

 MANUFACTURER'S NAME & ADDRESS BHEL/ BHEL APPROVED SOURCE Ranipet		STANDARD QUALITY PLAN ITEM: NEOPRENE GASKETS				QP. NO.: GASKET :749 Rev No. :01 Date: 11.12.2020 Page 1 of 2		Annex-I PROJECT: AS PER PO.							
SL NO	COMPONENT & OPERATION	CHARACTERISTICS	CLASS OF CHECK	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENTS	ACCEPTANCE NORMS	FORMAT OF RECORD		Agency			REMARKS	
1	2	3	4	5	M	B/C	6	7	8	9	D	M	B	C	11

1.0 RAW MATERIALS

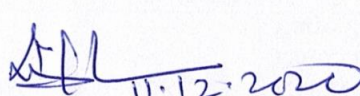
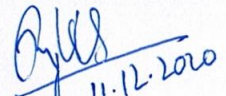
1.1	Polymer Identification on Neoprene	Determination of Rubber Polymer	Major	Visual & Measurement	1 Sample / Batch	1 Sample / Batch	ASTM D297:2015 /Latest	ASTM D297:2015 /Latest	TC	√	P	V	-	
1.2	Neoprene Rubber after compounding	Tensile Strength and Elongation	Major	Measurement	1 Sample / Batch		Relevant standard.	Spec/Datasheet/ Relevant std.	TC	√	P	V	-	

2.0 INPROCESS CONTROL

2.1	Building of Re-Joints & Vulcanizing	Dimension of Die Moulding	Major	Measurement	100%	100%	Relevant standard.	Approved Spec. / Relevant Std	Report	√	P	V	-	
		Curing time & Temperature	Major	Perusal of Curing Chart	100%	100%	Relevant standard.	Manufacturer Plant Procedure	Curing Chart	-	P	V	-	
2.2	Shore Hardness	Hardness	Major	Measurement	1 Sample / Batch		Relevant standard.	60+/-5 Shore A	TC	√	P	V	-	Refer Drg for Details.

3.0 FINAL INSPECTION

3.1	Rubber Gasket	Dimension, Workmanship, Finish & Appearance	Major	Visual & Measurement	100%	100%	D1330/ Material Specification	Drawing/ Material Specification	Report	√	P	W	-	
3.2	Identification, Packing & Preservations	Visual	Major	Visual	100%	100%	P.O. / Material Specification	P.O. / Material Specification	COC	-	P	V	-	

M – Manufacturer / Subcontractor, B - BHEL /BHEL Authorized Inspection Agency, C – Customer/ Customer Authorized Inspection Agency, 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. COC- Certificate of Conformance	Prepared by	Reviewed by	Approved by
	 11.12.2020	 11.12.2020	 For
	Rakesh Kr Madhu (Dy Manager/ QA)	K Renjith (Manager/ QA)	R Arunachalam(Dy.GM/ QA)

 MANUFACTURER'S NAME & ADDRESS BHEL/ BHEL APPROVED SOURCE Ranipet		STANDARD QUALITY PLAN				Annex-I PROJECT: AS PER PO.						
		ITEM: NEOPRENE GASKETS		QP. NO.: GASKET :749 Rev No. :01 Date: 11.12.2020 Page 2 of 2								
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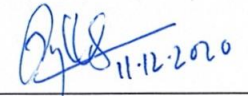
Note:

1. Materials shall be procured in compliance to Functional Technical Specification/Drawing.
2. Gauges and measuring Instruments, with valid calibration only shall be used
3. Finished Products shall be packed to comply with approved Packing Schedule..
4. Curing Chart to be supplied with Manufacturers test certificate (MTC) only.
5. All the inspection report as per P.O. shall be submitted to BHEL for Review and record purpose.

