



NPCCIL		QUALITY ASSURANCE PLAN		Page 2 of 6	
SUB VENDOR/SUB CONTRACTOR/ MANUFACTURERS NAME & ADDRESS		VAPOUR EXHAUSTER		PROJECT : RAPP 7&8	
VENDOR'S NAME : DUSTECH ENGINEERS PVT LTD 7B, 13/3 MATHURA ROAD, FARIDABAD, HARYANA E-MAIL : dustech@rediffmail.com		ITEM	NAME OF THE PACKAGE: VAPOUR EXHAUSTER	PO NO. - B7V1362	
		QAP No., REV. No.	NPCCIL/RAPP 7&8/41230/NP/306 04	SUB PO NO. - B7V1362/01	
		DATE	12.11.2021		

QAP REVISION CONTROL SHEET

Sl No	Description of Revision	No. of Pages	Revision No. with Date	Sub-vendor		
				Prepared by	Checked by	Approved by
1.	a) Change in QP sl no from NPCCIL/RAPP7&8/NP/306 to NPCCIL/RAPP7&8/41230/NP/306 b) Addition of Sub PO NO B7V1362, headers, legends and correction in Page no c) Addition NPCCIL QA Reference no d) Addition of BHFL Spec and Drg in Front page e) Changes done in reference and acceptance norms as per NPCCIL comments dtd 25.06.2021 f) Inclusion of Explosion Proofness in AC Induction Motor g) Addition of Witnessing /verification checks h) Addition of clause 5 (shipping release in QP) i) Changes done in GENERAL Notes as per NPCCIL Comments dtd 25.06.2021 j) Addition of Note 03 in QP as per NPCCIL Comments dtd 03.08.2021 k) Changes done in GENERAL Notes as per NPCCIL Comments dtd 03.08.2021 l) Changes done in GENERAL Notes as per NPCCIL Comments dtd 23.08.2021 m) SPECIFICATION OF MOTOR changed to IEC 60034 from IS325 in clause 1.3	04 (QP pages)	REV 04 DATE: 12.11.2021	Himanshu	RAMJI	Rishab

MANUFACTURER/ SUB-CONTRACTOR SEAL & SIGNATURE WITH DATE	LEGEND 1. NPCCIL 2. PACKAGE/MAIN CONTRACTOR 3. MANUFACTURER/SUB-CONTRACTOR/SUB-VENDOR 4. NOMINATED INSPECTION AGENCY/APPROVED LAB M: MANUFACTURER / SUBCONTRACTOR B: BHFL / NOM. INSPECTION AGENCY H: HOLD POINT; "P" PERFORM "W" WITNESS AND "R" REVIEW AS APPROPRIATE MA-MAJOR, CR-CRITICAL	SEAL & SIGN OF MAIN / PACKAGE EPC CONTRACTOR	NPCCIL	  12/11/2021

NPCCIL

SUB VENDOR/SUB CONTRACTOR/
MANUFACTURERS NAME & ADDRESS

QUALITY ASSURANCE PLAN

Page 3 of 6
PROJECT : RAPP 7&8

VENDOR'S NAME :
DUSTECH ENGINEERS PVT LTD
7B, 13/3 MATHURA ROAD,
FARIDABAD, HARYANA
E-MAIL : dustech@rediffmail.com

ITEM
QAP No., REV. No.

VAPOUR EXHAUSTER
NPCCIL/RAPP 7&8/41230/VP/306
04
12.11.21

NAME OF THE PACKAGE:
VAPOUR EXHAUSTER
PO NO.- B7V1362
SUB PO NO.- B7V1362/01

Sr. No.	COMPONENT / OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY	SIGNATURE OF AGENCY	REMARKS	
1.0	Raw Material											
1.1	Casing, Impeller blades & Base frame/plate, sleeve, O-ring	Chemical & Mechanical Properties & Size	Major	Test & Measurement	100%	BHEL Appd Drawing & BHEL Approved tech-spec. & Data sheet	BHEL Appd Drawing & BHEL Approved tech-spec. & Data sheet	LAB TEST REPORT	3	2	1	Note : Chem & Mech tests shall be carried out at independent lab on the samples identified by BHEL & shall be witnessed by BHEL
1.2	Nuts & Bolts	Trade Mark & Property Class	Major	Visual	100%	IS1367	BHEL Appd Drg.	MTC	3	-	2, 1	Note 3
1.3	AC Induction Motor	Routing & Type Tests Certificate including Degree of Protection & Explosion Proofness	Major	Review	100%	IEC 60034 / IEC60079-1 / BHEL approved drg	IEC 60034 / IEC60079-1 / BHEL approved drg	Test Certificate	3	-	2, 1	
2.0	In-process Inspection											
2.1	All Welds	Quality of Welds	Major	DPT	100%	NPCCIL Approved Procedure BHEL appd. Dwg.	NPCCIL Approved Procedure Ordering Dwg.	INTERNAL REPORT	3	2	2, 1	
2.2	Impeller	Dimensions	Major	Measurement	100%			Internal Report	3	2	1	


