

**OIL INDIA LIMITED**  
( A Govt. of India Enterprise )  
4, India Exchange Place,  
Kolkata – 700 001.

OIL INDIA LIMITED invites indigenous competitive bid through its e-procurement portal – <https://etender.srm.oilindia.in/irj/portal> for the following e-Tenders :-

Srl. No.	E-tender	Bid Closing Date	Materials Description
1	SKI5248P15	13-01-2015	Bitumen 30/40
2	SKI5250P15	13-01-2015	Online Iron Removal Filter
3	SKI5251P15	13-01-2015	Bitumen Felt & Bitumen 30/40

2.0 Application showing full address / e-mail address with Tender fee (non-refundable) of ₹ 1000.00 per tender (excepting PSU and SSI units registered with NSIC) by Demand Draft in favour of M/s. Oil India Limited payable at Kolkata and to be sent to Head-Calcutta Branch, Oil India Limited, 4, India Exchange Place, Kolkata – 700 001. Application shall be accepted only upto one week prior to Bid Closing Date. The envelope containing the application for participation should clearly indicate “**REQUEST FOR ISSUE OF USER ID AND PASSWORD FOR E-TENDER NO.**” for easy identification and timely issue of authorization.

Alternatively, applicants already having User ID & Password for OIL’s e-portal can pay the requisite tender fee and bid security against this tender through the online payment gateway.

On receipt of request from applicants who do not have USER\_ID and initial PASSWORD, it will be communicated to the bidder (through-e-mail) and will be allowed to participate in the tender through OIL’s e-Procurement portal on payment of requisite tender fees. No physical tender documents will be provided.

PSU’s and SSI units registered with NSIC claiming exemption from payment of tender fee should submit their request with all credentials at least 7 days prior to be closing date for participation in the tender.

Details of NIT can be viewed using “Guest Login” provided in the e-Procurement portal. The link to e-Procurement portal has also been provided through OIL’s web site [www.oil-india.com](http://www.oil-india.com).





**OIL INDIA LIMITED**  
**(A Government of India Enterprises)**  
**4, India Exchange Place**  
**Kolkata -1**

TELEPHONE NO. (033) 22301657

FAX NO: (033) 22302596

Email: [oilcalmn@dataone.in](mailto:oilcalmn@dataone.in); [oilcalmn@oilindia.in](mailto:oilcalmn@oilindia.in)

**FORWARDING LETTER**

Tender No & Date : **SKI 5250P15 dated 03.11.2014**

Tender Fee : **Rs 1,000.00**

Bid Security Amount : **Rs 156000.00**

Bidding Type : **Single Stage Composite Bid**

Bid Closing on : As mentioned in the Basic Data of e-portal

Bid Opening on : As mentioned in the Basic Data of e-portal

Performance Guarantee : Applicable

Integrity Pact : Applicable

Delivery Required : **At DULIAJAN, ASSAM**

OIL invites Bids for **Online IR Filter along with installation and commissioning as per Annexure II** through its E-Procurement site. The bidding documents and other terms and conditions are available at Booklet No. MM/CALCUTTA/E-01/2010. 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.**

The tender is invited with firm price for the specified quantity. Further details of tender are given below:-

1. Details of Items with Quantity and Unit of measure are as under:

SLNO & MATERIAL CODE	MATERIAL DESCRIPTION.	QUANTITY	UNIT
10 ----- <b>0C000187</b>	<b>Online IR Filtration plant</b>	04	NO.
20 -----	<b>Installation &amp; Commissioning</b>	01	AU.

**The tender will be governed by:**

- a) "General Terms & Conditions" for e-Procurement as per Booklet NO. MM/CALCUTTA/E-01/2010 for E-procurement (LCB Tenders).
- b) Technical specifications with BEC/BRC as per **ANNEXURE II** .
- c) The prescribed Bid Forms for submission of bids are available in the Technical RFx -> External Area -> Tender Documents.
- d) In the event of receipt of only a single offer against the tender within B.C. date, OIL reserves the right to extend the B.C. date as deemed fit by the Company. During the extended period, the bidders who have already submitted the bids on or before the original B.C. date, shall not be permitted to revise their quotation.
- e) 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).
- f) Bidder are advised to fill up the Technical bid **CHECK LIST** and **RESPONSE SHEET** given in MS excel format in Technical RFx -> External Area -> Tender Documents. The above filled up document to be uploaded in the **Technical RFX** Response.

**g) Integrity Pact :**

OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide **Annexure V** of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL's competent signatory. The proforma has to be returned 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. In the event bidder declines to submit the integrity pact, their offer shall be rejected straightaway. 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 signs the Bid

**The name of the OIL's Independent External Monitors at present are as under:**

- i) **SHRI N. GOPLASWAMI, I.A.S. (Retd.),  
Former Chief Election Commissioner of India  
E-mail Id : [gopaldaswamin@gmail.com](mailto:gopaldaswamin@gmail.com)**
- ii) **SHRI RAMESH CHANDRA AGARWAL, IPS (Retd.)  
Former Director General of Police  
E-mail Id : [rcagarwal@rediffmail.com](mailto:rcagarwal@rediffmail.com)**

Special Note:

1.0 General Qualification Criteria:

In addition to the general BRC/BEC, following criteria on Bidders' Experience and their financial capabilities shall be considered (documentary evidence to be provided along with the bid in Technical RFx -> External Area -> Tender Documents as on the Bid Closing Date:

- a) **Bidder should have experience of successfully executing similar order for atleast **Rs 46.8 Lakhs** during last 3 years as on the Bid Closing Date.**
- b) **Annual financial turnover of the firm in any of the last 3 financial years or current financial year should not be less than **Rs 156.00 Lakhs**.**

2.0 Application showing full address / e-mail address with Tender fee (non-refundable) of ₹ 1000.00 per tender (excepting PSU and SSI units registered with NSIC) by Demand Draft in favour of M/s. Oil India Limited payable at Kolkata and to be sent to Head-Calcutta Branch, Oil India Limited, 4, India Exchange Place, Kolkata – 700 001. Application shall be accepted only upto one week prior to Bid Closing date. The envelope containing the application for participation should clearly indicate “REQUEST FOR ISSUE OF USER ID AND PASSWORD FOR E TENDER NO **SKI5250P15**” for easy identification and timely issue of authorisation.

