hosted on above website and e-portal only. Bidders should regularly visit above website and e-portal to keep themselves updated.

OIL invites Bids for **SUPPLY, INSTALLATION AND COMMISSIONING OF INDIRECT HEATER (QTY- 15 NOS.)** through its e-Procurement site under **SINGLE STAGE TWO BID SYSTEM**. The bidding documents and other terms and conditions are available at Booklet No. MM/LOCAL/E-01/2005 for E-Procurement of Indigenous Tenders. The prescribed Bid Forms for submission of bids are available in the Technical RFX -> External Area -> Tender Documents

The general details of tender can be viewed by opening the RFX [Tender] under RFX and Auctions. The details of items tendered can be found in the Item Data and details uploaded under Technical RFX.

**This Tender has been floated for participation of Indigenous bidders only. Hence, only Indigenous bidders are eligible to participate against this tender.**

**Consortiums/Joint venture entities are not eligible to participate against this tender.**

**The tender will be governed by:**

- a) For technical support on various matters viz. Online registration of vendors, Resetting of Passwords, submission of online bids etc, vendors should contact OIL's ERP MM Deptt at following: Tel Nos. = **0374-2807178/ 2807171/ 2807192/ 2804903.**  
Email id = [erp\\_mm@oilindia.in](mailto:erp_mm@oilindia.in); [esupport@oilindia.in](mailto:esupport@oilindia.in)

b) OIL's office timings are as below:

	Time (in IST)
Monday – Friday	07.00 AM to 11.00 AM; 12.30 PM to 03.30 PM
Saturday	07.00 AM to 11.00 AM
Sunday and Holidays	Closed

**Vendors should contact OIL officials at above timings only.**

**OIL Bank Details :**

	Bank Details of Beneficiary	
a	Bank Name	STATE BANK OF INDIA
b	Branch Name	Duliajan
c	Branch Address	Duliajan, Dist-Dibrugarh
d	Banker Account No.	10494832599
e	Type of Account	Current Account
f	IFSC Code	SBIN0002053
g	MICR Code	786002302
h	SWIFT Code	SBININBB479
i	Contact No.	9435554859
j	Contact Person Name	Mr. K.L.K.Banik, AGM
k	Fax No.	0374-2802729
l	Email Id	<a href="mailto:sbi.02053@sbi.co.in">sbi.02053@sbi.co.in</a>

- c) “General Terms & Conditions” for e-Procurement as per Booklet No. MM/LOCAL/E-01/2005 for E-Procurement of Indigenous Tenders.
- d) Technical specifications and Quantity as per **Annexure – IA**.
- e) The prescribed Bid Forms for submission of bids are available in the Technical RFx -> External Area -> Tender Documents.
- f) Amendments to the NIT after its issue will be published on OIL's website only. Revision, clarification, addendum, corrigendum, time extension etc. to the tender will be hosted on OIL website only. No separate notification shall be issued in the press. Prospective bidders are requested to visit website regularly to keep themselves updated.
- g) Any sum of money due and payable to the contractor (including Security Deposit refundable to them) under this or any other contract may be appropriated by Oil India Limited and set-off against any claim of Oil India Limited (or such other person or persons contracting through Oil India Limited) for payment of sum of money arising out of this contract or under any other contract made by the contractor with Oil India Limited (or such other person or persons contracting through Oil India Limited).

- h) Bidders are advised to fill up the Technical bid check list (**Annexure EEE**) and Response sheet (**Annexure FFF**) given in MS excel format in Technical RFx -> External Area -> Tender Documents. The above filled up document to be uploaded in the **Technical Attachment**. For details please refer “Vendor User Manual” / “NEW INSTRUCTIONS”

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**Special Notes:**

1.0

(I)

- a) Bidders who do not have E-tender Login ID and Password should complete their online registration **at least seven (7) days prior to the scheduled bid closing date** and time of the tender. For online registration, Bidder may visit the OIL's E-tender site <https://etender.srm.oilindia.in/irj/portal>
- b) Necessary Login ID & Password will be issued by OIL only after submitting the complete online registration by the Bidder. In the event of late registration/incomplete registration by Bidder, OIL INDIA LIMITED shall not be responsible for late allotment of User ID & Password and request for bid closing date extension on that plea shall not be entertained by Company.
- c) **MSE Units** (Manufacturers/Service Providers only and not their dealers/distributors) who are already registered with District Industry Centers or Khadi & Village Industries Commission or Khadi & Village Industries Board or Coir Board or National Small Industries Corporation or Directorate of Handicrafts & Handloom or any other body specified by Ministry of MSME are **exempted from payment of Bid Security (EMD)** irrespective of their monetary limit, product category and capacity mentioned in their registration, **subject to submission of valid MSE registration certificate issued by appropriate authority.**
- d) For availing benefits under Public Procurement Policy (**Purchase preference**), the interested MSE Bidders must ensure that they are the **manufacturers of the tendered item(s) and registered with the appropriate authority for the said item(s).** Bids without EMD shall be rejected, if the technical offer does not include a valid copy of relevant MSE Certificate issued by appropriate authority specifying the item as per tender. Therefore, it is in the interest of such MSE Vendors to furnish a copy of complete certificate to the concerned tender handling officer of **OIL at least seven (7) days prior to the scheduled Bid Closing Date of the tender**, seeking clarification/confirmation as to whether their MSE certificate is eligible for EMD exemption or not. **Late communication in this regard and request for bid closing date extension on that plea shall not be entertained by Company.**

(II)

In case a Startup [defined as per Ministry of Commerce and Industry (Department of Industrial Policy and Promotion, DIPP) latest notification]/ MSE is interested in supplying the tendered item but does not meet the Pre-Qualifying Criteria (PQC)/ Proven Track Record (PTR) indicated in the tender document, the Startup/MSE is requested to write a detailed proposal separately, and not against the present tender requirement, to the tender issuing authority about its product. Such proposals shall be accompanied by relevant documents in support of MSE (where applicable) or in case of Startup, following documents shall be given:

1. Certificate of Recognition issued by the Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India.
2. Certificate of incorporation.

3. Audited Profit & Loss (P&L) Statement of all the Financial Years since incorporation. In case where the Balance sheet has not been prepared, bidder shall submit a certificate in original from its CEO/CFO stating the turnover of the bidding entity separately for each Financial Years since incorporation alongwith a declaration stating the reason for not furnishing the audited P&L Statement. This certificate shall be endorsed by a Chartered Accountant/Statutory Auditor.

The Proposal shall be examined by OIL and OIL may consider inviting a detailed offer from the Startup/MSE with the intent to place a TRIAL or TEST Order, provided the Startup/MSE meets the Quality and Technical Specifications.

In case the Startup/MSE is successful in the Trial Order, the vendor shall be considered for PQC exemption/relaxation (as the case may be) for the next tender for such item till the time it remains a Startup/MSE

**NOTE:**

In case of MSE/PSUs/ Govt. Bodies / eligible institutions etc., they must apply to concerned tender handling officer, Materials Department, Oil India Limited, P.O. Duliajan, Assam-786602 for waiver of EMD upto one week prior to the Bid closing date (or as amended in e-portal).

2.0 The tender is invited under SINGLE STAGE-TWO BID SYSTEM. The bidders are required to submit both the “TECHNO-COMMERCIAL UNPRICED BID” and “PRICED BID” through electronic format in the OIL’s e-Tender portal within the Bid Closing Date and Time stipulated in the e-Tender.

2.1 Please ensure that Technical Bid / all technical related documents related to the tender are uploaded in the RFx Information > Technical Attachment only. The “**TECHNO-COMMERCIAL UNPRICED BID**” shall contain all techno-commercial details except the prices. **Please note that no price details should be uploaded in** Technical RFx Response.

2.2 The “**PRICE BID**” must contain the price schedule and the bidder’s commercial terms and conditions. **For price upload area , please refer “NEW INSTRUCTIONS” Please refer Annex-BB for price schedule.**

2.3 Offer not complying with above submission procedure will be rejected as per Bid Rejection Criteria mentioned in [Annexure-CCC](#).

3.0 Please note that all tender forms and supporting documents are to be submitted through OIL’s e-Procurement site only except following documents which are to be submitted manually in sealed envelope super scribed with Tender no. and Due date to DGM-Materials, Materials Department, Oil India Limited, Duliajan - 786602, Assam on or before the Bid Closing Date and Time mentioned in the Tender.

- a) Original Bid Security
- b) Detailed Catalogue (if any)
- c) Any other document required to be submitted in original as per tender requirement

All documents submitted in physical form should be signed on all pages by the authorised signatory of the bidder and to be submitted in Duplicate.

4.0 Benefits to Micro & Small Enterprises (MSEs) as per OIL’s Public Procurement Policy for Micro and Small Enterprises (MSEs) shall be given. Bidders are requested to go through ANNEXURE – I of MM/LOCAL/E-01/2005 for E-Procurement of Indigenous Tenders for more details.

- 5.0 Bidders are requested to examine all instructions, forms, terms and specifications in the bid. Failure to furnish all information required as per the NIT or submission of offers not substantially responsive to the bid in every respect will be at the bidders risk and may result in rejection of its offer without seeking any clarifications.
- 6.0 Bidders must ensure that their bid is uploaded in the system before the tender closing date and time. Also, they must ensure that above documents which are to be submitted in a sealed envelope are also submitted at the above mentioned address before the bid closing date and time failing which the offer shall be rejected.
- 7.0 Bid must be submitted electronically only through OIL's e-procurement portal. Bid submitted in any other form will be rejected.
- 8.0 **SINGLE STAGE TWO BID SYSTEM** shall be followed for this tender and only the PRICED-BIDS of the bidders whose offers are commercially and technically acceptable shall be opened for further evaluation.
- 9.0 a) **The Integrity Pact is applicable against this tender. Therefore, please submit the Integrity Pact document duly signed along with your quotation as per BRC. OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide Annexure DDD of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL's competent signatory. The proforma has to be submitted by the bidder (along with the technical bid) duly signed (digitally) by the same signatory who signed the bid, i.e., who is duly authorized to sign the bid. Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact has been signed by the bidder's authorized signatory who sign the Bid. If any bidder refuses to sign Integrity Pact or declines to submit Integrity Pact with the offer, their bid shall be rejected straightway.**
- b) **The name of the OIL's Independent External Monitors at present are as under:**
1. **SHRI SUTANU BEHURIA, IAS (Retd.)**  
E-Mail ID: [sutanu2911@gmail.com](mailto:sutanu2911@gmail.com)
  2. **SHRI JAGMOHAN GARG**  
Ex-Vigilance Commissioner, CVC  
E-mail ID: [jagmohan.garg@gmail.com](mailto:jagmohan.garg@gmail.com)
  3. **SHRI RUDHRA GANGADHARAN, IAS (RETD.)**  
Ex-Secretary, Ministry of Agriculture  
E-mail ID: [rudhra.gangadharan@gmail.com](mailto:rudhra.gangadharan@gmail.com)
- 10.0 The tender shall be governed by the Bid Rejection & Bid Evaluation Criteria given in enclosed **Annexure-CCC**. However, if any of the Clauses of the Bid Rejection Criteria / Bid Evaluation Criteria (as per **Annexure-CCC**) contradict the Clauses of the tender and / or "General Terms & Conditions" as per Booklet No. MM/LOCAL/E-01/2005 for E-Procurement of Indigenous Tenders elsewhere, those in the BEC / BRC shall prevail.
- 11.0 To ascertain the substantial responsiveness of the bid OIL reserves the right to ask the bidder for clarification in respect of clauses covered under BRC also and such clarifications fulfilling the BRC clauses in toto must be received on or before the deadline given by the company, failing which the offer will be summarily rejected.

- 12.0 Please do refer the User Manual provided on the portal on the procedure How to create Response for submitting offer.
- 13.0 If Bank Guarantee is submitted towards 'Bid Security', then bidders have to ensure that the Bank Guarantee issuing bank indicate the name and detailed address (including e-mail) of their higher office from where confirmation towards genuineness of the Bank Guarantee can be obtained.
- 14.0 Bidders are requested to refer to the enclosed **Annexure – BBB** for the Taxes and Duties clauses under GST regime.

**15.0 Delivery/collection Instructions in cases where transportation is in OIL's scope:**

- (i) the suppliers shall be required to deliver the Sundry consignments of weight less than 3 (Three) Tons at the godown/office/collection point of OIL's authorized transporter in various cities.
- (ii) consignments weighing more than 3(Three) Tons shall be collected from the supplier's premises/loading points by OIL's authorized transporter.
- (iii) the names of OIL's current authorized transporters are:
  - a) M/s Western Carriers (India) Ltd.
  - b) M/s DARCL Logistics Limited

**Bidder's are requested to note the above delivery/collection instructions while submitting their offers.**

- 16.0 While submitting the offers bidders are requested to refer to the enclosed **Annexure – BB (Price Bid Format and Evaluation Criteria)**.

**17.0 The applicable GST on the Liquidated Damage if any, shall have to be borne by the seller. Accordingly, the Liquidated Damage shall be recovered from the seller along with applicable GST.**

**18.0 Bidders should fill-up and submit alongwith their bid an UNDERTAKING towards authenticity of information/documents furnished by them, as per enclosed ANNEXURE-K.**

**19.0** For convenience of the qualified Bidders and to improve transparency, the rates/costs quoted by bidders against OIL's e-tenders shall be available for online viewing by such Bidders whose price bids are opened by Company. A Bidder can view item-wise rates/ costs of all other such peer bidders against the tender immediately after price bid opening, if the e-tender is floated by Company with PRICE CONDITION. In case the Price-Bid is invited by Company through attachment form under "Notes & Attachment" (i.e., NO PRICE Condition), Bidders must upload their detailed Price-Bid as per the prescribed format under "Notes & Attachment", in addition to filling up the "Total Bid Value" Tab taking into account the cost of all individual line items and other applicable charges like freight, tax, duties, levies etc. Under NO PRICE Condition (i.e., Price Bid in attachment form), the "Total Bid Value" as calculated & quoted by the Bidder shall only be shared amongst the eligible bidders and Company will not assume any responsibility whatsoever towards calculation errors/ omissions therein, if any. Notwithstanding to sharing the "Total Bid Value" or the same is whether filled up by the Bidder or not, Company will evaluate the cost details to ascertain the inter-se-ranking of bidders strictly as per the uploaded attachment and Bid Evaluation Criteria only. Online view of prices as above shall be available to the Bidders only upto seven days from the date of Price-Bid opening of the tender.



**20.0 DISCLAIMER:** Rates/Costs shown above are as calculated/quoted by the respective Bidder. Company does not assume any responsibility and shall not be liable for any calculation error or omissions. However, for placement of order/award of contract, Company shall evaluate the cost details to determine the inter-se-ranking of Bidders strictly as per their Price-Bids and Bid Evaluation Criteria of the Tender. OIL INDIA LTD accepts no liability of any nature resulting from mismatch of "Total Bid Value" & price submitted under "Notes & Attachment" by any bidder and no claim whatsoever shall be entertained thereof.

## **21.0 Price Breakup:**

Bidders should submit the price breakup of all the items as per “**Annexure HHH**” which has been uploaded under “Notes & Attachments” > “Attachments” as shown below. The price breakup “Annexure HHH” should be filled up, signed and uploaded under “Notes & Attachments” > “Attachments” only. **The filled up price breakup of all the items should not be uploaded in Technical Attachment.**

The screenshot shows the 'Display RFX' page in the RFX - Oil India Ltd e-Procurement System. The page displays RFX details and a list of attachments. A red circle highlights the 'Price Breakup Annex HHH' attachment.

