

BHARAT HEAVY ELECTRICALS LIMITED – BHOPAL **QUALITY ASSURANCE -HYDRO**

SHEET- 1 OF 7

Q A PLAN NO.: QA/HG/568 REV 03 DTD :06.12.2022
CUSTOMER: M/s PSPCL

PROJECT: SHAHPURKANDI PH-I (3X33 MW) & PH-II (3X33 MW) HEP
EQUIPMENT: HYDRO GENERATOR (SEMI-UMBRELLA TYPE)

ABBREVIATIONS:

CHP: CUSTOMER HOLD POINT	NDT: NON DESTRUCTIVE TESTS
CT: CHEMICAL TEST	P: PERFORM
D: DOCUMENT SUBMISSION TO CUSTOMER	QCR: QC REPORT
DPT: DYE PENETRATION TEST	SAMPLE: ONE SAMPLE PER HEAT/PER LOT AS PER SPEC.
DRG: DRAWING	SPEC: BHEL SPECIFICATION
ET: ELECTRICAL TEST	T: TEST
HV: HIGH VOLTAGE TEST	TC: TEST CERTIFICATES
IR: INSULATION RESISTANCE	UT: ULTRASONIC TEST
M: MEASUREMENT	V: VERIFICATION OF RECORDS
MPI: MAGNETIC PARTIAL INSPECTION	VIS: VISUAL EXAMINATION
MT: MECHANICAL TEST	W: WITNESS

NOTE: a. In Agency column: 1 indicates Customer, 2 indicates BHEL/ BHEL appointed Third Party Inspection Agency, 3 indicates Manufacturer (BHEL) & 4 indicates manufacturer (Sub-supplier registered with BHEL)

b. For Mild Steel Plate, Test Certificate shall be made available for thickness above 25 mm only.

c. Turbine shaft and generator shafts are manufactured using CNC programme to ensure accuracy and interchangeability. The approval of the Chief Engineer & the Engineer in-charge shall not relieve the contractor of its obligations & liabilities

Technical Advisor
SKPP

BHEL
CHDMPA

PADMANABH
D. MENON
QMT DESIGN
BHEL, CHDMPA

206 MW Shahpurkandi Power Project PSPCL, Patiala			
Checked	Submitted	Recommended	Approved
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
CEE/ SR. XEN	Addl. SE	SE DY CE SKPP	CE/ Hydel Projects

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CUSTOMER: M/s PSPCL									
Sl. No	Component/ assembly/ operation	Characteristics	Type	Quantum	Reference Document(s)	Format of Record	Agency		
							4	3	2 1 D
2.6	Wound Stator Segment (Without Connectors & Joint Coils)								
2.6.1		HV & IR Test	ET	100%	Dtg	QCR	-	P	W W QCR
2.7	RIM PUNCHINGS								
2.7.1		Dimensional checks of first off punching	M	Sample	Dtg	QCR	-	P	W V QCR
2.8	RIM END PLATES								
2.8.1		Final major dimension checks	M	100%	Dtg	QCR	P	-	W V QCR
2.9	SPIDER ASSEMBLY								
2.9.1		Final major dimension check after fabrication	M	100%	Dtg	QCR	-	P	W V QCR
2.9.2		UT after fabrication on Butt welds	UT	100%	Dtg	QCR	-	P	W V QCR
2.9.3		DPT or MPT after fabrication on fillet welds	DPT/MPT	100%	Dtg	QCR	-	P	W V QCR
2.9.4		Final major dimensional checks after machining	M	100%	Dtg	QCR	-	P	W V QCR
2.10	COLLECTOR ASSY								
2.10.1		Raw material verification	-	100%	Dtg/Tech. Spec.	QCR	P	-	W V QCR
2.10.2		Final main dimension check	M	100%	Dtg	QCR	P	-	W W QCR
2.10.3		IR & HV test	ET	100%	Dtg	QCR	P	-	W W QCR
2.11	POLE PUNCHING								
2.11.1		Dimension check of first off punchings	M	Sample	Dtg	QCR	-	P	W V QCR

shall not relieve the contractor of its obligations & liabilities.

206 MW Shahpurkandi Power Project			
PSPCL, Patiala			
Checked	Submitted	Recommended	Approved
AEE/ K. XEN	Addl SE	SE DY CE SKPP	GE/ Hydel Projects

AADHAR SHARMA
 Dy. Manager
 OWT Division
 BHEL, BHOPAL