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

FGD: PANKI: SLP: 232 Dt. 12-08-2021

Item Name	Indent No	Indent Dt.	PGMA	Technical Specification
SLURRY PUMPS	RFW11279 RFW11280	09.08.2021 09.08.2021	FW701 FW701	ROS:9081, Rev:00, Dt:06.08.2021 and TECI:LT MOTOR:REV:05, Dt:28.07.2021
	RFW11281	09.08.2021	FW997	

Project: PANKI (1X660 MW) _ W/O: R4U2.

On receipt of Clarification from Engg through eoffice green note on 12.08.2021 for Earlier Enquiry following are Quality recommendations:

"Customer/NTPC has informed that in case the item is covered under Sub-QR list, the proposed vendors for the same shall be accepted by QA after acceptance of vendor by NTPC Engg."

- 1. Since Slurry Pump appears under Sub-QR item, Sub-QR approved vendor by NTPC Engg. Acceptable to Quality also.
- 2. Inspection and testing shall be done as per approved Quality plan, Quality plan to be approved by Customer/NTPC after review of BHEL.
- 3. Painting shall be as per Customer approved Painting schedule.
- **4.** Arrange MQP from sub QR Cleared vendor for taking up with Customer for their review and approval. Find herewith-attached typical MQP (QP NO.FGS: SLP: 723/00, DT: 08.01.2021). This MQP involves minimum check only and actual Quantum of Check/Stage may differ based on Project/Customer requirement and their approved MQP.
- **5.** Already NTPC approved latest MQP for similar application if available specific to Vendor may be shared for obtaining faster approval from Customer/Customer Consultant.
- **6.** All the Pumps shall be inspected at supplier works as per approved QP/Approved Drawing/Approved datasheet and Specification.
- 7. Packing of items shall be as per BHEL Engg Approved Packing Drawing/BHEL Specifications.
- **8.** 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.
- 9. Annexure 'Q' and BOI's Details shall be part of enquiry File and shall be filled by Supplier with their duly sign and seal.

10. 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)

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3.3	Complete Pump Assembly	Strip Down Test (Not Required If Performance Test is Fine.)	Major	Visual	100%	Mfg Drawing Approved		ved	Report	V	Р	W	w	Only Required in case of Abnormal Sound
3.4	Painting	Dry Film Thickness/Paint shade	Major	Visual & Measuremen t			ITPC Approved Painting schedule		IR(Proto col)	V	Р	٧	٧	
3.5	Packing	Preservation	Major	Visual & Measuremen t	100%	Technical Spo approved Pac Procedure/Dr	cking	L	COC	V	Р	٧	-	
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NOTE: 1. (\$) - 10 % of each type for NTPC (Customer).

	shall be submitted to customer as a QA documentation package. M : Manufacturer / Sub supplier, C : Main Contractor/BHEL/BHEL AIA. N : NTPC P: Perform: witness, V: review of records, MA: Major and MI: Minor, DPT: Dye	de la	Relights_	R. A
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- 2. All other items, which are not cover under this QP, shall be manufactured inspected as per OEM (Original equipment Manufacturer)/BHEL standard practice and relevant standard. Relevant TC/COC will be submitted for the same.
- 3. This QP is applicable for Mandatory Spare supply also.4. Separate MQP to be submitted for Electric Motor.

SI No	Types of Pumps	Quantity	
01.	Limestone slurry feed Pump	06	
02.	Gypsum bleed Pump	06	
03.	Primary hydro cyclone feed tank Pump	02	No of Durana as Day
04.	Filtrate water tank Pump	02	No of Pumps as Per Approved Datasheet
05.	Secondary hydrocyclone feed tank	02	/ GA Drawing
06.	Waste water tank Pump	04	/ G/Y Drawing
07.	Auxiliary absorbent tank Pump	02	
08.	Emergency transfer Pump	03	
09.	Absorber area drain sump Pump	06	
10.	Gypsum area drain sump Pump	02	
11.	Limestone area drain sump Pump	02	

Record of revision

Rev no	Date	Description
00	08.01.2021	Original Issue – First submission.

	Legend: * Record, identified with "tick" (√) under column 'D' shall be submitted to customer as a QA documentation package. M: Manufacturer / Sub supplier, C: Main Contractor/BHEL/BHEL AIA.N: NTPC P: Perform: witness, V: review of records, MA: Major and MI: Minor, DPT: Dye	de H	Relights	R. A
	Penetrant Test, UT: Ultrasonic TestingTC: Test Certificate,	Rakesh Kr Madhu (Dy Mgr / QA)	K Renjith (Mgr / QA)	R Arunachalam (DGM/QA)
Manufacturer Sign & Seal	IR: inspection report, MTC: Material Test Certificate. COC: Certificate of conformance.	Prepared by	Reviewed by	Approved by

	Annexure Q	
Sl.No	Indent No: Enquiry no:	##Specific confirmations by the
31.140	BHEL / Customer Requirements	manufacture(Acceptable/Not acceptable)
	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.	
1	(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 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	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 filowing 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	

Sl.No	BHEL / Customer Requirements	##Specific confirmations by the manufacture(Acceptable/Not acceptable)
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 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.	
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	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 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 (ORI	IGINAL EQUIPMENT MANUFACT	TURER) SEAL AN	D SIGN.	

W.r.t INDIGENOUS OEM VENDORS ONLY

SI	Description & Quality Requirements	Specific confirmation by
no		the vendor
		(Confirmed/Not
		Confirmed)
01	OEM vendor shall meet all the requirements as in Annexure-I	
	and also OEM Vendor shall endorse (Signature and Stamp in	
	all the pages) in attached CONTRACT QUALITY	
	REQUIREMENTS (CQR) for LT MOTORS(IE3) Up to 200KW used	
	in Slurry Pumps (DOC.NO: BAP/QR/R4U2/ LTM/Slurry	
	Pumps/001 Rev.01 dt 18.08.2021) and send us the same to	
0.0	follow / ensure all the requirements in the event of an order.	
02	OEM vendor shall ensure Credentials of design and	
	Manufacturing capabilities w.r.t. LT Motors by their LT	
	Motor manufacture.	
03	OEM Supplier shall submit other details like that they are	
	already approved vendor by Ultimate	
	Customer – UPRVUNL and its consultant NTPC	
	specifically for proposed supply of LT Motor against	
	BHEL/Ranipet. The details of PO already executed	
	preferably through various other BHEL units for any	
	NTPC projects with CHP/MDCC including technical	
	catalogue, PO received so far for similar supply of LT	
	Motors may also be submitted.	
04	Accordingly OEM vendor shall be suitably informed that	
	If Ultimate Customer – UPRVUNL and its consultant	
	NTPC vendor approvals is not there /not available, then	
	their offer will not be considered for further processing /	
	ordering for the supply of LT Motors to take care of	
	overall equipment/system requirements.	
05	No material shall be dispatched without BHEL/ Ultimate	
	Customer – UPRVUNL and its consultant	
	NTPC inspection - CHP/MDCC clearances.	

Annexure-I

CONTRACT QUALITY REQUIREMENTS (COR) for LT MOTORS Up to 200KW

(For INDIGENOUS OEM VENDOR ONLY)

PROJECT: UPRVUNL-PANKI 1X660MW CONTRACT OUALITY ##Enquiry No: DOC.NO: - FGD (R4U2) (NTPC CONSULTANT) REQUIREMENTS (COR) for BAP/OR/R4U2/ LT MOTORS - Up to 200KW ## OEM Supplier Name & LTM/Slurry Pumps/001 CONTRACT NO:14A22-SPC-G-0001A Address: Rev NO.: 01 **Customer: UPRVUNL** PACKAGE: FGD PACKAGE PAGE: Page 1 of 6 ##Offer reference: MAIN CONTRACTOR: **Project: PANKI 1X660MW** DATE: 18.08.2021 BHEL - RANIPET Consultant: NTPC ##Date: SUB CONTRACTOR (OEM) & (BHEL WO no: R4U2) **ADDRESS: Contact Official Name:** Mobile no: (To be filled by OEM VENDOR) Fmail id: SI. **DESCRIPTION** BHEL and Ultimate Customer - UPRVUNL / Consultant NTPC (National ##Specific confirmations NO. Thermal Power Corporation)., India Quality Requirements by the vendor