**RFX Details:**

RFX Number	RFX Name	Type	Status	Created On	Created By
SDI3784P15	CCTV Surveillance System OIL Duliajan	RFX-OPEN TWO BID	Saved	03.08.2014 13:22:23	ROY
Time Zone: INDIA	Number of Suppliers: 1	Version Number	Version Type: Active Version	External Version Number	

**Attachments:**

Assigned To	Category	Description	File Name	Version	Processor	Visible Internally only	Checked Out	Type	Size (KB)	Chk
Document Header	Standard Attachment	Price Breakup Annex HHH	Price Breakup Annexure HHH.pdf	SSIG	1			SSIG	70	200

Please do refer “**NEW INSTRUCTION TO BIDDER FOR SUBMISSION**” for the above two points and also please refer “ **New Vendor Manual (effective 01.03.2019)** ” available in the login Page of the OIL’s E-tender Portal.



**Oil India Limited e-Procurement**

User ID \*

Password \*

Logon Problems? [Get Support](#)

[Supplier Enlistment for E-Tender](#)

[Important Note for New Portal Users:](#)

[Click here to View Competability Settings](#)

[General Guidelines to bidders](#)

[Click for User Manuals](#)

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[Click for Terms of use, Privacy Policy, Refund Policy Docs](#)

Click here for the New Manual & Instruction

**NOTE:**

**Bidders should submit their bids (preferably in tabular form) explicitly mentioning compliance / non-compliance to all the terms and conditions of the NIT.**

Yours Faithfully,

-Sd-

(A J SARMAH)

CHIEF MANAGER MATERIALS (IP)

FOR : CGM-MATERIALS (HoD)



TENDER NO. SDI5127P21 DATED:16.09.2020

**BID REJECTION CRITERIA (BRC) / BID EVALUATION CRITERIA (BEC)**

The following BRC/BEC will govern the evaluation of the bids received against this tender. Bids that do not comply with stipulated BRC/BEC in full will be treated as non responsive and such bids shall prima-facie be rejected. Bid evaluation will be done only for those bids that pass through the “Bid Rejection Criteria” as stipulated in this document.

Other terms and conditions of the enquiry shall be as per General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement of Indigenous Tenders. However, if any of the Clauses of the Bid Rejection Criteria / Bid Evaluation Criteria (BRC / BEC) contradict the Clauses of the tender or MM/LOCAL/E-01/2005 elsewhere, those in the BRC / BEC shall prevail.

<b><u>Criteria</u></b>	<b>Complied / Not Complied. (Remarks if any)</b>
<p><b>1.0 BID REJECTION CRITERIA (BRC):</b></p> <p>The bids shall conform generally to the specifications, terms and conditions given in the tender. Notwithstanding the general conformity of the bids to the stipulated specifications and terms &amp; conditions, the following requirements will have to be particularly met by the bidders, without which the offer will be considered as non-responsive and rejected.</p> <p><b>A) <u>TECHNICAL:</u></b></p> <p><b>1.1</b> The bidder must be in the business of Manufacturing / Fabrication, Assembling &amp; Supply of Packaged Indirect-Fired type Water Bath Heater (IWBH) unit(s) along with ancillary items like Flame Arrested Burner, Burner Management System, Safety Shutdown System (Fail Safe) etc. for oil &amp; natural Gas applications during the previous 5 (five) years prior to the original bid closing date of the tender. Bidder to submit list of past customers along with copy of purchase order(s) / Letter of Award(s) / work Order(s) (with specification) and Completion Certificate / Commissioning Report / any other document proving successful execution of the purchase Order / Contract, along with the bid.</p> <p><b>1.2</b> Bidder shall have the experience of successful execution of similar order(s) for fabrication, supply and commissioning of not less than <b>8 (eight) numbers</b> of the following natural gas / crude oil process equipment to Oil &amp; Gas Industries or E&amp;P companies in the last 5 (five) years prior to the original bid closing date of the tender-</p> <p><b>1.2.1</b> <u>IWBH for handling natural gas having minimum coil working pressure of 210 kg/cm<sup>2</sup> (3000 psig) or Coil Pressure Rating of Schedule No. 160 for heating minimum 5000Nm<sup>3</sup>/Hr Natural Gas.</u></p>	

**1.3** The bidder shall **submit the following documents in support of successful execution of past supply / contract** as applicable under Para 1.2 & 1.2.1 above –

(a) Copy(ies) of Purchase Order(s)/ Contract Document(s) with specification and Performance / Commissioning Report from the Clients

**and**

(b) Any of the following documents that confirms the successful execution of the order(s)-

- (i) Completion Certificate.
- (ii) Consignee receipted Delivery Challan / Invoice etc.
- (iii) Final inspection release note from TPI.
- (iv) Any other documentary evidence that can substantiate the successful execution of each of the Purchase Orders / Contracts.

**Also**, it is the **bidder's responsibility** to attach a **relevant valid document** of corresponding **executed supply** along with the bid, which categorically **confirms fulfilment of the requisite criteria** mentioned under **Para 1.2 & 1.2.1** above.

#### **1.4** **Delivery schedule:**

**Delivery period** for the entire tendered quantity will be **maximum 12 months** from the date of placement of formal purchase order.

**Installation & Commissioning** of the entire tendered quantity must be completed within a **period of 210 days** from the date of intimation of site clearance from OIL.

The bidder should categorically confirm compliance to the above delivery schedule in their technical bid, failing which the bid will be rejected.

**1.5** The bidder will have to provide **guarantee for a minimum period of 12 (twelve) months** from the date of successful commissioning/testing for all the equipment including bought out equipment / items.

**1.6** Bids and all related documents shall be in English language. Supporting documents and printed literature furnished by the bidder may be in another language provided they are accompanied by an official and notarized English translated version, which shall govern for the purpose of bid interpretation.

#### **Note:**

**I) The Purchase Order date need not be within 5 (five) years preceding the original bid closing date of this tender. However, the execution of supply should be within 5 (five) years preceding the original bid closing date of this tender.**

**II) Satisfactory supply/completion/installation report (if submitted) should be issued on client's official letterhead with signature and stamp.**

## **B) FINANCIAL:**

a) Annual Financial Turnover of the bidder during any of preceding 03 (three) financial / accounting years from the original bid closing date should be at least **Rs. 420.00 Lakhs**.

b) Net Worth of the firm should be Positive for preceding Financial / Accounting year (FY=2019-20).

**Note -For (a) & (b):** Considering the time required for preparation of Financial Statements, if the last date of preceding financial / accounting year falls within the preceding six months reckoned from the original bid closing date and the Financial Statements of the preceding financial / accounting year are not available with the bidder, then the financial turnover of the previous three financial / accounting years excluding the preceding financial / accounting year will be considered. In such cases, the Net worth of the previous financial / accounting year excluding the preceding financial / accounting year will be considered. However, the bidder has to submit an affidavit/undertaking certifying that ‘the balance sheet/Financial Statements for the financial year..... (As the case may be) has actually not been audited so far’.

### **Notes:**

a) For proof of Annual Turnover & Net worth any one of the following document must be submitted along with the bid:-

i) A certificate issued by a practicing Chartered Cost Accountant (with Membership Number and Firm Registration Number), certifying the Annual turnover & Net worth as per format prescribed in **ANNEXURE-J**.

**OR**

ii) Audited Balance Sheet along with Profit & Loss account.

b) In case the bidder is a Central Govt. Organization/PSU/State Govt. Organization/Semi-State Govt. Organization or any other Central/State Govt. Undertaking, where the auditor is appointed only after the approval of Comptroller and Auditor General of India and the Central Government, their certificates may be accepted even though FRN is not available. However, bidder to provide documentary evidence for the same.

## **C) COMMERCIAL:**

i) **Validity** of the bid shall be **minimum 120 days** from the Bid Closing Date.

ii) **Bid security:**

The bid must be accompanied by Bid Security of **Rs. 15,10,000.00** in OIL's prescribed format as Bank Guarantee in favour of OIL. The Bid Security may be submitted manually in sealed envelope superscribed with Tender no. and Bid Closing date to Head Materials, Materials Department, Oil India Limited, Duliajan- 786602, Assam on or before the Bid Closing Date and Time mentioned in the Tender. **The Bank Guarantee towards Bid Security shall be valid for 7 months from Bid closing date. (i.e. upto 31.05.2021).**

**Bid Security may also be paid online on or before the Bid Closing Date and Time mentioned in the Tender.**

**If bid security in ORIGINAL of above mentioned Amount and Validity is not received or paid online within bid closing date and time, the bid submitted through electronic form will be rejected without any further consideration.**

For exemption for submission of Bid Security, please refer Clause No. 8.16 of General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement of Indigenous Tenders.

**The format of Bank Guarantee towards Bid Security (Annexure – VII) has been amended to Annexure – VII (Revised) and bidders should submit Bank Guarantee towards Bid Security as per Annexure – VII (Revised) only.**

iii) Bids are invited under “Single Stage Two Bid System”. Bidders have to submit both the “Techno-commercial Unpriced Bids” and “Priced Bids” through electronic form in the OIL’s e-Tender portal within the bid Closing date and time stipulated in the e-tender. The Techno-commercial Unpriced bid is to be submitted as per scope of works and Technical specification of the tender and the priced bid as per the online Commercial bid format. For details of submission procedure, please refer relevant para of General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement of Indigenous Tenders. Any offer not complying with the above shall be rejected straightway.

iv) **Performance Security:**

The successful bidder shall submit Performance Security @ 10% of PO value within 30 days of receipt of the formal purchase order failing which OIL reserves the right to cancel the order and forfeit the Bid Security. Bidders should undertake in their bids to submit Performance Security as stated above.

The Performance Security shall be in the following form :

**A Bank Guarantee in the prescribed OIL’s format valid for 90 days beyond delivery period and applicable warranty/guarantee period (if any).**

**The validity requirement of Performance Security is assuming despatch within stipulated delivery period and confirmation to all terms and conditions of order. In case of any delay in despatch or non-confirmation to all terms and conditions of order, validity of the Performance Security is to be extended suitably as advised by OIL.**

v) The prices offered will have to be firm through delivery and not subject to variation on any account. A bid submitted with an adjustable price will be treated as non-responsive and rejected.

vi) Bids received after the bid closing date and time will be rejected.

Similarly, modifications to bids received after the bid closing date & time will not be considered.

vii) All the Bids must be Digitally Signed using “Class 3” digital certificate with Organisation’s name (*e-commerce application*) as per Indian IT Act obtained from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India. The bid signed using other than “Class 3 with Organisation’s Name” digital certificate, will be rejected.

viii) Technical RFX Response folder is meant for Technical bid only. Therefore, No price should be given in Technical RFX Response folder, otherwise the offer will be rejected.

ix) Price should be maintained in the “online price schedule” only. The price submitted other than the “online price schedule” shall not be considered.

x) **A bid shall be rejected straightway if it does not conform to any one of the following clauses:**

**(a) Validity of bid shorter than the validity indicated in the Tender.**

**(b) Original Bid Security not received within the stipulated date & time mentioned in the Tender.**

**(c) Bid Security with (i) Validity shorter than the validity indicated in Tender and/or (ii) Bid Security amount lesser than the amount indicated in the Tender.**

**(d) In case the Party refuses to sign Integrity Pact.**

**(e) Annual Turnover of a bidder lower than the Annual turnover mentioned in the Tender.**

**NOTE: FOR CLAUSE NOS. C(ii) & C(iv) OF BID SECURITY/EMD AND PBG**

The bidders/successful bidders are requested to advise the Bank Guarantee issuing bank to comply with the following and ensure to submit, the receipt of the copy of SFMS message as sent by the issuing bank branch, along with the original bank guarantee in OIL's tender issuing office:

**“The Bank Guarantee issuing Bank branch must ensure the following:  
The Bank Guarantee issued by the Bank must be routed through SFMS platform as per following details:**

**(i) MT 760 / MT 760 COV for issuance of Bank Guarantee**

**(ii) MT 760 / MT 767 COV for amendment of Bank Guarantee**

**The above message / intimation shall be sent through SFMS by the BG issuing Bank branch to HDFC Bank, Duliajan Branch, IFS Code – HDFC0002118; SWIFT Code - HDFCINBBCAL.**

**Branch Address: HDFC Bank Limited, Duliajan Branch, Utopia Complex, BOC Gate, Jayanagar, Duliajan, Dibrugarh, PIN – 786602.”**

## **2.0 BID EVALUATION CRITERIA (BEC)**

The bids conforming to the terms and conditions stipulated in the tender and considered to be responsive after subjecting to the Bid Rejection Criteria as well as verification of original of any or all documents/ documentary evidences pertaining to BRC, will be considered for further evaluation as per the Bid Evaluation Criteria given below. **The original Bid Closing Date shall be considered by OIL for evaluation of BRC criteria even in case of any extension of the original Bid Closing Date.**

### **A) TECHNICAL:**

- i) The bids will be evaluated as per NIT specifications, terms & conditions.
- ii) All the items as indicated in the material description of this tender should be offered. If any of the item not quoted by the bidder, the offer will not be considered for evaluation.
- (iii) All items shall be procured from the same source and evaluation shall be done accordingly.

### **B) COMMERCIAL:**

- i) To evaluate the inter-se-ranking of the offers, all Taxes / Levies will be considered as per prevailing Govt. guidelines as applicable on the bid opening date. Bidders may check this with the appropriate authority before submitting their offer.
- ii) Priced bids of only those bidders will be opened whose offers are found technically acceptable. The technically acceptable bidders will be informed before opening of the "priced bid".
- iii) A job executed by a bidder for its own organization / subsidiary cannot be considered as experience for the purpose of meeting BEC.
- iv) To ascertain the substantial responsiveness of the bid OIL reserves the right to ask the bidder for clarification in respect of clauses covered under BRC also and such clarifications fulfilling the BRC clauses in toto must be received on or before the deadline given by the company, failing which the offer will be summarily rejected.

