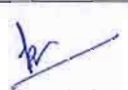
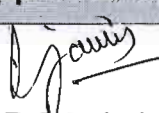
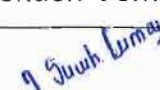
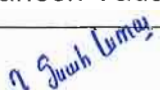




ISG BANGALORE

ENQUIRY SPECIFICATION FOR SUPPLY OF
METAL DETECTORS
BARAUNI (2 X250 MW) COAL HANDLING SYSTEMSpecification Number:
IS-1-10-2013/113ENQUIRY SPECIFICATION FOR SUPPLY OF
METAL DETECTOR WITH ACCESSORIES FOR
BARAUNI (2 X250 MW) COAL HANDLING SYSTEM

<u>DESCRIPTION</u>	<u>CONTENTS</u>	<u>SHEET NOS.</u>
COVER SHEET	INDEX	1 OF 3
SECTION -1	TECHNICAL SPECIFICATION	2 OF 3
SECTION -2	INSPECTION & TESTING	3 OF 3
ANNEXURE-1	1- IS-3-GA-660-100-E103 Rev-01 2- IS-3-GA-660-111-M091-Rev-02 3- IS-4-QP-660-111-M015 Rev-02	

	Prepared By	Checked by	Approved by
Mechanical	 Lovekush Verma	Ganesh Yadav	 R S Pujari
Electrical	 Tejavath Suresh Kumar	 Tejavath Suresh Kumar	 Santha T I
PPMG	Rakesh Pandey		R K PAL

Issued by : PE-MECH

Date: 09-01-2020

Rev no. 0

Sheet: : 1 of 3



ISG BANGALORE

ENQUIRY SPECIFICATION FOR SUPPLY OF
METAL DETECTORS
BARAUNI (2 X250 MW) COAL HANDLING SYSTEM

Specification Number:
IS-1-10-2013/113

SECTION - 1

TECHNICAL SPECIFICATION:

- 1) Design, manufacturing & Supply of 4 (four) nos. complete metal detectors system with accessories as per enclosed approved drawing (i.e., BHEL drg. no.: IS-3-GA-660-111-M091, Rev 02 including electrics and C&I.
- 2) Design, manufacturing & Supply of 4 (four) nos. control panel for above metal detectors as per approved BHEL Drawing No. IS-3-GA-660-100-E103, Rev 01. If any additional field control signals required for remote operation & monitoring through DCS system shall also be provided by the Bidder at Local control panel.
- 3) Bought out items shall be as per approved make only.
- 4) Painting shall be as per enclosed approved drawing only.
- 5) BHEL shall provide 230V AC, 50Hz, 1ph input power supply from nearby MCC or Distribution Board.
- 6) Power cabling between Local Control Panel of Metal Detector to MCC/Distribution Board shall be under BHEL scope.
- 7) Cabling (Control/ Instrumentation) between Local Control Panel of Metal Detector to DCS system shall be under BHEL scope.
- 8) Supply of internal cables between the Local control panel and all field equipment's/instruments supplied by Bidder (such as Junction Box, Signal Lamp, Hooter, Sand Bag marker, Alarm annunciation etc.)



ISG BANGALORE

ENQUIRY SPECIFICATION FOR SUPPLY OF
METAL DETECTORS
BARAUNI (2 X250 MW) COAL HANDLING SYSTEM

Specification Number:
IS-1-10-2013/113

shall be in Bidder's scope. Cabling accessories such as cable trays & accessories, glands, lugs etc. for these shall also be in Bidder's scope.

9) Supervision of erection and commissioning shall be in the scope of Bidder a per BOQ. Bidder shall consider price for two site visits of four (4) man days each. Price for supervision shall include to & fro travel expenses, boarding, lodging, local conveyance etc.

10) Performance of the equipment has to be guaranteed by bidder, as per the parameters mentioned in the drg.