Alternatively, applicants already having User ID & Password for OIL's e-portal can pay the requisite tender fee and bid security against this tender through the online payment gateway.

On receipt of request from applicants who do not have USER\_ID and initial PASSWORD, it will be communicated to the bidder (through-e-mail) and will be allowed to participate in the tender through OIL's e-Procurement portal on payment of requisite tender fees. No physical tender documents will be provided. USER\_ID AND INITIAL PASSWORD WILL BE ISSUED TILL ONE WEEK PRIOR TO THE BID CLOSING DATE.

PSU's and SSI units registered with NSIC claiming exemption from payment of tender fee should submit their request with all credentials at least 7 days prior to bid closing date for participation in the tender.

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 **Head-Calcutta Branch, Oil India Limited, 4, India Exchange Place, Kolkata – 700 001** only 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 triplicate

- 4.0 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.
- 5.0 All the Bids must be Digitally Signed using “Class 3” digital certificate (e-commerce application) with organisation name 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.
- 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 The tender shall be governed by the Bid Rejection & Bid Evaluation Criteria given in enclosed Annexure-II. However, if any of the Clauses of the Bid Rejection Criteria / Bid Evaluation Criteria contradict the Clauses of the tender and / or “General Terms & Conditions” as per Booklet No. MM/CALCUTTA/E-01/2010 for E procurement (LCB Tenders) to General Terms and Conditions for Indigenous E-Tender elsewhere, those in the BEC / BRC shall prevail.
- 9.0 Please do refer the User Manual provided on the portal on the procedure How to create Response for submitting offer.

**NOTE:**

**Bidders should submit their bids explicitly mentioning compliance / non compliance to all the NIT terms and conditions.**

Yours Faithfully,

Sd-  
(Prayas Chakravorty)  
DMM(P)  
For Head-Calcutta Branch



**OIL INDIA LIMITED**  
(A Government of India Enterprise)  
4, India Exchange Place, 4<sup>th</sup> floor,  
Kolkata 700001  
West Bengal (India)

TELEPHONE NO. (033) 2230 1657 / 58 / 59

FAX NO:(033) 2230 2596

Email : [oilcalmn@oilindia.in](mailto:oilcalmn@oilindia.in)  
[oilcalmn@dataone.in](mailto:oilcalmn@dataone.in)

### ANNEXURE-II

Tender No& Date : SKI5250P15 Dated 03.11.2014

OIL INDIA LIMITED invites Indigenous tenders for items detailed below:

#### TECHNICAL SPECIFICATIONS WITH QUANTITY

SLNO & MATERIAL CODE	MATERIAL DESCRIPTION.	QUANTITY	UNIT
10 ----- <b>0C000187</b>	<b>Online IR Filtration Plant</b>	04	NO.
20 -----	<b>Installation &amp; Commissioning</b>	01	AU.

#### Technical Specifications

I) The Minimum Parameter of the Plant:

- a. Capacity of the Plant: 20 m<sup>3</sup>/hr
- b. Inlet Water Pressure to the Plant: 2.5-3.5 Kg/cm<sup>2</sup>
- c. Raw Water (Bore-Well Water)

II) Specification of Bore Well Water:

- Ø Appearance- Turbid
- Ø Turbidity-90 NTU

- Ø pH - 6.07
- Ø Total Hardness (as CaCO<sub>3</sub>)-100
- Ø Carbonate - Nil
- Ø Alkalinity (as CaCO<sub>3</sub>)-140 ppm
- Ø Chloride - 15.0 ppm
- Ø Bicarbonate - 128.0 ppm
- Ø Silica - 38.0 ppm
- Ø Iron - 10.0 ppm
- Ø Total Dissolved Solids - 176.0 ppm

III) Filter water output from the IR Filtration Plant must be Potable as per BIS-10500 (latest edition). On commissioning of the plant the filtered water should be tested at our chemical laboratory to ascertain its quality as per requirement of BIS-10500 (latest edition) before handing over the plant to OIL.

IV) Chemical to be used for Filtration Process: Soda Ash, Bleaching Powder & Lime. The plant is to be designed for processing the raw water to the quality of the potable water as per BIS-10500 using these chemicals.

V) The Plant should be designed for Automatic operation; however there should be provision of manual Operation also.