### **NOTE:**

**Bidders should submit their bids (preferably in tabular form) explicitly mentioning compliance / non-compliance to all the terms and conditions of NIT.**

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## TECHNICAL SPECIFICATIONS WITH QUANTITY

Tender No SDI5127P21 &amp; Date: 16.09.2020

	Complied / Not Complied. (Remarks if any)
<p><b><u>ITEM NO.10</u></b></p> <p><b><u>FABRICATION, PACKAGING AND SUPPLY OF INDIRECT WATER BATH HEATER PACKAGE FOR PROCESSING NATURAL GAS PRODUCED FROM HIGH-PRESSURE GAS WELLS [QTY = 13 NOS.]</u></b></p> <p><b><u>TECHNICAL SPECIFICATION:</u></b></p> <p><b>1.0</b> The Indirect Water Bath Heater shall be used for production of non-associated gas by preheating and expansion process. Natural gas will be heated in preheat coil and then expanded using a choke outside the bath. After reduction of pressure, the gas stream will be again heated in the expansion coil for further expansion.</p> <p><b>2.0 SCOPE OF WORKS:</b> Double Coiled Bath Type Indirect Heater of heating capacity 2.5 Million BTU/Hr. (0.7325 X10<sup>6</sup> Watt) generally as per the general drawing attached along with the tender for reference.</p> <p>However, supplier must obtain approval of all the drawings having all the engineering information including any alteration/ modification to OIL's drawings, if any prior to manufacturing of the ordered items. The detailed drawings are to be submitted within thirty (30) days of receipt of detailed Purchase order for OIL's approval.</p> <p><b><u>THE DETAIL SCOPE OF WORKS:</u></b></p> <p><b>2.1</b> Scope of works includes fabrication, packaging, testing, supply, commissioning of the indirect water bath heater package complete with accessories and mountings for heating and expansion/pressure reduction of well stream. Details of the same are as under:</p> <p><b>2.1.1</b> The bath type indirect heater suitably fabricated as per API Spec 12K. The heater should be complete with the following:</p> <p><b>2.1.2 Shell :</b></p> <p>a) <b>Size: As per GAD</b></p> <p>The shell must have adequate nozzles for inlet, outlet of coils, fire tube and mounting, various equipment &amp; instrument for burner, level gauge/switch, drain valves etc.</p> <p>Reference General Drawing: OIL/PDNG/GD-Shell Fabrication</p> <p>Reference General Drawing: OIL/PDNG/GD-GAD</p> <p>Reference General Drawing: OIL/PDNG/GD-Name Plate-IWBH</p>	

### **2.1.3 Coils (Seamless):**

- i) No. of Coil : 2 (two) sets of 3" (80 mm) NB coils, each set comprising of one no. preheat coil and one no. expansion coil
- ii) No. of Pass: 8 (Eight) passes for preheat coil and 2 (Two) passes for the expansion coil
- iii) M.O.C. of Coil : API 5L Grade B, Wall Thickness (XXS) = 0.6 Inches (15.24mm) seamless / ASTM A106 Grade B, Wall Thickness (XXS) = 0.6 Inches (15.24mm)
- iv) Coil Operating Pressure: Max: 281.6 kg/cm<sup>2</sup> (4000 psig)
- v) Radiography of weld joints of Coil bundle: 100 %
- vi) Coil Hydraulic Test Pressure: 1.5 times the maximum working pressure i.e. 422 kg/cm<sup>2</sup> (6000psig)

Reference General Drawing: OIL/PDNG/GD-Coils

Reference General Drawing: OIL/PDNG/GD-GAD

### **2.1.4 Coil End Connection:**

Flanged, 65 mm (2.5") NB x 2500 class RTJ, conforming to ANSI B16.5, with bevel ended companion flanges, ring joint gasket as per ANSI latest specifications and required Nos. of high tensile studs-nuts as per ASTM A193 Gr. B-7, ASTM A194 Gr. 2H respectively.

Reference General Drawing: OIL/PDNG/GD-Coils

Reference General Drawing: OIL/PDNG/GD-GAD

### **2.1.5 Fuel Scrubber:**

- a) Scrubber with high efficiency wire mesh type mist extractor of adequate size to cater Fuel & Servo Gas Flow requirement shall be used for supplying liquid free fuel to the burner and servo gas to the pneumatic instruments.
- b) The scrubber shall be equipped with
  - i. Pressure indicator with isolating valve.
  - ii. Drain connection with isolation valve
  - iii. Sight glass/level gauges with gauge cocks
  - iv. Safety Relief valve- 2 Nos. (set at 33 kg/cm<sup>2</sup>)
- c) Operating pressure of 30 kg/sq cm
- d) Hydraulic Test Pressure: 1.5 times the maximum working pressure i.e. 45 kg/cm<sup>2</sup> (640 psig)

Reference General Drawing: OIL/PDNG/GD-Scrubber Vessel Fabrication

Reference General Drawing: OIL/PDNG/GD-Name Plate-Fuel Scrubber IWBH

### **3.0 ACCESSORIES:**

#### **3.1 Positive Choke:**

Positive choke, with suitable choke housing for holding 25.4 mm dia. choke. Housing should have provision for easy installation and removal of Honest John bean with hammer union/bean wrench similar to bean housing installed at well head X-mass tree manufactured as per API spec. 6A. End connection, flanged, welded, 65 mm (2.5") NB, ANSI2500 class to be installed between preheat outlet and expansion coil inlet. Suitable 12.7 mm NB NPT tapping should be provided up and down stream of the bean housing to measure inlet and outlet gas pressures. One each of beans ranging from 7 mm, 8 mm, 9 mm, 10 mm, 11 mm, 12 mm, 13 mm and 14 mm should be provided along with 1 No. of suitable bean wrench for installation and removal of the beans. Materials for bean body ASTM A105, for bean housing and bean similar to API-6A X-mass tree bean. Operating temperature range (-) 10 Deg C to 150 Deg C.

Reference General Drawing: OIL/PDNG/GD-Choke

Reference General Drawing: OIL/PDNG/GD-Bean Adapter

Reference General Drawing: OIL/PDNG/GD-Bean

Make : Masterflo / WKM /BHEL / JVS / Parveen / Cameron

#### **3.2 Fire Tube (Seamless):**

i) M.O.C. of Fire Tube: API 5L, Gr. B (Seamless) / ASTM A 106, Gr. B

ii) Type: U Type

iii) Diameter : 610 mm (24" NB) OD (minimum)

iv) Length : 6920 mm X 2 Nos.(minimum)

v) Radiography of weld joints at 'U' Bend: 100 %

vi) Half cover plate feature. Suitable roller arrangement for fire tube and coil bundle to be provided to facilitate easy removal while dismantling.

vii) Hydraulic Test Pressure: 5 kg / Sq cm

Reference General Drawing: OIL/PDNG/GD-Fire Tube

Reference General Drawing: OIL/PDNG/GD-GAD

#### **3.3 Flame Arrested Burner & Accessories:**

**a) Flame Arrested Burner:** Natural Draft Burner of heat capacity (minimum) 2.5 Million BTU/Hr. ( $0.7325 \times 10^6$  Watt)

Burner Make: Maxon / Eclipse / John Zink / ACL / G.I.E. S.r.l.

The data sheet for above to be forwarded along with the offer. (Net Calorific value of Natural Gas for fuel is 8,500 Kcal / SCM).

Heat capacity of Natural Draft Burner 2.5 Million BTU/Hr is a minimum value. **Heat Capacity of Natural Gas Burner should have a provision for at least 20% excess capacity, as the same is required depending upon the varied characteristics of wells.**

**b) Flame Arrester Make:** Zirco / Flameco / Cameron (Natco) / Wenco / Grit Industries/ ACL

Flame Arrester must comprise of following components:

- i) 'O' / Box Type (Aluminum housing)
- ii) Flame Cell
- iii) Adaptor Spool

Flame Arrester must be Suitable for Burner of Heat Duty: minimum 2.5 Million BTU/Hr. ( $0.7325 \times 10^6$  Watt) with Natural Gas as Fuel.

#### **4.0 INSTRUMENTATION & CONTROL SYSTEM:**

Reference General Drawing: As per Schematic

##### **4.1 Instruments to be mounted on Shell:**

###### **a) Liquid Level Switch:**

Water bath should be equipped with low water level shut down device with the following specification:

- i) Type : Pneumatic
- ii) Action : ON/OFF
- iii) Output : 15 psig
- iv) Supply : 20 psig
- v) Type: Float less pneumatic switch with differential pilot (0-500 mm WC).
- v) Make : Kimray / Fisher / ACL

###### **b) Temperature Indicators:**

- i) Temperature Range : 0 to 150 Deg C
- ii) Thermowell Connection : 1 Inch NPT
- iii) Insertion Length : 300 mm (12 Inch)
- iv) Type : Bimetallic/ Mercury Filled
- v) Sensing Element Connection : 1/2" NPT
- vi) Material of Construction : All Stainless Steel
- vii) Accuracy :  $\pm 0.5$  Deg C
- viii) Make : Wika/ Odin / Waree / Ashcroft/ Icon

###### **c) Level Gauge: The Level gauge shall be of the following specifications:**

- i) Type : Reflex Type
- ii) Connection Size : 1/2"
- iii) Isolation Valves : Required (Needle/Ball Valves)
- iv) Max. working Pressure: 2 Kg/Sq.cm
- v) Test Pressure: 10 Kg/Sq.cm
- vi) Max. working Temperature: 100 Deg C
- iv) Make : Pratolina/ Levcon/ Daniel/Chemtrol/V Automat

###### **d) Water Filling Float Valve, 25 mm (1") NB, MoC: SS**

Water inlet nozzle on the must be provided with a float operated industrial valve to avoid water over flow.

## **4.2 Instruments to be mounted on Coil Inlet & Outlet:**

**a) Temperature Indicator:** Inlet and Outlet temperature indicators in each of the preheat and expansion coils with suitable thermowells.

- i) Temperature Range : 0 to 110 Deg C ( 6 nos.) & (-)20 Deg C to 100 Deg C (2 nos.)
- ii) Thermowell connection: 1" NPT
- iii) Type : Bimetallic/ Mercury Filled
- iv) Sensing Element Connection: 1/2"NPT
- v) Material of construction: All Stainless Steel
- vi) Accuracy : +- 0.5 Deg C
- vii) Make : Wika / Odin / Waree / Ashcroft/ Icon

**b) Pressure Indicators:** Inlet and Outlet pressure indicators shall be provided in each of the preheat and expansion coils as under:

- i) Dial Size : 150 mm (6") Minimum
- ii) Range : 0 to 425 Kg/Sq. cm ( 2 nos.)  
              : 0 to 210 Kg/Sq. cm (2 nos.)
- iii) Pressure Element: SS Bourdon tube
- iv) Material of construction: All SS
- v) Accuracy : +- 1% of reading
- vi) End Connection : 1/2" NPT
- vii) Isolation Valves : Required (Needle Valve)
- viii) Make : Wika / Odin / Waree / Ashcroft/ Icon

## **4.3 PNEUMATIC BURNER CONTROL SYSTEM:**

### **4.3.1 CONTROL PHILOSOPHY:**

The Indirect Heaters shall be equipped with the pneumatic control system to carry out the following functions:

- a) Remote Ignition of Pilot Burner (all the systems for the remote ignition shall be encased in Flame-proof JB (DGM Approved), which shall be installed 20 meters away from the Heaters through High-Voltage Ignition Cables and Connectors). Any JB required for the Ignition System shall be Flame-proof JB (DGM Approved).
- b) Pilot Flame sensing through pneumatic pilot guard.
- c) Main flame shall be shut down in case of
  - a. Pilot flame failure through pneumatic pilot guard
  - b. Low Liquid Level through liquid level controller
  - c. High water temperature through Temperature Indicating Controller (TIC) and Temperature Control Valve (TCV).
- d) Temperature Control of the water bath shall be through Indicating type temperature controller (TIC) and Temperature Control valve (TCV) as shown in the Reference General Drawing: Schematic Drg
- e) A provision must be kept to ignite the pilot burner through a Hand-held High Energy Igniter; in the event of a failure of the high energy battery operated remote igniter.

Reference General Drawing: OIL/PDNG/GD-ICD  
Reference General Drawing: OIL/PDNG/GD-RIS  
Reference General Drawing: OIL/PDNG/GD-SDIS-I  
Reference General Drawing: OIL/PDNG/GD-SDIS-II

#### **4.3.2 BILL OF MATERIAL FOR BURNER CONTROL SYSTEM:**

##### **A) HIGH ENERGY BATTERY OPERATED REMOTE IGNITER:**

The purpose of the remote Igniter is to ignite pilot flame of burner assembly. The system shall consist of the following items:

- a) Function: To ignite the pilot flame in Natural Gas fired burners
- b) Features: Flameproof and Battery operated
- c) Battery: 24V, Rechargeable type with compatible Solar Battery Charger Kit\*
- d) Output Voltage: Sufficient for establishing flame in pilot burner at a distance of more than 20 mtrs.
- e) The Ignitor should be housed in a flameproof box.
- f) High Voltage Connector to provide connection between the High Voltage cable and the Ignition Electrode & High Voltage cable and the Remote Ignition FLP Enclosure with IP 65 (minimum).

Make of Remote Igniter: Chentronics / Smitsvonk Durag GmbH / GBA Flare Systems / Meggitt / Combustex-Canalta Controls / ACL / Sigma Controls Systems / G.I.E. S.r.l.

**Note:** Solar Battery Charger Kit of reputed make complete with Solar Battery Charger Panels, Solar Charge Controllers for overcharging protection and mounting brackets for mounting panel that can be adjusted for a range of angle.

##### **B) High Voltage Remote Ignition Cable:**

- i) Length: 20 meters
- ii) Insulation Voltage: 11 KV (min)
- iii) Conductor: Fireproof, multistrand copper conductor
- iv) Insulation: PTFE insulated with mica tapping & fibre glass top
- v) Heat resistant upto 400 Deg C

##### **C) PILOT BURNER ASSEMBLY with Ignition Electrode:**

(Make: Maxon / Eclipse / Natco (Cameron)/ ACL/ Zeeco / Combustex-Canalta Controls /Sigma Controls/ Smitsvonk Durag GmbH / G.I.E. S.r.l.)

Pilot Burner assembly complete with ignition electrode of above make shall consist of following with mounting arrangement for Pilot guard Sensor Lead/Element.

###### **a) Mixer:**

- i) Connection: 1/2 or 1/4 inch Female connector
- ii) Function: To maintain air-fuel ratio to the pilot burner

###### **b) Orifice:**

- i) Suitable for Gas Mixer
- ii) Function: To maintain air-fuel ratio for the pilot burner.
- iii) Material of construction: Brass or SS



**c) Pilot Burner Nozzle:**

- i) Function: To provide pilot flame in the Natural Gas fired heater vessel
- ii) Material of construction: SS 310 or suitable for high temperature applications

**d) Ignition Electrode:**

- i) Function: The ignition electrode is to be mounted on the body of the pilot burner to keep a fixed gap between the electrode tip and the pilot burner nozzle for proper ignition.
- ii) Provision for clamping & length adjustment of the electrode.
- iii) Holder Strap: To hold the Ignitor Rod Assembly with Pilot line.
- iv) Insulation: It should have necessary CERAMIC insulation.

