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MANUFACTURER'S NAME & **ADDRESS** 

BHEL/ BHEL APPROVED SOURCE

### STANDARD QUALITY PLAN

ITEM: MIST **ELIMINATOR** 

**Rev No. :**00 WASHING SYSTEM | Date: 27.04.2020 SUB SYSTEM:
MIST ELIMINATOTR

Page 1 of 2

PROJECT: AS PER PO.

			11	MOT LEMMINATOTI										
SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS OF CHECK	TYPE OF CHECK	QUANTU CHE	-	REFERENCE DOCUMENTS	ACCEPTANCE NORMS	FORMA OF RECOR		,	Ageno	су	REMAR KS
					6						М	В	С	
1	2	3	4	5	M	B/C	7	8	9	D		10		11

QP. NO.: MIST ELIMINATOR :742

1.0	RAW MATE	ERIAL											
1.1	Inspection of incoming Material		Major	Verification of MTC	100%	100%	Manufacturer's Test Certificates	Test certifica tes.	V	P	V	-	
1.2	Inspection of semi-finished goods(plates, profiles, pipes, nozzles etc.	Visual & Dimension	Major	Visual & Dimension	Each Heat	Each Heat	Approved Drawing / P.O.	Test certifica tes.	V	P	V	1	
2.0	IN PROCESS INSPECTION												
2.2	Inspection of parts and profiles after cutting ( profile, plates etc. )	Visual & Dimension	Critical	Visual & Dimension	Random	Random	Approved Drawing / P.O.	Inspecti on Report	1	P	V	-	
3.0	FINAL INSPI	ECTIONN AND I	OCUME	TATION									
3.1	Final Dimensional Inspection of all items	Visual & Dimension	Major	Visual & Dimension	Single module of each type	Single module of each type	Approved Drawing / P.O.	Inspecti on Report	1	P *	W	-	

M – Manufacturer / Subcontractor, B - BHEL /BHEL Authorized Inspection Agency,	Prepared by	Reviewed by	Approved by
C - Customer, P - perform, V - Verification of reports W - Witness, TC - Test certificate "D" – Record, identified with tick (√) shall be essentially included by Supplier in QA documentation.	Sanjib Pandit (AE/QA)	Rakesh Kumar Madhu (Dy Manager / QA)	K C Gandhiparimalam (DGM/QA)

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MANUFACTURER'S NAME & ADDRESS

BHEL/ BHEL APPROVED SOURCE

## STANDARD QUALITY PLAN

ITEM: MIST QP. NO.: MIST ELIMINATOR :742 Rev No. :00

WASHING SYSTEM Date: 27.04.2020
SUB SYSTEM: Page 2 of 2

PROJECT: AS PER PO.

			10	HOT ELIMINATION									
SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS OF CHECK	TYPE OF CHECK	QUANTU CHE		REFERENCE DOCUMENTS	ACCEPTANCE NORMS	FORMAT OF RECORE		Age	ency	REMAR KS
					6						M B	С	
1	2	3	4	5	М	B/C	7	8	9	D	1	0	11

4.1	Review of	Inspection	Major	Visual &	100%	100%	Drawing / P.O.	QC	 P	V	-	
	Final	Reports & test		Verification				Dossier				
	Documentati	certificates,										
	on	Quality										

#### Note: \* 100% by manufacturer / supplier.

- a. Latest version of standards & Specification shall be applied.
- b. Materials shall be procured in compliance to Functional Technical Specification.
- c. Gauges and measuring instruments with valid calibration only shall be used.
- d. Inspection / Inspection wavier / approval by BHEL does not absolve Supplier's responsibility for conformity of the specification as per the terms of PO.
- e. BHEL /BHEL Authorized representatives shall have the right to witness the necessary inspection and testing of goods mentioned in the PO.
- f. In case of Vendor Drawing & Datasheet, it needs approval by BHEL Engineering.
- g. This QP shall be read along with relevant PO, BHEL Specification/Drawing/Approved Datasheet.

## **Record of revision**

Rev no	Date	Description
00	27.04.2020	Original Issue – First submission

M – Manufacturer / Subcontractor, B - BHEL /BHEL Authorized Inspection Agency.	Prepared by	Reviewed by	Approved by		
C - Customer, P - perform, V - Verification of reports W - Witness, TC - Test certificate "D" – Record, identified with tick (√) shall be essentially included by Supplier in QA documentation.	Sanjib Pandit (AE/QA)	Rakesh Kumar Madhu (Dy Manager / QA)	K C Gandhiparimalam (DGM/QA)		

# Bharat Heavy Electricals Limited Ranipet-632406, India. Quality Assurance (Mech)

To,

Shri. V Jothimanickam, SM/Purchase BAP: NALCO: FGD: MISTELM: 166

Kind Attn: Shri Chandan Kumar Bharti, SEr/Purchase Dt. 22-03-2021

Indent No: RFW01144 - RFW01146. Dt:19.03.2021Project : Nalco Damanjodi 18.5MWItem: Mist EliminatorPGMA : FW215Tech Spec: FGD:ME:NALCO:R00, Dt:04.03.2021

