

OIL INDIA LIMITED

(A Govt. Of India Enterprise) Tel :033 2230 1657, 1658
 4, India Exchange Place, Fax :91 33 2230 2596
 Kolkata-700001 E-mail :oilcalmn@cal2.vsnl.net.in

ANNEXURE-I

Tender No. : KID3352P07/04
Tender Date : 13.11.2006

Item No./ Mat. Code	Material Description	Quantity	UOM
10 0C000234	<p>Supply, Installation & Commissioning of On-Line Gas Monitoring System in GCS-7, Duliajan, Assam.</p> <p>2.0 Detailed Technical Specifications of On-Line Gas Monitoring System comprises of the following:</p> <p>A. Detector/Gas Sensor : Total Quantity : 12 nos</p> <p>Type:IR (Infrared), suitable for Area Detection of compressed/uncompressed Natural Gas (by volume: CH₄:89.538%, N₂:1.004%, CO₂: 0.543%, C₂H₆: 4.132%, C₃H₈:2.491% & others: 2.292%) under ventilated shed Range: 0-100% LEL Wiring: 3-wire non-isolated Detector/sensor version: SMART Input Power Supply: +24 V DC Output: 4-20 mA + HART Digital Signal Sensor Enclosure material: SS 316 Detectors must be suitable for hazardous environment i.e. Zone 1 & Zone 2 Hazardous area as per OMR, 1984. Accessories:Mounting Plate/Mounting Bracket/Splash guard/Cable Gland/Adapter/Explosion proof junction box/ canopy etc to be provided along with the sensors. Certificates: Detectors/sensors must have DGMS (Director General of Mines safety, India) approval certificates. This is required as per Oil India's regulatory standards and specifications for Oil and Gas field services. And also to be certified by CMRI. Sensor Calibration: Adjustment for Zero & Span Sensor LED: ON- Healthy Condition OFF # Open/Fault Condition</p> <p>B. Control System : The Control system should consist of the following:</p> <p>i) Wall Mounting Cabinet to House 19# inch 16 Channel Rack # 1 No ii) Power Supply Unit # 1 No iii) Channel Cards: 8 Nos for 8 Nos Detectors iv) Hooter for Alarm # 1 No</p> <p>Specifications:</p> <p>Channel Cards</p> <p>Input Signal : 4-20 mA loop current @ 24 V DC Display : 3 ½ digit LCD display Four display selection to be available as: Concentration (0-100% and PPM) Alarm Level 1(0-100% and PPM) Alarm Level 2(0-100% and PPM) Loop Current (4-20 mA)</p>	1	NO

ANNEXURE-I**Tender No. : KID3352P07/04****Tender Date : 13.11.2006**

Item No./ Mat. Code	Material Description	Quantity	UOM
	<p>(iv) Carrying case (v) Methane Cylinder- 2 nos D. Cable & other Hardware:</p> <p>(i) For Sensor, 3C X 1.5 mm², multistrand copper conductor, shielded armoured (ii) For JB to Control System, 12C/24C X 1.5 mm², multistrand copper conductor, shielded armoured (iii) Length of cable: 3-core (signal) = 80 meters (approx.) or as required 12/24 core (signal) = 300 meters (approx) or as required 3-core (power) = 50 meters (approx) or as required (iv) FLP cable glands: as required (v) GI cable gland: as required (vi) Cable trays : as required</p> <p>E. Installation & Commissioning:</p> <p>(i) Bidder has to erect all the hardwares i.e. Sensors, cable laying, fixing of cable trays, cable termination, fixing of control system along with power supply and hooter etc. And also fabrications if any. (ii) All the Gas sensors along with control system to be calibrated and alarm level to be checked before put into operation. (iii) The system to be under observation for minimum 72 hours for satisfactory commissioning performance.</p> <p>3.0 The control System cabinet along with power supply unit and hooter to be installed in the Operator room of Gas Compressor Station.</p> <p>4.0 An On-line UPS (Uninterrupted Power Supply) of minimum one hour duration to be provided along with the system. The above UPS should be of portable type & to be installed in Air Compressor Shed (old). The approximate distance of Air Compressor Shed (old) may be around 40-50 meters from existing Control room. The UPS must handle unwanted extra high voltage charge for about few seconds & have protection facility to cut-off power to the control system cabinet.</p> <p>5.0 Control System cabinet, Power supply unit & Hooter must be intrinsically safe & approved one as control room may fall under Zone 2 Hazardous area.</p> <p>6.0 The bidder has to provide detailed technical specifications along with all relevant technical catalogues, statutory certificates etc for our technical evaluation. Otherwise, offers will not be evaluated and same will be rejected.</p> <p>7.0 Bidder will have to also provide guidelines and proposed plans for configuration of sensor locations inside the Gas compressor shed and also for plant piping areas.</p> <p>8.0 During detailed engineering after getting formal order, the approvals of the following are to be obtained from OIL</p> <p>(i) Control System cabinet Wiring Details</p>		

