

		STANDARD MANUFACTURING QUALITY PLAN						MQP. NO.: SMQP/FPS/22/A/092013					
		PROJECT ENGINEERING & SYSTEMS DIVISION BHEL, RC PURAM, HYD-502032			PRODUCT: DELUGE VALVE			REV NO: 00		DATE: 01/09/2013			
								PAGE 1 OF 3					
SL NO	COMPONENTS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	* D	AGENCY			REMARKS
										P	W	V	
1.0	RAW MATERIALS & BOUGHT OUT ITEMS												
1.1	BODY & COVER (C.I. CASTINGS)	i) Mechanical	Major	Tensile	One (1) Per Heat	App TDS/Drg./Spec.	App TDS/Drg./Spec.	Lab/Mfg. TC	√	2	--	1	
		ii) Dimension	Major	Measurement	At random (Two) Per Heat	App TDS/Drg./Spec.	App TDS/Drg./Spec.	IR		2	2	1	
		iii) Physical Obsvn.	Major	Visual	100%	Surface free from harmful defects	Surface free from harmful defects	IR		2	2	1	
1.2	CLAPPER, SEAT & CLAMPS (GM CASTINGS)	i) Mechanical Test & Chemical Test	Major	Tensile & Chemical Analysis	One (1) Per Heat	App TDS/Drg./Spec.	App TDS/Drg./Spec.	Lab/Mfg. TC	√	2	--	1	
		ii) Dimension	Major	Measurement	At random (Two) Per Heat	App TDS/Drg./Spec.	App TDS/Drg./Spec.	IR		2	2	1	
		iii) Physical Obsvn.	Major	Visual	100%	Surface free from harmful defects	Surface free from harmful defects	IR		2	2	1	
1.3	SEAT, RUBBER & DIAPHRAGM	i) Mechanical	Major	UTS	One (1) Per Heat	App TDS/Drg./Spec.	App TDS/Drg./Spec.	Lab/Mfg. TC	√	2	--	1	
		ii) Polymer Test	Major	Chemical Test & FTIR Graph	One (1) Per Heat	Neoprene Rubber	Neoprene Rubber	Lab/Mfg. TC	√	2	--	1	
2.0	INPROCESS INSPECTION												

LEGEND: P: PERFORM, W: WITNESS, V: TEST CERTIFICATE REVIEW. INDICATE 1 FOR BHEL / BHEL NOMINATED INSPECTION AGENCY/END USER/END USER'S REPRESENTATIVE & 2 FOR VENDOR/SUB VENDOR AS APPROPRIATE AGAINST EACH COMPONENT /CHARACTERISTIC UNDER P, W & V COLUMNS. * FOR ITEMS MARKED ✓ (TICK) IN COLUMN 'D', TEST CERTIFICATES SHALL BE SUBMITTED TO BHEL FOR RECORDS.	PREPARED BY		APPROVED BY		APPROVED BY	
			CUSTOMER'S SIGNATURE & STAMP (IF APPLICABLE)			

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2.1	Body, Cover Clapper Clamps, Seat (During machining)	i) Physical Obsvn. Dimn. Check	Major	Visual & Measure ment	100%	App TDS/Drg./ Spec.	App TDS/Drg./ Spec.	IR		2	2	1	
2.2	Body, Cover Clapper Clamps, Seat (After final machining)	i) Physical Obsvn. Dimn. Check	Major	Visual & Measure ment	100%	App TDS/Drg./ Spec.	App TDS/Drg./ Spec.	IR		2	2	1	
2.3	Body & Cover	i) Hydro Test	Major	Leak proof test	100%	25 kg/cm2 for 5 Mins.	No Leakage	IR		2	2	1	
2.4	Body & Cover	i) Surface Cleaning	Major	Pressure Test, Dressing/ Grinding/ Filing	100%	Free from surface defects	Free from surface defects	IR		2	2	1	
3.0	FINAL INSPECTION & TESTING												
3.1	DELUGE VALVE (Complete Assembly)	i) Physical Obsvn. Dimn. Check	Major	Visual & Measure ment	100% for 2 & 10% for 1	App TDS/Drg./ Spec.	App TDS/Drg./ Spec.	IR	√	2	1	-	
		ii) Seat Leak Test	Major	Hydro test (seat)	100% for 2 & 10% for 1	App TDS/Drg./ Spec.	No Leakage	IR	√	2	1	-	
		iii) Performance cum functional check	Critical	Performa nce Test	100% for 2 & 10% for 1	App TDS/Drg./ Spec.	App TDS/Drg./ Spec.	IR	√	2	1	-	
		iv) Painting & Marking	Major	Visual	100%	App TDS/Drg./ Spec.	App TDS/Drg./ Spec.	IR	√	2	2	1	
4.0	PRESERVATION & PACKING												
4.1	DV. Assy. (Painted)	Properly packing with necessary marking	Major	Visual	100%	App TDS/Drg./ Spec.	App TDS/Drg./ Spec.	Packing Report		2	2	1	

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	AMP	)P	

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4.2		Preservation must be maintained at proper place	Major	Visual	100%	App TDS/Drg./Spec.	App TDS/Drg./Spec.	Packing Report		2	2	1	

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	E _____ STAMP	BHEL (_____	/P _____