Following are Quality recommendation

- **1.** All the items shall be inspected at Manufacturer works as per BHEL approved QP/Approved Drawing/Approved datasheet and Technical Specification.
- 2. Physical Inspection shall be done by BHEL/BHEL AIA at Manufacturer works.
- 3. Commercial shall be contacted for applicable source being Non NTPC Project.
- 4. Arrange Vendor acceptance for BHEL SQP (MIST ELIMINATOR: 742/00, DT: 27.04.2020).
- **5.** Formal acceptance for QP shall be given after award of PO, Specific to the vendor.
- **6.** Packing of items shall be as per BHEL Engg Approved Packing Drawing/Packing Specifications.
- 7. BHEL Authorized representatives shall have the right to witness the necessary inspection and testing of goods mentioned in the PO. The supplier shall inform BHEL in advance about the readiness of the goods for inspection and testing. Inspection / Inspection wavier / approval by BHEL does not absolve Supplier's responsibility for conformity of the specification as per the terms of PO. Material Test Certificates shall be submitted to BHEL.
- **8.** Annexure 'Q' shall be part of enquiry File and shall be filled by Supplier with their duly sign and seal.
- 9. Supplier should be manufacturer not a trader/Agent. (If the OEM/Principal engaging the services of an agent to participate on their behalf, vendor will be acceptable with respect to Quality requirement provided acceptance on Point No 2, 3, 7 and 10 shall be accepted to supplier)

#### **10. General Inspection Notes:**

- a. Latest version of standards & Specification shall be applied.
- b. Materials shall be procured in compliance to Functional Technical specification.
- c. Gauges and measuring instruments with valid calibration only shall be used.
- d. Inspection / Inspection wavier / approval by BHEL does not absolve Supplier's responsibility for conformity of the specification as per the terms of PO.
- e. BHEL /BHEL Authorized representatives shall have the right to witness the necessary inspection and testing of goods mentioned in the PO.
- f. In case of Vendor Drawing & Datasheet, it needs approval by BHEL Engineering.
- g. This QP shall be read along with relevant PO, BHEL Specification / Approved Drawing/ Datasheet.

This is for your information and further necessary action at your end please.

Prepared by. Rakesh Kr Madhu (Dy.Mgr/QA) Reviewed & Approved by. K Renjith(Mgr/QA)

	Annexure Q									
SI.No	Indent No: Enquiry no:  BHEL / Customer Requirements	##Specific confirmations by the manufacture(Acceptable/Not acceptable)								
1	Quality Plan Requirement: (If SQP is not given & Vendor QP applicable)  (i) MQP (Manuafcutering Quality Plan) shall be submitted in attached format for BHEL/Customer review & approval. Our SQP/Typical MQP/ MQP Format is attached for guidance & use.  (ii) MQP shall invaribly cover w.r.t Inward inspection including on Raw materail Procurement, In process and Final inspection in elaborated way/details.  (iii) Bidder shall also to give specific confirmation that on need basis, their competent officials shall visit to BHEL/customer for finalization of Quality plan including test procedure/methodology during preaward / post award approval / detailed engineering in the event of an order.  (iv) No deviation on BHEL/Customer approved MQP/ SQP (In case BHEL SQP is provided) is acceptable.  (v) Bidder shall agree to submit all cross referred documents other than codes/standrads to BHEL/Customer/Consultant.  Important Notes shall be included in MQP:  (a) Latest revision of Standard s & Specification shall apply. Only International Standards are applicable.  (b) Materials shall be procured in compliance to Functional Technical Specification.  (c) Inspection shall be in compliance with Approved Quality Control Procedure for the Product.  (d) NDT shall be carried out by Qualified Personnel with compliance to Approved NDT Procedures and Acceptance Norms, as per ASME Section V.  (e) Gauges and measuring Instruments, with valid calibration only shall be used.  (f) Cleaning and Painting of products shall be carried out as per Approved Painting Schedule.  (g) Finished Products shall be packed to comply with Approved Packing Schedule.  (h) Welding shall be carried out by Qualified Personnel with compliance to Approved NDT Procedures and	manufacture(Acceptable/Not acceptable)								
2	Acceptance Norms, as per ASME Section V.  Domastic / Inland Inspection will be carried out by BHEL/BHEL apointed Third Party Inspection Agency (TPIA) / Customer/Customer Apointed Inspection Agency/Consulatnat. This is applicable for all Stage inspection and Final Inspection identified as "W" - Witness or "CHP" - Customer Hold Point as per customer approved Quality Plan/ Technical specification / Approved Drawing/ Approved Data sheet / Scheme / PID / PFD / SLD (Process Instrumentaion Diagram / Process Flow Diagram / Single Line Diagram) etc (As applicable).									
3	Inspection Agency for Foreign Bidders and also for Indian Bidder but importing from Forgign Sources: (1) Any one of the fllowing Third Party Inspection Agency (TPIA) shall be appointed by the bidder and same shall be furnished by the bidder in techno commercial bid itself. (2) The details of TPIA with contact details like Name of the official, Phone no, Email id shall also to be submitted during pre/post award. However cost for such inspection agency shall be borne by the bidder only. Inspection charges for such inspection agency shall be indicated separately so that if BHEL/Customer is undertaking the inspection by on their own , then these charges non claimable by the bidder.  List of TPIA  1.M/s Bureau Veritas, 2.M/s TUV-Nord, 3.M/s TUV-SUD, 4.M/s TUV Rheinland, 5.M/s Lloyds Register, 6.M/s SGS, 7.M/s Germanischer Lloyds, 8.M/s QUEST, 9.M/s Certification Engineers International, 10.M/s Intertek, 11.M/s IR Class Systems and Solutions, 12.M/s DNV, 13. M/s Fichtner, 14. M/s ABS Inspection Services									
4	<b>Stage Inspection during manufacturing Process:</b> Stage Inspection during manufacturing shall be carried out as per approved quality plan and all necessary documents shall be provided for review, verification and clearanace for further processing. This inspection call shall be given well in advance (atleast 2 weeks before for Indeginious and 45 days forforeign) to TPI/Bidder's own inspection agency to avoid delay in the manufacturing processes.									
5	Inspection before despatch for domestic supplier: Inspection before despatch at supplier's works shall be carried out by Bidder appointed Inspection agency(As in SI no.3.) Inspection shall be done as per approved Quality plan/ Technical specification/ Approved Drawing/ Approved Data sheet.									
6	Inspection at Forign Source/Supplier:  (a) As in sl no: 3. shall be ensured without fail  (b) No materail / items shall be despatched without getting the written communication from BHEL /  Customer inspection carried out by Bidder apointed Third Party Inspection Agency (As per Sl no.3) /  Customer/Customer Apointed Inspection Agency/Consulatnat. This is applicable for all Stage inspection and Final Inspection identified as "W" - Witness or "CHP" - Customer Hold Point as per customer approved Quality Plan/ Technical specification / Approved Drawing/ Approved Data sheet / Scheme / PID / PFD / SLD (Process Instrumentaion Diagram / Process Flow Diagram / Single Line Diagram) etc (As applicable).  Inspection before despatch for Foreign supplier: Inspection before despatch at supplier's works shall be carried out by bidder appointed inspection agencies having international presence at vendors and or vendor's sub vendor works. Inspection shall be done as per approved Quality plan/ Technical specification/ Approved Drawing/ Approved Data sheet by TPIA mentioned in Sl no: 03 at supplier's cost.									