ITEM: LT Motors Up to 200KW

Type Test Vendor shall submit the type test reports of all the type tests as listed 01 Requirements in SL NO: 01 (D) below and carried out within 10 years from the data of ultimate customer UPRVUNL and its consultant NTPC (NATIONAL THERMAL POWER CORPORATION) bid opening dt 11.02.2015. These reports should be for the test conducted on the identical/similar LT Motors to those proposed to be supplied under this enquiry and test (s) either should have been conducted at an independent laboratory (or) should have been witnessed by BHEL AIA (BHEL Appointed Inspection Agency) / BHEL (or) Ultimate customer UPRVUNL and its consultant NTPC (NATIONAL THERMAL POWER CORPORATION) at respective LT Motor Manufacture of OEM vendor. However, if vendor is not able to submit the similar / identical type test report as per above condition (or) in the case of type test reports are not found to be meeting the specification requirement, the vendor shall conduct all the tests at no additional cost to BHEL either at third party lab (or) own lab in the presence of BHEL AIA (BHEL Appointed Inspection Agency) / BHEL /Ultimate customer UPRVUNL and its consultant NTPC (NATIONAL THERMAL POWER CORPORATION) and submit the reports for review & approval. Type Test reports review and approval by BHEL AIA (BHEL Appointed Inspection Agency) / BHEL / Ultimate customer UPRVUNL and its consultant NTPC (NATIONAL THERMAL POWER CORPORATION) is must in line with CUSTOMER UPRVUNL and its consultant NTPC (NATIONAL THERMAL POWER CORPORATION) approved data sheet / BOM/GA Drawing

Annexure-I

CONTRACT QUALITY REQUIREMENTS (COR) for LT MOTORS Up to 200KW

(For INDIGENOUS OEM VENDOR ONLY)

PROJECT: UPRVUNL-PANKI 1X660MW ##Enquiry No: CONTRACT OUALITY DOC.NO: - FGD (R4U2) (NTPC CONSULTANT) REQUIREMENTS (COR) for BAP/OR/R4U2/ LT MOTORS - Up to 200KW ## OEM Supplier Name & LTM/Slurry Pumps/001 CONTRACT NO:14A22-SPC-G-0001A Address: Rev NO.: 01 **Customer: UPRVUNL** PACKAGE: FGD PACKAGE PAGE: Page 2 of 6 ##Offer reference: MAIN CONTRACTOR: **Project: PANKI 1X660MW** DATE: 18.08.2021 **BHEL - RANIPET** Consultant: NTPC ##Date: SUB CONTRACTOR (OEM) & (BHEL WO no: R4U2) **ADDRESS: Contact Official Name:** Mobile no: (To be filled by OEM VENDOR) Email id: SI. **DESCRIPTION** BHEL and Ultimate Customer - UPRVUNL / Consultant NTPC (National ##Specific confirmations NO. Thermal Power Corporation)., India Quality Requirements by the vendor ITEM: LT Motors Up to 200KW Type Test 01 The following Type test reports to be submitted covering the Requirement following for above 50KW LT Motor as per relevant BIS (Bureau ofContd Indian Standard) - BIS 325 / IEC 60034 etc Measuring of resistance of winding of stator and wound rotor i. (if applicable) No load test at rated voltage to determine input current, power ii. and speed. Open circuit voltage ratio of wound rotor motor (in case slip ring iii. iv. Full load test to determine efficiency power factor and slip Temperature rise test. v. Momentary excess load test vi.

High voltage test vii. viii. Test for vibration severity of motor ix. Test of noise levels of motor (Noise level for all the motors shall be limited to 85dB(A) except for BFP motor for which the maximum limit shall be 90dB(A).) Over speed test х. Degree of Protection Tests (Minimum Ingress Protection - IP 55). xi. Type test reports for motors located in fuel oil area having flame xii. proof enclosures as per BIS 2148/ IEC 60079-1

The TCs / Type Test reports shall also be given as PDF file with index sheet & page control thro Email & Soft Copy (File size to less

than 9MB).

CUSTOMER

UPRVUNL

consultant

approved

vendors

and its

NTPC

Annexure-I

CONTRACT QUALITY REQUIREMENTS (CQR) for LT MOTORS Up to 200KW

			IGENOUS OEM V		
PROJECT: UPRVUNL-PANKI 1X660MW – FGD (R4U2) (NTPC CONSULTANT) CONTRACT NO:14A22-SPC-G-0001A PACKAGE: FGD PACKAGE MAIN CONTRACTOR: BHEL - RANIPET SUB CONTRACTOR (OEM) & ADDRESS: (To be filled by OEM VENDOR)		R4U2) (NTPC CONSULTANT) ACT NO:14A22-SPC-G-0001A GE: FGD PACKAGE CONTRACTOR: RANIPET NTRACTOR (OEM) & SS: REQUIREMENTS (CQR) for LT MOTORS - Up to 200KW Customer: UPRVUNL Project: PANKI 1X660MW Consultant: NTPC (BHEL WO no: R4U2) BAP/QR/R4U2/ LTM/Slurry Pumps/001 Rev NO.: 01 PAGE: Page 3 of 6 DATE: 18.08.2021		##Enquiry No: ## OEM Supplier Name & Address: ##Offer reference: ##Date: Contact Official Name: Mobile no: Email id:	
SI. NO.	DESCRIPTION		mate Customer - UPRVUNL / Cons al Power Corporation)., India Quality		##Specific confirmations by the vendor
			ITEM: LT Motors Up to 200	0KW	
02	1. RQP or MQP is applicable for these LT Motor. 2. RQP/MQP (Manufacturing Quality Plan) is applicable for these LT Motors and accordingly Actual LT Motor Manufacture and OEM shall submit the RQP/MQP in ultimate customer's consultant –NTPC format. 3. If any of LT Motor manufacture is having, ultimate custome UPRVUNL and its consultant NTPC (NATIONAL THERMAL POWER CORPORATION) approved MQF (Manufacturing Quality Plan) / RQP (Reference Quality Plan) and having validity, the same is applicable for these LT Motor for inspection subject to obtaining ultimate customer UPRVUNL and its consultant NTPC (NATIONAL THERMAL POWER CORPORATION) formal approval in the event of an order through endorsement sheet approval route as in sl no: 4 below				
03	BHEL / Ultimate Customer –				

deviation on this specific requirement is acceptable.

CGL/Ahemednagar (Up to 200KW)

Marathon / Kolkatta (Up to 200KW)

➤ SIEMENS/Mumbai (Up to 200KW)

➤ BBL/Mumbai (Up to 200KW)

200KW)

200KW)

➤ KEC / Bengaluru (Up to 200KW) & Hubli (Up to 90KW)

> ABB/Faridabad (Up to 55KW) and Bengaluru (Up to

Laximi Hydralics Private Limited (LHPL) / Solapur (Up to

Annexure-I

CONTRACT QUALITY REQUIREMENTS (COR) for LT MOTORS Up to 200KW

(For INDIGENOUS OEM VENDOR ONLY)

PROJECT: UPRVUNL-PANKI 1X660MW - FGD (R4U2) (NTPC CONSULTANT)

CONTRACT NO:14A22-SPC-G-0001A

(To be filled by OEM VENDOR)

PACKAGE: FGD PACKAGE MAIN CONTRACTOR: **BHEL - RANIPET** SUB CONTRACTOR (OEM) & ADDRESS:

CONTRACT OUALITY REQUIREMENTS (COR) for LT MOTORS - Up to 200KW

Customer: UPRVUNL

Project: PANKI 1X660MW Consultant: NTPC (BHEL WO no: R4U2)

DOC.NO:

BAP/OR/R4U2/ LTM/Slurry Pumps/001

Rev NO.: 01 PAGE: Page 4 of 6 DATE: 18.08.2021 ##Enquiry No:

OEM Supplier Name &

Address:

##Offer reference:

##Date:

Contact Official Name:

Mohile no: Fmail id:

DESCRIPTION SI. NO.

BHEL and Ultimate Customer - UPRVUNL / Consultant NTPC (National Thermal Power Corporation)., India Quality Requirements

##Specific confirmations by the vendor

ITEM: LT Motors Up to 200KW

04 Inspection Methodology to be adopted at Actual LT Motor Manufacture works by OEM vendor

LT Motors up to 30KW – Inspection Categorization: III

All Routine tests on LT Motors are to be ensured by OEM Vendor & same are to be inspected & witnessed by OEM Vendor / BHEL / BHEL AIA (BHEL authorized inspection Agency) at LT Motor manufacture works as per approved MQP & approved data sheet / drg / spec/ as per relevant BIS (Bureau of Indian Standard) - BIS 325 / IEC 60034 etc and all the Routine Test Reports with Inspection report (IR) to be submitted for BHEL/Ultimate Customer - UPRVUNL and its consultant NTPC (NATIONAL THERMAL POWER CORPORATION) for review and to obtain inspection and dispatch clearance.

