

		STANDARD MANUFACTURING QUALITY PLAN						MQP. NO.: PESD/QA/CP/0011					
								REV NO: 00		DATE: 12.09.2016			
		PROJECT ENGINEERING & SYSTEMS DIVISION, BHEL, RC PURAM, HYD-502032				PROJECT: GAIL Gandhar PRODUCT: GAS CHROMATOGRAPH		PAGE 1 OF 4					
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 & SPARES (IF ANY)												
1.1	Gas Chromatograph	Environmental Chamber test Factory Calibration	MA	Visual & TC Review	100%	BHEL Specification/ Datasheet/ Drawing	As per reference Documents	MFR's TC	✓	2	-	1	
1.2	Sampling Probe	Functional test	MA	Visual & TC Review	100%	BHEL Specification/ Datasheet/ Drawing	As per reference Documents	MFR's TC	✓	2	-	1	
1.3	Signal Cable	Type test Acceptance test Routine test	MA	Visual & TC Review	100%	BHEL Specification/ Datasheet/ Drawing	As per reference Documents	MFR's TC	✓	2	-	1	
1.4	Ball Valve	Visual Check Dimensional Check Hydro /Pneumatic test Air test for seat Torque test Functional test Radiography test for joints & welds	MA	Visual & TC Review	100%	BHEL Specification/ Datasheet/ Drawing	As per reference Documents	MFR's TC	✓	2	-	1	
1.5	Detector	TC Review	MA	TC Review	100%	Approved BOM	As per reference Documents	MFR's TC	✓	2	-	1	
1.6	Calibration & Carrier Gas Cylinders	Review of Test Reports	MA	TC Review	100%	BHEL Specification/ Datasheet/ Drawing	As per reference Documents	MFR's TC	✓	2	-	1	

LEGEND: P: PERFORM, W: WITNESS, V: TEST CERTIFICAT REVIEW. INDICATE 1 FOR BHEL / BHEL NOMINATED INSPECTION AGENCY& 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

BHEL QA SIGNATURE

BHEL QA SIGNATURE

CUSTOMER'S SIGNATURE & STAMP

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1.7	Desktop, Laser Jet Printer-BW, Rotary isolation Switch, GCJB, Cable Glands, SS tubes & Fittings, Table & Chair & GC stand	Review of Test Reports (As applicable)	MA	TC Review	100%	Approved BOM	As per reference Documents	MFR's TC	✓	2	-	1	
1.8	MS & CS pipes	TC Review	MA	TC Review	100%	Approved BOM	As per reference Documents	MFR's TC	✓	2	-	1	
1.9	Flanges	TC Review	MA	TC Review	100%	Approved BOM	As per reference Documents	MFR's TC	✓	2	-	1	
1.10	Gaskets	TC Review	MA	TC Review	100%	Approved BOM	As per reference Documents	MFR's TC	✓	2	-	1	
1.11	Bolting material	TC Review	MA	TC Review	100%	Approved BOM	As per reference Documents	MFR's TC	✓	2	-	1	
1.12	Safety relief valves	TC Review	MA	TC Review	100%	Approved BOM	As per reference Documents	MFR's TC	✓	2	-	1	
1.13	Pressure Gauges	TC Review	MA	TC Review	100%	Approved BOM	As per reference Documents	MFR's TC	✓	2	-	1	
1.14	Power cable	TC Review	MA	TC Review	100%	Approved BOM	As per reference Documents	MFR's TC	✓	2	-	1	
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2.0	INPROCESS INSPECTION												
3.0	FINAL INSPECTION & TESTING												
3.1	Gas Chromatograph system with Calibration & Carrier Gas	Dimensional & Physical verification of model no., serial no. and name plate, BOM verification & visual check	MA	Visual	100%	Approved BOM	As per reference Documents	Inspection Report/TC	✓	2	1	1	
3.2		Leak Test Calibration Check Repeatability Test	MA	TC Review	100%	Test Reports & Factory acceptance test(FAT)	As per reference Documents	MFR's TC	✓	2		1	
3.3		Functional test(Power on, display configuration,etc)	MA	Functional	100%	Test Reports & FAT	As per reference Documents	Inspection Report/TC	✓	2	1	1	
3.4		Review of Statutory Test Reports (Ex-proof, PESO+ATEX & intrinsic safe certificates	MA	TC Review	100%	Test Reports & Factory acceptance test(FAT)	As per reference Documents	TC	✓	2		1	
4.0	PRESERVATION & PACKING												
4.1	Material as Listed above in Bought out items	Packing, Identification markings/tagged details	MA	Visual	100%	Approved BOM	As per reference Documents	Packing List Photographs	✓	2	-	1	

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Notes:

1. This Standard MQP should be read along with specification (latest revision), approved drawings & approved data sheet.
2. Drawing/Data sheet shall prevail over Quality Plan for contradiction if any between quality plan and drawing/specification.
3. All test certificates/type test reports reviewed and certified by TPI/BHEL shall be submitted to BHEL as documentation package.
4. Any project/customer specific requirements which shall be notified have to be fulfilled by the vendor at the time of execution of order.

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