

BHEL PSSR- CHENNAI	<u>QUALITY PLAN</u> (Manufacturing Quality Plan for Bought Out Item)	DOC.No. : QPI-BOI-023 REV.No .: R00 DATE : 02/05/07
ITEM : : SILICON OIL FILTRATION PLANT – 600 LPH	INDENT NO: PMX ELEC/221 Dt 02/05/07	SHEET: 01 of 07

A.RAW MATERIAL AND BOUGHTOUT COMPONENTS					MATERIAL/ INSPECTION/ PROCESS/ INSPECTION/ FINAL INSPECTION		SUB VENDORS/ VENDORS				
Sr. No.	Component	Charecteristic	Type of check	Quantum of Check	Reference document	Acceptance norm	Format of record	Agency			Remark
1.	2.	3.	4.	5.	6.	7.	8.	9.			10.
								P	W	V	
1	RAW MATERIAL										
1.1	M.S. Plate for shell Dished ends and flanges	Chemical and physical test	Chemical analysis measurement & visual	Samples	IS: 2062	IS: 2062	Lab Test Report Verification	3	3	1	
1.2	Pipe for Interconnecting Line for pipe work	Physical, chemical Test	----do----	Samples	IS: 1239	IS: 1239	---do---	3	3	1	
2.	BROUGHOUT COMPONENTS										
2.1	Centrifugal Pump	Visual inspection, Finish	Visual	100%	Tender Spec.	No damage & meet tender spec.	Internal Report	3	3	2	
		Leakage under air Pressure	Pneumatic test At 3Kg/cm2	100%	Cee Dee Std.	No leakage with soap solution	Internal report	2	2	2	
2.2	Vacuum pumps	Performance for Required vacuum	Verification of Mfg. T. C.	100%	Tender Spec.	Tender spec.	Mfg. T.C.	3	3	2	
2.3	Electric Motors	Visual	Verification of Mfg. T. C.	100%	IS: 325	IS: 325	Mfg. T.C.	3	3	2	

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A. RAW MATERIAL AND BOUGHTOUT COMPONENTS					MATERIAL/ INSPECTION/ PROCESS/ INSPECTION/ FINAL INSPECTION		SUB VENDORS/ VENDORS				
Sr. No.	Component	Charecteristic	Type of check	Quantum of Check	Reference document	Acceptance norm	Format of record	Agency			Remark
1.	2.	3.	4.	5.	6.	7.	8.	9.			10.
								P	W	V	
2.4	Gear pump	Visual inspection Finish comparison with spec. data Plate inspection for damage	Visual	100%	Tender Spec.	No damage & meet tender spec.	Internal Report	3	3	2	
		Leakage under air pressure	Pneumatic test at 3 kg/cm2	100%	Cee Dee Std.	No leakage with soap solution	Internal report	2	2	2	
2.5	Vacuum Gauge	Calibration	Calibration check	100%	Mfg. Std..	Proper Functioning	Certificate From Mfg./Calibration report	3	3	2	
2.6	Thermostat	Calibration	Calibration check	100%	Mfg. Std	Cut in & Cut off test	Certificate from Mfg./Calibration report	3	3	2	
2.7	Dial Thermo meter	Calibration	Calibration check	100%	Mfg. Std	Proper Functioning	Certificate from Mfg./Calibration report	3	3	2	
2.8	Float switch	Visual & functional	Test on 2working conditions	100%	Mfg. Std	Proper Functioning	Mfg. T.C./ Internal report	3	3	2	
2.9	Oil hoses	Dimensions & Leak test	Measurement, Visual Check & Pressure test	100%	Cee Dee Std.	No leakage	Internal report	3	3	2	

