

**Bharat Heavy Electricals Limited  
Ranipet -632406, India.**

**Quality Requirements for the enquiry**

1. Only bidders approved by TANGEDCO UDANGUDI will be considered for ordering.
2. All the items shall be inspected at Manufacturer works as per BHEL approved QP received from successful bidder.
3. MQP shall be submitted as per MQP Format (attached herewith) /Approved datasheet and Technical Specification.
4. MQP Shall be submitted in one stroke for all the items covered in order.
5. Physical Inspection shall be done by BHEL/BHEL AIA at Manufacturer works.
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' and BOI Details shall be part of offer and shall be filled by Supplier with their sign and seal.
9. **Following Inspection Notes applicable during inspection:**
  - 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.

<b>PROJECT:</b> <b>UDANGUDI STPP STAGE I</b> <b>(2 X 660 MW) (W.O No.: R4T0)</b>		<b>CONTRACT QUALITY REQUIREMENTS (CQR) for</b> <b><u>ELECTRICALLY OVERHEAD TRAVELLING (EOT) CRANE</u></b>		<b>DOC.NO:</b> <b>BAP/QR/R4T0/ EOT:</b> <b>001</b> <b>Rev NO.: 00</b> <b>PAGE : Page 1 of 1</b> <b>DATE: 28.06.2021</b>	<b>##Enquiry No:</b>  <b>## Supplier Name &amp; Address:</b>  <b>##Offer reference:</b>  <b>##Date:</b>  <b>Contact Official Name:</b> <b>Mobile no:</b> <b>Email id:</b>
<b>MAIN CONTRACTOR:</b> <b>BHEL – RANIPET</b>		<b>UDANGUDI STPP STAGE I</b> <b>(2 X 660 MW)</b> <b>(BHEL WO No: R4T0)</b>			
<b>SUB CONTRACTOR &amp; ADDRESS:</b>  <b>(To be filled by VENDOR)</b>					
<b>Sl. NO.</b>	<b>DESCRIPTION</b>	<b>BHEL/TANGEDCO Requirements</b>			<b>##Specific confirmations by the vendor</b>

**ITEM: ELECTRICALLY OVERHEAD TRAVELLING (EOT) CRANE**

01	<b>Quality plan Requirement</b>	<ol style="list-style-type: none"> <li>1. MQP is applicable for these EOT Cranes and accordingly EOT Crane Manufacturer shall submit the MQP for BHEL and ultimate customer TANGEDCO approval.</li> <li>2. If any of EOT Crane Manufacturer is having ultimate customer TANGEDCO approved MQP (Manufacturing Quality Plan) / NTPC approved RQP (Reference Quality Plan) and having validity, the same is applicable for these EOT Crane for inspection subject to obtaining ultimate customer TANGEDCO formal approval in the event of an order.</li> <li>3. If EOT Crane Manufacturer does not have MQP/RQP, they should submit a fresh MQP to BHEL (in BHEL format) for review &amp; approval. (copy attached).</li> </ol>	
02	<b>Inspection Methodology</b>	<p>BHEL/BHEL AIA and Ultimate customer TANGEDCO Inspection is must before dispatch.</p> <p>No material shall be dispatched without BHEL/Ultime Customer TANGEDCO inspection with required CHP/MDCC clearances.</p>	
03	<b>For inspection call</b>	To raise inspection call by BHEL/BHEL AIA inspection including for type test witnessing, vendor is requested to contact 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 for inspection related activities for immediate response / resolution.	
04	<b>Packing</b>	Required Packing & preservation shall also to be ensured as per requirements stipulated in Engg spec / drg / data sheet/PO condition to avoid any damage during transit., handling damages & storage at site.	
05	<b>Painting</b>	Paint color and coating thickness to be ensured as per requirements stipulated in Engg spec / drg / data sheet.	
06	<b>Document package</b>	<p>Specific confirmation for Document Package in the event of an order (2 hard copies + 2 CDs in PDF file) is to be given containing the following with proper linkages (.)</p> <ol style="list-style-type: none"> <li>(i) Index Sheet</li> <li>(ii) SQP</li> <li>(iii) TCs identified by BHEL/TANGEDCO for record for “CHP” and Verification portion as given in SQP.</li> <li>(iv) Final Inspection Report + all applicable Test Certificates</li> <li>(v) BHEL/BHEL authorized Inspection Agency report + TC</li> <li>(vi) Type test reports conducted/submitted with approval with approved data sheet and BOM with actual make used with Customer approved drgs.</li> <li>(vii) TANGEDCO CHP/MDCC.</li> </ol>	

**##Supplier signature with seal**

## Necessarily to be filled up by the vendor at the time of offer itself otherwise their offer may not be considered w.r.t Quality Requirements being customer specific requirements.

