



An ISO 9001
Company

Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli – 620014, TAMIL NADU, INDIA

MATERIALS MANAGEMENT

TITLE CORRIGENDUM for NIT_23965	Phone: +91 431 2577994/2574087 Fax : +91 431 252 0719 Email : joydevsardar@bheltry.co.in
--	--

Reference Number: Enquiry 1801500988	Enquiry Date: 19.08.15	Due date for submission of quotation: 21.09.2015
---	---	--

You are requested to quote the Enquiry number date and due date in all your correspondences. This is only a request for quotation and not an order

CORRIGENDUM

Details of Corrigendum
<i>Please change the revised specification for the Service Tender for "Fixing of Polymer Liner for Lignite Bunker Hoppers". Kindly host both in BHEL and NIC (Ref: NIT-23965)</i>
All other terms and conditions as published in the NIT 23965 remain unaltered.

BHEL commercial terms & conditions with Price Bid formats and all annexure can be downloaded from BHEL web site <http://www.bhel.com> or from the Government tender website <http://tenders.gov.in> (public sector units) Bharat Heavy Electricals Limited) under enquiry reference "1801500988 "

Tenders should reach us before 14:00 hours on the due date
Technical bid will be opened at 14:30 hours on the due date
Tenders would be opened in presence of the tenderers who have submitted their offers and who may like to be present.

Yours faithfully,
For Bharat Heavy Electricals Limited

SPECIFICATION FOR POLYMER LINING OF LIGNITE BUNKER HOPPERS

COVER SHEET

SPEC NO: PCPS:66125:NLCN:01:REV01

CONTENTS

	No.of Pages
1. Cover sheet	1
2. Technical Specification	2
3. Annexure-A (Sketch of Bunker Hoppers to be Lined)	1
4. Annexure-B (Sketches for Fasteners Arrangement and Edge Protection)	1

	NAME	SIGNATURE	DATE
PREPARED	RK	<i>RK</i> 24-08-15	24-08-2015
CHECKED	FJT	<i>FJT</i>	24-08-2015
APPROVED	VR	<i>VR</i>	24-08-2015

Technical Specification

Project: 2X250 MW Extension TS-II, NLC Neyveli

Work Description: Lining of Lignite Bunker hopper wall with Ultra High Molecular Weight Poly Ethylene (UHMWPE) Polymer Sheet.

Brief Scope of Work:

Fixing of Polymer Liner for Lignite Bunker hoppers with Ultra High Molecular Weight Poly Ethylene (UHMWPE) Polymer Sheet (thickness: 10 mm) using suitable fastener, preparing corner of radius R300, providing edge protection etc. at 2X250 MW Extension TS-II, NLC Neyveli. Approx. area to be lined is 1020 Sqm.

Prequalification criteria:

Following are the pre-qualification requirements for the Erection Agency for Polymer Lining of the Lignite Bunkers for the Tender.

1. The bidder for this Tender should have experience in lining of complete Bunker of Coal / Lignite with Polymer lining for a minimum bunker capacity of 560 M³. The bidder should enclose a proof for the same.
2. The bidder to submit experience list, order copy, completion certificate and/or end user certificate for such type of jobs.
3. The bidder to submit contact details (Contact no & mail id) of at least one of their customer where they have executed the job of polymer lining and the performance of the lining is satisfactory.

UHMWPE polymer sheet will be provided by BHEL.

Specification of UHMWPE Sheet:

1. Thickness: 10mm
2. Size: 1000 mm X 2000 mm

Quantity of Work: Refer enclosed sketch

1. Total Nos of bunker: 8 (Unit#1 & 2)
2. No of discharge hoppers in each bunker: 3
3. Total no of Hoppers to be lined: 24
4. Total no of inclined wall to be lined: 8
5. Total no of outlet ducts to be lined: 24
6. Total Surface area to be lined: 1020 M² Approx. (Total 8 bunker)

Detail Scope of Work:

1. Polymer lining is to be provided in the hopper portion of the bunker (three Nos of discharge hoppers at each bunker, Refer enclosed drawing), Access Door, Expansion joint and outlet duct up to Drag Link Chain Feeder.
2. All corners of the discharge hoppers are to be rounded by providing polymer liner with radius R300. Filling the cavity between corner polymer and shell is to be done by erection agency. Agency to suggest the material to be filled in the cavity.
3. Cutting of the polymer sheet of required shape and size, chamfering, smoothening sharp edge, as per the approved drawings is to be done by erection agency.
4. Leaving required gap between liner panels to allow expansion due to temperature or pressure, is to be done by erection agency.
5. Polymer liner are to be fixed with weld washer type of connections shown in the enclosed sketch. Pitch of the fasteners should not exceed 225 mm as shown in the sketch.
6. Matching and Lapping of the polymer should not have any protrusion inside the hopper. Care is to be taken to avoid any upward facing ledge formed while joining the polymer sheets.
7. Edge protection of the polymer sheet using SS Capping is in the scope of erection agency.

8. Detail of fixing and erection drawing is to be prepared by erection agency and to be submitted to BHEL for acceptance.
9. Necessary scaffolding arrangement, working platform, working area illumination etc. to be done by the erection agency.
10. For fixing polymer lining using weld washer fasteners, BHEL suggest the arrangement shown in the enclosed sketch.
11. Suitable opening and edge protection are to be made in the liner for man hole door, poking and peep holes and emptying chute opening provided in the bunker.

Materials to be supplied by Erection Agency:

1. SS 304 Weld Washer Fasteners as per the sketch. Total qty. for 8 bunkers: 26000 Nos (approx.)
2. SS Capping, 2 mm thick SS304 sheet 100 wide including drilling for fasteners as per sketch, along the top edge of Bunker wall and discharge hoppers. Total length SS Capping= 290 m (approx.) for 8 Bunkers in addition to edge protection near opening.
3. Polymer Plugs. Plug may be made suitably out of 26 mm blank obtained from punching hole (fastener hole) in the polymer sheets itself.
4. Welding Electrodes.
5. Cavity Filling Materials.
6. The quantity indicated above are minimum requirement. Additional quantity required during actual execution of work has to be arranged by the erection agency on their own cost.

Special Note: Initially only two bunker is to be lined. If performance of the liner is satisfactory for two months, balance six bunkers may be lined. At a time, one or more bunkers may be available for polymer lining, based on the availability of the boiler under operation. The period of complete execution may extend up to one year. In view of above the agency has to quote **rate/price for lining two bunkers**. This rate should be valid for lining all eight bunkers and purchase order may be placed, two bunkers at a time, whenever required.

Guarantee Clause:

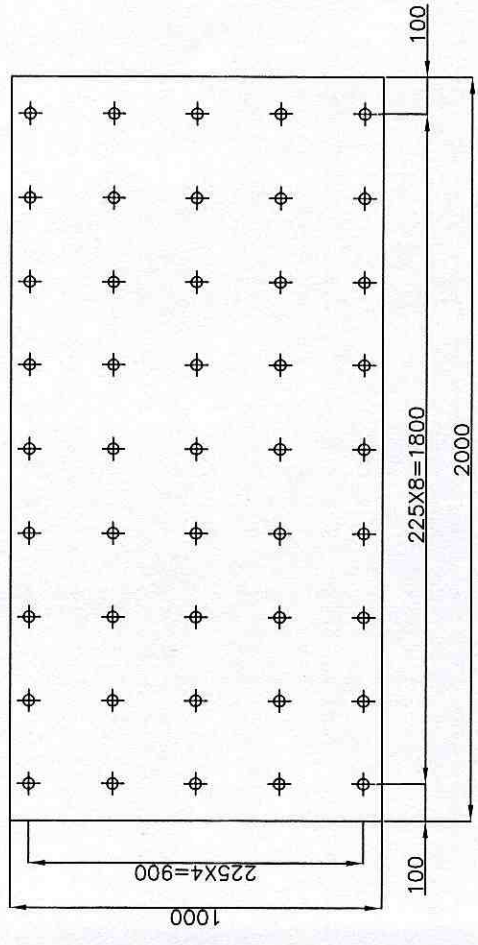
The Agency laying the Polymer Sheet, should guarantee for the work he has carried out, including the material supplied, for a period of 2 years from the date of completion of work for each bunker, In case of failure of fixing arrangement, the vendor needs to carry out the repair work at his cost, which includes labour, scaffolding, new material supply and other materials required for repair work.

