Tender No. : **DID9685L11/NP**
Tender Date : **08.10.2010**
Bid Closing On : **30.12.2010 at 13:00 hrs.(IST)**
Bid Opening On : **30.12.2010 at 13:00 hrs.(IST)**

Tender issued to following parties only:

Slno	V_Code	Vendor Name	City/Country
1	200099	MULTITEX FILTERATION ENGINEERS LIMI	NEW DELHI
2	200373	THE ANUP ENGINEERING LTD.	AHMEDABAD
3	200375	UNIVERSAL HEAT EXCHANGERS LTD.	COIMBATORE
4	200745	GANSONS LIMITED	KOLKATA
5	200938	MECHEM INDUSTRIES	KOLKATA
6	201662	PETROMAR ENGINEERED SOLUTION PVT. L	MUMBAI
7	203338	PATEL AIRTEMP (INDIA) LTD.	AHMEDABAD
8	203339	HINDUSTAN DORR-OLIVER LTD ,	AHMEDABAD - 382645.
9	203505	PRECISION EQUIPMENTS (CHENNAI)	CHENNAI
10	203506	BENGAL TOOLS LTD	KOLKATA
11	204231	SUDARSHAN STEEL UDYOG (VESSEL)	TINSUKIA
12	204341	TISCO GROWTH SHOP,	JAMSHEDPUR - 831 001
13	207744	BGR ENERGY SYSTEMS LIMITED	NEW DELHI
14	208252	GRAND PRIX ENGINEERING PVT. LTD.	FARIDABAD
15	209006	R D ENGINEERS	THANE (WEST)

OIL INDIA LIMITED
(A Govt. of India Enterprise)
P.O. Duliajan-786602, Assam
E-mail:material@oilindia.in, **Fax No.**91-374-2800533

Tender No. & Date : DID9685L11/NP 08.10.2010

Bid Security Amount : INR 0.00 OR USD 0.00
(or equivalent Amount in any currency)

Bidding Type : Single Bid (Composite Bid)

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Performance Guarantee : Not Applicable

OIL INDIA LIMITED invites Limited tenders for items detailed below:

Item No./ Mat. Code	Material Description	Quantity	UOM
10 0C000637	Fabrication and supply of TWO PHASE HORIZONTAL GAS OIL SEPARATOR(STABILISER) AS PER enclosed drawing No. **OIL/3411/C** along with necessary companion flanges, stud & nuts, tubular type liquid level gauge glass assembly, control gears and accessories. NOTE: The separator will be as per specifications and Bill of materials provided below. **SPECIFICATIONS :** 1) Body style: Horizontal, cylindrical, welded, ellipsoidal dished head. Dished end shall be spun in a dished head spinning machine only. There shall be no welding in the dished ends. 2) Material of construction: All pressure plates shall be IS: 2002 Gr. 2A steel or SA-516 gr60/70 and Non pressure plates shall be IS: 2062 quality steel and others as per drg No. **OIL/3411/C** 3) Connections : As per **OIL/3411/C** 4) Design Parameters : Fluid capacity : 10,000 BBL(1800KLPD) Design pressure : 3.5 kg/cm2 Test pressure : 5.25 kg/cm2 Working pressure : 1 Kg/cm2 Working temperature : 50 deg C Design temperature : 80 deg C Gas flow rate : 0.14 MMSCMD Oil gravity : 30deg - 35 deg API Gas gravity : 0.7 to 0.8 (air = 1) Primary objective : Gas-Oil separation Design code : ASME Sec. VIII Div. 1. Radiography : Spot (10% minimum) 5) Heat Treatment : Post weld heat treatment (Stress Relieving) of the whole vessel should be	1	NO