<b>MFRG.'s LOGO (TO BE FILLED BY SUPPLIER)</b>	<b>MANUFACTURER'S NAME AND ADDRESS (TO BE FILLED BY MANUFACTURER)</b>	<b>MANUFACTURING QUALITY PLAN</b>				<b>PROJECT:</b> UDANGUDI STPP STAGE I (2 X 660 MW) (BHEL WO No: R4T0)  <b>MAIN CONTRACTOR: BHEL - RANIPET</b> <b>SUB CONTRACTOR (OEM) &amp; ADDRESS:</b> <b>(TO BE FILLED BY OEM SUPPLIER)</b>		
		<b>ITEM: EOT CRANE</b>  <b>SUB-SYSTEM:</b>		<b>QP NO.:</b> <b>REV.NO.: 00</b> <b>DATE:</b> <b>PAGE: .... OF....</b>				

SL. NO	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK	QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD		AGENCY			REMARKS
					M	C/N				D*	M	C	N	
1.	2.	3.	4.	5.	6.		7.	8.	9.	D*	** 10.			11.

		<b>LEGEND:</b> * RECORDS, IDENTIFIED WITH "TICK" (√) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION. ** M: MANUFACTURER/ SUB-SUPPLIER                      C: MAIN SUPPLIER – BHEL/BHEL AIA, N: TANGEDCO P: PERFORM W: WITNESS AND V: VERIFICATION. AS APPROPRIATE, CHP: SHALL IDENTIFIED IN COLUMN "N" AS ' W"	DOC. NO.:		REV..... CAT.....		
EOT CRANE SUPPLIER	MAIN (BHEL) SUPPLIER		<b>FOR CUSTOMER USE</b>				
<b>SIGNATURE</b>				REVIEWED BY	APPROVED BY	APPROVAL SEAL	

<b>PROJECT:</b> <b>UDANGUDI STPP STAGE I</b> <b>(2 X 660 MW) (W.O No.: R4T0)</b>		<b>CONTRACT QUALITY REQUIREMENTS (CQR) for</b> <b><u>ELECTRICALLY OPERATED HOISTS</u></b> <b>(EOH)</b>		<b>DOC.NO:</b> <b>BAP/QR/R4T0/ EOH 001</b> <b>Rev NO.: 00</b> <b>PAGE : Page 1 of 1</b> <b>DATE: 28.06.2021</b>		<b>##Enquiry No:</b>  <b>## Supplier Name &amp; Address:</b>  <b>##Offer reference:</b>  <b>##Date:</b>  <b>Contact Official Name:</b> <b>Mobile no:</b> <b>Email id:</b>	
<b>MAIN CONTRACTOR:</b> <b>BHEL – RANIPET</b>		<b>UDANGUDI STPP STAGE I</b> <b>(2 X 660 MW)</b> <b>(BHEL WO No: R4T0)</b>					
<b>SUB CONTRACTOR &amp; ADDRESS:</b>  <b>(To be filled by VENDOR)</b>							
<b>Sl. NO.</b>	<b>DESCRIPTION</b>	<b>BHEL/TANGEDCO Requirements</b>				<b>##Specific confirmations by the vendor</b>	