**D) Hand-Held High Energy Igniter:**

- i) Battery: 12V/24V DC, Rechargeable including charger
- ii) Output Power: min 1.5 Joules, 5 SPS
- iii) Igniter Tips: 3 feet
- iv) Weight: 3 kg

Make: Chentronics / Smitsvonk / G.I.E. S.r.l./ Smitsvonk Portable Igniter of Durag GmbH

**E) Pilot Guard :**

- i) Function: Shut-off Gas Supply to the Pilot and Main Burner in the event of Pilot Flame out
- ii) Temperature Sensing : Thermocouple
- ii) Supply Inlet: 10 to 20 psig
- iii) Thermocouple leads/Cable : 3 meter (10 feet) minimum

Make : FMC Invalco,CM7 / ACL-2000/ Kimary / Smitsvonk Durag GmbH

**F) Fuel Shut-off Valve**

- i) End Connection : 1" NPT (F) / Flanged
- ii) Type : ON/OFF
- iii) Actuator : Diaphragm
- iv) Operating Signal : 3 to 15 psig
- vi) Gas Flow Rate: 40-130 SCM/Hr
- vii) Inlet Pressure: 1.0 - 3.5 Kg/Sq.cm
- viii) Design Pressure: 10 Kg/Sq.cm
- ix) Test Pressure: 15 Kg/Sq.cm

Make : Invalco/Samson/ Fisher/ Forbes Marshall /Combustex/ Murphy/ Kimray

**G) Temperature Control Valve:**

- i) End Connection : 1" NPT / Flanged
- ii) Type : Proportional
- iii) Actuator : Pneumatic Diaphragm Operated
- iv) Operating signal : 3 to 15 psig

Make : Invalco/ Fisher /Samson/Forbes Marshall/ Combustex / Kimray

**H) Pilot Gas Regulator:**

- i) Input Supply : 1 – 3.5 Kg/cm<sup>2</sup>
- ii) Output : 0 to 15 psig adjustable
- iii) Connection : 1/4" NPT

Make : Invalco /Samson/ Fisher/ Kimray

**I) Main Fuel Gas Regulator:**

- i) Input Supply : 30 Kg/Sq.cm
- ii) Output : 0 to 3.5 Kg/Sq. cm adjustable
- iii) Connection : 1" NPT / Flanged
- iv) Flow rate of Natural Gas: 40 to 130 SCM/Hr.
- v) Type: Spring Loaded

Make : Invalco / Samson/ Fisher/ Kimray

**J) Pressure Indicators (2 nos.) in main fuel line before and after Regulator:**

- i) Range : 0 to 40 Kg/Sq.cm (before Regulator), 0 to 3.5 Kg/Sq.cm (after Regulator)
- ii) Dial Size : 100 mm (4")
- iii) Connection Size: 1/2"
- iv) Material of Construction: All Stainless Steel

Make : Wika/ Odin / Waree / Ashcroft

**K) Pressure Indicators in pilot line after the Regulator:**

- i) Range : 0 to 3.5 Kg/Sq.cm
- ii) Dial Size : 100 mm (4")
- iii) Connection Size : 1/4"
- iv) Material of Construction: All Stainless Steel

Make : Wika/ Odin / Waree/ Ashcroft

**L) Indicating Type Temperature Controller:**

- i) Type : Pneumatic Indicating PID Controller
- ii) Range : 0 to 150 Deg C
- iii) Sensor : Mercury Filled
- iv) Sensor Connection : 1/2" NPT
- v) Thermowell : Required
- vi) Thermowell Connection: 1" NPT
- vi) Insertion Length: 300 mm (12")
- vii) Input Supply: 20-30 psig
- viii) Output Signal: 3 to 15 psig

Make & Model: Fisher 4196B or Fisher 4196C or Samson Type 3430 or ABB 440 R Series

**M) Strainer:**

- i) Sp. Gravity of Natural Gas: 0.6
- ii) Flow rate of gas: 130 SCM/Hr.
- iii) Mesh: 80 Mesh SS 304
- iv) End Connection: 1" NPT
- v) Working Pressure: 15 Kg/Sq.cm
- vi) Test Pressure: 25 Kg/Sq.cm

Make: Zoloto/Leader/Sant or equivalent

**N) Instrumentation Tubes & Fittings:**

- i ) MOC : SS    ii) Make: Swagelok, Parker or Hylok.

**4.4    NOTES :**

- a) All the pneumatic instruments shall be suitable for operating in compressed natural gas as servo supply.
- b) Servo Gas Pressure Regulators of Fisher Model 67 CFR / Norgren / Maxitrol shall be provided for all pneumatic instruments requiring 20 psig supply pressure.
- c) The Temperature Control Valve and the Fuel Shut-off Valve shall have isolation and bypass Valves as per Ball Valve Spec sheet attached. MOC of all the Needle valves for the package shall be SS suitable for intended application and design as per ASME B16.34.
- d) Operation and Maintenance manuals of all the instruments shall be provided along with the supply of materials.
- e) Three (03) additional thermowells of 1" NPT of 300 mm length shall be fixed on the shell for provision of insertion of other instruments.
- f) Step by step operating procedure of remote ignition and no flame shutdown system shall be separately inscribed in a non-erasable placard in the area where its operation would be carried out.

**5.0    EARTHING PROVISION:**

Two (2) nos. of 3/4" studs with nuts (1 each at one of the legs and the vessel) to be welded for electrical earthing.

**6.0    GENERAL NOTES:**

- i) All the valves on the Fuel System shall be Fire safe design as per API 607.
- ii) The fuel gas line and controller etc should be suitably anchored / supported to the outside shell wall.
- iii) The fuel gas shall have preheating arrangement through the bath heater. Fuel gas preheating piping/coil shall be seamless, 3000 psig rating.
- iv) The Indirect Heater shall have suitable lifting lugs attached for lifting and placing the same at site.

v) Materials whenever not mentioned will conform to API spec 12K standard for the vessel.

vi) **The following documents of bidders shall be forwarded with the bid:**

- a) Process and Instrumentation diagrams
- b) General Arrangement Diagram (GAD) of the unit.
- c) Sectional drawing showing the internals of the indirect heater.
- d) Sectional drawing showing the internals of the Fuel Scrubber.
- e) Drawings showing details of Remote Ignition System of Pilot Burner and Flame Failure shutdown system.
- f) Circuit Diagram of Remote Ignition System with details of electronic components and Battery.
- g) Drawing showing Bean housing and Bean Holder.
- h) Instrument data sheets along with make and model.
- i) Make/ Models of all the bought-out items along with technical literature, GAD etc.
- j) Calculation/ datasheet from OEM for selection of Main Burner sizing for heat duty of 2.5 MMBTU/Hr considering the various parameters viz. Fuel Gas Calorific Value, Fuel Gas Pressure to Burner Inlet, Chimney Height, Fire Tube Dia & Length etc.
- k) Calculation/ datasheet sheet from OEM for selection of Flame Arrester sizing with required air flow rate for Main Burner heat duty of 2.5 MMBTU/Hr considering Burner efficiency.

viii) The scope of the bidder also includes proper selection of the Main Burner Inspirator and Nozzle size and Flame Arrester Assembly size to ensure that the indirect water bath package meets the minimum heat duty requirement of 2.5 MM BTU/Hr taking into account all the parameters viz. Chimney height, fire tube diameter & length, air flow through the flame arrester, natural gas calorific value, burner efficiency etc.

ix) The bidder shall carry out the fabrication work of the tendered item(s) by engaging welders who are qualified under ASME Boiler and Pressure Vessel Code Section-IX. Documentary evidence in regard of WPS(Welding Procedure Specification), PQR(Procedure Qualification Record) and WPQ(Welder Performance Qualification) shall be submitted by the bidder alongwith the bid. The list of welder(s), who will be engaged for fabrication of the tendered item(s) alongwith respective Welder Performance Qualification(WPQ) Test Report carried out within last 05(five) years preceding original bid closing date of the tender, shall be submitted alongwith the technical bid. Qualification of welders employed by one manufacturer shall not qualify them for engagement by any other manufacturer without requalification.

x) OIL's purchase Order no. and date shall be inscribed along with Manufacturer's name, pressure rating, capacity, code of manufacture, unit serial no. on the vessels along with other details as per Reference General Drawing.

xi) The technical specifications in general must conform to the requirements as mentioned in Annexure-I and relevant national/ international code of practice/ standards.

xii) For any brought out item, their Catalogue/ technical literature etc showing sectional drawing of each component along with the necessary maintenance spare parts, identification no shall be provided.

xiii) **The bidders must provide one (1) year guarantee, after successful commissioning, for all the equipment including bought out equipment/ items, if any for trouble free operation.**

#### **7.0 PAINTING AND INSULATION:**

Surface cleaning of Bath heater, external surface by sand blasting to Sa2 -1/2 grade conforming to Swedish Standard SIS – 05 5900 – 1967 followed by 2 coats of heat resistant primer. Insulation/protection as required shall be provided.

Inner surface will be cleaned by wire brushing and will be provided with 2 coats of heat resistant primer. Each coat will have min DFT of 35 micron.

The heater body and piping shall be thermally insulated by rock wool (Density 120) and aluminum sheet (20 gauges) covered with tight sealing, to prevent heat loss and external insertion of water and foreign elements.

#### **8.0 INSPECTION & TESTING:**

##### **A) Third Party Inspection:**

I) The materials shall be offered for third party inspection for the following scope:

- a) Inspection of certificates in respect of raw materials, bought-out items, radiography etc.
- b) To review qualification of the welder and welding procedure specifications (WPS) as per ASME code.
- c) Verification of physical and chemical properties of raw materials.
- d) To witness fabrication works to ensure that the bidder has complied with respect to OIL's approved drawing for fabrication of the package.
- e) To review the stage wise inspection of sub assemblies viz Nozzles, Shell, Fire Tube, Chimney, Bean Housing assembly, Companion Flanges etc. before final assembly.
- f) To review and certify the radio-graphed film of weld joints as per ASME code and heat treatment chart and certifying
- g) Inspection & witnessing of the hydraulic tests of Fire tube, Pressure Coils, Fuel Scrubber, Fuel Pre-heat Coil and Fuel Gas piping works will be separately tested. The testing will be as such (except testing of Shell), First to test the items/ piping assembly at 1.5 times the Design pressure / Maximum Working Pressure for 30 minutes and reduced to design pressure/ Maximum Operating Pressure. At the design pressure, testing will be for 24 hrs. The hydraulic test certificates report and recorder charts are to be sent to OIL.
- h) Water fill test of the Shell
- i) Inspection of all the bought out items as per Purchase Order and approved datasheet. Also to review purchase documents and quality certificates of bought out items.

<p>j) To witness final dimensional inspection and ensure proper workmanship.</p> <p>k) To document and issue inspection certificate.</p> <p>l) To review Operating &amp; Maintenance Manuals for the package.</p> <p>m) The above inspection is for general guideline only. If the Third Party Inspection agency desires to carry out any additional inspection as per ASME code / API specification, the same should be included under intimation to Oil India Limited.</p> <p><b>B) Third Party Inspection charges shall be quoted separately.</b></p> <p><b>C) The Inspector must be OIL's authorized / recognized inspecting agencies i.e. M/s Lloyds or M/s Bureau Veritas or RITES or M/s IRS or M/s DNV.</b></p> <p><b>D) <u>Inspection by OIL:</u></b></p> <p>OIL will carry out inspection of the units during fabrication, assembly and testing. OIL representative must be provided all reasonable opportunities to inspect the unit(s) and material at their convenience. OIL prefers to inspect the unit and materials at the works during the following stages:</p> <p><u>1st stage inspection:</u> After completion of fabrication of Shell and internals including Pressure Coil, Fire Tube, Chimney, Nozzles etc. after Third Party Inspection but before final assembly. The supplier has to intimate OIL at least 15 to 20 days prior to offering the inspection date.</p> <p><u>2nd stage inspection:</u> Final inspection will be carried out by OIL when the IWBH Packages are completed (prior to painting of the unit) and mounted on the skid and the pipe works are almost ready. The supplier has to intimate OIL at least 15 to 20 days prior to offering the inspection date. OIL Engineer will inspect/witness the following:</p> <p>a) To review the hydraulic test records &amp; pressure recorder charts of Fire tube, Pressure Coils, Fuel Scrubber, Fuel Pre-heat Coil, Shell and Fuel Gas piping works etc..</p> <p>b) To inspect the radiographic plates and reports. All these documents are to be sent to OIL along with the packages.</p> <p>c) To inspect the post weld heat treatment/stress relieving report and chart which are to sent to OIL later on along with the packages.</p> <p>d) To witness the functioning of all pneumatic control gears and control valves, for which the supplier is to supply instrument air during inspection.</p> <p>e) Relevant test records and documents- in respect of various equipment/ accessories shall be offered for verification.</p> <p>f) To check all the bought out items as per Purchase Order and approved datasheet. Also to inspect purchase documents and quality certificates of bought out items.</p> <p>g) Inspection of remote ignition system with solar high energy battery operated remote igniter &amp; Hand-held High Energy Igniter as per Purchase Order and approved datasheet.</p> <p>h) Any modifications of general arrangement, if required after inspection shall be carried out by the vendor.</p>	
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**E) Quality Assurance Plan:**

- a) Quality Control (QC), shall mean all the tests, measurement, checks and calibration which are to be carried out in Bidder's shop in order to compare the actual characteristics of the equipment/unit/system with the specified ones, along with furnishing of the relevant documentation (certificates/records) containing the data or result of these activities. The bidders are required to furnish a detailed & comprehensive list of the inspection facilities available at their shop along with the bids.
- b) As a minimum, the following points shall be included in the Quality Control Plan to supplement QAP Sample provided in the Tender:
- i) Review of material certificates and verification of the materials of construction for conformity with requisition requirements
  - ii) Review of material certificates and verification for heat marks for pipes and flanges for conformity to the specification
  - iii) Verification for the Vendors welding procedure and procedure qualification for the equipment in accordance with the design code
  - iv) Dimensional check in accordance with approved "final" drawings
  - v) Painting and lining requirement as detailed in this specification shall be inspected
  - vi) Final release

**9.0 PLACEMENT, INSTALLATION & COMMISSIONING:**

- a) Placement of the Indirect Water Bath Heater (IWBH) Units at respective sites shall be in the Company's (OIL's) scope. The placement shall include construction of foundation, transportation of material to the well site, placement of the IWBH unit on the foundation and hook-up of process and service piping with the IWBH at the battery limit of the unit. The vendor will supervise the transportation and placement job and provide assistance as and when required.
- b) **Installation & Commissioning of the IWBH units shall be in the Supplier's scope.** Installation & Commissioning shall include assembling and installation of different systems / items like Flame Arrested Burner (Both Pilot and Main Burner System) Control Assembly, Fuel Control System, Bath Temperature Control System, Instrumentation & Control System and other necessary activities for successful Commissioning of the Indirect Water Bath Heaters at Well Sites / Stations of OIL which are located within an aerial distance of around 70Km from Duliajan. Any item found defective during the process will be replaced by the vendor free of cost. **Installation & Commissioning of an Indirect Water Bath Heater will be considered as complete after successful completion of continuous 72 (Seventy Two) hours run at site load condition to the satisfaction of OIL.**

**Installation & Commissioning** of all the **15(fifteen) Nos. of Water Bath Heaters** may be carried out at one stretch or in a phased manner within 210 days from the date of delivery of the complete packages. In their offer, the bidder must mention a **firm activity plan** for Installation & Commissioning of one IWBH unit such that the job of carrying out the Installation & Commissioning of all 15 units is **completed within the stipulated 210 days**.

The Company (OIL) will intimate the supplier before 7(seven) days of start of Installation & Commissioning. The supplier will arrange for successful Installation & Commissioning of the units within the time specified in the Purchase Order.

- c) It is the supplier's responsibility to inspect the supply at OIL's work site along with OIL's representative(s). Accordingly, the materials will be inspected in presence of supplier's representative at OIL's work site after delivery, but before commissioning to ensure immediate replacement of any short supply/transit damage.
- d) If an Indirect Water Bath Heater unit cannot be offered for commissioning, on account of any unforeseen reasons, within 200 days from the date of delivery of the complete package, the supplier will be advised to assemble and test the unit in OIL's base camp / work site at no load condition. The assembling and testing in base camp / work site is to be completed within a period of 30 days beyond the 210 days (from the date of delivery of the complete package) allowed for installation & commissioning. Accordingly, the supplier will assemble and test the unit at no load condition in OIL's base camp / work site (located within a distance of around 6 Km from OIL's Duliajan Head Office) in the presence of OIL's representative. Testing of an Indirect Water Bath Heater will be considered as complete after successful completion of continuous 72 (Seventy Two) hours test run to the satisfaction of OIL. Any item found defective during the assembly and testing will be replaced by the vendor at no additional cost to OIL.
- e) OIL will provide Illumination, Water & Fuel Gas (for Package Burner) only at site during Installation & Commissioning of the packages.
- f) The supplier will have to arrange for transportation, board & lodging and security of the supplier's personnel(s) during their stay at Duliajan / site during Installation & Commissioning and for verification & testing of the unit(s).
- g) Installation & Commissioning charges must be quoted separately and the same will be applicable for entire duration of the Purchase Order.