SECTION - 2

INSPECTION & TESTING:

Inspection and testing shall be carried as per enclosed approved manufacturing quality plan (i.e., Doc No.: IS-4-QP-660-111-M015, Rev. 02).

BOQ

ENQUIRY NO.:IS-1-10-2013/113

PROJECT - 2X250 MW BARAUNI TPP

Equipment : METAL DETECTOR PACKAGE

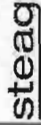
SI No	Description	UOM	Qty.	UNIT PRICE	TOTAL PRICE
	[1]	[2]	[3]	[4]	[5]=[2]X[4]
	Design, manufacturing, arranging and carrying out the inspection as per standards at shop, packing of items, supply to site, transportation of metal detectors with mechanical, electrical and C&I accessories (as per the scope mentioned in technical enquiry specifications)				
A	SUPPLY: COMPLETE METAL DETECTOR SYSTEM				
A.1	SQTA Type Metal detector with all electrics and C&I	Sets	4		
A.2	Control panel for above metal detectors with all electrics and C&I	Sets	4		
B	SUPERVISION OF ERECTION AND COMMISSIONING	Man days	8		
	TOTAL (A+B)				0

 MAIN CONTRACTOR: BENGAL TOOLS LIMITED 2, JESSORE ROAD KOLKATA-700028		QUALITY ASSURANCE PLAN										BTL QAP NO: MHPD/1061/BSEBB/M/122 REV-2 BHEL DOC NO. IS-4-QP-660-111-M015	
ITEM : METAL DETECTOR		EQUIPMENT : CHP CONVEYOR PACKAGE FOR 2 X 250 MW . BSEB, BARAUNI TPS PROJECT : 2 X 250 MW COAL BASED EXTN. TPS AT BARAUNI CONTRACT /LOI NO. : 77/11/0121/AK DATED: 16-SEP-11 SHEET NO-1 OF 2										FOR MECHANICAL COMPONENT MANUFACTURER MQP NO: MI/BTL/BARAUNI/MD/QAP	
SL NO	COMPONENTS & OPERATIONS	CHARACTERISTICS	CLASS/ CATEGORY	TYPE/METHOD OF CHECK	QUANTAM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY			REMARKS	
					M	C/B			M	B	C	D	
1	2	3	4	5	6	7	8	9	10			11	
M/S BENGAL TOOLS LIMITED M/S Magnet Industries (Cal) Pvt. Ltd. MANUFACTURER SIGNATURE													
LEGEND : M: MANUFACTURER/SUB-SUPPLIER/BTL, B: BHEL/BHEL NOMINATED TPIA, P: PERFORM, W: WITNESS, V: VERIFICATION AS APPROPRIATE, Ma:Major,Mi :Minor, Cr:Critical, IR: Inspection Report, C: BSEB/BSEB NOMINATED TPIA													
DOC. NO REV --- CAT --- REVIEWED BY APPROVED BY APPROVAL SEAL													

Mullikarjun Nayak
 Reviewed & Forwarded
 MHPD/1061/BSEBB/M/122
 BHEL-ISC, BANGALORE
 2012.12.04 15:35:31
 +05'30'

Digitally signed by Neeraj Dwivedi
 DN: cn=Neeraj Dwivedi, o=STEAG
 Energy Services (India) Pvt Ltd.,
 ou=Engineering,
 email=nk.dwivedi@steag.in, c=IN
 Date: 2012.12.10 17:43:31 +05'30'


INFORMATION NOTED
 Information furnished in the drawing is noted.