LEGEND		SEAL & SIGN OF MAIN / PACKAGE EPC CONTRACTOR	
1. NPCCIL	2. PACKAGE/MAIN CONTRACTOR	NPCCIL	
3. MANUFACTURER/SUB-CONTRACTOR/SUB-VENDOR	4. NOMINATED INSPECTION AGENCY/APPROVED LAB		
M: MANUFACTURER / SUBCONTRACTOR B: BHEL / NOM. INSPECTION AGENCY	H: HOLD POINT; "P" PERFORM "W" WITNESS AND "R" REVIEW AS APPROPRIATE		
MA-MAJOR, CR-CRITICAL			

Impd. Marking
12/11/21

QUALITY ASSURANCE PLAN

NPICL	SUB VENDOR/SUB CONTRACTOR/ MANUFACTURERS NAME & ADDRESS	QUALITY ASSURANCE PLAN	Page 4 of 6
	VENDOR'S NAME : DUSTECH ENGINEERS PVT LTD 7B, 13/3 MATHURA ROAD, FARIDABAD, HARYANA E-MAIL : dustech@rediffmail.com	ITEM	PROJECT : RAPP 7&8
		QAP No., REV. No.	NAME OF THE PACKAGE: VAPOUR EXHAUSTER PO NO.- B7V1362 SUB PO NO.- B7V1362/01
		DATE	NPICL / RAPP 7&8/41230/VP/306 04 12.11.21

Sr. No.	COMPONENT / OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY					SIGNATURE OF AGENCY	REMARKS	
									10	11	12	13	14			
1.1			Major	Measurement	100%	ISO 1940	ISO 1940/Gr6.3	Internal Report	P	W	R	H	3	2	1	
2.3	Assembly of Fan	Dynamic Balancing	Major	Measurement	100%	BHEL appd. Dwg.	BHEL appd. Dwg.	Internal Report	3	2	1	-	-	-	-	
3.0	Final Inspection	Internal Clearance Between Impeller & casing	Major	Measurement	100%	BHEL appd. Dwg.	BHEL appd. Dwg.	Internal Report	3	2	1	-	-	-	-	
3.1	Complete Assembly	Over all Dimensions	Major	Measurement	100%	BHEL appd. Dwg. & Tech. spec/ Datasheet	BHEL appd. Dwg. & Tech. spec/ Datasheet	Inspection Report	3	2	1	-	-	-	-	
3.2		Performance (including Air Delivery, Pressure & Power Consumption)	Major	Performance	100%	IS 4894	IS 4894/ BHEL appd. Dwg.	Test certificate & Performance curve	3	2	1	-	-	-	-	
3.3		Fan Speed smooth Running & Direction of Rotation	Major	Visual	100%	Ordering Spec.	BHEL Approved Tech Spec. / BHEL appd. Dwg.	Inspection Report	3	2	1	-	-	-	-	

<p>LEGEND</p> <ol style="list-style-type: none"> 1. NPICL 2. PACKAGE/MAIN CONTRACTOR 3. MANUFACTURER/SUB-CONTRACTOR/SUB-VENDOR 4. NOMINATED INSPECTION AGENCY/APPROVED LAB <p>M: MANUFACTURER / SUBCONTRACTOR B: BHEL / NOM. INSPECTION AGENCY H: HOLD POINT; "p" PERFORM "W" WITNESS AND "R" REVIEW AS APPROPRIATE MA-MAJOR, CR-CRITICAL</p>	<p>SEAL & SIGN OF MAIN / PACKAGE EPC CONTRACTOR</p> <p style="text-align: center;">NPICL</p>	<p style="text-align: center;">MANUFACTURER/ SUB-CONTRACTOR SEAL & SIGNATURE WITH DATE</p> <div style="text-align: center;">  Javed Mulla 18/11/2021 </div>
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NPCCIL