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	carried out in an automatic temperature controlled furnace only. 6) Separator Mountings : The separator is to be equipped with the following mountings a) Control gear: Internal Ball Float Type Level Controller mounted complete assembly similar to fisher type 2500-249 cage less/Procon 231-779 and mounted pilot 779k throttle type comprising of two spring loaded valves, rocker arm (linkage assy.) pilot relay assy. to give continuous out put pressure proportional to rise or fall of liquid level inside the vessel and also reversible in action in field & comprising of float rod, lever. Counter weight, chain, adjustable screw, travel stop, & necessary link, bolt & nuts etc. with other specifications as per following: # Material : Forged ASTM, A-105 steel. # Mounting : Right hand # Function : For controlling level of crude oil of API gravity 20 to 35degree centigrade # Control function : Proportional output type # Output signal : 0.2-1kg/cm2 # Rising Level : Increase out put # Material of Float : 316 SS # Stuffing box : SS with PTFE or Graphite asbestos packing similar to # Accessories : Filter Regulator suitable for operation of natural gas at maximum 18.3.kg/cm2 with drain port at bottom. # Nominal size : 200mm (8") RF as per ANSI B16.5, 300 class rating flange # Float size : 185 mm (7.75") OD rating 3.5 kg/cm2 (50PSI) b) One - Pressure controller to suit the duty applications with following technical specifications # Type: Pneumatic, Indicating with proportional and reset action. # Range:0-3 kg/cm2 # Process fluid :Natural gas # Sensing Element:316 SS # Output: Action: Direct/Reverse Action (Field Changeable) On-Off: 125% output per % input Proportional: 0.2 to 35% output per % input Reset: 0.05 to 200 repeats per minute Differential gap: 1 to 100 % # Supply: 20 PSI # Connection: Bottom connected,1/4 inch NPT # Air Consumption:0.2 Scfm maximum # Output Pressure: 3 to 15 PSI # Case and Door: Glass epoxy reinforced Plastic # Window: Glass/Acrylic # Mounting: Vertical pipe Mount # Scale size: 160 mm # Pointer: SP&PV on the same linear scale # Repeatability: Minimum 0.3 % # Housing: Weatherproof, NEMA 3R,IP65 # Control: Internal Auto/Manual # Accessories: Door Lock Mounting Bracket for 2 inch pipe Air filter regulator (Input: 100 PSI, Output: Adjustable)		

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	2 inch, 1/4 inch 0to 30 psi Supply gauge 2 inch, 1/4 inch 0to 30 psi Output gauge c) One -Reflex type liquid level gauge complete with cocks & glass gauge suitable protected from external damage, WP (1-2.5Kg/Sq.Cm). d) Two-ASME safety relief valve rating ANSI 300 Class RF, to relief full gas capacity against atmosphere. Set Pressure # 1.1 Kg/Sq. Cm (15Psig) e) Two nos. of Pressure gauge with following specifications # Type: Direct Reading # Mounting :Local # Range : 0-3 kg/cm2 # Accuracy: +/-1.0% of span # Dial Size: 6 inch(150mm) # Dial Colour: White with black lettering # Case Material: SS316 # Lens: Laminated Safety glass lens # Pressure element: Bourdon tube # Element material: SS 316 # Socket Material: SS316 # Movement: SS316 # Connection: ½ inch NPT(M) # Connection Type: Direct with bottom entry # Operating Pressure:1 Kg/cm2 # Units: Kg/cm2 # Service: Natural Gas f) One temperature gauge with following specifications (To be supplied along with the unit, which will be used by OIL during Commissioning and installation of the vessel.) # Type: Direct Reading # Mounting: Field Mounting # Case: Material: 304SS Rotation: 360 degree rotatable on stem and adjustable to every angle # Dial: 150mm(6 Inch),white aluminum with black lettering # Scale range: 0-100 degree centigrade(With Deg F dual Scale) # Pointer: Black aluminum # Connection: Bottom # Window: Laminated safety glass lens # Nominal accuracy: +/- 1% of full scale # Sensing element: Bi-Metal strip coiled # Stem : Material : 316 SS Diameter : 08 mm Length : 135 mm with 100 mm insertion length Connector : ½ inch NPTM, SS # Ring Material : 304 SS # Thermo Well : Material : 316 SS Instrument Connection : ½ inch NPT (F), SS Process Connection : ½ Inch NPT (M), SS Bore Size: Suit to the stem diameter Bore size: Suit to the stem length # Service: Natural gas/crude oil/Water		

