

MAIN SUPPLIER BHEL-PIPING CENTRE 	MANUFACTURER'S NAME AND ADDRESS	TENDER QUALITY PLAN			
		ITEM : CONDENSATE TRANSFER PUMP	QP NO. PC-CP-DN-QP00 REV.NO.:00 DATE: 26/09/2016	PROJECT : DARLIPALLI (2X800 MW) & NORTH KARANPURA (3x660 MW) TPS	
				CUSTOMER : NTPC	
				PAGE: 1 OF 2	

SL No	COMPONENT & OPERATIONS	CHARACTERISTICS	CLAS S	TYPE OF CHECK	QUANT UM OF CHECK	REFERENCE DOCUMENT #	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
1	2	3	4	5	6	7	8	9	*	**			
									D	M	C	N	
1.0 MATERIAL													
1.1	CASTING, SUCTION COVER, DELIVERY COVER, CHAMBER, IMPELLER, SHAFT, NECK RING, SHAFT/SLEEVE	CHEMICAL PROPERTIES	B	CHEMICAL ANALYSIS	100%	APPROVED DRAWING / DATASHEET / MATERIAL SPECIFICATION		MTC	√	P	V	V	
		MECHANICAL PROPERTIES	B	MECH ANALYSIS	100%	APPROVED DRAWING / DATASHEET / MATERIAL SPECIFICATION			√	P	V	V	
1.2	SHAFT	SOUNDNESS	B	UT FOR $\Phi \geq 40$ MM	100 %	ASTM A 388	ASME Sec VIII Div II CI 3.3.4	MTC	√	P	V	V	
1.3	MECHANICAL SEAL & COUPLING	CHEMICAL & MECHANICAL TEST	B	VERIFICATION	100 %	APPROVED DRAWING / DATASHEET / MATERIAL SPECIFICATION		MTC	√	P	V	V	
1.4	MOTOR @	ELECTRICAL CHARACTRISTIC	B	ROUTINE TEST	100 %	IS 325 & MOTOR DATASHEET		TEST REPORT	√	P	V	V	@Procurement as per NTPC approved vendor list. REFER NOTE 1
				TYPE TEST	1 per type								
2.0 INPROCESS INSPECTION													
2.1	ALL ITEMS UNDER 1.0 ABOVE	CASTING DEFECTS	B	VISUAL	100 %	CASTING WILL BE FREE FROM CRACKS, SHRINKAGE, COLD SHUTS, INJURIES, POROSITY, SAND FUSION ETC		-	√	P	V	V	
2.2	CASING, CASING COVER	PR.TIGHTNESS	B	HYDRO TEST	100 %	APPROVED		IR	√	P	V	V	
2.2	IMPELLERS	SURFACE DEFECTS	A	LPI ON MACHINED SURFACES	100 %	ASTM E 165	ASME SEC VIII DIV 1	IR	√	P	V	V	
2.3	SHAFT	DIMENSION	B	MEASUREMENT	100 %	APPROVED DRAWING / DATASHEET		IR	√	P	V	V	
		LPI	A	NDT		ASTM E 165	ASME SEC VIII DIV 1	IR	√	P	V	V	
2.4	IMPELLER	BALANCING	A	DYNAMIC BALANCING	100 %	ISO 1940		BALANCIN G REPORT	√	P	V	V	
3.0 FINAL INSPECTION													
3.1	COMPLETE PUMP	VISUAL OVERALL DIMENSION	B	VISUAL & MEASUREMENT	100 %	APPROVED DRAWING / DATA SHEET		IR	√	P	W	W	

		LEGEND: * RECORDS, INDENTIFIED WITH “TICK” (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION. CLASS : A -CRITICAL B -MAJOR C -MINOR ** M : MANUFACTURER/SUB-SUPPLIER C : MAIN SUPPLIER(BHEL/BHEL AIA) N : CUSTOMER/CONSULTANT P : PERFORM W : WITNESS V : VERIFICATION. AS APPROPRIATE	DOC. NO.: _____ REV..... CAT..... _____	
MANUFACTURER/ SUB-SUPPLIER	MAIN-SUPPLIER			
SIGNATURE			REVIEWED BY	APPROVED BY

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										M	C	N	

3.2	PERFORMANCE TEST WITH INDIVIDUAL JOB MOTOR	1) Q Vs HEAD 2) Q Vs POWER 3) Q Vs EFFICIENCY 4) VIBRATION 5) NOISE LEVEL 6) BEARING TEMPERATURE RISE	A	PERFORMANCE TEST	100 %	APPROVED DATA SHEET	TEST REPORT / PLOTTED CURVES / IR	IR	√	P	W	W	
		NPSH @	B	NPSH TEST AT RATED FLOW	100%	APPROVED DATA SHEET		IR	√	P	W	W	NOTE 2
3.3	STRIP TEST	STRIP DOWN TEST	A	VISUAL	100 %	APPROVED DATASHEET	NO WEAR / TEAR/ DAMAGE	IR	√	P	W	W	NOTE 3
4.0	PAINTING												
	PAINTING	SURFACE PREPARATION, APPEARANCE & DFT & SHADE, ADHESION TEST	B	VISUAL & MEASUREMENT	100 %	MANUFACTURER'S STANDARD / PURCHASE SPECIFICATION / PURCHASE ORDER		IR	√	P	V	V	
5.0	PACKING & PRESERVATION												
	PACKING & MARKING	SURFACE CONDITION, CLEANLINESS, MARKING, END CAP	B	VISUAL	100 %	MANUFACTURER'S STANDARD / PURCHASE SPECIFICATION / PURCHASE ORDER		IR	-	P	V	V	

NOTE :

- FOR MOTOR TEST, SEPARATE QP SHALL BE SUBMITTED FOR REVIEW AND APPROVAL.
- NPSH TEST WILL BE CONDUCTED AS PER APPROVED DATASHEET.
- STRIP TEST WILL BE DONE ONLY INCASE OF ABNORMAL NOISE & VIBRATION DURING THE PERFORMANCE TESTING OF PUMP.

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SIGNATURE			REVIEWED BY	APPROVED BY	APPROVAL SEAL	