

Tender No:- URAN/LPG/ENGG/T/16-17/31

Tender Date: - 28/06/2016

Tender Due Date:13/07/2016 Time:1500 hrs.

SCOPE OF WORK FOR DESIGN , FABRICATION , SUPPLY , INSTALLATION AND COMMISSIONING OF 2 NOS. HVLR MONITORS & TOWERS.

At BPCL liquid cargo jetty, JNPT we propose to provide 2 nos. Towers and HVLR Electrically remote operated monitors of capacity 7570LPM each .The scope of job is to supply 2 nos. HVLR Electrically remote operated monitors of capacity 7570LPM and 2nos Towers for HVLR's monitors. The scope of job includes mobilization of 7570LPM monitors and tower from supply location to JNPT jetty, erection and installation. Detail Drawings of Tower and HVLR monitor 7570LPM are provided. It is advised that the tenderer should visit the site for better clarity of the job.

Detailed scope of work:

1. The scope of job is to Design the Tower and HVLR Electrically Remote Operated MONITOR of discharge flow rate 7570LPM.
2. Supply,Install and commission Electrically Operated Remote Controlled Water Monitors with Control Panels- discharge flow rate 7570LPM.

Technical Specifications of HVLR MONITOR 7570 LPM:

1. **MAX. WORKING PRESSURE: - 12 KG/SQ.CM**
2. **HYDRAULIC TEST PRESSURE: - 25 KG/SQ.CM FOR 5 MINS.**
4. **ROTATION: - HORIZONTAL- 360, VERTICAL- +80,-75**
5. **FINISH:- MONITOR BODY - EPOXY PAINTED FIRE-RED TO SHADE NO: 536 OF IS: 5.**

TECHNICAL DETAILS

6. **FINISH:- FOAM BARREL - EPOXY PAINTED YELLOW TO SHADE NO: 356 OF IS: 5.**
7. **The horizontal range of the water monitor at 30 Deg should be 100m.**

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Specification of Material of construction of monitor should be :

Sr. No	Description	Material
1	BASE FLANGE	ASTM A182 F316
2	REDUCER	ASTM A403 WP316
3	SWIVEL JOINT	ZINC FREE BRONZE
4	FOAM BARREL	ASTM A312 TP316
5	PIPE	ASTM A312 TP316
6	BENDS	ASTM A403 WP316
7	ELECTRIC MOTORS	IP-56, FLAME/EXPLOSION PROOF

Supply of Tower for HVLR water monitor.

Tower Design Specifications :

- a) Material of construction : M.S To IS:2062
- b) Tower Height : 20 MTR
- c) Working Platform : 2000mm

Note:

- a. All mild steel parts shall be **Hot Dip Galvanized for 80 micron.**
- b. The tower design shall be validated by Software for **Seismic and Wind Loads.**

1. The scope of job includes taking tapping from the nearest tapping provided by BPCL to the respective 7570LPM monitors with MOV's , flanges, bends ,studs ,Gate valves on the line. Necessary arrangement/tapping (1.5 inch)size and 200mm length with 1.5 inch flange to be made after MOV's for foam injection into tower monitor suction line . BPCL shall provide the required valve and foam line till the foam line tapping point . Equipments such as **welding machine , cutting gas** ,tools & tackles, required for the job shall be provided by the successful bidder.
2. The scope of job includes complete Erection & Installation of 2 nos.Towers of 20 meters length each, 2nos.7570LPM HVLR Monitor. The special tools/tackles, Crane/hydra required for the work shall be provided by the contractor. Equipments such as **welding ,cutting gas** etc., required shall also be provided by the successful bidder.
3. The scope of job includes supply and laying of control cables & power Cables as mentioned below.
 - i) BPCL will provide the Power nearest to the Tower Monitor, the party has to take the power from BPCL provided nearest JB to the respective motors and other accessories.
 - ii) The contractor has to provide the Power requirement as well as Control cables required for operation of monitor in order to provide the same by BPCL.

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- iii) The party has to provide local control panel having FLP Enclosure with inbuilt DOL starter for Motors and MOV'S along with overload relays. The party also has to provide remote operated panel at Fire water pump house (approximately 550 mtrs away) in order to operate HVLR monitors and MOV's remotely. The cable required for controls will be supplied and laid by BPCL provided details given by the party.
 - iv) The required Glanding as well as connection with the control panel has to be done by Party.
 - v) All the earthing (structure and instrument) requirement of the monitor and MOV's needs to be done by the party.
 - vi) The scope of job includes Installation of Main control panel Fire water pump house & Local Control Panel at jetty with necessary double compression glands for FLP control panel, clamps, stands/support. Aluminum Canopy to be provided for control panels provided at jetty. BPCL shall direct the location of installation.
4. Towers and HVLR monitor has to fabricated at the workshop and need to be mobilized to site for erection.
5. Transportation cost for material mobilization, Crane/ hydra cost towards installation shall be in the scope of successful bidder .The installation of tower to be done as per the direction of BPCL site engineer. All the necessary tools, tackles, cable, FLP junction boxes , drilling equipment and other associated materials required during installation shall be in the scope of successful bidder.
6. After the completion of fabrication, the contractor has to check the condition of all the pipe lines, valves & other fittings for any leak or defect

Please Note for the above Job there will be intermittent stoppage of work due to heavy congestion at Liquid cargo Jetty. The tenderer has to consider all these factors while quoting the rates in price bid format.

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