VI) The Plant should comprise of the following Items

a. Suitable Oxidation Chamber: which has to be fabricated as per IS-2825 # 8 mm shell & 10 mm dish-end thickness with necessary internal arrangement and initial charging media (MnO<sub>2</sub>).

b. Depending upon quality of raw water, the supplier may be required to design a suitable industrial pre-filtration chamber for the offered Iron Removable Plant as per applicable BIS standards. In this regard, the bidder must submit the printed technical literature along with the offer. In case the pre-filtration chamber is essential and required to be installed for the offered plant, the same needs to be approved by the company.

c. Suitable Iron Removal Filter: Size: 2000 mm Dia x 2500 mm HOS (approx.) to be fabricated as per IS-2825 # 10 mm shell & 12 mm dish-end thickness. The filter should have atleast two large manholes (one at the top and other one on the shell of the chamber) apart from other essential ports required for carrying out easy and safe maintenance by the working personnel.

d. Chemical dosing tank and pumps for chlorination with bleaching powder and other necessary chemicals like Soda & Lime. Operating on differential pressure created by the insertion of orifice plate/venturi tube of suitable design.

e. Necessary inter-connecting pipe-work and valves fittings. There shall be provision of manual by-pass against each automatic valve on line.

f. Necessary electrical and instrument cabling for control panel cabinet, etc. to be laid overhead.

g. Oxidation Chamber & Dual Media Filter to be fabricated with MS and to be as per IS-2825.

h. Valves & Fittings to be supplied along with the plant should be of reputed make with ISI marking and to be approved by us.

i. Pipes & pipe fittings: Pipes and pipe fittings required for water (galvanised) and air (MS) lines connections in the IR filtration plant must conform to BIS: 1239(Part-I: latest edition).

j. Valves & Pressure Gauges and other fittings required for the plant.

k. On-line pH meter at the outlet.

l. On-line flow meter at the inlet of the system.

m. Air Compressor: Air Compressor should be Motor Driven Reciprocating type. Air Compressor and motor are to be unitized through "V" belt drive and will be mounted on the Air Receiver. The complete unit is to be mounted on an Integral robust MS skid with necessary foundation bolt. Non-sparking type guard should be placed over rotating belt drive pulleys. Receiver should be fabricated as per IS IS-2825 and also should be hydraulically tested at a pressure 1.5 times of the working pressure. The test certificate is to be supplied along with the supply.

n. Two (2) Years mandatory spares required for maintenance of pumps, solenoid valves, air compressors spares, pneumatic valves, pressure gauges, filter media, instrumentation, electrical etc should be supplied along with supply. These mandatory spares are to be packed separately in water proof conditions.

#### VII. Instrumentation Details:

Following are the minimum instrumentation and control system requirement for online IR Filtration system.

1. Complete operation of the iron removal filter will be controlled by using Programmable Logic Controller (PLC) with graphic display (Panel view) facility for display of mimic & alarm of all critical parameters and safety shutdown system.

2. Supply Voltage for the control system will be 230 V AC, 50 Hz, Single phase. Necessary conversion to 24VDC or other forms if required shall be in supplier's scope.

3. Raw Water tanks will be fitted with low & high level switches for alarm and automatic operation of bore-well /feed pumps and dosing pumps. Level switches should be suitably mounted on the body of the raw water tank.

4. Over-head water tanks will be fitted with low & high level switches for alarm and automatic operation of feed water pumps. Level switches should be suitably mounted on the body of the over head water tank.

5. Provision of auto/manual operation for all pumps to be provided by the supplier.

6. The PLC Based Controls will be enclosed in a control panel conforming to minimum IP 54 as per IEC60529. The control panel will have provisions for auto / manual operation, pumps start/stop push buttons, pump running status indications, etc.

7. The control panel will be rigidly mounted on a structure. Canopy is required to protect the same from sun and rain. The bidder has to submit drawing for the same along with the quotation.

8. The Supplier shall supply all necessary Cables to connect all the instruments with the control system .The cable shall be armored (1.5 sq.mm for control & 2.5 sq.mm for power, stranded, tinned copper) and reputed make. The cable shall be laid on cable trays and suitably clamped.



9. Suitable cable entry arrangement with detachable gland plate(s) and adequate nos. suitably sized single compression, nickel plated brass/SS glands shall be provided for terminating the incoming / outgoing cables.

10 All cable entries shall be from bottom of the panel.

11. The design and drawings of the control panel and instrumentation system to be sent to OIL for necessary approval prior to manufacturing.

12. The bidder has to provide all necessary SS tubes & fittings, SS cable glands, pressure gauges etc. as and where required.

13. Instruments shall be mounted on 2" pipe with canopy wherever required.

14. The Bidder must mention in their offer the "Make" and "Model No or OEM Part No" of all instruments including PLC and Display unit. The Bidder should provide all technical brochure/catalogue/ drawing etc. along with their offer.

15. In addition to above, Bidder may include in their offer any items/parts if required for control & display of critical parameter and safe operation & shutdown of their offered IR Filtration system.

Preferred VENDOR List for instrumentation items:

Cable: KEI, THERMOPADS, DELTON CABLES, FINOLEX,

Pressure Gauge: ASHCROFT, ODIN, WIKA, WARREE

Pressure Transmitter: EMERSON, ABB, HONEYWELL, YOKOGAWA

Pressure switch: INDFOSS, DANFOSS, SWITZER

Temperature Gauge: ASHCROFT, ODIN, WIKA, WARREE

Temperature Transmitter: EMERSON, ABB, HONEYWELL, YOKOGAWA

PH meter: EMERSON, ABB,

Turbidity meter: EMERSON, ABB

Solenoid valve: ASCO, ROTEX

PLC: Allen Bradley.

Control cabinet: RITTAL

VIII. Electrical Item Description

(A) Motor's capacity for Air Compressor: As per plant capacity, to be decided by supplier.

The motor shall have the following specification:

Type : 3 phase, AC squirrel cage induction motor conforming to BIS 325.

Rated input: As per plant capacity

Enclosure: TEFC with Degree of protection - IP55

Insulation: Class F, with winding temperature rise limited to value specified for class B insulation.