**ITEM: ELECTRICALLY OPERATED HOISTS (EOH)**

01	<b>Quality plan Requirement</b>	Vendor shall confirm to meet the requirement of SQP ref no. SQP QP No. 0000-999-QOM-S-053 Rev 00 dt 05.04.2013 and arrange to submit the SQP duly endorsed (signature and stamp) in all pages along with duly filled in Endorsement sheet for accepting the QAP in totality in the event of Purchase Order.	
02	<b>Type test requirements</b>	Vendor shall confirm for successful conduction & completion of all the tests & type tests if any as indicated in the attached SQP ref no. SQP QP No. 0000-999-QOM-S-053 Rev 00 dt 05.04.2013.	
03	<b>Inspection Methodology</b>	BHEL/BHEL AIA and Ultimate customer TANGEDCO Inspection as per this SQP is must before dispatch.  No material shall be dispatched without BHEL/Ultime Customer TANGEDCO inspection with required CHP/MDCC clearances.	
04	<b>For inspection call</b>	To raise inspection call by BHEL/BHEL AIA inspection including for type test witnessing, vendor is requested to contact 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 for inspection related activities for immediate response / resolution.	
05	<b>Packing</b>	Required Packing & preservation shall also to be ensured as per requirements stipulated in Engg spec / drg / data sheet/PO condition to avoid any damage during transit., handling damages & storage at site.	
06	<b>Painting</b>	Paint color and coating thickness to be ensured as per requirements stipulated in Engg spec / drg / data sheet.	
07	<b>Document package</b>	Specific confirmation for Document Package in the event of an order (2 hard copies + 2 CDs in Pdf file) is to be given containing the following with proper linkages (.) (i) Index Sheet (ii) SQP (iii) TCs identified by BHEL/TANGEDCO for record for “CHP” and Verification portion as given in SQP. (iv) Final Inspection Report + all applicable Test Certificates (v) BHEL/BHEL authorized Inspection Agency report + TC (vi) Type test reports conducted/submitted with approval with approved data sheet and BOM with actual make used with Customer approved drgs. (vii) TANGEDCO CHP/MDCC.	

**##Supplier signature with seal**

## Necessarily to be filled up by the vendor at the time of offer itself otherwise their offer may not be considered w.r.t Quality Requirements being customer specific requirements.



ITEM (MATERIAL, CLASS, GRADE, RATING, RANGE, SIZE ETC)  
**ELECTRIC OPERATED HOIST**  
**UPTO SWL 15 T**

STANDARD QUALITY PLAN  
 CONFORMING TO CODE:  
 IS: 3938

OP NO. 0000-999-QQM-S-063  
 REV. NO. 00  
 DATE 05.04.2013  
 PAGE Page 1 of 4  
 VALID UPTO 04.04.2016

REVIEWED BY: H.S. MAURYA  
 S. SINGH  
 M.K. ASTHANA  
 RAJESH KUMAR  
 APPROVED BY: [Signature]  
 APPROVED BY: [Signature]  
 APPROVED BY: [Signature]

SN	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK		QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORM	Format of RECORD	AGENCY			REMARKS
				M	C/N	M	C				N			
1.	2.	3.	4.	5.	6.	7.	8.	9.	D	10.	11.			

