

## Scope & Terms of work

### I. SCOPE OF WORK

- (a) Supply, Installation, testing, commissioning and proveout of complete '**Fire Fighting System**' at BHEL, Rudrapur as per Layout Scheme/Drg. enclosed at Annexure-B and BOQ enclosed at Annexure-C
- (b) BHEL shall provide source of water to Fire Hydrant system from overhead tank located at BHEL premises 12mtrs. above ground level. Vendor/Contractor shall make arrangement on its own, for connecting the Fire Hydrant system through withdraw of separate pipeline from the existing water supply line.
- (c) Electrical connection upto the Control panel/source point for 'Fire Fighting system' shall be provided by BHEL. All other wiring/cabling within the system shall be provided/carried out by the vendor/contractor.
- (d) The pipe shall be tested against the hydraulic pressure of 7 kg/sq.cm. before wrapping, coating, covering for underground pipe & each turn of the pipe.
- (e) Pipe layout in the system shall be supported at each 2.5-5 m span along the length with additional provisions at suitable locations depending upon requirement for stability.
- (f) Location of butterfly valve, hose reel, hose box, hydrant point, control panel, layout of pipeline etc. may be suitably relocated as per site requirement during actual execution of work.
- (g) Smoke detector shall be installed at central locations of area identified or as identified by Engineer-in-charge(Civil deptt., BHEL).
- (h) The supporting arrangement of fire hydrant line, hoist box, hoist reel has been mentioned in the BOQ. Any deviation/additional requirement support the hydrant pipe, hoist box shall be in the scope of contractor in order to suit the site requirement which shall be carried out by contractor at own cost.
- (i) All the cables running in the building should be covered with PVC conduit. Finishing of wall, ceiling etc. shall be done by through civil work(material by contractor) after completion of laying process.
- (j) **Performance :**
  - (i) The water hydrant pipe line should remain pressurized to 4Kg/cm<sup>2</sup> when not in use.
  - (ii) Water pressure at end use points for all terminals(when only one terminal is used and other terminals are closed) should be min. 5 Kg/cm<sup>2</sup>. during use.
  - (iii) All the work shall be done as per the latest applicable norms of IS code, NBC code & fire safety norms of state & central government agencies.
  - (iv) **Certificates from OEM** in support of material quality conforming to specific IS, standards & makes as specified in BOQ shall be provided by the Vendor/contractor. Tests/inspections to be carried out at site as specified in BOQ/Scope during the work progress shall be arranged & recorded jointly by Vendor/Contractor & verified by BHEL as proof of witness & conformation to such tests/inspections.

**(k) Onsite Tests/Inspection to be performed:**

- (i) The pipes shall be checked/tested against hydraulic pressure of 7 kg/ cm<sup>2</sup> for any leakage before wrapping & coating for underground pipe clearing the test
- (ii) The pipes shall be tested against hydraulic pressure of 7 kg/cm<sup>2</sup> and checked for any leakage along the straight length and at each of the bends of the pipe line. No leakage should be evident during the test.

**TERMS OF WORK:**

- (a)** L-1 party shall be decided based on overall L-1 landing cost to BHEL, based on overall offered price as per quantities mentioned in BOQ.
- (b) Handing over/Taking over:** Vendor/Contractor shall Hand Over complete 'Fire Fighting system' to BHEL in writing after successful completion of all obligations(except warranty obligations) under the P.O. BHEL, within 15 days of Handing over, shall carry out joint inspection with Vendor/contractor & on verification of the 'Fire Fighting system' as per P.O., shall take over the system and issue a 'Taking over certificate' to the contractor. Vendor/contractor shall provide all necessary assistance/manpower, during inspection at site by BHEL.
- (c)** In case of any discrepancy found during inspection by BHEL, the same shall be communicated to the vendor/contractor in writing who shall take necessary correction/corrective action and again offer the same for inspection as per (b) above.
- (d) Delivery Schedule:** Completion of work in all respect & Handing over within 45 days of award of P.O.
- (e)** Water & Electricity for I&C of Fire Fighting system shall be provided free of cost by BHEL.
- (f) Performance Bank guarantee:** Contractor shall provide performance bank guarantee of 10% of order value valid for 14 months (Ref. II(5) of Annexure-C) from the date of Taking Over of 'Fire Fighting system' by BHEL.
- (g) Documents to be submitted by bidders along with Techno-commercial bid:**
  - (i) Scope & Terms of work (Annexure-A)
  - (ii) BHEL 'Layout Scheme/Drg.'(Annexure-B)
  - (iii) Unpriced copy of 'BOQ & Schedule of Rates'(Annexure-C)
  - (iv) Copy of valid registration of the bidding firm for 'Installation of Fire Fighting systems'
  - (v) Work experience certificates for carrying out S&I of 'Fire Fighting Equipment' for a single work value of minimum Rs. 24 lacs.
  - (vi) Terms & Conditions of BHEL tender enquiryAll documents submitted should be duly signed & stamped by the bidder.
- (h) Validity of offer by bidders:** Offers should have minimum 90 days from the opening of bids