Ambient : Suitable for 40° C max, 5° C min, 150 m Alt, 95% RH

No of phases: 3

Voltage : Motor shall be suitable for  $415 \pm 6\%$  volts, 3-phase, 50 cycles. AC supply and should withstand high voltage fluctuation.

Frequency: 50 HZ  $\pm$  3%

RPM : To match driven load

Duty : Continuous (S1)

Mounting : Horizontal, foot mounted

Bearing : Ball / Roller bearing at DE & NDE

Starting : Star delta

Switching : 15 Starts /Hr

(B) Terminal Box: Cable terminal box with brought out terminals suitable for terminating 2 nos. 3 core PVCA aluminum cables (of rated capacity to match motor starting/running amps) and 2 nos. cable entry holes. The brought out terminals shall be of brass and mounted on non - hygroscopic insulation (FRP or DMC) suitable for climate.

Glands: 2 (two) no of weatherproof, heavy duty, single compression, nickel plated brass glands shall be supplied with the motor, matching the motor cable size.

Earthing : Two nos. of earthing studs to be provided on both sides of the motor. Earthing system for the motor shall be as per the IS: 3043.

Lifting Eye : One no. lifting hook shall be provided for lifting the motor.

Markings : Name plate details with name of manufacturer, frame size, rated voltage, rated output, current, frequency, type of duty, class of insulation, no. of phases, speed in rpm, winding connection, ambient temperature, bearing sizes, lubricant, lubrication material and year of manufacturing, CMRI certification details.

Paint: Two coats of DA grey paint

Make: BharatBijlee / Crompton Greaves / KEC / Siemens / NGEF.

(C) Specification of Starter Control Panel:

The Starter Control panel shall be suitably designed for the application and HP rating of the pump. The starter panel shall be sheet steel clad, totally enclosed, dust & vermin proof, self supporting and floor mounting, cubicle type, made of 14 SWG CRCA sheet built upon suitably sized MS angle iron/channel frame, having front hinged door, ventilation louvers, pad locking arrangement, lifting hooks, bottom detachable gland plates, 2 nos. of earthing studs on opposite sides with suitably sized zinc plated & passivated double nuts and spring washers, the Panel shall be thoroughly cleaned by seven tank anti corrosion treatment before and then powder coated with siemens DA grey paint as per BIS. Painting thickness shall be minimum 50 micron, danger plate and as fully described below:

The starter Control Panel Specifications are as follows:

The starter control panel shall be industrial type, self-supporting, floor mounting, built with rigid framework of suitable size MS Angle/Channel of sufficient strength, dust and vermin proof

made of 14SWG CRCA sheet steel, cubicle type, having front hinged door with locking arrangement, danger plate fitted on body of the panel, lifting hooks on top, ventilation louvers with perforated sheet on both sides, double earthing studs on two sides(both inside and outside) complete with suitably sized zinc plated & passivated double nuts and spring washers. The panel shall be thoroughly treated in a minimum nine tank anti-corrosion treatment plant before and then powder coated with DA grey paint as per BIS. Painting thickness shall be minimum 50 micron.

The Starter Control Panel shall have:

1. 1 no. MCCB unit as incomer (rating as per motor running/starting current calculation), and suitable cable entry arrangement with brought out terminals for terminating the incoming cable. The MCCB shall have thermal magnetic overload/short circuit protection with adjustable settings. Earth leakage protection, in the form of built-in/add-on module or separate earth leakage sensing relay-CBCT combination shall be provided in the outgoing portion of the MCCB. Earth leakage current setting shall be adjustable in steps from 0.03 to 3.0 Ampere and time setting shall also be adjustable in steps from 0 to 5 seconds. The earth leakage relay/unit shall have indication LEDs, test push button, reset push button and shall be duly wired up to trip starter in case of earth leakage.

Make: Schneider/Siemens/Legrand/GE/ABB

2. 3 nos. Power contactors, rating as per motor current requirement, AC3 duty, heavy duty long life type, with 4NC + 4NO auxiliary contacts. Make: Schneider/Siemens/GE/ABB

3. Thermal overload relay (Range as per motor current) with inbuilt single phase preventor.

Make: Schneider/Siemens/Legrand/ GE/ABB

4. Electronic time delay relay (0-30sec). Make: Siemens/L&T/ Schneider/ABB

5. Auto/Manual selector switch: An Auto/Manual selector switch will be provided for automatic/manual operation selection. Make:

Kaycee/L & T.

6. START/STOP push buttons with terminals for auto/manual Start / Stop facility. Make: Siemens/L & T/GE/Schneider

7. Metering & indication: The panel shall have meters and indication for the following information:

\* Voltage of all three phases through digital voltmeter with inbuilt voltmeter selector switch (make: Voltmeter-AE/Conzerv), size 96mmX96mm, class of accuracy 0.5

\* Motor Current of all three phases through cast resin type CTs of rating 50/5, class of accuracy 0.5, Digital ammeter with inbuilt selector switch (make: Ammeter-AE/Conzerv, CT-Kappa/Siemens/Conzerv)), size 96mmX96mm

\* Indications: LED type indicating lamps with complete fittings, with legend plate for 'Motor Run', 'Motor Off', 'Motor Trip on Fault'(make: Teknic/Binoy).

\* Auxiliary power supply of digital voltmeter and ammeter shall be 230 V AC

8. Tinned copper brought out terminals shall be provided for all cable connections including terminals for remote push buttons and shall be supplied with Dowell's make tinned copper crimping lugs for each conductor of all cables.