**Note:**

Within the purview of the tender, OIL will provide full support to the supplier for smooth and successful commissioning of the IWBH packages and as such there should not be any inconvenience from OIL side if delivery of packages is complete in all respect. It is expected that the supplier shall be able to complete commissioning of the units within 210 days from the date of delivery of the complete packages. If any component of any package is short supplied or damaged during transit, the same shall not be considered as delivery of complete package. Each lot/batch of supplied material will be inspected, checked and verified in presence of supplier's representative at OIL's work site/base camp to ascertain delivery of each package in all respect before installation & commissioning to ensure immediate replacement of any short supply/transit damage.

**10.0 The bidders will have to provide the commissioning spares at their cost along with the Equipment. The bid should include a list of such spares. **The cost of the Commissioning Spares must be included with the main equipment.**** List of Commissioning Spares indicating the quantity and description must be shown separately.

**11.0** Bids and all related documents shall be in English language. Supporting documents and printed literature furnished by the bidder may be in another language provided they are accompanied by an official and notarized English translated version, which shall govern for the purpose of bid interpretation.

<p><b>12.0 WARRANTY / GUARANTEE:</b> The supplied equipment/materials will be guaranteed for a period of 12 (twelve) months from the date of successful commissioning/testing for all the equipment. The supplier shall repair or replace any item or equipment found defective in materials or workmanship or performance within the above period free of charge. The warranty is applicable to bought out items also.</p> <p><b>13.0 PAYMENT:</b> Payment shall be released as follows:</p> <p>i) 70% of the supply value shall be released on supply and acceptance of the goods.</p> <p>ii) Remaining 30% of the supply value shall be paid after successful commissioning along with the Installation &amp; Commissioning charges which will be paid to the supplier as per actual.</p> <p>iii) For the units, which could not be offered for commissioning, 30% of the supply value will be released after completion of successful test run of the unit as detailed in Para 9.0 (d).</p>	
<p><b><u>ITEM NO. 20</u></b></p> <p><b><u>INSTALLATION AND COMMISSIONING OF ITEM NO. 10 [QTY = 01 AU]</u></b></p> <p>01 AU MEANS INSTALLATION &amp; COMMISSIONING OF ALL 13 NOS. OF INDIRECT HEATERS AT OIL'S SITE.</p>	
<p><b><u>ITEM NO. 30</u></b></p> <p><b><u>FABRICATION, PACKAGING AND SUPPLY OF INDIRECT WATER BATH HEATER PACKAGE FOR PROCESSING NATURAL GAS PRODUCED FROM HIGH-PRESSURE GAS WELLS [QTY = 01 NO.]</u></b></p> <p><b><u>TECHNICAL SPECIFICATIONS: SAME AS ITEM NO. 10 ABOVE</u></b></p>	
<p><b><u>ITEM NO. 40</u></b></p> <p><b><u>INSTALLATION AND COMMISSIONING OF ITEM NO. 30 [QTY = 01 AU]</u></b></p> <p>01 AU MEANS INSTALLATION &amp; COMMISSIONING OF 01 NO. INDIRECT HEATER AT OIL'S SITE.</p>	
<p><b><u>ITEM NO. 50</u></b></p> <p><b><u>FABRICATION, PACKAGING AND SUPPLY OF INDIRECT WATER BATH HEATER PACKAGE FOR PROCESSING NATURAL GAS PRODUCED FROM HIGH-PRESSURE GAS WELLS [QTY = 01 NO.]</u></b></p> <p><b><u>TECHNICAL SPECIFICATIONS: SAME AS ITEM NO. 10 ABOVE</u></b></p>	
<p><b><u>ITEM NO. 60</u></b></p> <p><b><u>INSTALLATION AND COMMISSIONING OF ITEM NO. 50 [QTY = 01 AU]</u></b></p> <p>01 AU MEANS INSTALLATION &amp; COMMISSIONING OF 01 NO. INDIRECT HEATER AT OIL'S SITE.</p>	

**SPECIAL NOTES:**

**1) Bidders should refer to the enclosed Annexure-I wherein also the detailed scope of work is mentioned.**

**2) FOLLOWING DRAWINGS ARE ENCLOSED:**

- i) Reference General Drawing: OIL/PDNG/GD-GAD
- ii) Reference General Drawing: OIL/PDNG/GD-Shell Fabrication
- iii) Reference General Drawing: OIL/PDNG/GD-Coils
- iv) Reference General Drawing: OIL/PDNG/GD-Fire Tube
- v) Reference General Drawing: OIL/PDNG/GD-Choke
- vi) Reference General Drawing: OIL/PDNG/GD-Bean
- vii) Reference General Drawing: OIL/PDNG/GD-Scrubber Vessel Fabrication
- viii) Reference General Drawing: OIL/PDNG/GD-P&ID
- ix) Reference General Drawing: OIL/PDNG/GD-ICD
- x) Reference General Drawing: OIL/PDNG/GD-RIS
- xi) Reference General Drawing: OIL/PDNG/GD-SDIS-I
- xii) Reference General Drawing: OIL/PDNG/GD-SDIS-II
- xiii) Reference General Drawing: OIL/PDNG/GD-Name Plate-IWBH
- xiv) Reference General Drawing: OIL/PDNG/GD -Name Plate-Fuel Scrubber IWBH

**3) Bidder's must fill-up, sign and upload the following checklists with their offer:**

- i) **ANNEXURE-C : CHECK LIST FOR BRC (TECHNICAL)**
- ii) **ANNEXURE-D : CHECK LIST FOR TECHNICAL COMPLIANCE**

**NOTE:**

**Bidders should submit their bids (preferably in tabular form) explicitly mentioning compliance / non compliance to all the terms and conditions of NIT.**

**PRICE SCHEDULE****TENDER NO: SDI5127P21****ANNEXURE -HHH**

Item no.	ITEM DESCRIPTION	A		B		C=AxB		D	E=C+D
		QTY	UOM	UNIT PRICE (In Rs.)	HSN/SAC code	Total Price Excluding Taxes (In Rs.)	GST (in % of C)	GST Amount (Rs.)	TOTAL PRICE including taxes (in Rs.)
10	SUPPLY OF INDIRECT HEATER ALONGWITH ALL EQUIPMENTS, MOUNTINGS, ACCESSORIES AND COMMISSIONING SPARES	13	No.						
10 (a)	THIRD PARTY INSPECTION (TPI) CHARGES ON ITEM 10	13	No.						
20	INSTALLATION & COMMISSIONING OF ITEM NO. 10	1	AU						
30	SUPPLY OF INDIRECT HEATER ALONGWITH ALL EQUIPMENTS, MOUNTINGS, ACCESSORIES AND COMMISSIONING SPARES	1	No.						
30 (a)	THIRD PARTY INSPECTION (TPI) CHARGES ON ITEM 30	1	No.						
40	INSTALLATION & COMMISSIONING OF ITEM NO. 30	1	AU						
50	SUPPLY OF INDIRECT HEATER ALONGWITH ALL EQUIPMENTS, MOUNTINGS, ACCESSORIES AND COMMISSIONING SPARES	1	No.						
50 (a)	THIRD PARTY INSPECTION (TPI) CHARGES ON ITEM 50	1	No.						
60	INSTALLATION & COMMISSIONING OF ITEM NO. 50	1	AU						
Total price of all the above items (In Rs)									
Total Freight Charges upto Duliajan inclu. GST Code (In Rs)									
Total Insurance Charges upto Duliajan inclu. GST Code (In Rs)									
Any Other Charges with GST and HSN/SAC code (In Rs) [If any other charges are quoted, Bidders must explicitly mention details thereof]									
Total FOR Duliajan Price (In Rs)									

**NOTE:**

- a) **The total cost of all the above items together shall be considered for ascertaining the lowest price received against the tender.**
- b) Bidders should fill up, sign and upload the price breakup of all the items as per “Annexure HHH” under “Notes & Attachments” > “Attachments” only. The filled up price breakup of all the items should not be uploaded in Technical RFx Response folder.
- c) Bidders may include additional rows and columns in this document to show the prices quoted by them.
- d) In the event of computational error between unit price and total price, unit price shall prevail and adopted for evaluation. Similarly, in the event of discrepancy between words and quoted figure, words will prevail.
- e) Taxes, if any, should be quoted separately. If taxes etc. are not shown separately the offer will be considered to be inclusive of all taxes, duties etc. and will be binding on the bidder.
- f) **AU = Activity Unit. Bidders should quote total price of the items wherever unit is 1 AU.**
- g) Prices should be quoted in INR only.
- h) If any other charges are quoted, Bidders must explicitly mention details thereof.

**INTEGRITY PACT**

Between

Oil India Limited (OIL) hereinafter referred to as "The Principal"

And

(Name of the bidder).....hereinafter referred to as "The Bidder/Contractor"

**Preamble:**

The Principal intends to award, under laid down organizational procedures, contract/s for **SDI5127P21**. The Principal values full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s and Contractor/s.

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

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 Page 2 of 6 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 h e/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 cartelization in the bidding process.

3. The Bidder/Contractor will not commit any offence under the relevant Anticorruption 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 payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.

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

(3) The Bidder/Contractor signing Integrity Pact shall not approach the Courts while representing the matters to IEMs and he/she will await their decision in the matter.

**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 risibility 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 transgressions 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. 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.
3. 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.
4. A transgression is considered to have occurred if in light of available evidence no reasonable doubt is possible.
5. Integrity Pact, in respect of a particular contract, shall be operative from the date Integrity Pact is signed by both the parties till the final completion of the contract **or as mentioned in Section 9- Pact Duration whichever is later**. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings

#### **Section 4 -Compensation for Damages**

1. If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover from the Bidder liquidated damages equivalent to Earnest Money Deposit / Bid Security.

(2) If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the principal shall be entitled to demand and recover from the Contractor 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 or 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/Contractor/Subcontractors**

1. The Principal will enter into Pacts on identical terms with all bidders and contractors.

2. The Bidder / Contractor undertake(s) to procure from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the provisions laid down in this agreement/Pact by any of its sub-contractors/sub-vendors.

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**

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.

3. The Contractor 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 his 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 recommendations. 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

## **ANNEXURE- DDD**

him by the 'Principal' and, should the occasion arise, submit proposals for correcting problematic situations.

7. If the Monitor has reported to the Chairperson of the Board a Substantiated suspicion of an offence under relevant Anti-Corruption Laws of India, and the Chairperson has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

8. The word 'Monitor' would include both singular and plural.

### **Section:9 -Pact Duration**

This Pact begins when both parties have legally signed it. It expires for the Contractor 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. New Delhi. 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.

(A J SARMAH)  
CMM (IP)

.....  
**For the Principal**

.....  
**For the Bidder/Contractor**

Witness 1: .....

Witness 2: .....

Place: DULIAJAN  
Date : 16.09.2020

**CHECKLIST FOR BRC (Technical)**

These check lists must be completed and returned with your offer. Please ensure that all these points are covered in your offer. These will ensure that your offer is properly evaluated. Bidders to mark (✓) Compiled/Not Compiled/Deviation along with the Reference File No. and page No. whichever is applicable

Sl No.	Clause No. BEC/BRC	Description	Compiled/ Not Compiled/ Deviation	Reference File No. and Page No. to support the remarks/compliance
1	1.1 of 1.0(A)	1.1 The bidder must be in the business of Manufacturing/Fabrication, Assembling & Supply of Packaged Indirect-Fired type Water Bath Heater (IWBH) unit(s) along with ancillary items like Flame Arrested Burner, Burner Management System, Safety Shutdown System (Fail Safe) etc. for oil & natural Gas applications during the previous 5 (five) years prior to the original bid closing date of the tender. Bidder to submit list of past customers along with copy of purchase order(s) / Letter of Award(s) / work Order(s) (with specification) and Completion Certificate / Commissioning Report / any other document proving successful execution of the purchase Order / Contract, along with the bid.		
2	1.2 of 1.0(A)	1.2 Bidder shall have the experience of successful execution of order(s) for fabrication, supply and commissioning of not less than 8 (eight) numbers of the following natural gas / crude oil process equipment to Oil & Gas Industries or E&P companies in the last 5 (five) years prior to the original bid closing date of the tender – 1.2.1 IWBH for handling natural gas having minimum coil working pressure of 210 kg/cm <sup>2</sup> (3000 psig) or Coil Pressure Rating of Schedule No. 160 for heating minimum 5000Nm <sup>3</sup> /Hr Natural Gas.		
3	1.3 of 1.0(A)	1.3 The bidder shall submit the following documents in support of successful execution of past supply / contract as applicable under Para 1.2 & 1.2.1 above –  (a) Copy(ies) of Purchase Order(s)/Contract Document(s) with specification and Performance / Commissioning Report from the Clients <b>and</b> (b) Any of the following documents that confirms the successful execution of the order(s)-  (i) Completion Certificate. (ii) Consignee receipted Delivery Challan / Invoice etc. (iii) Final inspection release note from TPI. (iv) Any other documentary evidence that can substantiate the successful execution of each of the Purchase Orders/ Contracts.  <b>Also</b> , it is the bidder's responsibility to attach a relevant valid document of corresponding executed supply along with the bid, which categorically confirms fulfilment of the requisite criteria mentioned under Para 1.2 & 1.2.1 above.		
4	1.4 of 1.0(A)	1.4 <u>Delivery schedule</u> : Delivery period for the entire tendered quantity will be maximum 12 months from the date of placement of formal purchase order.  Installation & Commissioning of the entire tendered quantity must be completed within a period of 210 days from the date of intimation of site clearance from OIL.  The bidder should categorically confirm compliance to the above delivery schedule in their technical bid, failing which the bid will be rejected.		
5	1.5 of 1.0(A)	1.5 The bidder will have to provide guarantee for a minimum period of 12 (twelve) months from the date of successful commissioning/testing for all the equipment including bought out equipment / items.		
6	1.6 of 1.0(A)	1.6 Bids and all related documents shall be in English language. Supporting documents and printed literature furnished by the bidder may be in another language provided they are accompanied by an official and notarised English translated version, which shall govern		

		for the purpose of bid interpretation.		
7	Note: 1.0	1.0 The Purchase Order Date need not be within 5 (five) years preceding the original bid closing date of the tender. However, the execution of supply should be within 5 (five) years preceding the original bid closing date of the tender.		
8	Note: 2.0	2.0 Satisfactory supply / completion / Installation report (if submitted) should be issued on client's official letterhead with signature and stamp.		

