



**BHARAT HEAVY ELECTRICALS LIMITED,
TIRUCHIRAPPALLI 620 014
OUTSOURCING DEPARTMENT**

NIT: 2024OSB018

NIC TENDER ID: 2024_BHEL_41771_1

CORRIGENDUM


ANNEXURE-1

The following documents are revised to address below mentioned points (a) to (d).

1. ANNEXURE-A (PQR)
2. Section-I D-Brief Scope of Work

- a) **PQR-Annexure –A** Report of past experience in fabrication of Radiant Roof Panels / Terminal Tube Bends with fin welding / water wall panel / RH/SH/ECO coils with attachment welding supplied to BHEL Trichy.
- b) **PQR-Annexure-A** Parameters if already evaluated and accepted by BHEL within 6 months for Open Tenders, need not be re-submitted. However, random assessment shall be done for the evaluated parameters at the time of spot assessment.
- c) **Point no. 5 of Section-I D: Form 3B will be Vendor's scope.**
IBR inspection fees is in BHEL scope and **not required** to be paid by vendor.
- d) **Point 26 of Section-I D: Provide Identification and End caps.**
After hydro test, the water must be drained completely. VCI pellets and Plastic End caps should be provided.

NOTE: Participation in NIT 2024OSB018 by a vendor will be considered as acceptance of all Terms & Conditions, including any corrigendum

		BHARAT HEAVY ELECTRICALS LIMITED, TIRUCHIRAPALLI				
OUTSOURCING						
428/004; 01.02.2017		Pre Qualification Requirement for Radiant Roof Panels (RRP) and Terminal Tube Bends with fin welding				
Vendor Name, Address and Contact No.:						
Report of past experience in fabrication of Radiant Roof Panels / Terminal Tube Bends with fin welding / water wall panel / RH/SH/ECO coils with attachment welding supplied to BHEL Trichy. Location of the fabricating firm shall be within 60km from BHEL trichy						
Spot assessment date:						
Part-A (Mandatory)						
SI No	Parameter for evaluation	Minimum required	As given by Firm	As observed in Audit	Remarks	Ok/Not Ok
	LAND DETAILS :					
1	Land area . (If land is taken under lease, registered lease deed for 3 yrs period is required)	0.5 Acres				
2	Covered Shed with concrete flooring	3229 sq. ft				
	EB POWER					
3	Power capacity	100 HP				
	HANDLING FACILITIES					
4	Material handling crane capacity with stability certificate (A frame / EOT / Mobile crane)	10 MT				

SI No	Parameter for evaluation	Minimum required	As given by Firm	As observed in Audit	Remarks	Ok/Not Ok
	SPECIFIC MACHINES :					
5	(SMAW)Welding M/c 400 Amps Inverter / Rectifier	4 Nos				
6	TIG welding machines for tube butt joints	2 Nos				
7	Tube bending machine - capable of bending up to 76.1 mm dia tubes.	1 No				
8	Tube boring and chamferring machine	2 Nos each				
9	Spectrotesting machine - Portable type	In-house or Outsourced				
10	Preheating/post heating - fuel & burner facilities	1 No. for each welding centre				
11	Hydro testing pumps - 550 Kg/Sq Cm with calibrated pressure gauges	1 No				
12	Firm approval by IBR for boiler pressure parts	Must be available				
13	Ball & Sponge Test Facility with compressor	1 No				
14	Spray painting facility	1 No or Outsourced from BHEL approved source.				
15	D-Meter (for thickness checking)	1 No or Outsourced from BHEL approved source.				
16	Layout marking facilities required	1 No				
	OVEN					
17	Electrode Baking oven	1 No				
18	Electrode Holding oven	1 No				
19	Flask oven	3 Nos				

SI No	Parameter for evaluation	Minimum required	As given by Firm	As observed in Audit	Remarks	Ok/Not Ok
	INSPECTION FACILITIES					
20	LPI Kit	1 Set				
21	Level II LPI,MPI and UT,RT (if UT/RT is in house) qualified personnel with valid certificate	1 Person for each type.				
22	UT, RT	In-house or Outsourced from IBR approved firms				
23	IBR qualified welders for CS/AS	1 person for each category				
	MEASURING INSTRUMENTS					
24	Measuring tapes - 5m, 30m *	1 No each				
25	Vernier caliper - 150 mm	1 No				
26	Paint coating thickness meter	1 No or Outsourced from BHEL approved source.				
	GRINDING MACHINES:					
27	Tube cutting machine	1 No				
28	Grinding machines	3 Nos				
	PAN & GST :					
29	IT Pan Card No	Original to be offered for verification				
30	GST No	Original to be offered for verification				
	OFFICE ROOM :					
31	Office room with 2 PC / LAPTOP , internet facility and printer	Must				
Part-B (Optional)						
01	Gen. set	--				
02	Stenciling/Engraving/Dot punching facility	--				
03	Stud welding machine	--				

NOTE_1:

A. All Measuring instruments/gauges (Tapes - one time calibration) must have valid calibration certificate from any NABL accredited lab.

B. For any outsourced facility mentioned as per checklist, earlier executed POs or valid agreement for facility tie-up must be produced

Part-C: Final Recommendation (for BHEL use only)

Recommendation after checklist verification:

SI No	Parameter for evaluation	Minimum required	As given by Firm	As observed in Audit	Remarks	Ok/Not Ok
Recommendation after spot assessment:						
Assessor.1-TCA (Spot assessment):			Assessor.2 - Co-assessor (Spot assessment):			
Note 2:						
01	Part-A requirement is a must for qualifying the vendor. Hence, filling up all evaluation parameters is a must and all mandatory facilities shall be available at the time of spot assessment					
02	Part-B is only optional and need not be considered for disqualifying the vendor.					
03	Parameters if already evaluated and accepted by BHEL within 6 months for Open Tenders, need not be re-submitted. However, random assessment shall be done for the evaluated parameters at the time of spot assessment.					