A. RAW MATERIAL INSPECTION:														
A.1	MS PLATES FOR STRUCTURAL MEMBERS & FABRICATED ROPE DRUM	CHEMICAL & MECHANICAL PROPERTIES	MAJOR	CHEM & MECH	1 SAMPLE/HEAT	MATERIAL SPECIFICATION AS PER APPROVED DATA SHEETS/DRAWINGS	MTC	✓	P	V	V	V	V	IN THE ABSENCE OF CORRELATED TC CHECK TESTING SHALL BE DONE
A.2	PIPE FOR ROPE DRUM (IF SEAMLESS PIPE IS USED)	ULTRASONIC TEST OF PLATES	MAJOR	NDT	100%	ASTM A-435	IR	✓	P	V	V	V	V	ONLY FOR THICKNESS ≥ 25 MM
A.3	FORGINGS/ ROLLED BARS FOR GEARS, PINIONS, WHEELS AND BRAKE DRUM	CHEMICAL, MECHANICAL PROPERTIES & ACID ETCHING	MAJOR	CHEM & MECH	1 SAMPLE / HEAT SIZE	MATERIAL SPECIFICATION AS PER APPROVED DATA SHEETS/DRAWINGS.	MTC	✓	P	V	V	V	V	IN THE ABSENCE OF CORRELATED TC CHECK TESTING SHALL BE DONE
		ULTRASONIC TEST FOR SEAMLESS PIPE	MAJOR	UT	100%	ASTM E-213	IR	✓	P	V	V	V	V	ONLY FOR DIA ≥ 40 MM
		CHEMICAL & MECHANICAL PROPERTIES	MAJOR	CHEM & MECH	1 SAMPLE/ HEAT/ SIZE/ HT BATCH	MATERIAL SPECIFICATION AS PER APPROVED DATA SHEETS/DRAWINGS	MTC	✓	P	V	V	V	V	IN THE ABSENCE OF CORRELATED TC CHECK TESTING SHALL BE DONE
		ULTRASONIC TEST	MAJOR	NDT	100%	ASTM A-388	IR	✓	P	V	V	V	V	ONLY FOR DIA ≥ 40 MM
B. BOUGHT OUT ITEMS :														
B.1	HOOKS	MAKE & IDENTIFICATION	MAJOR	VISUAL	100%	100%	HOOK TC FROM COMPETANT AUTHORITY/ APPROVED MAKES	TC	✓	P	V	V	V	REFER ANNEX-I FOR MAKE
		CHEMICAL & MECHANICAL PROPERTIES	MAJOR	CHEM & MECH	1 SAMPLE/ HEAT/ HT BATCH	MATERIAL SPECIFICATION AS PER APPROVED DATA SHEETS/DRAWINGS	MTC	✓	P	V	V	V	V	
		PROOF LOAD TEST	MAJOR	MECHANICAL	100%	100%	IS-15560/ IS-5748	IR	✓	P	V	V	V	ON SHANK PORTION ONLY
		INTERNAL DEFECTS BEFORE & AFTER PROOF LOAD TEST	CRITICAL	NDT	100%	100%	ASTM - A 388	IR	✓	P	V	V	V	
		DPF TEST BEFORE & AFTER PROOF LOAD TEST	CRITICAL	NDT	100%	100%	ASTM E-185	IR	✓	P	V	V	V	
B.2	WIRE ROPES	MAKE & IDENTIFICATION	MAJOR	VISUAL	100%	100%	APPROVED MAKES	MTC	✓	P	V	V	V	REFER ANNEX-I FOR MAKE
		DIMENSION & BREAKING STRENGTH	MAJOR	REVIEW	100%	100%	IS-2266 / APPROVED DATA SHEET	MTC	✓	P	V	V	V	
B.3	MOTOR	MAKE/ TYPE/RATING	MAJOR	VISUAL	100%	100%	NTPC APPROVED DRAWING/ DATA SHEET/ NTPC SPECIFICATION/ IS-325	IR	✓	P	V	V	V	REFER ANNEX-I FOR MAKE
		ROUTINE TESTS	MAJOR	REVIEW	100%	100%	NTPC APPROVED DRAWING/ DATA SHEET/ NTPC SPECIFICATION/ APPROVED MAKES	MTC	✓	P	V	V	V	
B.4	GEAR BOX	MAKE/ TYPE/RATING	MAJOR	VISUAL	100%	100%	NTPC APPROVED DRAWING/ DATA SHEET/ NTPC SPECIFICATION/ APPROVED MAKES	IR	✓	P	V	V	V	REFER ANNEX-I FOR MAKE
		BACKLASH, TOOTH CONTACT & REDUCTION RATIO	MAJOR	REVIEW	100%	100%	NTPC APPROVED DRAWING/ DATA SHEET/ NTPC SPECIFICATION/ NO LEAKAGE	MTC	✓	P	V	V	V	
		NO LOAD RUN TEST (NOISE LEVEL, TEMP RISE & OIL LEAKAGE)	MAJOR	REVIEW	100%	100%	NTPC APPROVED DRAWING/ DATA SHEET/ NTPC SPECIFICATION/ NO LEAKAGE	MTC	✓	P	V	V	V	

LEGEND: \* RECORDS, IDENTIFIED WITH 'TICK' (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION  
 \*\* M: MANUFACTURER/SUB-SUPPLIER C: MAIN SUPPLIER N: NTPC P: PERFORM W: WITNESS AND V: VERIFICATION AS APPROPRIATE, CHP: NTPC SHALL IDENTIFY IN COLUMN 'N' AS W