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	# Over temperature surge: 15 % of full scale # Protection: IP 65 # Features required: Adjustable pointer g) Accessories & Valves etc : 1 One) no. Diaphragm operated air to close type back pressure control valve 150 mm NB (6") x 150 class, suitably sized for specified gas capacity, rating ANSI 150 Class RF. Direct on line type as one complete unit to the following specification & general requirement : Body : Globe, straight, through type Body materials : Cast carbon steel (ASTM A 216 Gr. WCB) No. of ports : Double Bonnet : Plain bonnet Trim (seat ring & plug) : 316 SS with stellite facing (on seat & entire surface of the plug) Gland type : Bolted gland Seat ring & port size : Full Plug characteristic : Quick opening or throttling with linear or equal percentage characteristic Stem : Standard Stuffing box packing : Teflon V ring PTFE Diaphragm material : Chloroprene rubber with fabric reinforced Actuator type : Spring loaded pneumatic operated diaphragm (single spring) Spring range : 0.2 to 1.0 kg/cm2 (maximum) Air supply pressure : 1.4 kg/cm2 (maximum) Spring materials : Stainless steel (Cadmium plated) Mounting : Field mounted Temperature range : 5 - 60 deg C Actuator action : Reversible type End connection : Flanged type, raised face as per ANSI B 16.5 specification Air connection : 1/4 inch NPT (F) Fluid to be handled : Sweet natural gas (dry or wet) contaminated with moisture Seat leakage classification: Class IV leakage as per ANSI/FCI 70-2-1991 Standard Hysteresis error : 3% FS or less Linearity : +/- 5% FS or less Range-ability : 30:1 Action : On Air failure valve to open. Casing : Weather Proof The actuator yoke shall be provided with necessary arrangement for clamping pneumatic pressure indicating controller. b) 1 (One) no Diaphragm operated control valve with valve positioner of size 150 mm NB (6") x 150 class (air to open). The valve should be direct on line type as one complete unit to the following specification & general requirement: Upstream pressure : 3.5 kg/cm2 Body : Globe, straight, through type. Body materials : Cast carbon steel (ASTM A 216 Gr. WCB). No. of ports : Double Bonnet : Plain bonnet Trim (seat ring & plug) : 316 SS with stellite facing (on seat & entire surface of		

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Item No./ Mat. Code	Material Description	Quantity	UOM
	the plug). Gland type : Bolted gland Seat ring & port size : Full Plug characteristic : Quick opening or throttling with linear or equal percentage characteristic. Stem : Standard Stuffing box packing : Teflon V ring PTFE Diaphragm material : Chloroprene rubber with fabric reinforced Actuator type : Spring loaded pneumatic operated diaphragm Spring range : 0.2 to 1.0 kg/cm2 (maximum) Air supply pressure : 1.4 kg/cm2 (maximum) Spring materials : Stainless steel (Cadmium plated) Mounting : Field mounted Valve positioner : Required Temperature range : 5 - 45 deg C Actuator action : Reversible type End connection : Flanged type, raised face as per ANSI B 16.5 specification Air connection : ¼ inch NPT (F) Fluid to be handled : Crude oil + water Seat leakage classification: as per ANSI/FCI 70-2-1991 Standard Hysteresis error : 3% FS or less Linearity : +/- 5% FS or less Range-ability : 30:1 Action : On Air failure valve to close. Casing : Weather proof The actuator yoke shall be provided with necessary arrangement for clamping pneumatic pressure indicating controller. 6) Finishing : Vessel shall be cleaned by sand blasting followed by one coat of uniform red oxide primer and one coat of Aluminum enamel painting on outside only. The interior of the vessel shall be cleaned by sand blasting followed by one coat of suitable anti corrosive paint which can withstand a temperature upto 60 degree Centigrade. The bidder shall furnish the details of the paint to be applied along with the bid. 7) Code of practice and standard to be followed : The unit should be manufactured conforming to the following code of practices and standard. a) Separator: ASME section VIII, Div. I b) Pipe fittings, flanges etc.: ANSI B 31.3, ANSI B 16.5 c) Safety Relief Valves: ASME section VIII, Div-I d) Structural: IS 226 e) Material of construction: As per above codes. 8) Marking : Separator shall be provided with name plate of corrosion resistant material securely attached to a suitable bracket welded to the shell or stamped on a steel name plate seal welded to the shell. The name plate should bear the following information: (i) Manufacturer's Name (ii) Manufacturer's Serial No.		