Sl.No	BHEL / Customer Requirements	##Specific confirmations by the manufacture(Acceptable/Not acceptable)
7	Painting shall be done strictely as per BHEL/Customer approved painting schedule / scheme only. Paint Thickness / Paint shade shall be ensured as per BHEL / Customer approved painting schedule / specification / data sheet etc. No deviation is acceptable unless otherwise accepted by BHEL/Customer in writing. Any conflict if any among BHEL / Customer approved painting schedule / Spec / data sheet etc shall be brought to the notice to BHEL well in adavnce before proceding including the BOI being procured for assy / skid like motors etc	
8	Specific conformation for document package in the event of an order (2 Hard copies & soft copy in PDF file) is to be given containing the following with proper linkages (i) Index Sheet, (ii) MQP/RQP/Endorsemment Sheet (As applicable), (iii) TCs identfied by BHEL/ Customer for record for "CHP" / "W" and Verification portion ("V") as given in approved QP., (iv) Final inspection report + TC including Chemical + Mechnaical + HT + NDT etc, (v) Third party Inspection report + TC, (vi) Customer CHP/ MDCC, (vii) Type test / Performance Test reports conducted, (viii) Type test / Performance Test approval/ clearance obtained from BHEL/Customer, (ix) BOM with As Build Drgs with actual make / rating used with BHEL/customer approved drawings.	
9	Packing / Seaworthy Packing shall be as per BHEL Packing schedule / approved drg / sketch. This shall be ensured to take care tarnsit / handling / transhipment in Road / Sea / Air. Photographs are to be submitted for BHEL review before despatching the material as per contract conditions.	
10	<b>Outsourcing of test facilities:</b> Bidder shall ensure all the testing facilities in house. However If any of the test facilities are not available with successful bidder, then bidder shall ensure the same at NABL accreadted third party lab / Govt / Govt Lab for major testing such as NDT, Electrical & Mechanical testing.	
11	Important Note: No deviation on the above requirement 01 to 10 is acceptable w.r.t Quality Requirement and those offers not meeting these specific customer requirement is liable for rejection and hence the bidder shall submit all the required documentary evidances in the offer itself.	
12	## Necessorily to be filled up by the bidder at the time of offer itself otherwise the offer may not be considered w.r.t Quality Requirement being customer specific requirement.	
13	If the OEM/Principal engaging the services of an agent to participate on their behalf, Then mention OEM /vendor Name & address as well as agent details with their sign and seal.	
	VENDOR SIGN AND STAMP:	Vendor Name & Address:

# **Details of BOI's/ Sub Systems with respect to Main Items**

Sl No.	Item/ Sub system Name	Quantity	Supplier Name	Place of Manufacturing				
		_						
OEM (ORIGINAL EQUIPMENT MANUFACTURER) SEAL AND SIGN.								