LT Motor Manufacturer has to issue COC (Certificate of Conformance) states that the above motor/ motors was manufactured taking care of Customer specific requirements regarding ambient temp., voltage and frequency variation, hot starts, pull out torque, starting KVA/KW, temp. rise, distance between centre of stud and gland plate, space heater and tested in accordance with approved drawing/data sheets.

LT Motors (30KW to 50KW) – Inspection Categorization: II

All Routine Tests on LT Motors are to be ensured by OEM vendor & witnessed by BHEL/BHEL AIA (BHEL authorized inspection Agency) at LT Motor manufacture works including review of Type Test Reports and Degree of Protection Test Reports (IP 55) as per approved MQP & approved data sheet/drg/spec / as per relevant BIS (Bureau of Indian Standard) - BIS 325 / IEC 60034 etc and all the Routine Test Reports with Inspection report (IR) to be submitted for BHEL/Ultimate Customer - UPRVUNL and its consultant NTPC (NATIONAL THERMAL POWER CORPORATION) for review and to obtain inspection and dispatch clearance.

Above 50KW and up to 200KW - Inspection Categorization: I

All Routine & Type Tests if any on LT Motors are to be ensured by OEM Vendor and same shall be offered to BHEL/ BHEL AIA (BHEL authorized inspection Agency) / Ultimate Customer-UPRVUNL and its consultant NTPC (NATIONAL THERMAL POWER CORPORATION) for inspection & witnessing including review of Degree of Protection Test Reports as per approved MQP /RQP with endorsement sheet / approved data sheet / drg / spec / as per relevant BIS (Bureau of Indian Standard) - BIS 325 / IEC 60034 etc and all the Routine Test Reports, Type test Reports including Degree of protection test report with Inspection report (IR) to be submitted for BHEL/Ultimate Customer – UPRVUNL and its consultant NTPC (NATIONAL THERMAL POWER CORPORATION) for review and to obtain inspection and dispatch clearance.

Annexure-I

	<u>CO</u>	NTRACT QUA	ALITY REQUIREMENTS (CQR) for	or LT MOTORS Up to	200KW
	<u>(</u>	For IND	IGENOUS OEM V	ENDOR ON	<u>LY)</u>
PROJECT: UPRVUNL-PANKI 1X660MW - FGD (R4U2) (NTPC CONSULTANT) CONTRACT NO:14A22-SPC-G-0001A PACKAGE: FGD PACKAGE MAIN CONTRACTOR: BHEL - RANIPET SUB CONTRACTOR (OEM) & ADDRESS: (To be filled by OEM VENDOR)			CONTRACT QUALITY REQUIREMENTS (CQR) for LT MOTORS - Up to 200KW Customer: UPRVUNL Project: PANKI 1X660MW Consultant: NTPC (BHEL WO no: R4U2)	DOC.NO: BAP/QR/R4U2/ LTM/Slurry Pumps/001 Rev NO.: 01 PAGE: Page 5 of 6 DATE: 18.08.2021	##Enquiry No: ## OEM Supplier Name & Address: ##Offer reference: ##Date: Contact Official Name: Mobile no: Email id:
SI. NO.					##Specific confirmations by the vendor
			ITEM: LT Motors Up to 200	0KW	
04	State				
05	Painting Requirements Packing				
07	For Inspection call				

including for type test witnessing if any to be ensured / addressed to Mr R Kesavan., DGM (QC-Proc)., Mobile no: +91 9443006303., Email id: kesavan@bhel.in and Mr Zeeshan Ali., Sr.Engineer (QC-Proc)., Mobile no: +91 9443149691., Email id: zeeshan@bhel.in including for inspection related activities for immediate response /

Specific confirmation for Document Package in the event of an order (3

hard copies + soft copies in PDF file) is to be given containing the

consultant NTPC (NATIONAL THERMAL POWER CORPORATION) for record for "CHP" (Customer Hold Point) Verification & Witness "W"

BHEL AIA (BHEL Appointed Inspection Agency) /

(NATIONAL THERMAL POWER CORPORATION) (National Thermal Power Corporation) CHP (Customer Hold Point) / MDCC (Material

TCs identified by BHEL/Ultimate customer UPRVUNL and its

Ultimate customer UPRVUNL and its consultant NTPC

following with proper linkages (.)

MQP/RQP/Endorsement sheet

Final Inspection Report + TC

BHEL report + TC

Despatch Clearance Certificate)

portion as given in MQP / RQP / MQP (as applicable).

Index Sheet

resolution.

(i)

(ii)

(iv)

(v)

Document

Package /

Dossier

08

Annexure-I

CONTRACT QUALITY REQUIREMENTS (CQR) for LT MOTORS Up to 200KW

(For INDIGENOUS OEM VENDOR ONLY)

PROJECT: UPRVUNL-PANKI 1X660MW - FGD (R4U2) (NTPC CONSULTANT) CONTRACT NO:14A22-SPC-G-0001A PACKAGE: FGD PACKAGE MAIN CONTRACTOR: BHEL - RANIPET SUB CONTRACTOR (OEM) & ADDRESS: (To be filled by OEM VENDOR) SI. DESCRIPTION BHEL and Ulti			PC COM 4A22-SI PACKAO FOR: DR (OEM	NSULTANT) PC-G-0001A GE M) & VENDOR)	CONTRACT QUALITY REQUIREMENTS (CQR) f LT MOTORS - Up to 200K Customer: UPRVUI Project: PANKI 1X660 Consultant: NTPC (BHEL WO no: R4U2) mate Customer - UPRVUNL	or W NL OMW	Rev NO.: PAGE: P DATE:	/R4U2/ rry Pumps/00: 01 Page 6 of 6 18.08.2021	##Offer refe ##Date: Contact Offi Mobile no: Email id:	plier Name & rence:
NO.				Therma	al Power Corporation)., India	Quality	Require	ments	by	the vendor
	<u> </u>				ITEM: LT Motors U	p to 200	<u>)KW</u>			
				(vii) Type	test reports conducted/submit			l with		
					oved data sheet and BOM with					
					omer approved drgs.					
09	Im _j not	portant es		and its consulta	egorization: I BHEL/BHEL AIA and also by U ant NTPC (NATIONAL THER DN) based on MQP/RQP appro	MAL PO	WER		,	
				Customer –UP POWER COR sl no:04 Inspection Cate COC by Main consultant NT based on inspec	Main contractor (BHEL) / BHEL RVUNL and its consultant NTF PORATION) approved MQP/R egorization: III contractor (BHEL) to Ultimate PC (NATIONAL THERMAL Fetion as in sl no:04.	PC (NAT LQP & ba Custome POWER	IONAL T ased on in er – UPRV CORPOR	HERMAL spection as in VUNL and its RATION)	5	
						ication for conducting checks / tests including for				
					ny of the tests at Actual LT Motor Manufacture Works by					
					L AIA / Ultimate Customer – UPRVUNL and its consultant IONAL THERMAL POWER CORPORATION) is in the					
					Supplier only and no extra co					
					order and also during executi					
10	Mo	tor det	ails							
	Ver		ll furn	ish following L	Γ Motor (upto 200 kW) details	for the			this enquiry.	,
		S. No			Pump	D	ting	LT Motor	Make	
							ting kW)	Quantity (in nos)	wiake	
	1 Limestone Slurry Feed Pump					,	,	/		
	2 Gypsum Bleed Pump				- 1 T1- D					
	3 Primary Hydro-cyclone Feed 4 Filtrate Water Tank Pump									
	5 Secondary Hydro-cyclone Feed Tank Pump]	
	[6		Water Tank Pump			-]
	7 Auxiliary Absorbent Tank Pump									
		9		ency Transfer Pump er Area Drain Sum						
		10		m Area Drain Sump	t i					
		11	Limest	one Area Drain Sur	np Pump					
	12 Other LT motors involved in the system (if any)				in the system (if any)					

Supplier signature with seal

Necessarily to be filled up & submitted by the OEM vendor at the time of offer itself otherwise the offer may not be considered w.r.t Quality Requirements against LT Motors being BHEL/ Ultimate Customer – UPRVUNL (UTTAR PRADESH RAJYA VIDYUT UDPADAN NIGAM LIMITED) and its consultant - CUSTOMER UPRVUNL and its consultant NTPC (NATIONAL THERMAL POWER CORPORATION) (National Thermal Power Corporation Limited) specific requirements.

