

## **GAS & POWER PLANT DIVISION**

### **Scope Of Work**

#### **Annexure- I**

**Subject: Fabrication and laying of 1.5” SS pipeline from GPX to HVOF block for supply of Oxygen gas.**

SS pipeline for Oxygen gas (pipeline material SS304) is to be fabricated and laid with proper supports at a height of around 7 metres from ground as below:

- 1) Degreasing of complete pipeline from inside by Tri-Chloro-ethylene provided by BHEL.
- 2) Fabrication & Laying of around  $600 \pm 5\%$  metres, 1.5” NB, SS overhead pipeline, from inside GPX division to HVOF block from inside Block 1 with all fittings i.e bends, valves etc and with proper pipeline supports.
- 3) Complete hydraulic testing of the fabricated pipeline at 40 Kg/cm<sup>2</sup> hydraulic pressure and purging the same with Nitrogen/Compressed air.
- 4) Painting of the above newly fabricated pipeline with one coat of red oxide and then with two coats of paint as per IS 2379: 1990, Reaffirmed in 2006 (IS for pipeline coding) also marking the direction of the flow by arrows in black colour after every 6 meters on the pipeline.

#### **Note:**

- 1) Proper pipeline supports shall be provided to all the pipelines as wherever required.
- 2) All the consumables such as pipelines, fittings, valves, paint, electricity, cutting gases, welding electrodes, etc shall be provided by BHEL free of cost.
- 3) All tools & tackles including hand tools, welding machine, paint brush, pulley block, crane/hydra (if required) etc. is in the scope of contractor.
- 4) Contractor has to take the permit for “Working at height” as per BHEL norms for any work which involves working at a height of 2.5 meters or more.
- 5) Before welding/cutting work, inside of blocks or near existing LPG, acetylene pipeline, contractor shall take hot work permission as per BHEL rules.
- 6) Contractor shall provide all the PPEs and other safety appliances to his workers at his own cost & maintain the same, which may be required under the rules/regulations/law.

- 7) The contractor has to work during nights as well as during holidays and Sundays according to the exigencies of the works, without extra cost.
- 8) Contractor has to produce a medical fitness certificate for all the workmen who are engaged in working at height for the above work from a registered medical practitioner.
- 9) Insurance of all the work men deputed by the contractor is in the scope of contractor only. Contractor has to submit a copy of same (if applicable) before starting the work.
- 10) Contractor is responsible for ensuring that his workmen while working at heights, hook-up their safety belts with permanent structures only.
- 11) The contractor has to ensure the safety of their workmen during the work. Safety equipment e.g safety belts, rope ladder, helmets, safety shoes, hand gloves, safety goggles, nose mask etc and all required safety items as per BHEL norms and requirement of work are to be arranged by the contractor.
- 12) Care must be taken while carrying out the work to ensure that no structure and installation, fittings, fixtures are damaged. Any damage done to the same or any other BHEL property will have to be repaired/replaced by the contractor, failing to which, the same shall be got done at his risk and cost. The decision of BHEL Bhopal on the propriety of adequacy of any repairs/replacements work done by the contractor or any costs recoverable from the contractor in this behalf shall be final and binding on the contractor.

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