ETG025-BHEL-3-M-12-1559

A	B	C	D	E	F	G	H	I	J	K	L	M	N		
 QUALITY ASSURANCE PLAN															
2	Project Name										2 x 250 MW BARAUNI THERMAL POWER PROJECT, BARAUNI BIHAR.				
3	Client/Customer's Name			Bengal Tools Limited			QAP Date			26.02.12					
4	Purchase Order No			BTL/MHPD-1061/8059			Dated			16.02.12					
5	Revision No.														
6	Contractor														
7	BTL's Sub-contractor														
8	Page No														
9	(Name and address)														
10	Manufacturer's (Name & Address)														
11	MOP No.														
12	Main Item/ System														
13	Rev dt														
14	Sl No	COMPONENTS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM/ FREQUENCY OF	REFERENCE DOCUMENT/ ACCEPTANCE	ACCEPTANCE NORMS	FORMAT OF RECORD	INSPECTION AGENCY				Remarks	
15	1	2	3	4	5	6	7	8	9	10					
16	A RAW MATERIAL										M	S	B	C	
17	A1	Metal Detector search coil (Wood work)	Dimensions Construction	Major	Visual	100%	Approved Drgs.	As per approved drawing	Supplier's Test Certificate	P	V	V	V	Verification of Supplier's Test Certificates	
20	B FINAL INSPECTION										P	P	P	P	
21	B1	Metal Detector (Control Panel, Search Coil and Accessories)	Routine Dimensions	Major	Visual	100%	Approved Drgs.	As per app Dwg	Supplier's Test Certificate	P	P	P	P	Verification of BOM and Make Suppliers Test Certificate	
			OPERATIONAL / FUNCTIONAL	Major	Electrical	100%	Approved Drgs.	As per spec	Inspection Report	W	W	W	W		
			Ref Voltages	Major	Electrical	100%	Approved Drgs.	As per O & M	Inspection Report	W	W	W	W		
			Operation of SBM	Major	Electrical	100%	As per spec	As per spec	Inspection Report	W	W	W	W		
			Sensitivity Check	Major	Visual	100%	As per spec	physical	Inspection Report	W	W	W	W		
			System working with accessories	Major	Visual	100%	As per spec	physical	Inspection Report	W	W	W	W		
			IR & HV	Minor	Visual	100%	IS 13947	physical	Inspection report	W	W	W	W		
			BOM verification	Minor	Visual	100%	As per app Dwg	physical	Inspection report	P	V	V	V		
33	E3 PAINTING										P	W	W	V	Compliance Certificate
34	E4	Paint Shade Thickness	Visual Measurement	Major	Visual	100%	Approved Drawing 110-140 microns	As per tech spec	Painting Report/Certificate	P	W	W	V		
35	Manufacturer's Signature & Seal										Name & Signature of Approving Authority & Seal				
50	LEGEND														
51	M	Magnet Industries (Cal) Pvt. Ltd.			Perform										
52	S	Bengal Tools Limited			Verify										
53	B	BHEL			Witness										
54	C	BSEB/BSEB NOMINATED TPIA													

Note: Verification of BOM of Control Panel to include verification of Make also.

TESTING PROCEDURE FOR METAL DETECTOR:

PURPOSE: FUNCTIONAL TESTING OF METAL DETECTOR FOR DETECTION OF DIFFERENT METAL PIECES OF REQUIRED SIZES PER APPROVED DRG. /DATA SHEET.

PROCEDURE:

- 1) CONNECT CONTROL PANEL TO SEARCH COIL WITH CABLE & RELATED ACCESSORIES.
- 2) CHECK DETECTION OF METAL FERROUS & NON FERROUS METAL PIECES OF SIZES AS PER APPROVED DRG./DATA SHEET BY PASSING THEM THROUGH OF THE COIL.
- 3) UPON THE METAL DETECTION, CHECK ALL THE OUTPUT CONTACT & OUTPUT VOLTAGE AS PER APPROVED ELECTRICAL WIRING DIAGRAM.
- 4) RECORD THE RELATED TEST CERTIFICATES.
- 5) AS SOON AS THE METAL IS DETECTED, A SIGNAL FROM THE PANEL WILL GO TO THE SAND BAG MARKER AND OPERATE THE SOLENOID OPERATED MECHANISM WHICH PULLS THE ROD SO THAT THE BAG WILL FALL ON THE MATERIAL BELT (FOR EASY LOCATION OF THE TRAMP).