	ENDORSEMENT SHEET FOR QP					
REFER	ENCE / STANDARD / <u>FIELD</u> QUALITY PLAN (RQP./ SQP/R	FQP/SFQP)				
TO BE FILLED IN BY SUPPLIER AT T	TIME OF SUBMISSION	एनश्चीपीसी NTPC	To be filled in by NTPC			
PROJECT NAME	UPRVUNL-PANKI 660MW – FGD (NTPC CONSULTANT) (BHEL/BAP WO no: R4U2)	2REVIEW & ENDORSEMENT BY NTPC PROJECT SPECIFIC QP NUMBER ALLOTTED				
CONTRACT NO.:	14A22-9PC-G-0001A	OP NO:				
MAIN SUPPLIER MANUFACTURER WORKS & ADDRESS	MAIN SUPPLIER M/S.BHEL, RANIPET, TAMIL NADU., INDIA MANUFACTURER WORKS & ADDRESS (TO BE FILLED BY OEM/LT MOTOR SUPPLIER)					
ITEM /EQUIPMENT / SYSTEM/ SUB-SYSTEM DETAILS i.e. MODEL TYPE/SIZE/RATING etc.	LT MOTOR - SLURRY PUMPS FOR FGD APPLICATION					
APPROVED QP NO.: RQP/SQP/RFQP/SFQP	(TO BE FILLED BY OEM / LT MOTOR SUPPLIER	(TICV ADDI ICADI	E)			
Confirmation by Main Supplier (TICK WHICHE I. That the item/ component is identical to that con		(TICK APPLICABLE) The MQP/RQP/SQP is endorsed for this project				
II. That there are minor changes in the item/ com the same do not affect the contents of MQP/RQP/	ponent with respect to that considered for MQP/RQP/SQP approval, however SQP nponent with respect to that considered for MQP/RQP/SQP approval, however	as indicated. DISTRIBUTIO A) MQP/RQF I. MAIN SUPPL MQP/RQP/SQF 2. MANUFACTO 3. RIO 4. CQA-SPL 5. CQA-O/C B) RFQP/SFQ I. MAIN SUPPL 2. MANUFACTO 3. NTPC FQA (w	dorsed for this project with changes ON OF ENDORSEMENT OF P/SQP: JER (WITH A COPY OF P) URER P: JER (with a copy of MQP/RQP/SQP			
SIGN.: (Main Supplier) DATE:	(TO BE FILLED BY OEM / LT MOTOR SUPPLIER SIGN.: (Manufacturer) DATE:	NTPC (Review	ved /Approved by/ Date & Seal)			

(TC	EM SUPPLIER WITH OEM MFGR.'s LOGO D BE FILLED BY EM SUPPLIER)	NAME AN (TO BE FII	R MANUFACTURER'S D ADDRESS LLED BY OEM / R MANUFACTURE)	MANU ITEM: LT M 200KW FOR APPLICATION SUB-SYSTEM SLURRY PU	OTOR UP FGD ON M: FGD -	ТО	QP NO. LTM: P REV.N(DATE:	JALITY PLA : SLURRY PUM PANKI:001 D.: 00 OF		CUSTO PACKA MAIN (NTRA PACE CTOR	CT NO KAGE BHF	O:14 <i>A</i> EL - R M) &	A22-SI RANIF ADI	ORESS:
SL. NO	COMPONE OPERATION		CHARACTERISTIC	S CLASS	TYPE OF CHECK	OF C	NTUM HECK	REFERENCE DOCUMENT	ACCEP' NOF		FORMAT RECO			GENC		REMARKS
1.	2.		3.	<mark>4.</mark>	5.	M	C/N 6.	7.	8		<u>9.</u>	D*	M ∗	C * 1	N 0.	11.

		LEGEND: * RECORDS, INDENTIFIED WITH "TICK" (√) SHALL BE		DOC. NO.:	REV	CAT
		ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION. ** M: OEM MANUFACTURER/LT MOTOR SUB-SUPPLIER				
OEM MANUFACTURER/ LT MOTOR SUPPLIER	MAIN (BHEL) SUPPLIER	C: MAIN SUPPLIER – BHEL/BHEL AIA , N: ULTIMATE CUSTOMER - UPRVUNL and ITS	FOR NTPC			
SIGNAT	URE	CONSULTANT — NTPC (National Thermal Power Corporation Limited). P: PERFORM W: WITNESS AND V: VERIFICATION. AS APPROPRIATE, CHP: NTPC SHALL IDENTIFIED IN COLUM "N" AS "W"	USE	REVIEWED BY	APPROVED BY	APPROVAL SEAL

FORMAT NO.: QS-01-QAI-P-09/F1-R1 1/1 ENGG. DIV./QA&I



W.r.t FOREIGN OEM VENDORS ONLY

SI	Description & Quality Requirements	Specific confirmation by
no		the vendor
		(Confirmed/Not
		Confirmed)
01	OEM vendor shall meet all the requirements as in Annexure-II	
	and also OEM Vendor shall endorse (Signature and Stamp in	
	all the pages) in attached CONTRACT QUALITY	
	REQUIREMENTS (CQR) for LT MOTORS(IE3) Up to 200KW used	
	in Slurry Pumps (DOC.NO: BAP/QR/R4U2/ LTM/Slurry	
	Pumps/002 Rev.01 dt 18.08.2021) and send us the same to	
02	follow / ensure all the requirements in the event of an order.	
02	OEM vendor shall ensure Credentials of design and	
	Manufacturing capabilities w.r.t. LT Motors by their LT	
	Motor manufacture.	
03	OEM Supplier shall submit other details like that they are	
	already approved vendor by Ultimate	
	Customer – UPRVUNL and its consultant NTPC	
	specifically for proposed supply of LT Motor against	
	BHEL/Ranipet. The details of PO already executed	
	preferably through various other BHEL units for any	
	NTPC projects with CHP/MDCC including technical	
	catalogue, PO received so far for similar supply of LT	
	Motors may also be submitted.	
04	Accordingly OEM vendor shall be suitably informed that	
	If Ultimate Customer – UPRVUNL and its consultant	
	NTPC vendor approvals is not there /not available, then	
	their offer will not be considered for further processing /	
	ordering for the supply of LT Motors to take care of	
	overall equipment/system requirements.	
05	No material shall be dispatched without BHEL/ Ultimate	
	Customer – UPRVUNL and its consultant	
	NTPC inspection - CHP/MDCC clearances.	

Annexure-II

CONTRACT QUALITY REQUIREMENTS (COR) for LT MOTORS Up to 200KW

(For FOREIGN (OUTSIDE INDIA) OEM VENDOR ONLY) PROJECT: UPRVUNL-PANKI 1X660MW CONTRACT QUALITY ##Enquiry No: DOC.NO: - FGD (R4U2) (NTPC consultant) REQUIREMENTS (CQR) for BAP/OR/R4U2/ LT MOTORS - Up to 200KW ## OEM Supplier Name & LTM/Slurry Pumps/002 CONTRACT NO:14A22-SPC-G-0001A Address: Rev NO.: 01 **Customer: UPRVUNL** PACKAGE: FGD PACKAGE PAGE: Page 1 of 7 ##Offer reference: MAIN CONTRACTOR: Project: PANKI 1X660MW DATE: 18.08.2021 **BHEL - RANIPET** ##Date: Consultants: NTPC SUB CONTRACTOR (OEM) & (BHEL WO no: R4U2) ADDRESS: Contact Official Name: Mobile no: (To be filled by OEM VENDOR) Email id: **DESCRIPTION** BHEL and Ultimate Customer - UPRVUNL / Consultants NTPC (National SI. ##Specific Thermal Power Corporation).. India Quality Requirements NO. confirmations by the vendor ITEM: LT Motors - Up to 200KW Vendor shall submit the type test reports of all the type tests as listed in 01 **Type Test** SL NO: 01 (D) below and carried out within 10 years from the data of Requirements ultimate Customer UPRVUNL and its consultant - NTPC (NATIONAL THERMAL CORPORATION LIMITED) bid opening dt 11.02.2015. These reports should be for the test conducted on the identical/similar LT Motors to those proposed to be supplied under this enquiry and test (s) either should have been conducted at an independent laboratory (or) should have been witnessed by BHEL/BHEL AIA (BHEL Appointed Inspection Agency) (or) Ultimate customer UPRVUNL and its consultant NTPC (NATIONAL THERMAL CORPORATION LIMITED) (National Thermal Power Corporation) at respective LT Motor Manufacture of OEM vendor. However, if vendor is not able to submit the similar / identical type test report as per above condition in 01 (A) (or) in the case of type test reports are not found to be meeting the specification requirement and not acceptable to BHEL/BHEL AIA/ Ultimate Customer - UPRVUNL and its consultant - NTPC (NATIONAL THERMAL CORPORATION LIMITED),, the vendor shall conduct all these tests at no additional cost if any to BHEL either at reputed third party lab (or) Government approved lab (or) own lab in the presence of BHEL AIA (BHEL Appointed Inspection Agency) / BHEL /Ultimate customer UPRVUNL and its consultant - UPRVUNL and its consultant - NTPC (NATIONAL

THERMAL CORPORATION LIMITED) (NATIONAL THERMAL

Ultimate Customer – UPRVUNL and its consultant – UPRVUNL and its consultant – NTPC (NATIONAL THERMAL CORPORATION LIMITED) (NATIONAL THERMAL CORPORATION LIMITED)

Type Test reports review and approval by BHEL AIA (BHEL Appointed Inspection Agency) / BHEL / Ultimate customer UPRVUNL and its consultant – NTPC (NATIONAL THERMAL CORPORATION LIMITED) is must in line with UPRVUNL and its consultant – UPRVUNL and its consultant – NTPC (NATIONAL THERMAL

CORPORATION LIMITED) approved data sheet / BOM (Bill of

(NATIONAL

THERMAL.