8. Suitable cable entry arrangement with detachable gland plates and adequate nos. of single compression, heavy duty nickel plated brass/SS glands shall be provided for terminating the incoming (4 core) and outgoing (3 core, 2 nos.) PVCA, aluminium cables including cables for remote push buttons (3 x 2.5 sq mm, PVCA aluminium). All cable entries shall be from bottom and detachable gland plate for all cable entries shall be at a min. height of 450mm from floor level. The sides of the cable entry box shall be parallel and not tapered.

(D) Motor Specification for Iron Removal Filter: As per plant capacity, to be decided by supplier.

The motor shall have the following specification:

Type: 3 phase, AC squirrel cage induction motor conforming to BIS 325.

Rated input: As per plant capacity

Enclosure: TEFC with Degree of protection - IP55

Insulation: Vacuum pressure impregnated. Class F with winding temperature rise limited to value specified for class B insulation.

Ambient: Suitable for 40° C max, 5° C min, 150 m Alt, 95% RH

No of phases: 3

Voltage: Motor shall be suitable for 415 ± 6% volts, 3-phase, 50 cycles. AC supply and should withstand high voltage fluctuation.

Frequency: 50 HZ ± 3%

RPM: To match driven load

Duty: Continuous (S1)

Mounting: Horizontal, foot mounted

Bearing: Ball / Roller bearing at DE & NDE

Starting: DOL

Switching: 15 Starts /Hr

(E) Terminal Box: Cable terminal box with brought out terminals suitable for terminating 3 core PVCA aluminium cables and 1 no. cable entry hole. The brought out terminals shall be of brass and mounted on non - hygroscopic insulation (FRP or DMC) suitable for climate.

Glands: 1 (one) no of weatherproof, heavy duty, single compression, nickel plated brass gland shall be supplied with the motor.

Earthing: Two nos. of earthing studs to be provided on both sides of the motor. Earthing system for the motor shall be as per the IS: 3043.

Lifting Eye: One no. lifting hook shall be provided for lifting the motor.

Markings: Name plate details with name of manufacturer, frame size, rated voltage, rated output, current, frequency, type of duty, class of insulation, no. of phases, speed in rpm, winding connection, ambient temperature, bearing sizes, lubricant, lubrication material and year of manufacturing, CMRI certification details.

Paint: Two coats of DA grey paint

Make: Bharat Bijlee / Crompton Greaves / KEC / Siemens / NGEF.

(F) Specification of IR filter starter Control Panel:

The starter control panel shall be industrial type, self-supporting, floor mounting, built with rigid framework of suitable size MS Angle/Channel of sufficient strength, dust and vermin proof made of 14SWG CRCA sheet steel, cubicle type, having front hinged door with locking arrangement, danger plate fitted on body of the panel, lifting hooks on top, ventilation louvers with perforated sheet on both sides, double earthing studs on two sides(both inside and outside) complete with suitably sized zinc plated & passivated double nuts and spring washers. The panel shall be thoroughly treated in a minimum nine tank anti-corrosion treatment plant before and then powder coated with DA grey paint as per BIS. Painting thickness shall be minimum 50 micron.

The Starter Control Panel shall have:

1. 1 no. MCCB unit as incomer (rating as per motor running/starting current calculation), and suitable cable entry arrangement with brought out terminals for terminating the incoming cable. The MCCB shall have thermal magnetic overload/short circuit protection with adjustable settings. Earth leakage protection, in the form of built-in/add-on module or separate earth leakage sensing relay-CBCT combination shall be provided in the outgoing portion of the MCCB. Earth leakage current setting shall be adjustable in steps from 0.03 to 3.0 Ampere and time setting shall also be adjustable in steps from 0 to 5 seconds. The earth leakage relay/unit

shall have indication LEDs, test push button, reset push button and shall be duly wired up to trip starter in case of earth leakage.

Make: Schneider/Siemens/Legrand/GE/ABB

2. 1 no. Power contactor, rating as per motor current requirement, AC3 duty, heavy duty long life type, with 4NC + 4NO auxiliary contacts. Make: Schneider/Siemens/GE/ABB

3. Thermal overload relay (Range as per motor current) with inbuilt single phase preventor. Make: Schneider/Siemens/Legrand/ GE/ABB

4. Auto/Manual selector switch: An Auto/Manual selector switch will be provided for automatic/manual operation selection. Make: Kaycee/L & T.

6. START/STOP push buttons with terminals for auto/manual Start / Stop facility. Make: Siemens/L & T/GE/Schneider

7. Metering & indication: The panel shall have meters and indication for the following information:

\* Voltage of all three phases through digital voltmeter with inbuilt voltmeter selector switch (make: Voltmeter-AE/Conzerv), size 96mmX96mm, class of accuracy 0.5

\* Motor Current through cast resin type CTs of rating 50/5, class of accuracy 0.5, analog/Digital ammeter (make: Ammeter-AE/Conzerv, CT-Kappa/Siemens/Conzerv)), size 96mmX96mm. CT to be in yellow phase.

\* Indications: LED type indicating lamps with complete fittings, with legend plate for 'Motor Run', 'Motor Off', 'Motor Trip on Fault'(make: Teknic/Binoy).

\* Auxiliary power supply of digital voltmeter and ammeter shall be 230 V AC

8. Tinned copper brought out terminals shall be provided for all cable connections including terminals for remote push buttons and shall be supplied with Dowell's make tinned copper crimping lugs for each conductor of all cables.

8. Suitable cable entry arrangement with detachable gland plates and adequate nos. of single compression, heavy duty nickel plated brass/SS glands shall be provided for terminating the incoming (4 core)and outgoing (3 core, 2 nos.) PVCA, aluminium cables including cables for remote push buttons (3 x 2.5 sq mm, PVCA aluminium). All cable entries shall be from bottom and detachable gland plate for all cable entries shall be at a min. height of 450mm from floor level. The sides of the cable entry box shall be parallel and not tapered.