ANNEXURE-I**Tender No. : KID3352P07/04****Tender Date : 13.11.2006**

Item No./ Mat. Code	Material Description	Quantity	UOM
	<p>(ii) Sensor locations (iii) Loop diagram & loop details (iv) Cable schedules (v) Project Implementation Schedule</p> <p>8.0 Two sets of Operation & Maintenance manual to be provided during commissioning of the system.</p> <p>9.0 The actual requirement of cables, cable trays etc will be finalized during detailed engineering stage. Therefore, the bidder has to quote the above mentioned items in unit rate.</p> <p>10.0 Approved vendors list for accessories and check list provided in Enclosure I & II.</p> <p>11.0 The following commissioning spares are to be provided along with the system.</p> <p>(i) Gas Sensor/Detector: 2 nos (ii) Channel cards : 2 nos</p> <p>12.0 A Layout diagram of Gas Compressor Station No: 7, details of Gas Compressors pressure vessels with handling volume and pressure, line sizes etc will be provided in the later stage of bidding. However, for estimation purpose, it may be noted that the approx. boundry limits of the said installation is 100 mtrs x 70 mtrs which may be considered for calculation purpose of cable etc. and approx. area of Gas Compressor Shed is about 600 sq.mtr.</p>		

Special Notes : 1) TENDER SUBMISSION UNDER TWO BID SYSTEM

Bidders are requested to submit their offer under "TWO BID SYSTEM". The "TECHNICAL BID" is to be submitted as per Annexure - II except the commercial part. The "COMMERCIAL BID" should include only the commercial aspect i.e. price schedule of your Tehcnical Bid. Both the "TECHNICAL & COMMERCIAL BIDS" are to be kept in two separate Sealed Envelopes superscribing Press Tender No., Bid Closing Date and clearly mentioning about the type of Bid i.e. either TECHNICAL or COMMERCIAL as the case may be. Both the envelopes to be put in another envelope with Press Tender No. & Bid Closing date superscribed on it and this envelope is to be mailed / submitted to OIL addressed to Head, Calcutta Branch, Oil India Ltd., 4, India Exchange Place, 4th Floor, Kolkata - 700001. Bidders attention is particularly drawn to the following :-

(i) A copy of Price bid "WITHOUT" mentioning the prices be furnished with the Technical Bid.

2. The bidder must submit technical literature / catalogue of the offered product in duplicate along with the offer, failing which offer may be liable for rejection.

3. Materials must be guaranteed for fabrication, workmanship and performance for a period of 18 months from the date of despatch or 12 months from the date of commissioning whichever is earlier and relevant guarantee certificates have to be provided along with the bill / despatch documents.

ANNEXURE-I

Tender No. : KID3352P07/04

Tender Date : 13.11.2006

4. Installation, Commissioning charges, if any, to be quoted by the bidder separately indicating the applicable service tax.
5. Bidder may visit (with prior permission) the GCS-7 at Duliajan, Assam before submitting their offer to design the system more precisely.