CORPORATION LIMITED) and submit the reports for

LIMITED)

Material) /GA (General Arrangement) Drawing etc.

review & approval.

CORPORATION

Annexure-II

CONTRACT QUALITY REQUIREMENTS (CQR) for LT MOTORS Up to 200KW

(For FOREIGN (OUTSIDE INDIA) OEM VENDOR ONLY)

PROJECT: UPRVUNL-PANKI 1X660MW – FGD (R4U2) (NTPC consultant) CONTRACT NO:14A22-SPC-G-0001A PACKAGE: FGD PACKAGE MAIN CONTRACTOR: BHEL - RANIPET SUB CONTRACTOR (OEM) & ADDRESS: (To be filled by OEM VENDOR)			CONTRACT QUALITY REQUIREMENTS (CQR) for LT MOTORS - Up to 200KW Customer: UPRVUNL Project: PANKI 1X660MW Consultants: NTPC (BHEL WO no: R4U2)	##Enquiry No: ## OEM Supplier Name & Address: ##Offer reference: ##Date: Contact Official Name: Mobile no: Email id:	
SI.	DESCRIPTION		Itimate Customer - UPRVUNL / Cons		##Specific
NO.		Therr	mal Power Corporation)., India Quali	ty Requirements	confirmations by the
					vendor
0.1	1	D 771 6.11	ITEM: LT Motors - Up to 20		<u> </u>
01	Type Test Requirement (Contd)	for above	wing Type test reports to be submitted 50KW LT Motor as per relevant - BIS 325 / IEC 60034 etc		
02	i. Mea (if a ii. No i spee iii. Ope mote iv. Full v. Tem vi. Mor vii. Higl viii. Test ix. Test be li max x. Ove xi. Deg xii. Type proc E. The TCs		circuit voltage ratio of wound rotor (rs) oad test to determine efficiency power perature rise test. The entary excess / over load test voltage test (rotor vibration severity of motor (rotor noise levels of rotor for rotor for rotors (rotor noise levels of rotors (rotor noise levels of rotors located in fuels fenclosures as per BIS 2148/ IEC 6007. Test reports shall also be given as PD rot through Email & Soft Copy (File states)	input current, power and motor (in case slip ring factor and slip) or all the motors shall tor for which the ess Protection - IP 55). oil area having flame 79-1 F file with index sheet & ize to less than 9MB).	
02	Quality Plan Requirement	and accor ultimate c BHEL / U (NATION b. If any of l and its co LIMITED validity, t purposes consultan	anufacturing Quality Plan) is applicable dingly Actual LT Motor Manufacture sustomer's consultant NTPC format for Illimate Customer - UPRVUNL and its NAL THERMAL CORPORATION LUCT Motor manufacture is having, ultimal neutrant - NTPC (NATIONAL THERMAL) approved MQP (Manufacturing Quality he same is applicable for these LT Mosubject to obtaining ultimate customer t - NTPC (NATIONAL THERMAL CO) formal approval in the quant of an experience.	shall submit the MQP in review and approval by sconsultant – NTPC MITED). The sconsultant – NTPC MITED MI	

LIMITED) formal approval in the event of an order through endorsement

sheet approval route as in sl no: 01 (c) below

Annexure-II

CONTRACT QUALITY REQUIREMENTS (CQR) for LT MOTORS Up to 200KW

(For FOREIGN (OUTSIDE INDIA) OEM VENDOR ONLY)

_	JECT: UPRVUNL-PA		CONTRACT QUALITY	DOC.NO:	##Enquiry No:
	D (R4U2) (NTPC cons TRACT NO:14A22-S	,	REQUIREMENTS (CQR) for LT MOTORS - Up to 200KW	BAP/QR/R4U2/ LTM/Slurry Pumps/002 Rev NO.: 01	## OEM Supplier Name & Address:
PACKAGE: FGD PACKAGE MAIN CONTRACTOR: BHEL - RANIPET SUB CONTRACTOR (OEM) & ADDRESS: (To be filled by OEM VENDOR)			Customer: UPRVUNL Project: PANKI 1X660MW Consultants: NTPC (BHEL WO no: R4U2)	PAGE: Page 3 of 7 DATE: 18.08.2021	##Offer reference: ##Date: Contact Official Name: Mobile no: Email id:
SI.	DESCRIPTION	BHEL and U	Itimate Customer - UPRVUNL / Cons	ultants NTPC (National	##Specific
NO.		Therr	nal Power Corporation)., India Quali	ty Requirements	confirmations by the
					vendor
			ITEM: LT Motors - Up to 20	<u>00KW</u>	
02	Quality Plan Requirement	should su NTPC (I	otor Manufacture / OEM vendor do bmit a fresh MQP to BHEL/UPRVU NATIONAL THERMAL CORPOR mat) for review & approval. (copy attact)		

Annexure-II

CONTRACT QUALITY REQUIREMENTS (CQR) for LT MOTORS Up to 200KW

(For FOREIGN (OUTSIDE INDIA) OEM VENDOR ONLY)

	JECT: UPRVUNL-PA		CONTRACT QUALITY	DOC.NO:	##Enquiry No:
	D (R4U2) (NTPC cons TRACT NO:14A22-SI		REQUIREMENTS (CQR) for LT MOTORS - Up to 200KW	BAP/QR/R4U2/ LTM/Slurry Pumps/002	## OEM Supplier Name & Address:
PAC	KAGE: FGD PACKA		Customer: UPRVUNL	Rev NO.: 01 PAGE: Page 4 of 7	##Offer reference:
BHE	N CONTRACTOR: L - RANIPET CONTRACTOR (OE)	M) &	Project: PANKI 1X660MW Consultants: NTPC	DATE: 18.08.2021	##Date:
	RESS:	(ii) &	(BHEL WO no: R4U2)		Contact Official Name:
(То	be filled by OEM	VENDOR)			Mobile no: Email id:
SI.	DESCRIPTION	BHEL and U	Itimate Customer - UPRVUNL / Cons	ultants NTPC (National	##Specific
NO.			nal Power Corporation)., India Quali	•	confirmations by the vendor
			ITEM: LT Motors - Up to 20	nokw	Vendor
03	Inspection	a. All LT N	And to save to be inspected by BHEL		
0.5	Methodology		Agency) at LT Motor manufacture		
	to be adopted		approved data sheet/drg/spec/ as per		
	at Actual LT		andard) - BIS 325 / IEC 60034 e		
	Motor		-UPRVUNL and its consultant		
	Manufacture	THERMA	AL CORPORATION LIMITED)		
	works by OEM				
	vendor		ne Tests are to be witnessed by BHE		
			Agency) at LT Motor manufacture		
			approved data sheet/drg/spec / as per		
			andard) - BIS 325 / IEC 60034 et -UPRVUNL and its consultant		
		THERMA			
		c. BHEL Al	A (BHEL authorized inspection Age	ncy) / Ultimate Customer-	
			VL and its consultant – NTPC (1		
			ATION LIMITED) will also ensu		
			view including Degree of Protection		
			proved MQP & approved data sheet / eau of Indian Standard) - BIS 325	/ IEC 60034 etc.	
		d. BHEL A	IA (BHEL authorized inspection	Agency) / Ultimate	
		Customer	-UPRVUNL and its consultant	– NTPC (NATIONAL	
			at LT Motor Supplier works and	to witness / perform submit all the inspection	
			s and routine & Type test report		
				pproved MQP & approved	
03	Inspection		t / drg / spec / as per relevant BIS (Bu IEC 60034 etc.	reau of Indian Standard) -	
03	Methodology		to 30KW – Inspection Categorizat	ion: III	
	to be adopted		sts on LT Motors are to be ensured by		
	at Actual LT		ected & witnessed by OEM Vendor / 1		
	Motor		rized inspection Agency) at LT Motor		
	Manufacture		MQP & approved data sheet /drg / spe		
	works by OEM	,	lian Standard) - BIS 325 / IEC 60034		
	vendorcontd		with Inspection report (IR) to be submit PRVUNL and its consultant – NTPC		
			ORPORATION LIMITED) for review		
		and dispatch c		to octain mopeonon	
			nufacturer has to issue COC (Certifica	te of Conformance) states	
		that the above	motor/ motors was manufactured taki	ng care of Customer	
			ements regarding ambient temp., volta		
			starts, pull out torque, starting KVA/K		
			e of stud and gland plate, space heater	and tested in accordance	
		with approved	drawing/data sheets.		<u> </u>