FORMAT NO.: QS-01-QAI-P-10/F-1-R1

1/1

ENGG. DIV./D&S



ITEM (MATERIAL, CLASS, GRADE, RATING, RANGE, SIZE ETC)  
**ELECTRIC OPERATED HOIST**  
**UPTO SWL 15 TON**

**STANDARD QUALITY PLAN**  
**CONFORMING TO CODE :**  
**IS: 3938**

Q.P. NO. 0000-999-QOM-S-063  
 REV. NO. 00  
 DATE 05.04.2013  
 PAGE Page 2 of 4  
 04.04.2016  
 ACCEPTANCE NO. RM  
 REVIEWED BY: H S MAURVANKAR  
 S SINGH  
 M K ASTHANAN  
 RAJEEV GARG  
 APPROVED BY: [Signature]  
 NTPC C. Wolda

SN	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK		QUANTUM OF CHECK	REFERENCE DOCUMENT	YIELD U/P TO	ACCEPTANCE NO. RM	Format of RECORD	AGENCY			REMARKS
				M	C/N						M	C	N	
1.														
2.														
B5	BRAKES - EM/ EHT	MAKE/ TYPE/RATING	MAJOR	VISUAL	REVIEW	100%	100%	NTPC APPROVED DRAWING/NTPC SPECIFICATION/ IS: 3938	IR	MTC	✓	✓	✓	REFER ANNEX1 FOR MAKE
B6	LIMIT SWITCH/ OVERLOAD RELAY/ SPU/ CONTACTOR/ CONTROL TRANSFORMER/ PUSH BUTTON/ TERMINAL BLOCK/ INDICATING LAMP/ SELECTOR SWITCH	MAKE/ TYPE/RATING	MAJOR	VISUAL	REVIEW	100%	100%	APPROVED DRAWING/NTPC TECH. SPECS/ APPROVED MAKES	IR	MTC	✓	✓	✓	REFER ANNEX1 FOR MAKE
B7	CABLES - LT POWER/ CONTROL/ EPR FLEXIBLE TRAILING	MAKE/ TYPE/RATING	MAJOR	VISUAL	REVIEW	100%	100%	NTPC APPROVED DRAWING/ NTPC SPECIFICATION/ IS: 1554/ IS: 9968/ IS: 4289/ IS: 7098	IR	MTC	✓	✓	✓	REFER ANNEX1 FOR MAKE
B8	WVFD (AS APPLICABLE)	MAKE/ TYPE/RATING	MAJOR	VISUAL	REVIEW	100%	100%	NTPC APPROVED DRAWING/ NTPC SPECIFICATION/ APPROVED MAKES	IR	MTC	✓	✓	✓	REFER ANNEX1 FOR MAKE
B9	CONTROL PANEL & PENDENT STATION HOUSING/ BOX	MAKE/ TYPE/RATING	MAJOR	VISUAL	REVIEW	100%	100%	NTPC APPROVED DRAWING/ NTPC SPECIFICATION/ APPROVED MAKES	IR	MTC	✓	✓	✓	REFER ANNEX1 FOR MAKE
<b>C IN PROCESS INSPECTION:</b>														
C1	ROLLING & WELDING OF ROPE DRUM (FABRICATED)	WPS, POR WMPQ	MAJOR	REVIEW	MEASURE	100%	100%	APPROVED WPS, ASME SEC. IX MANUFACTURING DRAWING/ APPROVED WPS	QW-481-484	IR	✓	✓	✓	REFER NOTE 2
C2	ROPE DRUM WHEELS, PULLEYS & HOOK SHANK AFTER MACHINING	POST WELD HEAT TREATMENT	MAJOR	REVIEW	100%	100%	ASME SEC-VIII DIV 1 (UGS-86)	SR CHART	IR	✓	✓	✓	✓	SR CHART REVIEW BY NTPC DURING FINAL INSPECTION.
		NDI TEST ON WELD	MAJOR	DPT	100%	100%	ASME SEC - V	DPT REPORT	IR	✓	✓	✓	✓	
		RADIOGRAPHY OF BUTT WELD JOINTS	CRITICAL	RT	100%	100%	ASME - SEC V	VII, DIV - I, APP. 6/ B DIVISION - I, UW-51 & UW-52	RT FILMS & REPORT	IR	✓	✓	✓	✓

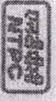
**LEGEND: \* RECORDS IDENTIFIED WITH TICK (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION.**  
**\*\* M: MANUFACTURER/SUB-SUPPLIER G: MAIN SUPPLIER N: NTPC P: PERFORM W: WITNESS AND V: VERIFICATION. AS APPROPRIATE. CHP: NTPC SHALL IDENTIFY IN COLUMN 'V' AS 'V'.**