&&&&

Check List for Technical Compliance

These check lists must be completed and returned with your offer. Please ensure that all these points are covered in your offer. These will ensure that your offer is properly evaluated. Bidders to mark (✓) Yes/No along with the Reference File No. and page No. whichever is applicable

Sl No.	Description	NIT Requirement	Yes/No		Bidder to indicate Relevant Page No. Of their Bid to support the remarks / compliance
1	<b>IH is manufactured to handle</b> a) Coil inlet pressure b) Gas outlet pressure c) Gas Inlet Temp (min) d) Water Bath Temp e) Heat Duty (minimum)	a) 281.6 kg/cm <sup>2</sup> b) 70 kg/cm <sup>2</sup> c) 15 Deg C d) 80 Deg C e) 2.5 Million BTU/Hr	Yes Yes Yes Yes	No No No No	
2	<b>Shell:</b> a) Design standard b) Size (min) c) Additional Thermo well (3 nos.) d) Nozzles for coil inlet, outlet, fire tube etc e) Test	a) API Spec 12 K b) 1670 mm dia. (min.) X 7500 mm long (min.) c) 1" NPT, 300 mm length each d) As per Requirement e) Water Fill Test	Yes Yes  Yes Yes	No No  No No	
3	<b>Coils (Seamless):</b> a) Number of set of coils b) Number of passes per coil set c) Coil size d) M.O.C. of Coil e) Wall Thickness f) Radiography g) Coil Hydro test Pressure h) End Connection	a) 2 (Two) b) Split, 8 x 2 c) 3 Inch (80 mm) NB d) API 5L, Gr.B, seamless / ASTM A106 Gr. B e) 0.6 Inches (15.24mm) f) 100% g) 422 kg/cm <sup>2</sup> ( 6000psig) h) Flanged, 65 mm NB x 2500 class RTJ, ANSI B16.5, , with Companion Flanges, BE RTJ, ring joint gasket , high tensile studs-nuts as per ASTM A193 Gr. B-7, ASTM A194 Gr. 2H.	Yes Yes Yes Yes  Yes Yes Yes Yes	No No No No  No No No No	
4	<b>Coil Accessories: Choke</b> a) Choke with Housing b) Choke Size (OD) c) Housing end connection d) Bean of various sizes e) MOC of bean housing f) Make	a) Positive Fixed choke b) 25.4 mm NB c) Flanged, welded, 65mm (2.1/2") NB, ANSI 2500 Class d) As per NIT Specification e) As per API 6A f) Masterflo/BHEL/JVS/WKM/ Parveen /Cameron	Yes Yes Yes  Yes Yes Yes	No No No  No No No	
5	<b>Fire Tube :</b> a) M.O.C. of Fire Tube b) Half cover plate feature c) Type d) Diameter e) Length f) Radiography at U Bend g) Hydraulic Test Pressure	a) API 5L, Gr. B/ ASTM A106, Seamless b) As per NIT Specification c) U Type d) 610 mm OD (Minimum) e) 6920 mm X 2 Nos f) 100% g) 5 kg/cm <sup>2</sup>	Yes  Yes Yes Yes Yes Yes	No  No No No No No	
6	<b>Flame Arrested Burner and Accessories:</b> a) Data Sheet from OEM b) Burner capacity/size <b>Note:</b> Heat Capacity of Natural Gas Burner should have a provision for at least 20% excess capacity, as the same is required depending upon the varied characteristics of wells.  c) Make  <b>Pilot Burner Assembly with Ignition Electrode:</b> Make	a) Submitted b) 2.5 Million BTU/Hr   c) Maxon / Eclipse / John Zink / Combustex / ACL / G.I.E. s.r.l.  Maxon / Eclipse / Natco (Cameron)/ACL/	Yes Yes   Yes	No No   No	



		Zeeco / Combustex- Canalta Controls /Sigma Controls/ Smitsvonk / G.I.E. S.r.l.	Yes	No	
7	<b>a) Flame Arrester comprising of following:</b> i) 'O' / Box Type (Aluminum housing) ii) Flame Cell iii) Adaptor Spool <b>b) Flame Arrester Capacity:</b>	<b>Make:</b> Zirco / Flameco / Cameron (Natco) / Wenco / Grit Industries  Suitable for Burner of Heat Duty: minimum 2.5 Million BTU/Hr. (0.7325 X 10 <sup>6</sup> Watt) with Natural Gas as Fuel  <b>Heat Capacity of Natural            Gas Burner should have a            provision for at least            20% excess capacity, as the            same is required depending            upon the varied            characteristics of wells.</b>	Yes  Yes	No  No	
8	<b>Instrumentation for Shell:</b> a) Liquid Level Switch i) Type ii) Action iii) Output iv) Supply v) Make	i)Pneumatic ii)ON/OFF iii)15 psig iv)20 psig v)Kimray / Fisher / Norriseal	Yes Yes Yes Yes Yes	No No No No No	
9	<b>Instrumentation for Coil:</b> a) Temperature indicators b) Pressure indicators	As per NIT Specification As per NIT Specification	Yes Yes	No No	
10	<b>Pneumatic Burner Control System:</b> a) Fuel Shut off Valve b) Temp. Control Valve c) Pilot Gas Regulator d) Main Fuel Gas Regulator e) Pressure Gauges	As per NIT Specification As per NIT Specification As per NIT Specification As per NIT Specification  As per NIT Specification	Yes Yes Yes Yes Yes	No No No No No	
11	<b>High Energy Battery Operated Remote Igniter</b> a) Flameproof Box b) Battery c) Output Voltage d) Make  <b>Hand-Held High Energy Igniter:</b> i) Battery ii) Output Power iii) Igniter Tips iv) Weight:  v) Make:	a)IP 65 (min.) b),c) 12V/24V, Rechargeable type with suitable charger (Electric /Solar with solar panel) Sufficient for establishing flame in pilot burner at a distance of more than 20 mtrs d) Chentronics (sureSPARK, Model: BD-5) / GIE / GBA Flare Systems / meggitt/ Sigma Controls Systems / G.I.E. s.r.l.  i)12 V DC, Rechargeable including charger ii)min 1.5 Joules, iii)5 SPS 3 feet iv)3 kg v)Chentronics, Model: Motivator or Sigma Control Systems/ Smitsvonk / G.I.E. S.r.l.or Equivalent	Yes Yes Yes  Yes   Yes Yes Yes Yes Yes	No No No  No   No No No No No	
12	High Voltage Remote Ignition Cable	As per NIT specifications	Yes	No	
13	Flame Failure Shutdown switch	FMCIvalco CM7 /ACL / Kimray	Yes	No	
14	Temp. Indicating Controller	Fisher 4196B or Fisher 4196C or Samson or ABB 440 R Series or OMC s.r.l.-	Yes	No	

		Italy			
15	Servo gas pressure regulators for all pneumatic instruments	Fisher model 67 CFR / Norgren //Norriseal /OMC s.r.l.- Italy	Yes	No	
16	Isolation and Bypass Valves for Fuel Shutoff Valve & Temperature Control Valve	As per NIT & Valve datasheet	Yes	No	
17	All requisite and standard accessories quoted	As per NIT	Yes	No	
18	All valves of fire safe design as per API 607	To be confirmed	Yes	No	
19	Documents to be forwarded along with the bid a) Process and Instrumentation diagrams b) General Arrangement Diagram (GAD) of the unit. c) Sectional drawing showing the internals of the indirect heater. d) Drawings showing details of Remote Ignition System of Pilot Burner and Flame Failure shutdown system. e) Circuit Diagram of Remote Ignition System with details of electronic components and Battery. f) Drawing showing Bean housing and Bean Holder. g) Instrument data sheets along with make and model. h) Make/ Models of all the bought-out items along with technical literature, GAD etc. i) Calculation/ datasheet from OEM for selection of Main Burner sizing for heat duty of 2.5 MMBTU/Hr considering the various parameters viz. FuelGas Calorific Value, Fuel Gas Pressure to Burner Inlet, Chimney Height, Fire Tube Dia& Length etc. j) Calculation/ datasheet sheet from OEM for selection of Flame Arrester sizing with required air flow rate for Main Burner heat duty of 2.5 MMBTU/Hr considering Burner efficiency. The scope of the bidder also includes proper selection of the Main Burner Inspirator and Nozzle size and Fame Arrester Assembly size to ensure that the indirect water bath package meets the minimum heat duty requirement of 2.5 MM BTU/Hr taking into account all the parameters viz.Chimney height, fire tube diameter and length, air flow through the flame arrester, natural gas calorific value, burner efficiency etc.	a)Submitted b)Submitted c)Submitted  d)Submitted  e)Submitted f)Submitted g)Submitted h)Submitted  i)Submitted  j)Submitted	Yes Yes Yes  Yes  Yes Yes Yes Yes  Yes  Yes	No No No  No  No No No No  No  No	
20	Welding shall be done as per ASME Section IX	Confirmed	Yes	No	
21	Painting and Insulation of Shell, Chimney & Fire Tube	As per NIT	Yes	No	
22	Inscription on the vessel	As per NIT	Yes	No	
23	<b>INSPECTION &amp; TESTING</b> a) Third party inspection b) Third party inspection charges shall be quoted separately c) Name of Third party inspector d) OIL's inspection	a)As per NIT b)Quoted c)M/s Lloyds or M/s Bureau Veritas or RITES or M/s IRS or M/s DNV. d)As per NIT	Yes Yes Yes  Yes	No No No  No	
24	<b>TESTING &amp; COMMISSIONING:</b> a) Testing/Inspection of material at site by the supplier before commissioning b) Commissioning c) Commissioning charges, which shall be paid as per actual, quoted separately	a)As per NIT  b)As per NIT c)Quoted	Yes  Yes Yes	No  No No	
25	<b>WARRANTY/ GUARANTEE:</b> 12 (twelve) months from the date of successful commissioning/testing for all the supplied equipment/materials including bought-out equipment / items.	To be confirmed	Yes	No	

**FABRICATION, PACKAGING, SUPPLY AND COMMISSIONING OF INDIRECT WATER BATH  
HEATER (IWBH) PACKAGE FOR PROCESSING NATURAL GAS PRODUCED FROM HIGH-  
PRESSURE GAS WELLS**

**TECHNICAL SPECIFICATION**

- 1.0 The Indirect Water Bath Heater shall be used for production of non-associated gas by preheating and expansion process. Natural gas will be heated in preheat coil and then expanded using a choke outside the bath. After reduction of pressure, the gas stream will be again heated in the expansion coil for further expansion.
- 2.0 SCOPE OF WORKS: Double Coiled Bath Type Indirect Heater of heating capacity 2.5 Million BTU/Hr. ( $0.7325 \times 10^6$  Watt) generally as per the general drawing attached along with the tender for reference. However, supplier must obtain approval of all the drawings having all the engineering information including any alteration/ modification to OIL's drawings, if any prior to manufacturing of the ordered items. The detailed drawings are to be submitted within thirty (30) days of receipt of detailed Purchase order for OIL's approval.

**THE DETAIL SCOPE OF WORKS:**

- 2.1 Scope of works includes fabrication, packaging, testing, supply, commissioning of the indirect water bath heater package complete with accessories and mountings for heating and expansion/pressure reduction of well stream. Details of the same are as under:
- 2.1.1 The bath type indirect heater suitably fabricated as per API Spec 12K. The heater should be complete with the following:
- 2.1.2 Shell :
- a) Size: As per GAD
- The shell must have adequate nozzles for inlet, outlet of coils, fire tube and mounting, various equipment & instrument for burner, level gauge/switch, drain valves etc.  
Reference General Drawing: OIL/PDNG/GD-Shell Fabrication  
Reference General Drawing: OIL/PDNG/GD-GAD  
Reference General Drawing: OIL/PDNG/GD-Name Plate-IWBH
- 2.1.3 Coils (Seamless):
- i) No. of Coil : 2 (two) sets of 3" (80 mm) NB coils, each set comprising of one no. preheat coil and one no. expansion coil
  - ii) No. of Pass: 8 (Eight) passes for preheat coil and 2 (Two) passes for the expansion coil
  - iii) M.O.C. of Coil : API 5L Grade B, Wall Thickness (XXS) = 0.6 Inches (15.24mm) seamless / ASTM A106 Grade B, Wall Thickness (XXS) = 0.6 Inches (15.24mm)
  - iv) Coil Operating Pressure: Max: 281.6 kg/cm<sup>2</sup> (4000 psig)
  - v) Radiography of weld joints of Coil bundle: 100 %
  - vi) Coil Hydraulic Test Pressure: 1.5 times the maximum working pressure i.e. 422 kg/cm<sup>2</sup> (6000psig)
- Reference General Drawing: OIL/PDNG/GD-Coils  
Reference General Drawing: OIL/PDNG/GD-GAD

**2.1.4 Coil End Connection:**

Flanged, 65 mm (2.5") NB x 2500 class RTJ, conforming to ANSI B16.5, with bevel ended companion flanges, ring joint gasket as per ANSI latest specifications and required Nos. of high tensile studs-nuts as per ASTM A193 Gr. B-7, ASTM A194 Gr. 2H respectively.

Reference General Drawing: OIL/PDNG/GD-Coils

Reference General Drawing: OIL/PDNG/GD-GAD

**2.1.5 Fuel Scrubber:**

- a) Scrubber with high efficiency wire mesh type mist extractor of adequate size to cater Fuel & Servo Gas Flow requirement shall be used for supplying liquid free fuel to the burner and servo gas to the pneumatic instruments.
- b) The scrubber shall be equipped with
  - i. Pressure indicator with isolating valve.
  - ii. Drain connection with isolation valve
  - iii. Sight glass/level gauges with gauge cocks
  - iv. Safety Relief valve- 2 Nos. (set at 33 kg/cm<sup>2</sup>)
- c) Operating pressure of 30 kg/sq cm
- d) Hydraulic Test Pressure: 1.5 times the maximum working pressure i.e. 45 kg/cm<sup>2</sup> (640 psig)

Reference General Drawing: OIL/PDNG/GD-Scrubber Vessel Fabrication

Reference General Drawing: OIL/PDNG/GD-Name Plate-Fuel Scrubber IWBH

**3.0 Accessories:**

**3.1 Positive Choke:**

Positive choke, with suitable choke housing for holding 25.4 mm dia. choke. Housing should have provision for easy installation and removal of Honest John bean with hammer union/bean wrench similar to bean housing installed at well head X-mass tree manufactured as per API spec. 6A. End connection, flanged, welded, 65 mm (2.5") NB, ANSI 2500 class to be installed between preheat outlet and expansion coil inlet. Suitable 12.7 mm NB NPT tapping should be provided up and down stream of the bean housing to measure inlet and outlet gas pressures. One each of beans ranging from 7 mm, 8 mm, 9 mm, 10 mm, 11 mm, 12 mm, 13 mm and 14 mm should be provided along with 1 No. of suitable bean wrench for installation and removal of the beans. Materials for bean body ASTM A105, for bean housing and bean similar to API-6A X-mass tree bean. Operating temperature range (-)10 Deg C to 150 Deg C.

Reference General Drawing: OIL/PDNG/GD-Choke

Reference General Drawing: OIL/PDNG/GD-Bean Adapter

Reference General Drawing: OIL/PDNG/GD-Bean

Make : Masterflo / WKM / BHEL / JVS / Parveen / Cameron

**3.2 Fire Tube (Seamless):**

- i) M.O.C. of Fire Tube: API 5L, Gr. B (Seamless) / ASTM A 106, Gr. B
- ii) Type: U Type

- iii) Diameter : 610 mm (24" NB) OD (minimum)
  - iv) Length : 6920 mm X 2 Nos.(minimum)
  - v) Radiography of weld joints at 'U' Bend: 100 %
  - vi) Half cover plate feature. Suitable roller arrangement for fire tube and coil bundle to be provided to facilitate easy removal while dismantling.
  - vii) Hydraulic Test Pressure: 5 kg / Sq cm
- Reference General Drawing: OIL/PDNG/GD-Fire Tube  
Reference General Drawing: OIL/PDNG/GD-GAD

**3.3 Flame Arrested Burner & Accessories:**

- a) Flame Arrested Burner: Natural Draft Burner of heat capacity (minimum) 2.5 Million BTU/Hr. (0.7325 X 10<sup>6</sup> Watt)  
Burner Make: Maxon / Eclipse / John Zink / ACL / G.I.E. S.r.l.  
The data sheet for above to be forwarded along with the offer. (Net Calorific value of Natural Gas for fuel is 8,500 Kcal / SCM).  
Heat capacity of Natural Draft Burner 2.5 Million BTU/Hr is a minimum value. Heat Capacity of Natural Gas Burner should have a provision for at least 20% excess capacity, as the same is required depending upon the varied characteristics of wells.
- b) Flame Arrester Make: Zirco / Flameco / Cameron (Natco) / Wenco / Grit Industries/ ACL  
Flame Arrester must comprise of following components:
  - i) 'O' / Box Type (Aluminum housing)
  - ii) Flame Cell
  - iii) Adaptor SpoolFlame Arrester must be Suitable for Burner of Heat Duty: minimum 2.5 Million BTU/Hr. (0.7325 X 10<sup>6</sup> Watt) with Natural Gas as Fuel.