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Scope for fabrication of Radiant Roof Panel(RRP) - NTPC - RS01

1	The welding shall be done by M/S IBR qualified welders.
2	The welding procedure specification (WPS) shall be reviewed and approved by BHEL QC.
3	Welding Consumables are to be procured from the BHEL approved vendors.
4	Fabrication, Inspection and testing shall be carried out as per applicable quality documents (CQP/SQP/SIP/QCP).
5	Form 3B will be vendor's scope. IBR inspection fees is in BHEL scope and not required to be paid by vendor.
6	Production & common note given in manufacturing GMS has to be followed.
7	Collect the complete tubes and plates from BHEL stores with relevant IBR & NTPC documents.
8	Inspect the raw materials details & specification by spectrometer. All IBR inspection formalities should be followed. If any defects noticed in supplied raw material, inform the same to OS immediately.
9	Shot-blast the tubes.
10	Cut & edge prepare the tubes as per drawing.
11	Any butt joint planned & location of butt joint should be done based on engineering clearance. Prior approval must be obtained from engineering for the same.
12	Build the tubes to required length by Butt joint (TIG welding preferred).
13	Radiographic Test (RT) shall be performed on the Butt joints by BHEL or BHEL approved agency only.
14	RT film shall be evaluated by BHEL NDTL and NTPC.
15	Cut & manufacture the attachments as per drawing.
16	For the purpose of FOT if raw material is required by Firm then it shall be issued by BHEL and shall be treated as scrap for the purpose of material accounting.
17	Bend the tubes as per drawing.
18	Carry out Attachment welding as per drawing.
19	At Butt joint locations, fin should be ground to suit the butt weld reinforcement. Weld over weld should be avoided.
20	Conduct visual inspection on welds. Conduct LPI on welds in the presence of BHEL NDT or BHEL approved agency.
21	All NDT testing such as MPI, LPI, sponge test and etc. wherever called for in the drawing/QWI/PO are to be done by Firm.
22	Straightening to be ensured.
23	Obtain Stress relieving(SR) co-operation from BHEL Trichy. SR must be carried out in BHEL works only. Extra rate not applicable for the above scope.
24	Conduct hydro test for tubes in the presence of BHEL QC.
25	Offer for Inspection to QC/BHEL, NTPC & IBR for final inspection.
26	Provide Identification and End caps. After hydro test, the water must be drained completely. VCI pellets and Plastic End caps should be provided.
27	Paint and Dispatch to shipping with relevant IBR and BHEL documents.
28	During dispatch from Vendors works to BHEL, bundle wise (DU wise & full quantity) dispatch must be ensured. (Split-up of DU quantity is not acceptable).

Scope for fabrication of Terminal Tube bends with fin welding - NTPC - RS02

1	The welding shall be done by M/S IBR qualified welders.
2	The welding procedure specification (WPS) shall be reviewed and approved by BHEL QC.
3	Welding Consumables are to be procured from the BHEL approved vendors.
4	Fabrication, Inspection and testing shall be carried out as per applicable quality documents (CQP/SQP/SIP/QCP).
5	Form 3B will be vendor's scope. IBR inspection fees is in BHEL scope and not required to be paid by vendor.
6	Production & common note given in manufacturing GMS has to be followed.
7	Collect the complete tubes and plates from BHEL stores with relevant documents.
8	Inspect the raw materials details & specification by spectrometer. All IBR inspection formalities should be followed. If any defects noticed in supplied raw material, inform the same to OS immediately.
9	Shot-blast the tubes.
10	Cut & edge prepare the tubes as per drawing.
11	Any butt joint planned & location of butt joint should be done based on engineering clearance. Prior approval must be obtained from engineering for the same.
12	Build the tubes to required length by TIG welding (Butt joint).
13	Radiographic Test (RT) shall be performed on TIG joints by BHEL or BHEL approved agency only.
14	RT film shall be evaluated by BHEL NDTL and NTPC.
15	Cut & manufacture the attachments as per drawing.
16	For the purpose of FOT if raw material is required by Firm then it shall be issued by BHEL and shall be treated as scrap for the purpose of material accounting.
17	Bend the tubes as per drawing.
18	Carry out Attachment welding as per drawing.
19	At Butt joint locations, fin should be ground to suit the butt weld reinforcement. Weld over weld should be avoided.
20	Conduct visual inspection on welds. Conduct LPI on welds in the presence of BHEL NDT or BHEL approved agency.
21	All NDT testing such as MPI, LPI, sponge test and etc. wherever called for in the drawing/QWI/PO are to be done by Firm.
22	Straightening to be ensured.
23	Obtain Stress relieving(SR) co-operation from BHEL Trichy. SR must be carried out in BHEL works only. Extra rate not applicable for the above scope.
24	Conduct hydro test for tubes in the presence of BHEL QC.
25	Offer for Inspection to QC/BHEL, NTPC & IBR for final inspection.
26	Provide Identification and End caps. After hydro test, the water must be drained completely. VCI pellets and Plastic End caps should be provided.
27	Paint and Dispatch to shipping with relevant IBR and BHEL documents.
28	During dispatch from Vendors works to BHEL, bundle wise (DU wise & full quantity) dispatch must be ensured. (Split-up of DU quantity is not acceptable).