Time Duration:

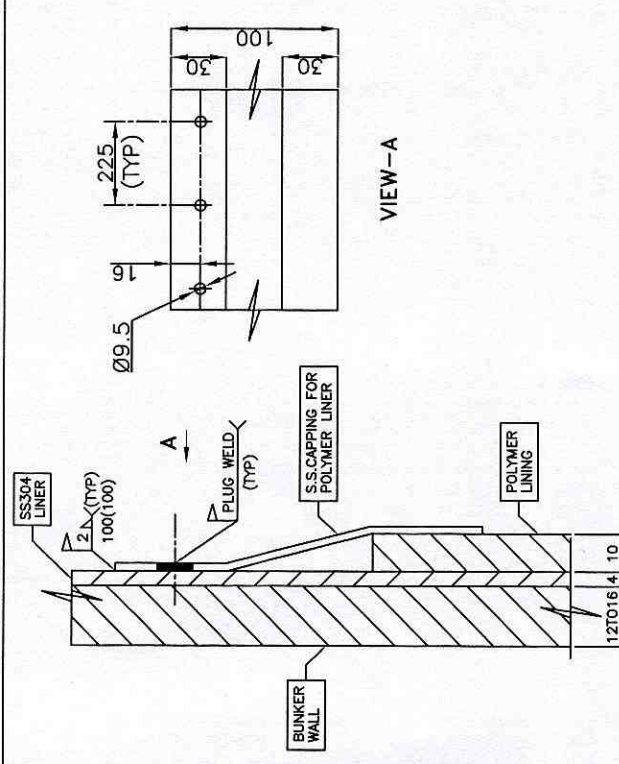
Agency should complete the above work in time duration of three weeks for two bunkers at the from purchase order or one week from the date on which the bunker was provide for lining ,whichever is later. Agency should be ready to carry out the work simultaneously in 2 bunkers.

Liquidated Damage (LD):

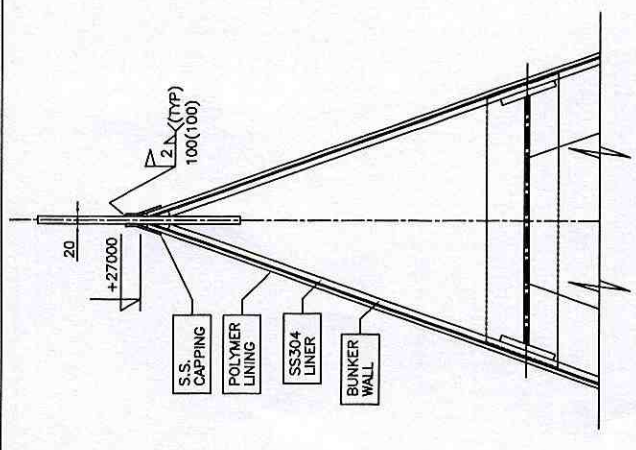
LD is applicable.



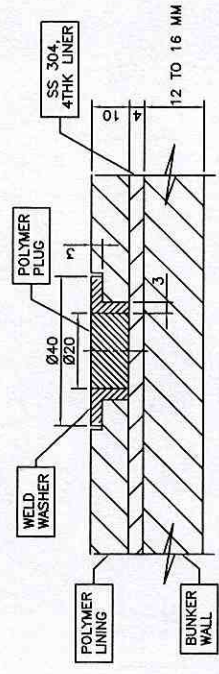
SPACING OF FASTENING POINTS FOR POLYMER LINERS (TYPICAL)



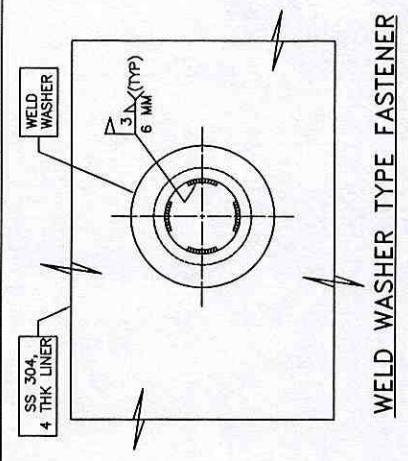
S.S. CAPPING AT LINER TOP (TYPICAL)
SHAPE DEPENDS ON ACTUAL LOCATION



S.S. CAPPING AT
TOP OF DISCHARGE HOPPERS



FIXING OF LINER WITH WELD WASHER TYPE FASTENER



WELD WASHER TYPE FASTENER