**4.0 INSTRUMENTATION & CONTROL SYSTEM:**

Reference General Drawing: As per Schematic

**4.1 Instruments to be mounted on Shell**

- a) Liquid Level Switch:  
Water bath should be equipped with low water level shut down device with the following specification:
  - i) Type : Pneumatic
  - ii) Action : ON/OFF
  - iii) Output : 15 psig
  - iv) Supply : 20 psig
  - v) Type: Float less pneumatic switch with differential pilot (0-500 mm WC).
  - v) Make : Kimray / Fisher / ACL
- b) Temperature Indicators:
  - i) Temperature Range : 0 to 150 Deg C
  - ii) Thermowell Connection : 1 Inch NPT
  - iii) Insertion Length : 300 mm (12 Inch)
  - iv) Type : Bimetallic/ Mercury Filled
  - v) Sensing Element Connection : 1/2" NPT

- vi) Material of Construction : All Stainless Steel
- vii) Accuracy :  $\pm 0.5$  Deg C
- viii) Make : Wika/ Odin / Warea / Ashcroft/ Icon
- c) Level Gauge: The Level gauge shall be of the following specifications:
  - i) Type : Reflex Type
  - ii) Connection Size : 1/2"
  - iii) Isolation Valves : Required (Needle/Ball Valves)
  - iv) Max. working Pressure: 2 Kg/Sq.cm
  - v) Test Pressure: 10 Kg/Sq.cm
  - vi) Max. working Temperature: 100 Deg C
  - iv) Make : Pratolina/ Levcon/ Daniel/Chemtrol/V Automat
- d) Water Filling Float Valve, 25 mm (1") NB, MoC: SS  
Water inlet nozzle on the must be provided with a float operated industrial valve to avoid water over flow.

**4.2 Instruments to be mounted on Coil Inlet & Outlet:**

- a) Temperature Indicator: Inlet and Outlet temperature indicators in each of the preheat and expansion coils with suitable thermowells.

- i) Temperature Range : 0 to 110 Deg C ( 6 nos.) & (-)20 Deg C to 100 Deg C (2 nos.)
- ii) Thermowell connection: 1" NPT
- iii) Type : Bimetallic/ Mercury Filled
- iv) Sensing Element Connection: 1/2"NPT
- v) Material of construction: All Stainless Steel
- vi) Accuracy :  $\pm 0.5$  Deg C
- vii) Make : Wika / Odin / Warea / Ashcroft/ Icon

- b) Pressure Indicators: Inlet and Outlet pressure indicators shall be provided in each of the preheat and expansion coils as under :

- i) Dial Size : 150 mm (6") Minimum
- ii) Range : 0 to 425 Kg/Sq. cm ( 2 nos.)  
                  : 0 to 210 Kg/Sq. cm (2 nos.)
- iii) Pressure Element: SS Bourdon tube
- iv) Material of construction: All SS
- v) Accuracy :  $\pm 1\%$  of reading
- vi) End Connection : 1/2" NPT
- vii) Isolation Valves : Required (Needle Valve)
- viii) Make : Wika / Odin / Warea / Ashcroft/ Icon

**4.3 PNEUMATIC BURNER CONTROL SYSTEM:**

**4.3.1 CONTROL PHILOSOPHY:**

The Indirect Heaters shall be equipped with the pneumatic control system to carry out the following functions:

- a) Remote Ignition of Pilot Burner (all the systems for the remote ignition shall be encased in Flame-proof JB (DGM Approved), which shall be installed 20 meters away from the Heaters through High-Voltage Ignition Cables and Connectors). Any JB required for the Ignition System shall be Flame-proof JB (DGM Approved).
- b) Pilot Flame sensing through pneumatic pilot guard.
- c) Main flame shall be shut down in case of
  - a. Pilot flame failure through pneumatic pilot guard
  - b. Low Liquid Level through liquid level controller
  - c. High water temperature through Temperature Indicating Controller (TIC) and Temperature Control Valve (TCV).
- d) Temperature Control of the water bath shall be through Indicating type temperature controller (TIC) and Temperature Control valve (TCV) as shown in the Reference General Drawing: Schematic Drg
- e) A provision must be kept to ignite the pilot burner through a Hand-held High Energy Igniter; in the event of a failure of the high energy battery operated remote igniter.

Reference General Drawing: OIL/PDNG/GD-ICD

Reference General Drawing: OIL/PDNG/GD-RIS

Reference General Drawing: OIL/PDNG/GD-SDIS-I

Reference General Drawing: OIL/PDNG/GD-SDIS-II

#### 4.3.2 BILL OF MATERIAL FOR BURNER CONTROL SYSTEM

##### A) HIGH ENERGY BATTERY OPERATED REMOTE IGNITER:

The purpose of the remote Igniter is to ignite pilot flame of burner assembly. The system shall consist of the following items.

- a) Function: To ignite the pilot flame in Natural Gas fired burners
- b) Features: Flameproof and Battery operated
- c) Battery: 24V, Rechargeable type with compatible Solar Battery Charger Kit\*
- d) Output Voltage: Sufficient for establishing flame in pilot burner at a distance of more than 20 mtrs.
- e) The Ignitor should be housed in a flameproof box.
- f) High Voltage Connector to provide connection between the High Voltage cable and the Ignition Electrode.& High Voltage cable and the Remote Ignition FLP Enclosure with IP 65 (minimum).

Make of Remote Igniter: Chentronics / Smitsvonk Durag GmbH / GBA Flare Systems / Meggitt / Combustex-Canalta Controls / ACL / Sigma Controls Systems / G.I.E. S.r.l.

Note: Solar Battery Charger Kit of reputed make complete with Solar Battery Charger Panels, Solar Charge Controllers for overcharging protection and mounting brackets for mounting panel that can be adjusted for a range of angle.

##### B) High Voltage Remote Ignition Cable:

- i) Length: 20 meters
- ii) Insulation Voltage: 11 KV (min)
- iii) Conductor: Fireproof, multistrand copper conductor
- iv) Insulation: PTFE insulated with mica tapping & fibre glass top
- v) Heat resistant upto 400 Deg C

**C) PILOT BURNER ASSEMBLY with Ignition Electrode:**

(Make: Maxon / Eclipse / Natco (Cameron)/ ACL/ Zeeco / Combustex-Canalta Controls /Sigma Controls/ Smitsvonk Durag GmbH / G.I.E. S.r.l.)

Pilot Burner assembly complete with ignition electrode of above make shall consist of following with mounting arrangement for Pilot guard Sensor Lead/Element.

**a) Mixer**

- i) Connection: 1/2 or 1/4 inch Female connector
- ii) Function: To maintain air-fuel ratio to the pilot burner

**b). Orifice**

- i) Suitable for Gas Mixer
- ii) Function: To maintain air-fuel ratio for the pilot burner.
- iii) Material of construction: Brass or SS

**c). Pilot Burner Nozzle**

- i) Function: To provide pilot flame in the Natural Gas fired heater vessel
- ii) Material of construction: SS 310 or suitable for high temperature applications

**d) Ignition Electrode**

- i) Function: The ignition electrode is to be mounted on the body of the pilot burner to keep a fixed gap between the electrode tip and the pilot burner nozzle for proper ignition.
- ii) Provision for clamping & length adjustment of the electrode.
- iii) Holder Strap: To hold the Ignitor Rod Assembly with Pilot line.
- iv) Insulation: It should have necessary CERAMIC insulation.

**D) Hand-Held High Energy Igniter:**

- i) Battery: 12V/24V DC, Rechargeable including charger
- ii) Output Power: min 1.5 Joules, 5 SPS
- iii) Igniter Tips: 3 feet
- iv) Weight: 3 kg

Make: Chenronics / Smitsvonk / G.I.E. S.r.l./ Smitsvonk Portable Igniter of Durag GmbH

**E) Pilot Guard :**

- i) Function: Shut-off Gas Supply to the Pilot and Main Burner in the event of Pilot Flame out
- ii) Temperature Sensing : Thermocouple
- ii) Supply Inlet: 10 to 20 psig
- iii) Thermocouple leads/Cable : 3 meter (10 feet) minimum

Make : FMC Invalco,CM7 / ACL-2000/ Kimary / Smitsvonk Durag GmbH

**F) Fuel Shut-off Valve**

- i) End Connection : 1" NPT (F) / Flanged
- ii) Type : ON/OFF
- iii) Actuator : Diaphragm
- iv) Operating Signal : 3 to 15 psig
- vi) Gas Flow Rate: 40-130 SCM/Hr
- vii) Inlet Pressure: 1.0 - 3.5 Kg/Sq.cm
- viii) Design Pressure: 10 Kg/Sq.cm
- ix) Test Pressure: 15 Kg/Sq.cm



Make : Invalco/Samson/ Fisher/ Forbes Marshall /Combustex/ Murphy/ Kimray

**G) Temperature Control Valve:**

- i) End Connection : 1" NPT / Flanged
- ii) Type : Proportional
- iii) Actuator : Pneumatic Diaphragm Operated
- iv) Operating signal : 3 to 15 psig

Make : Invalco/ Fisher /Samson/Forbes Marshall/ Combustex / Kimray

**H) Pilot Gas Regulator:**

- i) Input Supply : 1 – 3.5 Kg/cm<sup>2</sup>
- ii) Output : 0 to 15 psig adjustable
- iii) Connection : 1/4" NPT

Make : Invalco /Samson/ Fisher/ Kimray

**I) Main Fuel Gas Regulator:**

- i) Input Supply : 30 Kg/Sq.cm
- ii) Output : 0 to 3.5 Kg/Sq. cm adjustable
- iii) Connection : 1" NPT / Flanged
- iv) Flow rate of Natural Gas: 40 to 130 SCM/Hr.
- v) Type: Spring Loaded

Make : Invalco / Samson/ Fisher/ Kimray

**J) Pressure Indicators (2 nos.) in main fuel line before and after Regulator**

- i) Range : 0 to 40 Kg/Sq.cm (before Regulator), 0 to 3.5 Kg/Sq.cm (after Regulator)
- ii) Dial Size : 100 mm (4")
- iii) Connection Size: 1/2"
- iv) Material of Construction: All Stainless Steel

Make : Wika/ Odin / Waree / Ashcroft

**K) Pressure Indicators in pilot line after the regulator:**

- i) Range : 0 to 3.5 Kg/Sq.cm
- ii) Dial Size : 100 mm (4")
- iii) Connection Size : 1/4"
- iv) Material of Construction: All Stainless Steel

Make : Wika/ Odin / Waree/ Ashcroft

**L) Indicating Type Temperature Controller:**

- i) Type : Pneumatic Indicating PID Controller
- ii) Range : 0 to 150 Deg C
- iii) Sensor : Mercury Filled
- iv) Sensor Connection : 1/2" NPT
- v) Thermowell : Required
- vi) Thermowell Connection: 1" NPT
- vii) Insertion Length: 300 mm (12")
- viii) Input Supply: 20-30 psig
- viii) Output Signal: 3 to 15 psig

Make & Model: Fisher 4196B or Fisher 4196C or Samson Type 3430 or ABB 440 R Series

**M) Strainer:**

- i) Sp. Gravity of Natural Gas: 0.6
- ii) Flow rate of gas: 130 SCM/Hr.
- iii) Mesh: 80 Mesh SS 304
- iv) End Connection: 1" NPT
- v) Working Pressure: 15 Kg/Sq.cm
- vi) Test Pressure: 25 Kg/Sq.cm
- Make: Zoloto/Leader/Sant or equivalent

**N) Instrumentation Tubes & Fittings:**

- i) MOC : SS    ii) Make: Swagelok, Parker or Hylok.

**4.4    Notes :**

- a) All the pneumatic instruments shall be suitable for operating in compressed natural gas as servo supply.
- b) Servo Gas Pressure Regulators of Fisher Model 67 CFR / Norgren / Maxitrol shall be provided for all pneumatic instruments requiring 20 psig supply pressure.
- c) The Temperature Control Valve and the Fuel Shut-off Valve shall have isolation and bypass Valves as per Ball Valve Spec sheet attached. MOC of all the Needle valves for the package shall be SS suitable for intended application and design as per ASME B16.34.
- d) Operation and Maintenance manuals of all the instruments shall be provided along with the supply of materials.
- e) Three (03) additional thermowells of 1" NPT of 300 mm length shall be fixed on the shell for provision of insertion other instruments.
- f) Step by step operating procedure of remote ignition and no flame shutdown system shall be separately inscribed in a non-eraseable placard in the area where its operation would be carried out.

**5.0    Earthing Provision:**

Two (2) nos. of 3/4" studs with nuts (1 each at one of the legs and the vessel) to be welded for electrical earthing.

**6.0    General Notes:**

- i) All the valves on the Fuel System shall be Fire safe design as per API 607.
- ii) The fuel gas line and controller etc should be suitably anchored / supported to the outside shell wall.
- iii) The fuel gas shall have preheating arrangement through the bath heater. Fuel gas preheating piping/coil shall be seamless, 3000 psig rating.
- iv) The Indirect Heater shall have suitable lifting lugs attached for lifting and placing the same at site.
- v) Materials whenever not mentioned will conform to API spec 12K standard for the vessel.
- vi) The following documents of bidders shall be forwarded with the bid:
  - a) Process and Instrumentation diagrams
  - b) General Arrangement Diagram (GAD) of the unit.
  - c) Sectional drawing showing the internals of the indirect heater.
  - d) Sectional drawing showing the internals of the Fuel Scrubber.

- e) Drawings showing details of Remote Ignition System of Pilot Burner and Flame Failure shutdown system.
- f) Circuit Diagram of Remote Ignition System with details of electronic components and Battery.
- g) Drawing showing Bean housing and Bean Holder.
- h) Instrument data sheets along with make and model.
- i) Make/ Models of all the bought-out items along with technical literature, GAD etc.
- j) Calculation/ datasheet from OEM for selection of Main Burner sizing for heat duty of 2.5 MMBTU/Hr considering the various parameters viz. Fuel Gas Calorific Value, Fuel Gas Pressure to Burner Inlet, Chimney Height, Fire Tube Dia & Length etc.
- k) Calculation/ datasheet sheet from OEM for selection of Flame Arrestor sizing with required air flow rate for Main Burner heat duty of 2.5 MMBTU/Hr considering Burner efficiency.

viii) The scope of the bidder also includes proper selection of the Main Burner Inspirator and Nozzle size and Flame Arrestor Assembly size to ensure that the indirect water bath package meets the minimum heat duty requirement of 2.5 MM BTU/Hr taking into account all the parameters viz. Chimney height, fire tube diameter & length, air flow through the flame arrester, natural gas calorific value, burner efficiency etc.

ix) The bidder shall carry out the fabrication work of the tendered item(s) by engaging welders who are qualified under ASME Boiler and Pressure Vessel Code Section-IX. Documentary evidence in regard of WPS (Welding Procedure Specification), PQR(Procedure Qualification Record), and WPQ(Welder Performance Qualification) shall be submitted by the bidder alongwith the bid. The list of welder(s), who will be engaged for fabrication of the tendered item(s) alongwith respective Welder Performance Qualification(WPQ) Test Report carried out within last 05(five) years preceding original bid closing date of the tender, shall be submitted alongwith the technical bid. Qualification of welders employed by one manufacturer shall not qualify them for engagement by any other manufacturer without requalification.

x) OIL's purchase Order no. and date shall be inscribed along with Manufacturer's name, pressure rating, capacity, code of manufacture, unit serial no. on the vessels along with other details as per Reference General Drawing.

xi) The technical specifications in general must conform to the requirements as mentioned in Annexure-I and relevant national/ international code of practice/ standards.

xii) For any brought out item, their Catalogue/ technical literature etc showing sectional drawing of each component along with the necessary maintenance spare parts, identification no shall be provided.

xiii) The bidders must provide one (1) year guarantee, after successful commissioning, for all the equipment including bought out equipment/ items, if any for trouble free operation.

