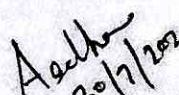
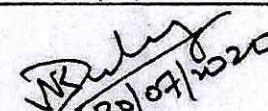
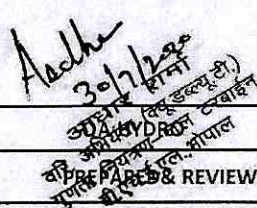


SL. NO		COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REF. DOC.	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY		REMARKS
						M	B				M	B	
1.	2.	3.	4.	5.	6.	7.	8.	9.	D*	**	10.	11.	
1.0 Raw Material & Bought- out items													
1.1	Plate Material / Castings	Chemical composition	Major	Chemical	Sample	Sample	Approved drg. of shaft seal assembly		TC	√	P	V	
1.2		Mechanical Properties	Major	Mechanical	Sample	Sample	-do-	-do-	TC	√	P	V	
1.3		Ultrasonic testing	Major	NDT	100%	100%	-do-	-do-	TC	√	P	V	
1.4	Pipe & Fittings	Chemical composition	Major	Chemical	Sample	Sample	-do-	-do-	TC	√	P	V	
1.5		Mechanical Properties	Major	Mechanical	Sample	Sample	-do-	-do-	TC	√	P	V	
1.6		Hydro test or suitable NDT	Major	Test	100%	100%	-do-	-do-	TC	√	P	V	
1.7	Strainer	Hydro test	Major	Test	100%	100%	-do-	-do-	TC	√	P	V	
1.8	Booster Pump	Performance test	Major	Test	100%	100%	-do-	-do-	TC	√	P	V	
1.9	Motor For Pump	Routine tests, HV & IR	Major	Test	100%	100%	-do-	-do-	TC	√	P	V	
1.10	Instruments- Wear indicators, temperature sensor, flow meters, flow switches, pressure transducers / transmitters etc.	Calibration, Functional test (as applicable)	Major	Test	100%	100%	-do-	-do-	TC/CoC	√	P	V	
1.11	Valves- air release, isolating, NRV, PRV etc.	Hydro pressure test & operational test	Major	Test	100%	100%	-do-	-do-	TC/CoC	√	P	V	
1.12	Rubber items	Material properties	Minor	Test	Sample	Sample	-do-	-do-	TC / CoC	√	P	V	
 30/7/2020 QA-HYDRO (सी.एच.डी.) आयुक्त (विद्युत चक्र प्रणाली) इंजिनियर (विद्युत चक्र प्रणाली) मुण्डला गिरीश कुमार, मोहल बी.एच.डी.एल., गोवा		 30/07/2020 H.T.E.		LEGEND: * RECORDS, IDENTIFIED WITH "TICK" (√) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION. ** M: MANUFACTURER/SUB-SUPPLIER, B:BHEL/ BHEL APPOINTED INSPECTION AGENCY P: PERFORM W: WITNESS AND V: VERIFICATION IR-INSPECTION REPORT QCR-QC REPORT TC-TEST CERTIFICATE RR- REVIEW OF RECORD, COC- CERTIFICATE OF COMPLIANCE									
PREPARED & REVIEWED BY (BHEL QA & DESIGN)				ACCEPTED BY (VENDOR'S QC REPRESENTATIVE)									

SL. NO		COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REF. DOC.	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY		REMARKS
						M	B				M	B	
1.		2.	3.	4.	5.	6.		7.	8.	9.	D*	** 10.	11.
2.0 In-process inspection													
2.1	Fabrication & welding	Welding process- WPS, PQR & WPQ	Major	Verification	100%	100%	ASME section IX		TC	✓	P	V	
2.2		Post weld heat treatment	Major	Verification	100%	100%	-do-	-do-	TC	✓	P	V	
2.3		UT /MPI / DPT as per weld grade	Major	NDT	100%	100%	-do-	-do-	TC	✓	P	V	
2.4	Dimension and Surface finish check of Components	Dimensional and surface finish check	Major	Measurement	100%	100%	Vendor's Component drawing		TC	✓	P	V	
3.0 Final inspection													
3.1	Shaft seal assembly	Test ring and instrumentation	Major	Verification	100%	100%	Calibration certificate		TC	✓	P	V	
3.2		Assembly & Dismantling	Major	Visual	100%	100%	Shaft seal Erection Manual		QCR	✓	P	W	
3.3		Dimensional check	Major	Measurement	100%	100%	As per Approved Drawing		QCR	✓	P	W	
3.4		Seal static test / Performance test	Critical	Hydraulic Pressure Test	100%	100%	-do-	-do-	QCR	✓	P	W	
3.5		Hydraulic test	Critical		100%	100%	-do-	-do-	QCR	✓	P	W	
3.6		Inflatable seal test	Critical		Air Test	100%	100%	-do-	-do-	QCR	✓	P	W
3.7	Control Panel	Functional check	Major	Test	100%	100%	-do-	-do-	QCR	✓	P	W	
3.8	Tools and Consumables	Physical verification	Major	Visual	100%	100%	-do-	-do-	QCR	✓	P	W	
3.9	Spares	Physical verification	Major	Visual	100%	100%	-do-	-do-	QCR	✓	P	W	
4.0	Painting & Packing	Compliance with standard	Major	Visual	100%	100%	-do-	-do-	TC	✓	P	V	
				LEGEND: * RECORDS, IDENTIFIED WITH "TICK" (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION. ** M: MANUFACTURER/SUB-SUPPLIER, B:BHEL/ BHEL APPOINTED INSPECTION AGENCY P: PERFORM W: WITNESS AND V: VERIFICATION IR-INSPECTION REPORT QCR-QC REPORT TC-TEST CERTIFICATE RR – REVIEW OF RECORD, COC- CERTIFICATE OF COMPLIANCE									
ACCEPTED & REVIEWED BY (BHEL QA & DESIGN)		H.T.E.		ACCEPTED BY (VENDOR'S QC REPRESENTATIVE)									