

**Government of India**  
**Bhabha Atomic Research Centre**  
**Nuclear Recycle group**  
**Waste Management Division**

Ref: WMD/WMFT/SKG-60/16-17/ OPA-31140

Dated : 12/02/2018

Subject: Tender Enquiry for Minor Work

Sealed quotations in the prescribed format are hereby invited on behalf of the President of India by Dy Plant Superintendent (L), Bhabha Atomic Research Centre, Trombay, Mumbai - 400 085 in the office of Dy Plant Superintendent(L), Waste Management Facilities Trombay, Mumbai- 400085 from contractor having experience in executing work described below.

**Description of Work:** Fabrication, supply installation, testing and termination of various types of junction boxes with screw clamp terminal connector at different locations in Ion exchange system (IX) at ETP, WMFT, Trombay.

Parties may telephonically contact to Shri S. K. Goyal on **25596301** for issuance of tender enquiry/documents and technical specifications.

Enquiries will be issued to eligible contractors from **13/02/2018 to 20/02/2018** between **10:00 and 16:00 hrs.** on all working days.

Last date of submission of sealed quotation is **21/02/2018 up to 1330 hrs.** The sealed quotations will be opened on the **same day at 14:00 hrs** in the office of the Dy. plant Supdt.(L), WMFT, WMD, BARC, Trombay, Mumbai-400 085.

**Terms & conditions:**

1. Sealed quotations should be submitted only through registered post/speed post/courier.
2. The contractor's Engineers, supervisors, work men etc. preferably should have valid PVC (Police Verification Certificate) to work inside BARC.
3. Sealed envelope should indicate ref. No. with date and due date of opening. Tenders shall be addressed to:  
**N.R.Ranade SO/F**  
**ETP, M-16,**  
**Waste Management Division,**  
**Bhabha Atomic Research Centre, Trombay, Mumbai – 400085**
4. Taxes if any shall be mentioned separately.
5. Payment will be made after completion of work.
6. Work completion period – 02 months from the issue of work order.
7. The offer shall be valid for a period of 03 months from the date of opening and the quoted amount shall remain firm during the period of execution.
8. Dy Plant Superintendent (L) reserves the right to accept/reject any or all quotations without assigning any reason.



( N.R.Ranade )

Scientific Officer-F

Waste Management Facilities Trombay

**एन.आर. रानाडे / N. R. RANADE**

ई.टी.पी./इल्यू.एम.एफ.टी / ETP/WMFT

वैज्ञानिक अधिकारी ( ) / Scientific Officer ( )

अपशिष्ट प्रबंधन प्रभाग / Waste Management Division

भारत सरकार / Government of India

## TECHNICAL SPECIFICATIONS

### 1. SCOPE OF WORK:

Scope of the work includes fabrication, supply installation, testing and termination of junction boxes as per size given in technical specification and should be powder coated in Siemens gray colour. Single and two tier elmex connectors and PVC cable tray also to be provided inside the junction boxes mounted on din rail as per drawings.

Successful commissioning is the responsibility of the bidder.

### 2. VENDORS SCOPE OF SUPPLIES:

The vendor shall supply following materials. No extra transport charges will give to bring material inside BARC.

Srno.	Name of the item	Qty.
1.	Fabrication, supply installation, testing and termination of junction box size 450x1300 x150mm with wall mounting arrangement, Elmex make 320 nos. single layer screw clamp terminal connector (type:CUT4 size: 49x40x6.7mm) in two columns on DIN rail and PVC cable tray as per drawings.	01 no.
2.	Fabrication, supply installation, testing and termination of junction box size 360x400 x120 mm with wall mounting arrangement, Elmex make 40 nos. single layer screw clamp terminal connector (type:CUT4 size: 49x40x6.7mm) in two columns on DIN rail and PVC cable tray as per drawings.	01 no.
3.	Fabrication, supply installation, testing and termination of junction box size 200x300 x100mm with wall mounting arrangement, Elmex make 30 nos. single layer screw clamp terminal connector (type:CUT4 size: 49x40x6.7mm) on DIN rail and PVC cable tray as per drawings.	06 nos.