Annexure-II

CONTRACT QUALITY REQUIREMENTS (CQR) for LT MOTORS Up to 200KW

(For FOREIGN (OUTSIDE INDIA) OEM VENDOR ONLY)

PROJECT: UPRVUNL-PANKI 1X660MW - FGD (R4U2) (NTPC consultant) CONTRACT NO:14A22-SPC-G-0001A

PACKAGE: FGD PACKAGE MAIN CONTRACTOR: BHEL - RANIPET SUB CONTRACTOR (OEM) & ADDRESS:

(To be filled by OEM VENDOR)

CONTRACT QUALITY
REQUIREMENTS (CQR) for
LT MOTORS - Up to 200KW

Customer: UPRVUNL
Project: PANKI 1X660MW

Consultants: NTPC (BHEL WO no: R4U2)

DOC.NO:

BAP/QR/R4U2/ LTM/Slurry Pumps/002

Rev NO.: 01 PAGE: Page 5 of 7 DATE: 18.08.2021 ##Enquiry No:

OEM Supplier Name & Address:

##Offer reference:

##Date:

Contact Official Name: Mobile no:

Email id:

SI. DESCRIPTION NO.

BHEL and Ultimate Customer - UPRVUNL / Consultants NTPC (National Thermal Power Corporation)., India Quality Requirements

##Specific confirmations by the vendor

ITEM: LT Motors - Up to 200KW

03 Inspection
Methodology
to be adopted
at Actual LT
Motor
Manufacture
works by OEM
vendor...contd

LT Motors (30KW to 50KW) – Inspection Categorization: II

All Routine Tests on LT Motors are to be ensured by OEM vendor & same are to be inspected & witnessed by BHEL / BHEL AIA (BHEL authorized inspection Agency) at LT Motor manufacture works including review of Type Test Reports and Degree of Protection Test Reports (IP 55) as per approved MQP & approved data sheet/drg/spec / as per relevant BIS (Bureau of Indian Standard) - BIS 325 / IEC 60034 etc and all the Routine Test Reports with Inspection report (IR) to be submitted for BHEL/Ultimate Customer – UPRVUNL and its consultant – NTPC (NATIONAL THERMAL CORPORATION LIMITED) for review and to obtain inspection and dispatch clearance .

Above 50KW and up to 200KW - Inspection Categorization: I

All Routine & Type Tests if any on LT Motors are to be ensured by OEM Vendor at Actual LT Motor Manufacture Works and same shall be offered to BHEL/ BHEL AIA (BHEL authorized inspection Agency) / Ultimate Customer-UPRVUNL and its consultant – NTPC (NATIONAL THERMAL CORPORATION LIMITED) for inspection & witnessing including review of Degree of Protection Test Reports as per approved MQP /RQP (Reference Quality Plan with endorsement sheet approved) / approved data sheet / drg / spec / as per relevant BIS (Bureau of Indian Standard) - BIS 325 / IEC 60034 etc and all the Routine Test Reports with Inspection report (IR) to be submitted for BHEL/Ultimate Customer – UPRVUNL and its consultant – NTPC (NATIONAL THERMAL CORPORATION LIMITED) review and to obtain inspection and dispatch clearance ...

All the checks / tests /review of documents / inspection & witnessing at LT Motor Manufacture by OEM /BHEL / BHEL AIA (BHEL authorized inspection Agency)) / Ultimate Customer-UPRVUNL and its consultant – NTPC (NATIONAL THERMAL CORPORATION LIMITED) are under OEM scope and any cost implication arising out of due to conducting checks / tests including for witnessing of any of the tests at Actual LT Motor Manufacture Works (or) at third party etc by BHEL / BHEL AIA / Ultimate Customer – UPRVUNL and its consultant – NTPC (NATIONAL THERMAL CORPORATION LIMITED) are in the scope of OEM Supplier only.

As such No extra cost if any will be admissible and paid in the event of an order and also during execution of the contract.

No material shall be dispatched without BHEL / BHEL AIA and Ultimate Customer – UPRVUNL and its consultant – NTPC (NATIONAL THERMAL CORPORATION LIMITED) Inspection and dispatch clearance.

Annexure-II

CONTRACT QUALITY REQUIREMENTS (CQR) for LT MOTORS Up to 200KW

(For FOREIGN (OUTSIDE INDIA) OEM VENDOR ONLY)

PROJECT: UPRVUNL-PANKI 1X660MW - FGD (R4U2) (NTPC consultant) CONTRACT NO:14A22-SPC-G-0001A PACKAGE: FGD PACKAGE MAIN CONTRACTOR: BHEL - RANIPET SUB CONTRACTOR (OEM) & ADDRESS: (To be filled by OEM VENDOR) SI. DESCRIPTION BHEL and U			CONTRACT QUALITY REQUIREMENTS (CQR) for LT MOTORS - Up to 200KW Customer: UPRVUNL Project: PANKI 1X660MW Consultants: NTPC (BHEL WO no: R4U2)	##Enquiry No: ## OEM Supplier Name & Address: ##Offer reference: ##Date: Contact Official Name: Mobile no: Email id: ##Specific		
NO.			nal Power Corporation)., India Quali	•	confirmations by the vendor	
04	Painting Requirements		rement like paint shade and painting the to be ensured by the OEM vendor fo	nickness including no of		
	-	sultant – NTPC ED) approved data				
05	Packing		be as per Specification / Drg. / Data s to avoid any transit & handling dama			
06	For Inspection call	inspection at Actual LT BHEL/BHEL AIA and its consultant – DN LIMITED) including / addressed to Mr R 9443006303., Email id: r.Engineer (QC-Proc)., n@bhel.in including for onse / resolution.				
07	Document Package / Dossier	Specific conficeopies + soft of proper linkage (i) Inde (ii) MQI (iii) TCs (NATIONAL (Customer Ho / RQP / MQP (iv) Final (v) BHE (vi) Ultir (NATIONAL Power Corpor Clearance Cer (vii) Type approach				

Annexure-II

CONTRACT QUALITY REQUIREMENTS (CQR) for LT MOTORS Up to 200KW

(For FOREIGN (OUTSIDE INDIA) OEM VENDOR ONLY)

PROJECT: UPRVUNL-PANKI 1X660MW CONTRACT QUALITY ##Enquiry No: DOC.NO: REQUIREMENTS (CQR) for - FGD (R4U2) (NTPC consultant) BAP/OR/R4U2/ LT MOTORS - Up to 200KW ## OEM Supplier Name & LTM/Slurry Pumps/002 CONTRACT NO:14A22-SPC-G-0001A Address: Rev NO.: 01 **Customer: UPRVUNL** PACKAGE: FGD PACKAGE PAGE: Page 7 of 7 ##Offer reference: MAIN CONTRACTOR: **Project: PANKI 1X660MW** DATE: 18.08.2021 **BHEL - RANIPET** ##Date: Consultants: NTPC SUB CONTRACTOR (OEM) & (BHEL WO no: R4U2) ADDRESS: Contact Official Name: Mobile no: (To be filled by OEM VENDOR) Fmail id: **DESCRIPTION** BHEL and Ultimate Customer - UPRVUNL / Consultants NTPC (National SI. ##Specific Thermal Power Corporation).. India Quality Requirements NO. confirmations by the vendor ITEM: LT Motors - Up to 200KW 08 **Important Inspection Categorization: I** notes Inspection by BHEL/BHEL AIA and also by Ultimate Customer - UPRVUNL and its consultant - NTPC (NATIONAL THERMAL CORPORATION LIMITED) based on MQP/RQP approved and as in sl no:03 **Inspection Categorization: II** Inspection by Main contractor (BHEL) / BHEL AIA based on Ultimate Customer - UPRVUNL and its consultant - NTPC (NATIONAL THERMAL CORPORATION LIMITED) approved MQP/RQP & based on inspection as in sl no:03 **Inspection Categorization: III** COC by Main contractor (BHEL) to Ultimate Customer - UPRVUNL and its consultant - NTPC (NATIONAL THERMAL CORPORATION LIMITED) based on inspection as in sl no:03 Any cost implication for conducting checks / tests including for witnessing of any of the tests at Actual LT Motor Manufacture Works by BHEL / BHEL AIA / Ultimate Customer - UPRVUNL and its consultant - NTPC (NATIONAL THERMAL CORPORATION LIMITED) is in the scope of OEM Supplier only and no extra cost if any will be admissible in the event of an order and also during execution of the contract. 10 Motor details Vendor shall furnish following LT Motor (upto 200 kW) details for the Pumps applicable for this enquiry. LT Motor S. No Rating Quantity Make (in kW) (in nos) Limestone Slurry Feed Pump Gypsum Bleed Pump 2 Primary Hydro-cyclone Feed Tank Pump Filtrate Water Tank Pump 4 5 Secondary Hydro-cyclone Feed Tank Pump Waste Water Tank Pump 6 Auxiliary Absorbent Tank Pump 8 **Emergency Transfer Pump** 9 Absorber Area Drain Sump Pump 10 Gypsum Area Drain Sump Pump 11 Limestone Area Drain Sump Pump 12 Other LT motors involved in the system (if any)

