

01	31.01.2018	Revised issue- Changes made as per TCS dtd 31.01.18	MRM	RA	RA
00	06.12.2017	Fresh Issue	MRM	RA	RA
REV	DATE	DESCRIPTION / NOTE	PRD	CHD	APD

REVISIONS

TITLE :

QUALITY PLAN FOR AHP/CHP STRUCTURES

OWNER / PROJECT:



BANGLADESH-INDIA FRIENDSHIP POWER
COMPANY PVT. LTD, DHAKA, BANGALADESH 2x660
MW MAITREE STPP, RAMPAL, BANGLADESH

CUSTOMER CONSULTANT :

FICHTNER

M/s FICHTNER GmbH & Co KG,
Stuttgart, GERMANY

EPC CONTRACTOR :



BHARAT HEAVY ELECTRICALS LTD.
BOILER AUXILIARIES PLANT, RANIPET

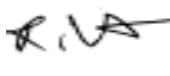
	NAME	DATE	
PREPARED BY	RAJAMANICKAM.M	31.01.2018	STATUS : <i>FOR APPROVAL</i>
CHECKED BY	R ARUNACHALAM	31.01.2018	BHEL CUST NO : R4R5 & R4R6
APPROVED BY	R ARUNACHALAM	31.01.2018	BHEL DOC NO : MAIT:C&AHP:R4R5-R4R6
			REV NO : 01
			QP CATEGORY: CAT. I AS PER VOL. I.B
			SHEET NO : 1 OF 1

CUSTOMER DRG./DOC NO.: MAITREE-0-UET-MQA-200336-RPT-A

 RANIPET		MANUFACTURER'S NAME AND ADDRESS M/S BHEL: BAP: RANIPET 632 406 TAMIL NADU & BIFPCL APPROVED VENDORS		MANUFACTURING QUALITY PLAN			PROJECT : 2X660MW MAITREE STPP PACKAGE : CHP&AHP CUST NO. : R4R5-R4R6 CONTRACT NO : BIFPCL/EPC-MAIN PLANT/2016/215 MAIN-SUPPLIER: BHEL, RANIPET							
				ITEM: CHP& AHP SUB-SYSTEM: Fabricated Steel Structure for CHP&AHP- Columns	QP NO.: MAIT:C&AHP: R4R5-R4R6 REV. NO.:01 DATE: 31.01.2018 PAGE: 01 OF 03, QP CAT: CAT.I									
SL. NO	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
					M	C / B			M	D*	M	C	B	
1.	2.	3.	4.	5.	6.		7.	8.	9.	D*	** 10.			11.
1.0 1.1	RAW MATERIAL Plates, Rolled Section	Chemical & Mechanical properties (*)	Major	Chemical and	One/ heat	One/ heat	Respective material specification & Approved/ Mfr drawing ASTM A435		TC	√	P	V	V	(*) Typical TCs for plates thk>40mm will be submitted to customer for verification
		Soundness of plates >25mm	Major	Tensile test UT	100%	100%			TC	√	P	V	V	
2.0	IN-PROCESS CONTROL	Welders are pre-qualified to AWS D1.1& procedures are pre-qualified as per AWS D1.1- PQR, PQR, WPS									P	V	V	
2.1	Welding	Completeness after welding- Dimension	Major	Visual	100%	100%	ASME Sec. V		DR		P	V	-	
2.2	Full penetration welds/ Butt Welds	RT/UT	Critical	NDT	100%	100%	AWS D1.1 BHE: NDT: RP:RT:01 (Latest) BHE:NDT:RP:UT:04 (Latest)		R	√	P	W	V	

 MANUFACTURER/ SUB-SUPPLIER		 MAIN-SUPPLIER		LEGEND: * RECORDS, IDENTIFIED WITH "TICK" (√) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION. ** M: MANUFACTURER/SUB-SUPPLIER C: MAIN SUPPLIER, B: BIFPCL P: PERFORM W: WITNESS AND V: VERIFICATION. AS APPROPRIATE, CHP: BIFPCL SHALL IDENTIFY IN COLUM "B" AS ' W" TC- TEST CERTIFICATE, DR- DIMENSION REPORT	FOR BIFPCL USE	DOC. NO.:		REV..... CAT.....	
SIGNATURE						REVIEWED BY	APPROVED BY	APPROVAL SEAL	