### 3. Specifications for Junction boxes:

Sizes: (As per drawings)

Junction boxes should be dust and vermin proof, MS stand supporting type and front opening. The cable entry will be from bottom so the cable gland plate will be fitted on the bottom and gland plate size will as per drawing with **punched gland cut** of different sizes. Gland plate should be screwed or nut bolt fitted. Junction boxes should be mounted on the wall or MS stand as per drawings and technical specification with proper size anchor fasteners. Protection IP-55 should be provided. The Junction boxes will be fabricated out of **14 SWG CRCA** sheet steel.

1. Junction boxes will be powder coated. Shade of the paint should be Siemens gray (matt finish).
2. All hardware will be zinc yellow passivated .
3. Material used should be free from scratches, dents and other flaw.
4. Welded joints should be nicely rounded and finished.
5. Cutouts should be accurate, neat and without burrs.

Junction boxes should be made strictly as per the dimensions shown in drawing and should be submitted for Inspection/approval by purchaser before painting.

### **SURFACE TREATMENT AND PAINTING OF PANELS:**

All metal parts should be treated in the following stages:-

1. Degreasing in either trichloro ethylene or hot alkaline solution and then rinsed in cold water.
2. Pickling in dilute sulfuric acid at 40-50°C to remove scales and rust and then swilling in cold water.
3. Phosphating in zinc phosphate solution at 80-90°C for 15 – 20 minutes and then swilling in cold water.
4. Passivation in di-oxalate solution at 70-80°C and then drying.

5. Spraying with zinc chromate primer within 24 Hr. of passivation, then stoving at 150-160°C.
6. Spraying of synthetic enamel and stoving at 150-60°C. Minimum three coats of this paint are required.
7. Primer and synthetic enamel should be from a reputed manufacturer. Shade of the paint should be siemens Gray with matt finish.
8. One more coat of synthetic enamel should be paint after powder coating.

**All the parts of the control panels shall be made of 14 Gauge cold rolled closely annealed steel (CRCA).**

**4. PACKING AND TRANSPORTATION:**

1. Material should be wrapped with corrugated paper and shall be sealed in thick polythene sheets and finally in wooden/cardboard boxes and all the inside walls shall be lined with water –proof paper to protect from damage due to dust and moisture.
2. The supplier shall responsible for any damage transport due to improper and inadequate packing.
3. Wherever necessary, proper arrangements for attaching slings for lifting shall be provided.

**5. DEPARTMENTAL FREE ISSUE MATERIALS (FIM):**

- a. Water and Electricity --As required, will be supplied by the department free of Cost.

**6. WORK PROCEDURES:**

The complete job is to be carried out in IX system near sludge room at ETP building in radioactive area with the coordination of Engineer-in-Charge/Officer.

The materials brought to the site should be got approved from the engineer in charge and thereafter used for the work.

**7. SAFETY RULES:**

Vendor should take care of safety and security while working at site. Any mishap occurring on the job due to unsafe work practice shall be vendor's liabilities.

Medical certificate on departmental prescribed Performa shall be submitted for supervisors and all the labours deployed at the site if required by RHC unit.

**8. SECURITY RULES:**

Police verification certificates are required for supervisor and all workers employed by the contractor inside the BARC. Security and transport regulation at BARC, Trombay, and premises shall be strictly followed.

**9. PRE- DISPATCH INSPECTION AND DEFECTS RECTIFICATIONS:**

The pre-dispatch inspection shall be carried out as and when required at the supplier premises. Any defects observed or detected during inspection shall be rectified.

**10. COMPLETION PERIOD:**

02 months after release of work order.

**11. General Notes:**

This work involves working in restricted area with security instructions on entry of workers, working time etc. All the workers and their supervisors need to have police verification done and cleared.