OEM Supplier signature with seal

Necessarily to be filled up & submitted by the OEM vendor at the time of offer itself otherwise the offer may not be considered w.r.t Quality Requirements against LT Motors being BHEL/ Ultimate Customer – UPRVUNL (UTTAR PRADESH RAJYA VIDYUT UDPADAN NIGAM LIMITED) and its consultants - UPRVUNL and its consultant – NTPC (NATIONAL THERMAL CORPORATION LIMITED) (National Thermal Power Corporation Limited) specific requirements.

REFER	ENDORSEMENT SHEET FOR QP ENCE / STANDARD / FIELD QUALITY PLAN (RQP/SQP/R	FQP/SFQP)				
TO BE FILLED IN BY SUPPLIER AT T	IME OF SUBMISSION	ण्निर्वासी To be filled in by NTPC				
PROJECT NAME	2REVIEW & ENDORSEMENT BY NTPC PROJECT SPECIFIC QP NUMBER ALLOTTE					
CONTRACT NO.:	14A22-9PC-G-0001A	OR NO.				
MAIN SUPPLIER	M/S.BHEL, RANIPET , TAMIL NADU., INDIA	QP NO:				
MANUFACTURER WORKS & ADDRESS	(TO BE FILLED BY OEM / LT MOTOR SUPPLIER	REV. NO.: 00 DT:				
ITEM /EQUIPMENT / SYSTEM/ SUB-SYSTEM DETAILS i.e. MODEL TYPE/SIZE/RATING etc.	LT MOTOR - SLURRY PUMPS FOR FGD APPLICATION					
APPROVED QP NO.: RQP/SQP/RFQP/SFQP	(TO BE FILLED BY OEM / LT MOTOR SUPPLIER					
Confirmation by Main Supplier (TICK WHICHE)	VER APPLICABLE)	(TICK APPLICABLE)				
I. That the item/ component is identical to that con	isidered for SQP approval. $$	The $MQP/RQP/SQP$ is endorsed for this project				
II. That there are minor changes in the item/ comp the same do not affect the contents of MQP/RQP/S	ponent with respect to that considered for MQP/RQP/SQP approval, however SQP	without any change				
III. That there are minor changes in the item/ com the same affect the MQP/RQP/SQP slightly, as ind	nponent with respect to that considered for MQP/RQP/SQP approval, however licated below / in attached sheet.	The SQP is endorsed for this project with changes as indicated. DISTRIBUTION OF ENDORSEMENT OF A) MQP/RQP/SQP: 1. MAIN SUPPLIER (WITH A COPY OF MQP/RQP/SQP) 2. MANUFACTURER 3. RIO 4. CQA-SPL 5. CQA-O/C B) RFQP/SFQP: 1. MAIN SUPPLIER (with a copy of MQP/RQP/SQP) 2. MANUFACTURER 3. NTPC FQA (with a copy of MQP/RQP/SQP) 4. NTPC Erection (with a copy of MQP/RQP/SQP) 5. CQA-SPL 6. CQA-O/C				
SIGN.: (Main Supplier) DATE:	(TO BE FILLED BY OEM / LT MOTOR SUPPLIER SIGN.: (Manufacturer) DATE:	NTPC (Reviewed /Approved by/ Date & Seal)				

		OEM SUP	PLIER		MANUFACTURING QUALITY PLAN FOR						MQP:E:LTM:PANKI : FGD SLURRY : 001					
		To be fille		1 .					REV:NO:00 DATE: 16.05.2020							
	BHEL		-	L	INDIOR	(Up to 10 200)	KW) - FGD Appli									
l RA	P/ RANIPET /	OEM Sup	pilei						Page :							
	AMIL NADU	LT MOT	OR													
	INDIA	Manufac														
		To be filled b		_												
		Supplie														
S1.N	o. COMPONET/A	CHARACTE-	CLASS	TYPE OF	QUANUTM OF	REFERENCE DOCUMENT	ACCEPTANCE STANDARD	FORMAT OF REC		AGENCY	REMARKS					
	SSEMBLY/OP	RISTIC		CHECK	CHECK				D	М	BHEL/					
	ERATION/TES TS										BHEL					
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	AIA	12.				
INC	OMING INSPC	ETIONS:								·						
1.1	Enamelled round copper conductor(Dual	1.Overall diameter	Major	Mechanical	1 sample/lot	IS 13730 1993 Part 13 / IEC 60317-0-1-2008 (As applicable)	IEC 60317-0-1 2008	Plant format		Р	V					
	coated)MM	2.Bare conductor diameter	Major	Mechanical	1 sample/lot	BHEL / NTPC Spec & Apprd Datasheet	BHEL / NTPC Spec & Apprd Datasheet	Plant format		Р	V					
		3.BDV test	Major	Electrical	1 sample/lot	do	do	Plant format		Р	V					
		4.Elongation	Major	Mechanical	1 sample/lot	do	do	Plant format		Р	٧					
		5.Continuity (insulation)	Major	Electrical	1 sample/lot	do	do	Insp report/ Supplier TC		Р	V					
		6.Tan Delta (If applicable)	Major	Electrical	1 sample/lot	do	do	Insp report/ Supplier TC		Р	V	EC gr purity: -99.6%				
1.2	Aluminum Ingots	1.Chemical composition	Major	Chemical	1 sample/lot	do	do	Supplier Tc		Р	V	9. pay				
1.3	FAN	1.Diameter (ID&OD)	Major	Mechanical	1 sample/lot	do	do	Inspection Report		Р	V					
1.4	Bearings (SKF OR FAG)	1.Type & Make	Major	Visual	100%	do	do	Inspection Record		Р	V					
		2.Dimensions - ID,OD&width	Major	Mechanical	1 sample/lot	do	do	Inspection Record		Р	V					
1.5	Terminal Block	1.Dimensions	Major	Mechanical	Plant std.	do	do	Inspection Report		Р	V					
		2.Proof voltage test	Major	Electrical	Plant std.	do	do	Inspection Report		Р	V					

OEM SUPPLIER			MANUFAL IUBING GUALIIT PLAN FUB						MQP:E:LTM:PANKI : FGD SLURRY : 001					
		To be fille		1	_		KW) - FGD Appli		REV:NO:00					
BHEL		OEM Sup	•	_ _	INICION	(Up to 10 200)	KW) - FGD Appli	CallOII	DATE: 16.05.2020					
BAF	P/ RANIPET /	OLIVI Sup	philei						Page :					
	AMIL NADU	LT MOT	OR											
	INDIA	Manufac												
		To be filled I												
		Suppli												
S1.No	. COMPONET/A	CHARACTE-	CLASS	TYPE OF		REFERENCE DOCUMENT	ACCEPTANCE STANDARD	FORMAT OF REC		AGENCY		REMARKS		
	SSEMBLY/OP ERATION/TES	RISTIC		CHECK	CHECK				D	М	BHEL/			
	TS										BHEL AIA			
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	AIA	12.		
INPR	OCESS INSP		1	10.	10.			10.	101	1				
2.1	Stator core	1.Core length dia	Major	Mechanical	100%	do	do	Inspection Record		Р	V			
		2.Core locking	Major	Visual	100%	do	do	Inspection Record		Р	V			
		3. Rigidity of core	Major	Mechanical	100%	do	do	Inspection Record		Р	V			
2.2	Die cast rotor	1.Core length	Major	Mechanical	100%	do	do	Inspection Record		P	V			
		2.Blow holes	Major	Mechanical	100%	do	do	Inspection Record		Р	V			
2.3	Wound stator (if applicable)	1.Resistance	Major	Electrical	100%	do	do	Inspection Record		Р	V			
		2.H.V.Test	Major	Electrical	100%	do	do	Inspection Record		Р	V			
		3.Insulation resisitance	Major	Electrical	100%	do	do	Inspection Record		Р	V			
2.4	Final Assembiy	1.Completeness	Major	Visual	100%	do	do	Inspection Record		Р	V			
		2.Runout in case of flanged motors	Major	Mechanical	100%	do	do	Inspection Record		Р	V			
		3.Mounting dimensions	Major	Mechanical	100%	do	do	Inspection Record		Р	V			