 RANIPET		MANUFACTURER'S NAME AND ADDRESS M/S BHEL: BAP: RANIPET 632 406 TAMIL NADU & BIFPCL APPROVED VENDORS		MANUFACTURING QUALITY PLAN			PROJECT : 2X660MW MAITREE STPP PACKAGE : CHP&AHP CUST NO. : R4R5-R4R6 CONTRACT NO : BIFPCL/EPC-MAIN PLANT/2016/215 MAIN-SUPPLIER: BHEL, RANIPET							
				ITEM: CHP& AHP SUB-SYSTEM: Fabricated Steel Structure for CHP&AHP- Columns		QP NO.: MAIT:C&AHP: R4R5-R4R6 REV. NO.:01 DATE: 31.01.2018 PAGE: 02 OF 03, QP CAT: CAT.I								
SL. NO	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
					M	C / B				D*	M	C	B	
1.	2.	3.	4.	5.	6.		7.	8.	9.	D*	**	10.	11.	
2.3	Fillet welds	LPI / MPI	Major	NDT	10%	5%	AWS D1.1, BHE: NDT:RP:PT:01 (Latest) BHE: NDT: RP: MT: 01 (Latest)		DR	√	P	V	-	
3.0	FINAL INSPECTION	Critical dimension, straightness, distortion, appearance Check for dispatch unit- Match mark	Major	Visual/ Physical	100%	10%	Drawing, PRQA 756		DR	√	P	W	W*	*-Any one column/ project shall be witnessed for trial assembly
3.1	Trial Assembly of columns		Major	Visual/ Physical	100%	10%	Drawing		DR	√	P	W	-	
3.2	Surface Preparation & Painting	Surface Preparation & DFT	Major	Visual, Measurement,	100%	Random	As Per Approved Painting Schedule		R	√	P	V	V	

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MANUFACTURER/ SUB-SUPPLIER				MAIN-SUPPLIER					
SIGNATURE				REVIEWED BY		APPROVED BY		APPROVAL SEAL	

 RANIPET	MANUFACTURER'S NAME AND ADDRESS M/S BHEL: BAP: RANIPET 632 406 TAMIL NADU & BIFPCL APPROVED VENDORS	MANUFACTURING QUALITY PLAN		PROJECT : 2X660MW MAITREE STPP
		ITEM: CHP& AHP SUB-SYSTEM: Fabricated Steel Structure for CHP&AHP- Columns	QP NO.: MAIT:C&AHP: R4R5-R4R6 REV. NO.:01 DATE: 31.01.2018 PAGE: 03 OF 03, QP CAT: CAT.I	PACKAGE : CHP&AHP CUST NO. : R4R5-R4R6 CONTRACT NO : BIFPCL/EPC-MAIN PLANT/2016/215 MAIN-SUPPLIER: BHEL, RANIPET

Notes:

- 1) All material/ information shall be as per approved drawing/ data sheet. In case not mentioned in the approved drawing/ data sheet, then manufacturing drawing/ data sheet shall be applicable
- 2) All structures shall be inspected and despatched in despatchable welded sections.
- 3) Loose items and other minor items like fasteners, clips, clamps, plates, rolled sections & fabricated items of rolled sections etc (as applicable) which do not involve trial assembly or matching at shop of Cat-I PGMAs can be considered as Cat- III items.
- 4) Inspection shall be in compliance with approved quality control procedure for the product.
- 5) Welding shall be carried out by qualified welders with traceable WPQ in line with approved WPS and qualified PQR, as per AWS.
- 6) NDT shall be carried out by qualified personnel with compliance to approved NDT procedures and acceptance norms as per ASME section V.
- 7) Gauges and measuring instruments, with valid calibration only shall be used.
- 8) Cleaning and painting of products shall be carried out as per approved painting schedule as applicable.
- 9) Finished products shall be packed to comply with approved packing schedule.
- 10) Latest revision of standards & specification shall apply.

RECORD OF REVISION

REV NO	EFFECTIVE DATE	DETAILS OF REVISION MADE
REV.00	06.12.2017	Original Issue- First submission
REV.01	31.01.2018	Changes made as per TCS dtd 31.01.2018

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				REVIEWED BY	APPROVED BY	APPROVAL SEAL