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Item No./ Mat. Code	Material Description	Quantity	UOM
	(iii) Year of manufacture (iv) P.O. No. (v) #Manufactured for OIL# (vi) Weight empty, Kg (vii) Shell size OD X Length, mm (viii) Shell & dished end thickness, mm (ix) Maximum design pressure, Kg/Sq. Cm (x) Maximum design temperature, Deg C (xi) Liquid flow rate normal & maximum, KLPD (xii) Gas flow rate, SCUM per day at 30 Kg/Sq. Cm normal and maximum. Additionally Manufacturer#s Name and PO shall be embossed in the body of the vessel. 9) Inspection & Testing : a) The vessel will be inspected by any one of third Party Inspection Agencies approved by Oil India Ltd. Viz. M/s Lloyds or M/s Bureau Veritas or M/s RITES or M/s Tuboscope Vetco or M/s DNV or M/s IRS only with following scope of work: I. To review qualification of the welder and welding procedure specifications (WPS) as per ASME code. II. To review and ensure use of raw materials as per purchase order and enclosed drawings. This may be done by reviewing original MTC or by chemical analysis and physical test. III. To ensure that the bidder has complied with respect to our approved drawing for fabrication of the vessel. IV. To review the stage wise inspection of sub assemblies viz inlet and outlet, mist extractor assembly, dished end, companion flanges etc. before final assembly. V. To review the radiographed film of weld joints as per ASME code and heat treatment chart. VI. To witness final dimensional inspection and ensure proper workmanship. VII. To witness hydro test of the vessel. VIII.To document and issue inspection certificate. IX. 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) Final inspection will be carried out by OIL when the separator is completed (prior to painting of the unit) and mounted on the skid and the pipe works are almost ready. The supplier are to intimate with us at least 15 to 20 days prior to the inspection. OIL inspector will inspect/witness the following :		

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	I. To witness the hydraulic test. Pressure Recorder should be fitted. Vessel and pipe works will be separately tested. The testing will be as such -First to test at 1.5 times the Design pressure for 30 minutes and reduced to design pressure. At the design pressure, testing will be for 24 hrs. The recorder charts would be signed by OIL Engineer at the time of testing. The hydraulic test certificates report and recorder chart are to be sent to OIL. II. To inspect the radiographic plates and reports. All these documents are to be sent to OIL along with the equipment. III. To witness the functioning of all pneumatic control gears and control valves, for which the supplier is to supply instrument air. OIL's APPROVED VENDORS LIST FOR INSTRUMENTATION PART a) Pressure/Temperature gauges Odin Wika Ashcroft b) Level gauges Levcon Chemtrols Norriseal c) Control valves & Valve Positioners Fisher Xomox MIL Samson Controls Brightech Controls d) Pressure regulators Fisher-Xomox Shavo Norgren Placka Brightech Controls e) Pneumatic Pressure Controller Fisher ABB Norriseal,Dresser f) Pneumatic Level Controller Fisher Procon Engineers Brightech Controls		

Standard Notes: (A) Third Party Inspection

Inspected by Third Party Inspection Agency approved by Oil India Ltd. only i.e., M/s.IRS/Lloyds/RITES/Bureau Veritas/DNV/Tuboscope Vetco.

