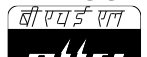


MAIN SUPPLIER BHEL-PIPING CENTRE 	MANUFACTURER'S NAME AND ADDRESS	MANUFACTURING QUALITY PLAN		
		ITEM : HC COMBINED PRDS CONTROL VALVE	QP NO. PC- PRDS-QP-01	PROJECT : NEW NEYVELI (1X500 MW)
			REV.NO.:00	CUSTOMER : NLC
		SUB-SYSTEM: POWER CYCLE PIPING	DATE: 18/12/2017	PAGE: 1 OF 2

SL No	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT #	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY	REMARKS
1	2	3	4	5	6	7	8	9	* D	** M C

1.0 MATERIAL (All material of construction shall be as per approved drawing/ datasheet and acceptance norms shall be as per relevant standards)

1.1	BODY, BONNET – CASTING / FORGING, STEM, DISC, SEAT,PLUG	CHEMICAL &MECHANICAL PROPERTIES	B	REVIEW OF MTC	100 %	APPROVED DRAWING / DATASHEET / MATERIAL SPECIFICATION	MTC	√	P	V	
		SOUNDNESS		RT/UT FOR BODY, UT FOR BONNET	100 %	ASME B 16.34	IR	√	P	V	ONLY FOR RATING 900 & ABOVE
				UT FOR DIA ≥ 50 mm	100 %	ASME B 16.34		√	P	V	Relevant IBR Forms shall be furnished
		DIMENSION	B	MEASUREMENT	100 %	APPROVED DRAWING / DATASHEET	IR				
1.2	FASTENERS	CHEMICAL &MECHANICAL PROPERTIES	B	CHEMICAL & MECHANICAL		APPROVED DRAWING / DATASHEET / MATERIAL SPECIFICATION	MTC	√	P	V	
1.3	ACCESSORIES	VERIFICATION OF TC	B	TC REVIEW	100 %	APPROVED DRAWING / DATASHEET	TC	√	P	V	

2.0 INPROCESS INSPECTION

2.1	MACHINING OF BODY INTERNALS	DIMENSION	B	MEASUREMENT	100 %	APPROVED DRAWING		IR	-	P	-	
		SURFACE DEFECTS	B	MT/PT ON MACHINED SURFACES	100% @	ASME SEC V	ASME SEC VIII – DIVISION 1	IR	√	P	-	@ ALL ACCESSIBLE AREAS
		HARDFACING (IF APPLICABLE)	B	HARDNESS MEASUREMENT		MANUFACTURER STANDARD		IR	√	P	V	
2.2	WELDING	a) WELDING PARAMETER - WPS, PQR	B	REVIEW OF RECORDS	100 %	ASME SEC IX	ASME SEC IX	WPS, PQR	√	P	V	
		b) WELDER PERFORMANCE - WPQ	B	REVIEW OF RECORDS	100 %	IBR	IBR	WPQ	√	P	V	
		c) NDT – RT ON BUTT WELD	B	NDE	100 %	ASME SEC V / VIII	ASME SEC VIII – DIVISION 1	IR	√	P	V	
		d) LPI ON FILLET WELD/ BRANCH/ ATTACHMENT WELD	B	NDE	100 %	ASME SEC V / VIII	ASME SEC VIII – DIVISION 1	IR	√	P	V	
2.3	PWHT	TIME & TEMP CONTROL	B	REVIEW OF HT CHART	100 %	HT PROCEDURE		RECORD	√	P	V	

3.0 FINAL INSPECTION

3.1	BODY MOUNT LEAKAGE TEST	LEAKAGE TEST	A	HYDRO TEST	100 %	ASME B 16.34 / APPROVED DATA SHEET		TC	√	P	W	
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		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) P: PERFORM W: WITNESS V: VERIFICATION. AS APPROPRIATE CHP : CUSTOMER HOLD POINT	DOC. NO.:		REV..... CAT.....	
MANUFACTURER/ SUB-SUPPLIER	MAIN-SUPPLIER					
SIGNATURE			REVIEWED BY	APPROVED BY	APPROVAL SEAL	

MAIN SUPPLIER BHEL-PIPING CENTRE 	MANUFACTURER'S NAME AND ADDRESS	MANUFACTURING QUALITY PLAN		
		ITEM : HC COMBINED PRDS CONTROL VALVE	QP NO. PC- PRDS-QP-01	PROJECT : NEW NEYVELI (1X500 MW)
			REV.NO.:00	CUSTOMER : NLC
		SUB-SYSTEM: POWER CYCLE PIPING	DATE: 18/12/2017	PAGE: 2 OF 2

SL No	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTITY OF CHECK	REFERENCE DOCUMENT #	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY		REMARKS
1	2	3	4	5	6	7	8	9	*	**		
									D			
3.3	SEAT LEAKAGE TEST	LEAKAGE TEST	A	HYDRO TEST	100 %	FCI 70.2 / APPROVED DATA SHEET		TC	√	P	W	
3.3	FUNCTIONAL / PERFORMANCE TEST	STROKE TIME (OPEN / CLOSE), VALVE TRAVEL, HYSTERESIS, LINEARITY, REPEATABILITY, FAIL SAFE OPERATION	A	MEASUREMENT	100 %	APPROVED DRAWING / DATASHEET, MANUFACTURER STANDARD		TC	√	P	W	
3.4	CV TEST@	VALVE CHARACTERISTICS	A	TYPE TEST	ONE / TYPE	APPROVED DRAWING / DATASHEET / ISA 75.02		TC	√	P	W/V	@CHP. NOTE 1
3.5	ACTUATOR	MAKE, MODEL, TAG	A	VISUAL, PNEUMATIC TEST	100 %	APPROVED DATASHEET / MANUFACTURER STANDARD		TC	√	P	W	
		AIR LEAKAGE TEST										
3.6	FINAL INSPECTION	COMPLETENESS	B	VISUAL	100 %	APPROVED DRAWING / DATASHEET		IR	√	P	W	
		OVERALL DIMENSION	A	MEASUREMENT	100 %	APPROVED DRAWING / DATASHEET		IR				
		PMI CHECK	A	Verification	100% Alloy steel	RELEVANT MATERIAL SPECIFICATION		IR	√	P	W	
4.0	PAINTING											
	PAINTING	SURFACE PREPARATION, APPEARANCE, DFT, SHADE & ADHESION	B	VISUAL & MEASUREMENT	100 %	BHEL APPROVED PAINTING SCHEME		IR	√	P	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	
6.0	DOCUMENTATION											
	QUALITY DOCUMENTATION	COMPLETENESS OF RECORDS	B	REVIEW OF DOCUMENTS	100 %	TECH. SPEC / APPD. DRG / IBR FORM		DOC. PACKAGE, IBR FORM III C, TEST REPORTS	√	P	V	IBR FORM III C SHALL BE PROVIDED

NOTE : 1. CV TYPE TEST REPORTS WILL BE SUBJECTED TO BHEL REVIEW. INCASE, TYPE TEST CERTIFICATE NOT FOUND VALID, SAME SHALL BE CONDUCTED IN FCRI/NABL ACCREDITED LAB/ANY GOVT APPVD LAB/SUPPLIER'S OWN LAB.

		LEGEND: * RECORDS, IDENTIFIED 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) P: PERFORM W: WITNESS V: VERIFICATION. AS APPROPRIATE CHP : CUSTOMER HOLD POINT	DOC. NO.: REV..... CAT.....		
MANUFACTURER/ SUB-SUPPLIER	MAIN-SUPPLIER				
SIGNATURE			REVIEWED BY	APPROVED BY	APPROVAL SEAL