General Notes on starters:

1. The Starter Control Panel shall be weatherproof with IP55 degree of protection.

2. The panel shall be thoroughly cleaned before applying 2 coats of rust preventing primer followed by 2 coats Siemens gray paint.

3. Bus bars of main power connection shall be 100 A tinned copper bars duly sleeved with heat shrinkable PVC sleeves. Bus bars used for the neutral shall be of same cross section as that of phases.

4. Control wiring shall be done with single core, 2.5 mm<sup>2</sup>, PVC insulated, stranded, 660V/1100V grade copper wires. The control voltage shall be 230VAC, 50 Hz.

5. Panel shall have Moulded fuse holders, suitably fused, for control & instrument circuits. Make: GE/Siemens

6. All wires shall have ferrule numbers for proper identification. Wire ends shall have proper size tinned copper lugs for termination.

7. Legend plates for the indication lamps, meters, control switches / buttons and labels for the terminals shall be provided.

8. Sufficient space shall be provided in the starter for cable termination, dressing and connecting cable leads to the brought out terminals.

9. The starter panel shall be inspected & tested at the manufacturers' premises before dispatch.

10. The starters shall be guaranteed for 1 (one) year from the date of supply. Guarantee certificates shall be duly signed and stamped by the supplier and shall be provided along with the supply.

DOCUMENTS:

1. Bidder shall furnish every detail of the electrical items in their offer as per the above specifications IN THE SAME ORDER. All of the above shall form part of the order acceptability. Specific type and make of components should be mentioned clearly. Any deviation must be clearly mentioned and justification shall be given. No deviation shall be allowed at the time of supply and in such case the order will be cancelled without any liability to OIL. In case of such cancellation oil may recover from the bidder the cost incurred by oil in processing the tender till the time of cancellation.

2. The following documents shall be submitted with the offer

\* Indicative GA and dimensional drawing of the starter panels.

\* Indicative Power and control circuit diagrams with Bill of materials and technical details of various components of the Starter Control Panel.

3. The successful bidder shall obtain approval for the drawings prior to manufacturing of equipment/panel

\* GA and dimensional drawing of all equipment.

\* Power and control circuit diagrams with BOM

The manufacture of the unit is to be started only after written approval of the drawings by OIL.

4. Four bound sets of the following documents, shall be submitted with the supply

\* Approved GA and dimensional drawing of all equipment.

\* Approved Power and Control circuit diagrams.

\* Bill of materials with technical details of various components of the Starter Control Panel.

\* List of recommended spares for two years.

\* Technical details/catalogue of the motor.

\* All test certificates.

\* Guarantee Certificates

6. One laminated copy of the approved power & control circuit drawing shall be pasted inside of the front door of the Starter Control Panel.

#### TRANSPORTATION:

During transportation all electrical equipment are to be suitably packed to avoid water ingress or transit damage.

#### **SPECIAL TERMS & CONDITIONS:**

##### A) Supplier's Responsibility:

1.0 The bidder at its own cost may inspect the sites and examine and obtain all information required and satisfy himself regarding all matters such as transport and facilities required for the satisfactory completion of work at sites.

2.0 The bidder shall be responsible for design & engineering, supply, installation and commissioning of automatic iron removal plant which shall be capable of bringing down the quality of raw water (Refer to Item Description) to the potable water standard as per BIS:10500(latest edition). The bidder should enclose the printed technical literature of the offered Plant. The technical literature should clearly show the design parameters of the offered plant. The bidder shall be required to install & commission the Iron Removal Filtration plants at sites as per requirement of OIL.

3.0 The bidder must confirm in their offer that the offered IR Filter Plant is capable of bringing down the raw water quality (Refer to ITEM DESCRIPTION) to the quality of Potable water as per BIS: 10500 Standard(latest edition).

4.0 The supplier has to provide warranty for the whole IR Filter system including all instruments and control system for 18 months from the date of supply or 12 months from the date of commissioning, whichever is earlier. Any equipment including all instruments & control systems,

if found defective/damaged/malfunctioning during the warranty period, should be replaced/repaired at supplier's cost.

5.0 The supplier has to provide one mandatory inspection cum servicing for the each IR Filtration system free of cost during the warranty period. In addition to this, the supplier has to rectify the system during the warranty period for any equipment failure/malfunctioning including all instruments & control systems.

6.0 The supplier has to provide two sets of Operation & Maintenance Manuals, P&ID diagram, wiring diagram of control panel and individual instrument catalogue, license copy of software if any (single copy) for the plants along with the equipments in hard as well as soft copy. The supplier should provide the spare parts list along with part nos. of the equipments which will be installed for the Iron Removal Plant along with the delivery of materials.

7.0 The supplier has to provide Guarantee Certificate along with the supply.

8.0 The Bidder has to provide the complete design basis, justification & control philosophy of the automatic Iron Removal Filter Plant along with the technical bid. The Plant is required to be designed in such a way that it can be operated at its full capacity in manual as well as automatic mode as per requirement of OIL. Therefore, provision for smooth switching over from one mode to other (manual to automatic and vice versa) must be there to take care of our operational requirements at site as when required.

9.0 The bidder must submit an undertaking confirming that the equipment to be supplied are not going to become obsolete for the next 10yrs and provisioning of spares can be continued for next 10yrs.

#### 10.0 TRAINING:

The successful bidder shall have to impart following trainings:

10.1 A comprehensive training for a minimum of 2 (TWO) OIL's Engineers shall be provided free of cost on operation and maintenance of the Plant and Control system at their works prior to dispatch.