(B) SPECIAL TERMS AND CONDITIONS :

I. All flanges shall be made of forged carbon steel conforming to ASTM A 105 and dimensions as per ANSI B 16.5 std. slip on RF (serrated).Companion flanges shall be provided for all flanged nozzles and shall be weld neck type made of forged carbon steel conforming to ASTM A 105 and dimensions as per ANSI B 16.5 standard 150 class as mentioned above .

II. The bidder's quote should indicate each and every item serially as given in the technical specification of the enquiry. Detail calculation date/design date/sizing details are to be furnished item wise wherever applicable. These are to be furnished in their offer.

III. The bidders are to furnish P & I diagram and General arrangement diagram of the entire unit along with the offer.

IV. Relevant catalogue, technical brochures/drawings for the components and vessel wherever applicable are to be furnished along with the offer.

V. The successful bidder (henceforth will be called the supplier) is to obtain approval from OIL for the flow diagram (P & I) of the unit and fabrication drawing of the vessel. Also they are to submit the list of all the accessories, mountings & piping (all the bought out items) and their make, model (if any) and sizes etc. as per OIL approved vendors list as per Annexure-A below and get the same approved by OIL. Only after obtaining the approval, they can go ahead with the manufacturing of the unit. Materials to be delivered to us within 5 months from the date of approval of the 1st approved working drawing. It is not desired on the part of the supplier to waste unnecessary time by sending revised working drawing, QAP s again and again.

VI. The bidder must clearly mention any deviation/modification from our specification in their offer with proper justifications. This point is to be noted carefully and bidder to summarize the deviation/modification in a separate column in their offer document with a heading "deviation /modification" otherwise they will write "NO DEVIATION FROM ENQUIRY"

VII. Dished end shall be pressed and spun in dished head spinning machine only. Weld joint in dished end shall not be allowed and the bid will be rejected.

VIII. Bidder shall quote for all the items of the NIT. Partial or incomplete bid will be rejected outright.

IX. Nozzle necks are to be made of SA 106 Gr B material only and to be provided with RF plates /saddle made of the material similar to the shell material. Also, all the nozzle connection should be provided with proper blind / plug at the time of dispatch of standard specification.

X. The bidder to provide full details of liquid level gauge glass assembly (tubular type) along with GA drawing complete with cocks and gauge glass protected from external damage
(WP- 430 psig).

XI. The bidder shall submit four copies of operation and maintenance manual along with the supply. These should be supplied in the form of a bound book.

Special Notes : (1) Please note that we have extended the Bid Closing Date against the above tender up to 23.12.2010. You may depute your representative accordingly for attending bid opening.

(2) VALIDITY : Your offer must be valid for 120 days from the date of bid opening. Offer with inadequate validity will be rejected.

(3) The offer should be submitted in triplicate.

(4) Bidder other than OEM must forward their valid dealership certificate along with their offer; otherwise their offer shall be rejected.

(5) 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.

(6) 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 a 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).

(7) In the event you authorize your dealer/stockist/channel partner to quote on your behalf, the dealer/stockist/channel partner while submitting bid should mention on the body of the envelope that they are submitting bid on your behalf. In the event the dealer/stockist/channel partner do not mention the name of their OEM/principal on the body of the envelope, the offer may be treated as unsolicited offer and will not be considered for opening. The dealer/stockist/channel partner should take note of above while submitting bid on behalf of their OEM/principal.

(8) For order with F.O.R. Destination term, 100% payment against despatch documents will not be entertained. In this regards please refer payment terms in ANNEXURE-MM/TENDER/LP/01/06.

(9) To evaluate the inter-se ranking of the offers, Assam Entry Tax on purchase value will be loaded as per prevailing Government of Assam Guidelines as applicable on bid closing date. Bidders may check this with the appropriate authority while submitting their bids.