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B. FABRICATION OF COMPONENTS INTERCONNECTIG & PIPING					MATERIAL/ INSPECTION/ PROCESS/ INSPECTION/ FINAL INSPECTION		SUB VENDORS/ VENDORS				
Sr. No.	Component	Charecteristic	Type of check	Quantum of Check	Reference document	Acceptance norm	Format of record	Agency			Remark
1.	2.	3.	4.	5.	6.	7.	8.	9.			10.
								P	W	V	
1.1	IN PROCESS Air Pressure	Leakage	Air Pressure 3 kg/cm2	100%	----	No leakage	Internal Report	2	2	2	
1.2	Control Panel Fabrication	Physical Verification	----	100%	Tender Spec.	Good finish & workmanship	Internal report	2	2	2	

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ITEM : : SILICON OIL FILTRATION PLANT – 600 LPH					INDENT NO: PMX ELEC/221 Dt 02/05/07			SHEET: 04 of 07			
C.CONTROL PANEL - IN PROCESS INSPECTION					MATERIAL/ INSPECTION/ PROCESS/ INSPECTION/ FINAL INSPECTION		SUB VENDORS/ VENDORS				
Sr. No.	Component	Charecteristic	Type of check	Quantum of Check	Reference document	Acceptance norm	Format of record	Agency			Remark
1.	2.	3.	4.	5.	6.	7.	8.	9.			10.
								P	W	V	
D.	Final inspection	Finish completeness, Thickness verification of panel, components rating, arrangement of holes as per drg.	Visual	100%	Cee Dee Std.	Cee Dee Std.	Internal Report	2	2	2	

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C. OIL PURIFICATION PLANT					MATERIAL/ INSPECTION/ PROCESS/ INSPECTION/ FINAL INSPECTION		SUB VENDORS/ VENDORS							
Sr. No.	Component	Charecteristic	Type of check	Quantum of Check	Reference document	Acceptance norm	Format of record	Agency			Remark			
1.	2.	3.	4.	5.	6.	7.	8.	9.			10.			
								P	W	V				
1	Assembled system	Trouble free running of interlocks	2 hours actual running	100%	Cee Dee std. Spec. Procedure	No undue Noise Satisfactory Functioning	Internal Inspection Report	2	1	1	H			
1.1														
1.2		Leakage of Oil	2 hours actual running	100%	Cee Dee Std. Spec.	No leakage	Internal Inspection report	2	1	1				H
2.	Performance test	Trouble free running	2 hours actual running	100%	Tech.Spec. Approved Data sheet/ Drawings & Cee DeeStd Spec.	Trouble free Running	Internal test Report	2	1	1				
		Leakage under normal running				No leakage								Internal test report

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D.OIL PURIFICATION PLANT FINAL INSPECTION					MATERIAL/ INSPECTION/ PROCESS/ INSPECTION/ FINAL INSPECTION		SUB VENDORS/ VENDORS				
Sr. No.	Component	Charecteristic	Type of check	Quantum of Check	Reference document	Acceptance norm	Format of record	Agency			Remark
1.	2.	3.	4.	5.	6.	7.	8.	9.			10.
								P	W	V	
1		Vacuum	Measurement	00%	Tech. Spec..	Tenderspec./ Mfg.TC	Internal test report		1		Hold point
2.								2		1	
3.		Discharge flow Rate	Performance test	100%	Tech. Spec	Tender spec.	Internal test report				
4.		Suspended particle Size	Performance test	100%	Tech. Spec	Tender spec.	Internal test report	2	1	1	
5.		B.D.V	Performance test	00%	Tech. Spec	Tender spec.	Internal test report	2	1	1	
6.		PPM	Performance test	100%	Tech. Spec	Tender spec.	Internal test report	2	1	1	
		Gas Content	Performance test	100%	Tech. Spec	Tender spec.	Internal test report	2	1	1	

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2.	Complete Plant	Overall Dimensions Orientation, Workmanship & Finish Completeness	Measurement & visual inspection	100%	Cee DeeStd	Cee Dee Std	Internal Inspection Report	2	1	1	Hold Point
		Verification of records	Verification	100%	proved Drawings & spec		Internal Inspection Report	2	1	1	Hold Point

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Prepared By

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