10.2 Training on operation and maintenance of the IR Plant Setup shall be imparted to OIL personnel immediately after installation and commissioning of the plants in each site. The Training is to be imparted by the supplier at their own cost in each location wherever the IR plant will be installed and commissioned. The duration of training programme shall be of one week.

11.0 Quoted price should be inclusive of design, supply, erection & commissioning of the plant.

12.0 The supplied product shall not be obsolete for the next 10yrs and provisioning of the spares shall be continued for next 10yrs.

13.0 The bidder has to indicate the list of fast moving consumables/ spares for operation of the plant for next 2yrs. The list should contain the relevant part no & the required quantity along with unit rate required for 2 yrs operation.

14.0 The bidder must provide the followings along with the offer: (i) Layout (ii) P&I Drawing (iii) Foundation Drawings (iv) Control Philosophy for Automation.

15.0 Total power requirement to be mentioned in the technical bid.

16.0 Cabling for Electrical and Instrumentation connections required for installation and commissioning of IR Filters must be overhead and firm & permanent supports to be made for the cables.

17.0 The supplier shall be required to provide the detailed engineering drawings for foundation, civil works, etc. for the IR Plant to be installed before dispatch of the materials.

18.0 If required, the bidder is required to give a presentation of their offered product at Duliajan. The presentation should include the working principle of the offered product and describe complete design of the IR Filtration system including instruments and control system. The presentation shall be scheduled after opening of the technical bid and shall be intimated by OIL.

B) List of support/service that OIL will provide:

1.0 OIL India Limited will supply raw water and welding set near the site.

2.0 OIL India will provide all the necessary input power to the plant.

C) PRE-DESPATCH INSPECTION:

1.0 OIL's Engineers/representatives will inspect IR Plant items at manufacturer's workshop prior to dispatch. The supplier must extend all infrastructures/facilities for inspection.

2.0 OIL shall bear the cost of travel, boarding & lodging arrangements for the deputed OIL's representative for the inspection purpose.

3.0 The supplier shall provide detailed Quality Assurance Plan (QAP) for the IR Plant Setup before inspection call which shall be approved by OIL. The pre-dispatch inspection shall be carried only on prior approval of QAP by OIL.

4.0 The Supplier has to inform OIL at least 15 days in advance for the inspection at manufacturer's work.

D) PROVEN TRACK RECORD:

The Offered IR Plant must have proven track record of satisfactory running of the plant from the date of commissioning. Documentary evidence from the end user should clearly mention the Model/Capacity of the IR Plant and also the satisfactory running of the product to the potable water standard as per BIS 10500.

Note: (i) For supply to OIL, copies of Purchase Order of the offered plant shall have to be submitted along with the offer. The proven track record of the product in this case shall be evaluated at our end based on the performance against the OIL's Purchase Order.

E) Annual Maintenance Contract:

1.0 After warranty period, OIL intent to enter into separate comprehensive Annual Maintenance Contract (AMC) with the supplier for a period of 03 (three) years. However, OIL reserves the right to enter in to the same at its sole discretion. Therefore, the bidder has to mandatorily quote the AMC charges separately for the following type of maintenance jobs (Ref. para 2.0 (a) & (b) below) including all spares and materials required for carrying out preventive maintenance of



the plant. Comprehensive Annual Maintenance Contract (AMC) charges shall be considered for Bid evaluation.

2.0 Comprehensive Annual Maintenance Contract (AMC) shall include two types of jobs (a) Preventive maintenance jobs (b) Break down maintenance jobs. The Service /maintenance Engineer has to attend the IR Setups for Preventive Maintenance periodically twice in a year for each setup and also to attend the breakdown report within 48 hrs of call at OIL's Operational areas at Duliajan as and when required. No transport & accommodation will be provided by OIL.

3.0 Service/maintenance Engineer shall maintain requisite stock of maintenance spares to rectify the fault within 48 hours.

4.0 Payment against AMC:

4.1 Payment of AMC charges will be made after completion of every 6 months against invoice. Bidder to note that AMC will commence after the end of warranty period.

4.2 Penalty clause of AMC: Duration of breakdown

- a) Up to 2 days (48 hours after reporting): Penalty = Nil
- b) Greater than 2 days but less than 7 days: Penalty = 2% of AMC
- c) Greater than 7 days but less than 15 days: Penalty = 5% of AMC
- d) Beyond 15 days: Penalty :Total Cost of repair/replacement of the part or whole machine as required whichever is more shall be recovered from the supplier.

F) SAFETY

1. Supplier must adhere to all safety norms as laid by OIL during erection of the plant.
2. Supplier has to submit safe working procedure for plant erection and has to be approved by OIL authority.
3. All work should be done only in OIL's normal working Hours.

G) SECURITY

Security for both men & machines are to be arranged by the supplier till the plant is commissioned.

H) PACKING:

During transportation all the equipment of the plant are to be suitably packed to avoid water ingress or transit damage.

## **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/CALCUTTA/E-01/2010 for E-Procurement LCB 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/CALCUTTA/E-01/2010 elsewhere, those in the BRC / BEC shall prevail.

## **BID REJECTION CRITERIA**

(A) The bid must conform to the specifications and terms and conditions given in the enquiry. Bids shall be rejected, in case the item(s) offered do not conform to the required minimum/maximum parameters stipulated in the technical specifications and to the respective national standards wherever stipulated. Notwithstanding the general conformity of the bids to the stipulated specifications and terms and conditions, the following requirements shall have to be particularly met by the bidders, without which the offer will be considered as non responsive and rejected.