**** This QP Shall be read along with relevant P.O. and BHEL Drawing/Specification.**

Record of revision

Rev no	Date	description
00	14.03.2020	Original Issue
01	11.12.2020	Reviewed and totally revised

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	Rakesh Kr Madhu (Dy Manager/ QA)	K Renjith (Manager/ QA)	R Arunachalam(Dy.GM/ QA)

To,

Shri. V Jothimanickam, SM/Purchase

Kind Attn: Shri Chandan Kumar Bharti, SEr/Purchase

BAP: FGD: GASKETS: 129

Dt. 12-12-2020

Item Name	Indent No	Indent Dt.	PGMA	Technical Specification/Drawing No
NEOPRENE Gaskets	RFW01069, Rev:00	27.11.2020	FW752	4-FW-752-01140, 4-FW-752-01144
PTFE Gaskets	RFW01090, Rev:00	27.11.2020	FW752	4-FW-752-01141

Project: MAITREE (2X660 MW.), Engg Transmittal No: Neoprene Gaskets: FGD: 0001,

DT: 27.11.2020 and PTFE Gaskets: FGD: 0001, DT: 27.11.2020

Following are Quality recommendation:

1. BHEL Approved source is acceptable.
2. All the items shall be inspected at Manufacturer works as per BHEL approved QP/Approved Drawing/Approved datasheet and Technical Specification.
3. Physical Inspection shall be done by BHEL/BHEL AIA.
4. Arrange vendor acceptance on attached Quality plan GASKET: 749/01, DT: 11.12.2020 from vendor with duly sign and stamp for Neoprene Gaskets. For PTFE Gaskets arrange Vendor QP in similar pattern(same format with check for raw materials, in process and final inspection) including details of Manufacturing process/Catalogue.
5. Already other customer approved like NTPC, State electricity Board, Water treatment/ FGD Plant etc. latest MQP for similar application if available specific to Vendor may be shared for reference purpose.
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. 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 9 shall be accepted to supplier)*
9. **Vendor Quality Plan shall contain following 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.

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

Annexure Q - All the conditions shall be complied	
Sl.No	BHEL / Customer Requirements
1	Quality Plan Requirement:
	(i) MQP (Manufacturing Quality Plan) shall be submitted in attached format for BHEL/Customer review & approval. Typical MQP is attached for indicative purposes for guidance & use.
	(ii) MQP shall invariably cover w.r.t Inward inspection including on Raw material 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 is acceptable.
	(v) Bidder shall agree to submit all cross referred documents other than codes/standards to BHEL/Customer/Consultant.
	Important Notes shall be included in MQP :
	(a) Latest revision of Standards & Specification shall apply. Only International Standards are applicable. Indian & Chinese Standards are not 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 Acceptance Norms, as per ASME Section V.
2	Domestic / Inland Inspection will be carried out by BHEL/BHEL appointed Third Party Inspection Agency (TPIA) / Customer/Customer Appointed Inspection Agency/Consultant. 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 Instrumentation Diagram / Process Flow Diagram / Single Line Diagram) etc (As applicable).
3	Inspection Agency for Foreign Bidders and also for Indian Bidder but importing from Foreign Sources: (1) Any one of the following 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 Lloyd, 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	Stage Inspection during manufacturing Process : Stage Inspection during manufacturing shall be carried out as per approved quality plan and all necessary documents shall be provided for review, verification and clearance for further processing. This inspection call shall be given well in advance (atleast 2 weeks before) 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 BHEL/BHEL appointed Inspection agency. Inspection shall be done as per approved Quality plan/ Technical specification/ Approved Drawing/ Approved Data sheet .
6	Painting shall be done strictly 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 advance before proceeding including the BOI being procured for assembly / skid like motors etc
7	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/Endorsement Sheet (As applicable) (iii) TCs identified by BHEL/ Customer for record for "CHP" / "W" and Verification portion ("V") as given in approved QP. (iv) Final inspection report + TC including Chemical + Mechanical + 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 Built Docs with actual make / rating used with BHEL/customer approved drawings.
8	Outsourcing of test facilities: 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 accredited third party lab / Govt / Govt Lab for major testing such as NDT, Electrical & Mechanical testing.
9	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 evidences in the offer itself.
10	## Necessarily 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.