#### **7.0 Painting and Insulation:**

Surface cleaning of Bath heater, external surface by sand blasting to Sa2 -1/2 grade conforming to Swedish Standard SIS – 05 5900 – 1967 followed by 2 coats of heat resistant primer. Insulation/protection as required shall be provided.

Inner surface will be cleaned by wire brushing and will be provided with 2 coats of heat resistant primer. Each coat will have min DFT of 35 micron.

The heater body and piping shall be thermally insulated by rock wool (Density 120) and aluminum sheet (20 gauges) covered with tight sealing, to prevent heat loss and external insertion of water and foreign elements.

**8.0 Inspection & Testing:**

**A) Third Party inspection:**

- I) The materials shall be offered for third party inspection for the following scope:
  - a) Inspection of certificates in respect of raw materials, bought-out items, radiography etc.
  - b) To review qualification of the welder and welding procedure specifications (WPS) as per ASME code.
  - c) Verification of physical and chemical properties of raw materials.
  - d) To witness fabrication works to ensure that the bidder has complied with respect to OIL's approved drawing for fabrication of the package.
  - e) To review the stage wise inspection of sub assemblies viz Nozzles, Shell, Fire Tube, Chimney, Bean Housing assembly, Companion Flanges etc. before final assembly.
  - f) To review and certify the radio-graphed film of weld joints as per ASME code and heat treatment chart and certifying
  - g) Inspection & witnessing of the hydraulic tests of Fire tube, Pressure Coils, Fuel Scrubber, Fuel Pre-heat Coil and Fuel Gas piping works will be separately tested. The testing will be as such (except testing of Shell), First to test the items/ piping assembly at 1.5 times the Design pressure / Maximum Working Pressure for 30 minutes and reduced to design pressure/ Maximum Operating Pressure. At the design pressure, testing will be for 24 hrs. The hydraulic test certificates report and recorder charts are to be sent to OIL.
  - h) Water fill test of the Shell
  - i) Inspection of all the bought out items as per Purchase Order and approved datasheet. Also to review purchase documents and quality certificates of bought out items.
  - j) To witness final dimensional inspection and ensure proper workmanship.
  - k) To document and issue inspection certificate.
  - l) To review Operating & Maintenance Manuals for the package.
  - m) The above inspection is for general guide line only. If third party desire to carry out any additional inspection as per ASME code / API specification and the same should be included under intimation to Oil India Limited.

**B) Third party inspection charges shall be quoted separately.**

**C) The Inspector must be OIL's authorized / recognized inspecting agencies i.e. M/s Lloyds or M/s Bureau Veritas or RITES or M/s IRS or M/s DNV.**

**D) Inspection by OIL:**

OIL will carry out inspection of the units during fabrication, assembly and testing. OIL representative must be provided all reasonable opportunities to inspect the unit(s) and material at their convenient. It prefers to inspect the unit and materials at the works during the following stages:

1st stage inspection: After completion of fabrication of Shell and internals including Pressure Coil, Fire Tube, Chimney, Nozzles etc. after Third Party Inspection but before final assembly. The supplier has to intimate OIL at least 15 to 20 days prior to offering the inspection date.

2nd stage inspection: Final inspection will be carried out by OIL when the IWBH Packages are completed (prior to painting of the unit) and mounted on the skid and the pipe works are almost ready. The supplier has to intimate OIL at least 15 to 20 days prior to offering the inspection date. OIL Engineer will inspect/witness the following:

- a) To review the hydraulic test records & pressure recorder charts of Fire tube, Pressure Coils, Fuel Scrubber, Fuel Pre-heat Coil, Shell and Fuel Gas piping works etc..
- b) To inspect the radiographic plates and reports. All these documents are to be sent to OIL along with the packages.
- c) To inspect the post weld heat treatment/stress relieving report and chart which are to sent to OIL later on along with the packages.
- d) To witness the functioning of all pneumatic control gears and control valves, for which the supplier is to supply instrument air during inspection.
- e) Relevant test records and documents- in respect of various equipment/ accessories shall be offered for verification.
- f) To check all the bought out items as per Purchase Order and approved datasheet. Also to inspect purchase documents and quality certificates of bought out items.
- g) Inspection of remote ignition system with solar high energy battery operated remote igniter & Hand-held High Energy Igniter as per Purchase Order and approved datasheet.
- h) Any modifications of general arrangement, if required after inspection shall be carried out by the vendor.

**E) Quality Assurance Plan:**

- a) Quality Control (QC), shall mean all the tests, measurement, checks and calibration which are to be carried out in Bidder's shop in order to compare the actual characteristics of the equipment/unit/system with the specified ones, along with furnishing of the relevant documentation (certificates/records) containing the data or result of these activities. The bidders are required to furnish a detailed & comprehensive list of the inspection facilities available at their shop along with the bids.
- b) As a minimum the following points shall be included in the Quality Control Plan to supplement QAP Sample provided in the Tender:
  - i) Review of material certificates and verification of the materials of construction for conformity with requisition requirements
  - ii) Review of material certificates and verification for heat marks for pipes and flanges for conformity to the specification
  - iii) Verification for the Vendors welding procedure and procedure qualification for the equipment in accordance with the design code
  - iv) Dimensional check in accordance with approved "final" drawings
  - v) Painting and lining requirement as detailed in this specification shall be inspected
  - vi) Final release

**9.0 Placement, Installation & Commissioning:**

- a) Placement of the Indirect Water Bath Heater (IWBH) Units at respective sites shall be in the Company's (OIL's) scope. The placement shall include construction of foundation, transportation of material to the well site, placement of the IWBH unit on the foundation and hook-up of process and service piping with the IWBH at the battery limit of the unit. The vendor will supervise the transportation and placement job and provide assistance as and when required.
- b) Installation & Commissioning of the IWBH units shall be in the Supplier's scope. Installation & Commissioning shall include assembling and installation of different systems / items like Flame Arrested Burner (Both Pilot and Main Burner System) Control Assembly, Fuel Control System, Bath Temperature Control System, Instrumentation & Control System and other necessary activities for successful Commissioning of the Indirect Water Bath Heaters at Well Sites / Stations of OIL which are located within an aerial of around 70Km from Duliajan. Any item found defective during the process will be replaced by the vendor free of cost. Installation & Commissioning of an Indirect Water Bath Heater will be considered as complete after successful completion of continuous 72 (Seventy Two) hours run at site load condition to the satisfaction of OIL.

Installation & Commissioning of all the 15(fifteen) Nos. of Water Bath Heaters may be carried out at one stretch or in a phased manner within 210 days from the date of delivery of the complete packages. In their offer, the bidder must mention a firm activity plan for Installation & Commissioning of one IWBH unit such that the job of carrying out the Installation & Commissioning of all 15 units is completed within the stipulated 210 days.

The Company (OIL) will intimate the supplier before 7(seven) days of start of Installation & Commissioning. The supplier will arrange for successful Installation & Commissioning of the units within the time specified in the Purchase Order.

- c) It is the supplier's responsibility to inspect the supply at OIL's work site along with OIL's representative(s). Accordingly, the materials will be inspected in presence of supplier's representative at OIL's work site after delivery, but before commissioning to ensure immediate replacement of any short supply/transit damage.
- d) If an Indirect Water Bath Heater unit cannot be offered for commissioning, on account of any unforeseen reasons, within 200 days from the date of delivery of the complete package, the supplier will be advised to assemble and test the unit in OIL's base camp / work site at no load condition. The assembling and testing in base camp / work site is to be completed within a period of 30 days beyond the 210 days (from the date of delivery of the complete package) allowed for installation & commissioning. Accordingly, the supplier will assemble and test the unit at no load condition in OIL's base camp / work site (located within a distance of around 6 Km from OIL's Duliajan Head Office) in the presence of OIL's representative. Testing of an Indirect Water Bath Heater will be considered as complete after successful completion of continuous 72 (Seventy Two) hours test run to the satisfaction of OIL. Any item found defective during the assembly and testing will be replaced by the vendor at no additional cost to OIL.

- e) OIL will provide Illumination, Water & Fuel Gas (for Package Burner) only at site during Installation & Commissioning of packages.
- f) The supplier will have to arrange for transportation, boarding & lodging and security of the supplier's personnel(s) during their stay at Duliajan / site during Installation & Commissioning and for verification & testing of the unit(s).
- g) Installation & Commissioning charges must be quoted separately and the same will be applicable for entire duration of the Purchase Order.

**Note:**

Within the purview of the tender, OIL will provide full support to the supplier for smooth and successful commissioning of the IWBH packages and as such there should not be any inconvenience from OIL side if delivery of packages is complete in all respect. It is expected that the supplier shall be able to complete commissioning of the units within 210 days from the date of delivery of complete package. If any component of any package is short supplied or damaged during transit, the same shall not be considered as delivery of complete package. Each lot/batch of supplied material will be inspected, checked and verified in presence of supplier's representative at OIL's work site/base camp to ascertain delivery of each package in all respect before installation & commissioning to ensure immediate replacement of any short supply/transit damage.

- 10.0 **The bidders will have to provide the commissioning spares at their cost along with the Equipment. The bid should include a list of such spares. The cost of the Commissioning Spares must be included with the main equipment.** List of Commissioning Spares indicating the quantity and description must be shown separately.
- 11.0 Bids and all related documents shall be in English language. Supporting documents and printed literature furnished by the bidder may be in another language provided they are accompanied by an official and notarized English translated version, which shall govern for the purpose of bid interpretation.
- 12.0 **Warranty / Guarantee: The supplied equipment/materials will be guaranteed for a period of 12 (twelve) months from the date of successful commissioning/testing for all the equipment.** The supplier shall repair or replace any item or equipment found defective in materials or workmanship or performance within the above period free of charge. The warranty is applicable to bought out items also.
- 13.0 **Payment:** Payment shall be released as follows:
  - i) 70% of the supply value shall be released on supply and acceptance of the goods.
  - ii) Remaining 30% of the supply value shall be paid after successful commissioning along with the Installation & Commissioning charges which will be paid to the supplier as per actual.
  - iii) For the units, which could not be offered for commissioning, 30% of the supply value will be released after completion of successful test run of the unit as detailed in Para 9.0 (d).

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**Technical Bid Checklist****Annexure-EEE**

Tender No.			
Bidder's Name :			
BEC / TENDER REQUIREMENTS		Compliance by Bidder	
SL. NO.		Indicate 'Confirmed' / 'Not Confirmed' / Not applicable	Indicate Corresponding page ref. of unpriced bid or Comments
1	Confirm that validity has been offered as per NIT.		
2	Confirm that Bid Security / Earnest Money has been submitted as per NIT (Wherever Applicable) ?		
3	Confirm that you shall submit Performance security (in the event of placement of order) (Wherever Applicable) ?		
4	Confirm that duly signed Integrity Pact has been submitted as per NIT (Wherever Applicable) ?		
5	Confirm that you have submitted documentary evidence of successfully executing one Purchase order as stipulated in NIT in any of the preceding 5 financial years (*)		
6	Confirm that you have submitted Balance Sheet and Profit and Loss Account of any of the preceding 3 financial years certified by a chartered accountant.		
7	Confirm that the bid has been signed using Class 3 digital certificate with Organisation's Name as per NIT.		
8	Confirm that you have not taken any exception/deviations to the NIT .		

NOTE: Please fill up the greyed cells only.

(\*) Purchase Orders along with copies of any of the documents in respect of satisfactory execution of the Purchase Orders should be submitted – (i) Satisfactory Inspection Report (OR) (ii) Satisfactory Supply Completion / Installation Report (OR) (iii) Consignee Receipted Delivery Challans (OR) (iv) Central Excise Gate Pass / Tax , Invoices issued under relevant rules of Central Excise / VAT (OR) (v) any other documentary evidence that can substantiate the satisfactory execution of the purchase order cited above.



**Response Sheet****Annexure-FFF**

Tender No.
Bidders Name

**Bidders Response Sheet**

SI No.	Description	Remarks
1	Place of Despatch	
2	Whether Freight charges have been included in your quoted prices	
3	Whether Insurance charges have been included in your quoted prices	
4	Make of quoted Product	
5	Offered Validity of Bid as per NIT	
6	Bid Security Submitted (if applicable)	
6	Details of Bid Security Submitted to OIL (if applicable)	
	a) Bid Security Amount (In Rs):	
	b) Bid Security Valid upto:	
7	Whether you shall submit Performance Security in the event of placement of order on you (if applicable)	
8	Integrity Pact Submitted (if applicable)	
9	Whether you have submitted documentary evidence of successfully executing one Purchase order as stipulated in NIT in any of the preceding 5 financial years (*)	
10	Whether you have submitted Balance Sheet and Profit and Loss Account of any of the preceding 3 financial years certified by a chartered accountant.	
11	Delivery Period in weeks from placement of order	
12	Complied to Payment terms of NIT (if applicable) otherwise to Standard Payment Terms of OIL or not.	
13	If bidder is MSE whether you have quoted your own product	
14	If Bid security submitted as Bank Guarantee, Name and Full Address of Issuing Bank including Telephone, Fax Nos and Email id of branch manager	

**NOTE: Please fill up the greyed cells only.**

(\*) Purchase Orders along with copies of any of the documents in respect of satisfactory execution of the Purchase Orders should be submitted – (i) Satisfactory Inspection Report (OR) (ii) Satisfactory Supply Completion / Installation Report (OR) (iii) Consignee Receipted Delivery Challans (OR) (iv) Central Excise Gate Pass / Tax , Invoices issued under relevant rules of Central Excise / VAT (OR) (v) any other documentary evidence that can substantiate the satisfactory

**(TO BE FILLED UP BY ALL THE VENDOR IN THEIR OWN LETTER HEAD)  
(ALL FIELDS ARE MANDATORY)**

Tender No. :.....  
Name of Beneficiary :M/s.....  
Vendor Code :.....  
Address :.....  
.....  
Phone No. (Land Line) :.....  
Mobile No. :.....  
E-mail address :.....  
Bank Account No. (Minimum  
Eleven Digit No.) :.....  
Bank Name :.....  
Branch :.....  
Complete Address of your  
Bank :.....  
IFSC Code of your Bank  
a) RTGS :.....  
b) NEFT :.....  
PAN :.....  
VAT Registration No. :.....  
CST Registration No. :.....  
Service Tax Registration No. :.....  
Provident Fund Registration :.....

I/We confirm and agree that all payments due to me/us from Oil India Limited can be remitted to our above mentioned account directly and we shall not hold Oil India Limited responsible if the amount due from Oil India Limited is remitted to wrong account due to incorrect details furnished by us.

Office Seal

.....  
Signature of Vendor

Counter Signed by Banker:  
Seal of Bank:

Enclosure: Self attested photocopies of the following documents-

- 1) PAN Card
- 2) VAT Registration Certificate
- 3) Service Tax Registration
- 4) CST Registration
- 5) Provident Registration Certificate
- 6) Cancelled cheque of the bank account mentioned above (in original).
- 7) Bank Statement not older than 15 days on the date of submission.