SUB VENDOR/SUB CONTRACTOR/
MANUFACTURERS NAME & ADDRESS

QUALITY ASSURANCE PLAN


Page 5 of 6
PROJECT : RAPP 788

VENDOR'S NAME :
DUSTECH ENGINEERS PVT LTD
7B, 13/3 MATHURA ROAD,
FARIDABAD, HARYANA
E-MAIL : dustech@rediffmail.com

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VAPOUR EXHAUSTER
NPCCIL/RAPP 788/41230/NP/306
04
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NAME OF THE PACKAGE:
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PO NO. - B7V1362
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Sr. No.	COMPONENT / OPERATION	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTU M OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	AGENCY			REMARKS
									10	11	12	
3.4	Noise Level	Major	Measurement	100%	IS 12065	BHEL appd. Dwg. & Spec	Inspection Report	3	2	1	-	
3.5	Vibration	Major	Measurement	100%	IS12075	BHEL appd. Datasheet & Spec	Inspection Report	3	2	1	-	
3.6	Condition of oil seals	Major	Visual	100%	BHEL approved Tech. Spec.	BHEL approved Tech. Spec.	Inspection Report	3	2	1	-	motor being of small size, grease nipple not provided by mfg.
3.7	Appearance including Paint thickness (DFT)	Major	Visual & Measurement	100%	BHEL Approved Tech. Spec.	BHEL Approved Tech. Spec.	Inspection Report	3	-	2	1	
3.8	Compliance of Technical Requirements	Major	-----	100%	BHEL Approved Tech. Spec.	Ordering Spec. BHEL appd. Dwg.	COC	3	-	2	1	
3.9	Completion of Documents	Major	Physical	100%	Ordering Spec. / BHEL appd. Dwg. / QP / PO	Documents	Documents	3	-	2	1	
4.0	Packing	Major	Physical	100%	Ordering Spec. / Vendor's std.	Ordering Spec. / Vendor's Std.	Internal Reports	3	-	2	-	
4.1	Soundness of Packing Against Transit Damage	Major	Physical	100%	Ordering Spec. / Vendor's std.	Ordering Spec. / Vendor's Std.	Internal Reports	3	-	2	-	
5.0	Shipping Release	Major	Record	NA	NA	NA	IRN	2	-	1	1	
5.1	BHEL SR	Major	Record	NA	NA	NA	SRM	1	-	-	-	
5.2	NPCCIL SR	Major	Record	NA	NA	NA	SRM	1	-	-	-	

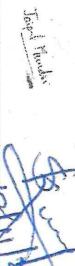
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GENERAL NOTES

1. Stage wise inspection documents shall be conducted /completed with signature of all inspection agencies including NPCL-QS before taking up and presenting for next stage of inspection.
2. All requirements of PO, Tender, Tech Specification are incorporated in the QAP
3. Co-related material test certificate is acceptable. In case of non-availability of co-related material test certificate, sample per lot (lot means, all material having same heat mark/material specification, requirement constitute the lot) for Chemical and physical test shall be carried out in NABL accredited labs acceptable to NPCL and shall submit all material verification reports and test reports to NPCL Q.S. for checking/verification and clearance. Sample selection by NPCL QA shall be done for QA1 & QA2 quality categories for other as indicated in tender spec/ QAP.
4. H-Hold point: Witness is mandatory before proceeding the further activities. This activity shall be kept under hold till inspection clearance or written waiver is obtained from the agency responsible for this stage (NPCL QS /its authorized representative). W-Witness Point: Witness points are critical steps in manufacturing and examination/inspection/testing. Where the supplier is obliged to notify in sufficient advance of the start of the operation / test so that it may be witnessed. In case the test results are not in line with TC submitted/material specification the cost will have to be borne by the package/main contractor.
5. Welding Procedure and welder performance qualification shall be witnessed by Main/Package contractor QS and report along with test results shall be submitted to NPCL, QS for review.
6. All test reports, test certificates and inspection reports shall be reviewed by Manufacturer before submitting the same for verification by Purchaser.
7. Chemical and mechanical tests on the material shall be performed in the NABL accredited laboratories acceptable to NPCL.
8. Calibrated instruments shall be used during inspection, examination and testing.
9. NPCL approved chemicals for liquid penetrant examination shall be used.
10. Non-destructive examinations & evaluation shall be carried by personnel qualified to Level-II of ISNT or ASNT.
11. Electrodes/ Filler wire shall be of brand approved by NPCL. Batch testing of electrodes is required if specified in the applicable specification.

Any deviation to this QAP shall be brought out by vendor in his offer failing which this QAP shall be complied fully.

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