OEM SUPPLIER					MANUFACTURING QUALITY PLAN FOR						MQP:E:LTM:PANKI: FGD SLURRY: 001					
		To be fille							REV:NO:00							
			•	LI	LT MOTOR (Up to TO 200KW) - FGD Application						DATE: 16.05.2020					
	BHEL	OEM Sup	plier													
	P/ RANIPET /	. – –														
TA	MIL NADU	LT MOT	<u>OR</u>													
	INDIA	Manufac	ture													
		To be filled b	v OEM													
		Supplier														
S1.No.	. COMPONET/A		CLASS	TYPE OF		REFERENCE DOCUMENT	ACCEPTANCE STANDARD	FORMAT OF REC		AGENCY		REMARKS				
		RISTIC		CHECK	CHECK				D	М	BHEL/					
	ERATION/TES										BHEL					
											AIA					
1.	2.		4.	5.	6.	7.	8.	9.	10.	11.		12.				
FINA		N AND TESTING	ì:													
3.1		1.Resistance Measurement on winding & space heater	Major	Electrical		BHEL / NTPC Spec, GA Drawing & Apprd Datasheet and IS/IEC 60034 (As applicable)	BHEL / NTPC Spec, GA Drawing & Apprd Datasheet and IS/IEC 60034 (As applicable)	Inspection Record		Р	W					
		2.HV Test	Major	Electrical	100%	do	do	Inspection Record		Р	W					
		3.Phase sequence & direction of rotation	Major	Electrical	100%	do	do	Inspection Record		P	W					
		4.No load run test	Major	Electrical	100%	do	do	Inspection Record		Р	W					
		5. Vibration test	Major	Mechanical	100%	do	do	Inspection Record		Р	W					
		6.Name plate recheck	Major	Visual	100%	do	do	Inspection Record		Р	W					
		7.Paint shade thickness & adhesion	Major	Visual & Measurement	100%	do	do	Inspection Record		Р	W					
		8.Moutings & Overall dimensions	Major	Mechanical	100%	do	-do-	Inspection Record		Р	W					

		OEM SUPF	PLIER		MANUFACTURING QUALITY PLAN FOR						MQP:E:LTM:PANKI : FGD SLURRY : 001					
		To be fille	d by		_		=		REV:NO:00							
			-	LI	MOTOR	(Up to TO 200	cation	DATE: 16.0	5.2020							
l	BHEL	OEM Sup	plier				Page :									
	P/RANIPET/ AMIL NADU INDIA	LT MOTOR Manufacture To be filled by OEM Supplier														
S1.No	. COMPONET/A	CHARACTE-	CLASS			REFERENCE DOCUMENT ACCEPTANCE STANDARD F		FORMAT OF REC	AGENCY		REMARKS					
	SSEMBLY/OP ERATION/TES TS	RISTIC		CHECK	CHECK				D	М	BHEL/ BHEL AIA					
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	4	12.				
3.2	TYPE TESTS ###															
3.3	Preservation and Packing	1.Completeness	Major	Review	100%	do	do	Inspection Record		P	V					
		2.Motors covered with polythene sheets	Major	Visual	100%	do	do	Inspection Record		Р	V					
		3.Packing	Major	Visual	100%	do	do	Inspection Record		Р	V					

TYPE TEST REQUIREMENTS FOR LT MOTOR INCLUDING DEGREE OF PROTECTION TEST REPORT (IP 55)

BHEL/BHEL AIA (Authorised Inspection Agency) shall review the Identical design type test report during including degree of Protection Test report (IP 55) for acceptance in line with BHEL/Ultimate Customer - UPRVUNL PANKI and its consultant - NTPC approved Data sheet/Drg/Spec for LT Motor rating up to 50KW and BHEL/Ultimate Customer - UPRVUNL PANKI and its consultant - NTPCapproved type test report for LT Motor rating more than 50KW and up to 200KW. If not avilable for Similar / Identical Design of any of the LT Motor (or) Type test reports including Degree of Protection are not acceptable to BHEL/Ultimate Customer - UPRVUNL PANKI and its consultant - NTPC, then OEM / LT Motor Manufacture shall conduct all these type tests at Third party lab / Government Approved Lab / Own lab in presence of BHEL/BHEL AIA / without any cost implication to BHEL/Ultimate Customer - UPRVUNL PANKI and its consultant - NTPC within reasonable time.

- 1. Measurement of Resistence of Stator
- 2. No Load test at Rated Voltage
- 3.. Pull out test
- 4. Temperature Rise Test
- 5. Momentary Excees Torque Torque Test
- 6. High Voltage Test
- 7.Test for Vibration Severity
- 8. Test for Noise Level Measurement
- 9. Over Speed Test
- 10. Degree of Protection TC (IP 55)

LEGEND:

OEM = Orgional Equipement Supplier M = LT Motor Manufacture -

BHEL AIA = BHEL AUTHORISED INSPECTION AGENCY

GA Drawing: General Arrangment Drawing

Ultimate Customer - UPRVUNL (Uttarpradesh Rajya Vidyut Utpadan Nigam Limited) and its consultant - NTPC (NATIONAL THERMAL POWER CORPORATION)

OEM SUPPLIER: (To be Filled up by **OEM Supplier**)

LT MOTOR Manufacture: (To be Filled up by OEM Supplier/LT Motor Manufacture)

(T(DEM SUPPLIER WITH OEM MFGR.'s LOGO D BE FILLED BY EM SUPPLIER)	NAME AN (TO BE FII	R MANUFACTURER'S D ADDRESS LLED BY OEM / R MANUFACTURE)	MANU ITEM: LT M 200KW FOR APPLICATION SUB-SYSTEM SLURRY PU	OTOR UP FGD ON M: FGD -	ТО	QP NO. LTM: P REV.N(DATE:	JALITY PLA : SLURRY PUM PANKI:001 D.: 00 OF		PROJECT: UPRVUNL PANKI 1 X660MW (R4 - CUSTOMER CONTRACT NO:14A22-SPC-G-0 PACKAGE: FGD PACKAGE MAIN CONTRACTOR: BHEL - RANIPET SUB CONTRACTOR (OEM) & ADDRESS (TO BE FILLED BY OEM SUPPLIER)				PC-G-0001A PET DRESS:				
SL. NO	COMPONE OPERATION		CHARACTERISTIC	S CLASS	TYPE OF CHECK	OF C	NTUM HECK	REFERENCE DOCUMENT	ACCEP' NOF			ORMAT OF RECORD		RECORD		GENCY		REMARKS
1.	2.		3.	<mark>4.</mark>	5.	M	C/N 6.	7.	8		<u>9.</u>	D*	M	* 1	N 0.	11.		

		LEGEND: * RECORDS, INDENTIFIED WITH "TICK" (√) SHALL BE		DOC. NO.:	REV CAT		
		ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION. ** M: OEM MANUFACTURER/LT MOTOR SUB-SUPPLIER					
		C: MAIN SUPPLIER – BHEL/BHEL AIA ,					
OEM MANUFACTURER/ LT MOTOR SUPPLIER	MAIN (BHEL) SUPPLIER	N: ULTIMATE CUSTOMER - UPRVUNL and ITS	FOR NTPC				
SIGNAT	URE	CONSULTANT – NTPC (National Thermal Power Corporation	USE	REVIEWED BY	APPROVED BY	APPROVAL	
SIGILITORE		Limited).				SEAL	
		P: PERFORM W: WITNESS AND V: VERIFICATION. AS APPROPRIATE,					
		CHP: NTPC SHALL IDENTIFIED IN COLUM "N" AS 'W"					

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