FORMAT NO.: QS-01-QA-P-10/F1-R1

1/1

ENG. DIV/QA&I

Note: # NTPC Inspection Engineer to check, approval date / revision no. of reference documents at the time of inspection



ITEM (MATERIAL, CLASS, GRADE, RATING, RANGE, SIZE ETC)

STANDARD QUALITY PLAN

ELECTRIC OPERATED HOIST  
UPTO SWL 15 TON

CONFORMING TO CODE :  
IS: 3938

QIP NO.	0000-999-QOM-S-053	REV. NO.	00
DATE	05.04.2013	DATE	05.04.2013
PAGE	Page 3 of 4	REFERENCE DOCUMENT	IS: 3938/ APPROVED DRAWING/ DATA SHEET
ACCEPTANCE NORM	04.04.2016	AGENCY	RAJEEV GARG

REVIEWED BY: H S MAURVA  
S SINGH  
M K ASTHANA  
RAJEEV GARG



SN	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK		QUANTUM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORM	Format of RECORD	AGENCY			REMARKS
				CHECK	M	C/N	M				C	N		
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.				

FINAL INSPECTION:															
D	D.1	D.2	D.3	NOTES:	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	COMPLETE ASSEMBLED HOIST ALONG WITH ACTUAL CONTROL PANEL, VVFD & PUSH BUTTON (AS APPLICABLE)	HOLDING CAPACITY OF BREAK, LIMIT RELAYS OPERATION	MAJOR	VISUAL	100%	100%	IS: 3938/ APPROVED DRAWING/ DATA SHEET	IR	✓	P	W	W			
	NO LOAD TEST & FULL LOAD TEST	CURRENT SPEED OF HOIST OPERATION, INTERLOCKING SEQUENCE OPERATION	MAJOR	VISUAL MEASURE	100%	100%	IS: 3938/ APPROVED DRAWING/ DATA SHEET	IR	✓	P	W	W			
	CONTROL PANEL	VISUAL, MAKE VERIFICATION & DEGREE OF PROTECTION TEST BY PAPER INSERTION METHOD HV, IR	MAJOR	VISUAL MEASURE	100%	100%	IS: 3938/ APPROVED DRAWING/ DATA SHEET	IR	✓	P	W	W			
	PAINTING OF HOIST	PAINT SHADE ADHESION, THICKNESS, ADHESION VISUAL & DFT MEASUREMENT	MAJOR	VISUAL MEASURE	100%	100%	IS: 3938/ APPROVED DRAWING/ DATA SHEET AS PER NTPC SPECIFICATION	IR	✓	P	W	W			
	<p>BACK WALL ECHO SHALL BE SET AT 100% OF FULL SCREEN HEIGHT AT SOUND AREA OF THE BAR USING NORMAL BEAM PROBE OF 2 MHz TO 5 MHz. AT THIS SENSITIVITY LEVEL, ANY DEFECT ECHO EXCEEDING 20% OF FSH IS NOT ACCEPTABLE. IN ADDITION, LOSS OF BACK WALL ECHO MORE THAN 20% OF FSH IS ALSO NOT ACCEPTABLE.</p> <p>WPS, POR &amp; WELDERS QUALIFIED BY LLOYDS, BVQI, TVY, DMV, NTPC, BHEL, NPCIL ARE ACCEPTABLE. ONLY QUALIFIED WELDERS SHALL BE DEPLOYED FOR WELDING.</p> <p><b>MOTOR POWER RATING LESS THAN 30KW:</b></p> <p>ACCEPTANCE OF MOTOR LESS THAN 30KW IS BASED ON COC OF THE MANUFACTURER &amp; THE CONTRACTOR CONFIRMING AS FOLLOWS: IT IS HEREBY CONFIRMED THAT THE ABOVE MENTIONED MOTOR/ MOTORS WAS/WERE MANUFACTURED TAKING CARE OF NTPC SPECIFIC REQUIREMENTS REGARDING AMBIENT TEMP., VOLTAGE &amp; FREQUENCY VARIATION, HOT STARTS, PULL OUT TORQUE, STARTING KV/AKW, TEMP. RISE, DISTANCE BETWEEN CENTRE OF STUD &amp; GLAND PLATE AND TESTED IN ACCORDANCE WITH APPROVED DRAWING/ DATA SHEETS.</p> <p>HV TEST ON CONTROL PANELS WILL BE DONE ISOLATING VVVF DRIVE AND OTHER ELECTRONIC PARTS. HV TEST AT 2 KV FOR POWER &amp; 1.5 KV FOR CONTROL CIRCUIT.</p> <p>ALL CRITICAL DIMENSIONS SHALL BE MEASURED. THE CURRENT AND SPEED FOR HOISTING MOTION AND LONG TRAVEL MOTION SHALL BE MEASURED DURING NO LOAD TEST AND SAFE WORKING LOAD (SWL) TEST. ALL INTERLOCKS, BRAKE OPERATION, LIMIT SWITCHES AND SAFETY MEASURES SHALL BE CHECKED.</p>														