#### 1.0 TECHNICAL:

1.1 The bidder must be either a manufacturer of the Iron Removal Filtration Plant (OEM) or their authorized dealer. In case the bidder is an authorized dealer, the bidder must submit the copy of valid dealership certificate from OEM along with the bid.

1.2 The bidder should have experience of successfully executing similar order for at least of Rs 46.8lakh during last 03 years as on bid closing date to companies under the Government, Semi Government, Public sector undertakings or Public Limited companies. Documentary evidence as per following note must be submitted along with the offer, failing which the offer will be rejected.

#### Note:

1.2.1 Similar Order means Order for supply, installation & commissioning of Automatic Iron Removable Filtration Plant of minimum 20 kl/hr capacity or above in Govt/Semi-Govt. organizations, PSU & Public Limited Company.

1.2.2 In support of documentary evidence, the bidder must submit the copy of purchase order (PO)/invoice against PO/completion certificate issued by the user along with the bid.

1.2.3 For authorized dealer, documentary evidence towards execution of order by their principals (manufacturer) shall be acceptable.

2.1 The Annual financial turnover of the firm in any of the last 3 financial years or current financial year should not be less than Rs 156.00 lakh. In support of annual financial turnover, any one of the following documents/photocopies (self attested/attested) must be submitted along with the bid:

- A certificate issued by a practicing chartered/cost accountants firm with membership no. certifying the annual turnover and nature of business.
- Audited balance sheet and profit & loss account

#### **B:COMMERCIAL**

- i) **Bid security of Rs 156,000.00** is to be submitted in the form of bank guarantee as per format given in document MM/CALCUTTA/E-01/2010 for E-Procurement LCB Tenders and is to be submitted in sealed envelope superscribed with BID SECURITY AGAINST Tender no. SKI5250P15 to **Head Calcutta Branch, Oil India Limited, 4, India Exchange Place, Kolkata-700001** only on or before the Bid Closing Date and Time mentioned in the Tender. **Alternatively bid security may be paid online through e procurement portal.** For exemption for submission of Bid Security, please refer relevant para of General Terms and Conditions vide MM/CALCUTTA/E-01/2010 for E-Procurement LCB Tenders. **The Bid Security shall be valid for six month from the date of bid opening.**

**In case of extension of Bid Closing Date against the tender where a bidder has already submitted his bid with requisite bid security validity within the original B.C. date, such bidders will extend validity of bid security covering the extended period of the bid closing date.**

- ii). 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.
- iii). Successful bidder will be required to furnish a **Performance Bank Guarantee @10%** of the order value. For exemption for submission of Performance Bank Guarantee, please refer relevant para of General Terms and Conditions vide MM/CALCUTTA/E-01/2010 for E-Procurement LCB Tenders. The Performance Bank Guarantee must be valid for one year from the date of successful commissioning of the equipment or 18 months from the date of despatch whichever is earlier. **Bidder must confirm the same in their bid. Offers not complying with this clause will be rejected.**

**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.**

- iv). **The Bank Guarantee should be allowed to be encashed at all branches within India.**
- v). 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.
- vi). Validity of the bid shall be minimum 120 days from the Bid Closing Date. Bids with lesser validity will be rejected.
- vii). Bids containing incorrect statement will be rejected.
- viii). All the Bids must be Digitally Signed using “Class 3” digital certificate (*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” digital certificate, will be rejected.
- ix). **INTEGRITY PACT:**  
OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide **Annexure V** of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL’s competent signatory. The proforma has to be returned 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. In the event bidder declines to submit the integrity pact, their offer shall be rejected straightaway. 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

**C. GENERAL:**

- i) The Compliance statement must be filled up by bidders and to be submitted/uploaded along with their bids. In case bidder takes exception to any clause of the bidding document not covered under BEC/BRC, then the Company has the discretion to load or reject the offer on account of such exception if the bidder does not withdraw/modify the deviation when/as advised by Company. The loading so done by the company will be final and binding on the bidders.
- ii) If any of the clauses in the BRC contradicts with other clauses of bidding document elsewhere, then the clauses in the BRC shall prevail.

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

**A. TECHNICAL:**

The bids conforming to the technical specifications, terms and conditions stipulated in the bidding document and considered to be responsive after subjecting to Bid Rejection Criteria (BRC) will be considered for further evaluation as per the Bid Evaluation Criteria given below.

- i) In the event of computational error between unit rate and total price, the unit rate as quoted by the bidder shall prevail.
- ii) Similarly in the event of discrepancy between words and quoted figure, words will prevail.
- iii) Evaluation will be done on 'total contract cost' basis to ascertain the lowest bid.

**B. COMMERCIAL:**

- i) To evaluate the inter-se-ranking of the offers, Assam entry tax on purchase value will be loaded as per prevailing Govt. of Assam guidelines as applicable on bid closing date. Bidders may check this with the appropriate authority while submitting their offer.
- ii) 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 to must be received on or before the dead line given by the company, failing which the offer will be summarily rejected.

**Standard Notes:**

- A. The original bid security (Amount is mentioned above and also in Basic Data of the tender in OIL's e-portal) should reach us before bid closing date and time .Bid without original Bid Security will be rejected. The bidders who are exempted from submitting the Bid Bond should attach documentary evidence in the**

**Collaboration folder as per General Terms and conditions for e-Procurement as per Booklet NO. MM/CALCUTTA/E-01/2010 for E-procurement (LCB Tenders).**

**B. "General Terms & Conditions" for e-Procurement as per Booklet NO. MM/CALCUTTA/E-01/2010 for E-procurement (LCB Tenders).**

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