LEGEND: \* RECORDS, IDENTIFIED WITH "TICK" (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION.  
M: MANUFACTURER/SUB-SUPPLIER G: MAIN SUPPLIER, N: NTPC P: PERFORM W: WITNESS AND V: VERIFICATION AS APPROPRIATE, CHP: NTPC SHALL IDENTIFY IN COLUMN 'N' AS 'W'



ITEM (MATERIAL, CLASS, GRADE, RATING, RANGE, SIZE ETC)  
ELECTRIC OPERATED HOIST  
UPTO SWL 15 TON

STANDARD QUALITY PLAN  
CONFORMING TO CODE :  
IS: 3938

QP NO. 0000-990-QQM-S-053  
REV. NO. 00  
DATE 05.04.2013  
PAGE Page 4 of 4

REVIEWED BY: H S MAURYA  
S SINGH  
M K ASTHANA  
RAJEEV GARG

APPROVED BY: [Signature]  
[Stamp]

SN	COMPONENT & OPERATIONS	CHARACTERISTICS	CLASS	TYPE OF CHECK		QUANTUM OF CHECK	REFERENCE DOCUMENT	ACCEPTANCE NORM	Format of RECORD		REMARKS
				M	C/N				M	C N	
1.											
2.											
3.											
4.											
5.	LIST OF ALL MAJOR BOUGHT OUT ITEMS AND THEIR ACCEPTABLE MAKES ARE LISTED BELOW										

LIST OF BOUGHT OUT ITEMS AND THEIR SOURCES

1	STEEL										
2	WIRE ROPE										
3	HOOK										
4	GEAR BOX										
5	MOTOR										
6	LIMIT SWITCHES										
7	CONTACTOR&OR TIME DELAY RELAY , AUX RELAY										
8	FUSES, SFU, MCB MCCB										
9	FLEXIBLE CABLE, LT POWER AND CONTROL CABLE										
10	BEARING										
11	PUSH BUTTONS										
12	PUSH BUTTON STATIONS (PENDANT)										
13	INDICATING LIGHT										
14	TRANSFORMERS (CONTROL)										
15	CURRENT TRANSFORMERS										
16	VVVF DRIVE										
17	CONTROL PANEL										
18	BRAKES - DCEM										
19	BRAKES - EHT										
20	TERMINAL BLOCK										
21	INDICATING METER										
22	DSL&CURRENT COLLECTING SYSTEM										
23	SELECTOR SWITCH										

LEGEND: \* RECORDS IDENTIFIED WITH TICK (✓) SHALL BE ESSENTIALLY INCLUDED BY SUPPLIER IN QA DOCUMENTATION.  
 \*\* M: MANUFACTURER/SUB-SUPPLIER G: MAIN SUPPLIER N: NTPC P: PERFORM W: WITNESS AND V: VERIFICATION AS APPROPRIATE. CHP: NTPC SHALL IDENTIFY IN COLUMN 'N' AS W

FORMAT NO.: QS-01-QALP-10/F1-R1  
 Note: # NTPC Inspection Engineer to check approval date / revision no. of reference documents at the time of inspection

<b>PROJECT:</b> <b>UDANGUDI STPP STAGE I</b> <b>(2 X 660 MW) (W.O No.: R4T0)</b>		<b>CONTRACT QUALITY REQUIREMENTS (CQR) for</b> <b><u>MANUALLY OPERATED HOIST</u></b>		<b>DOC.NO:</b> <b>BAP/QR/R4T0/</b> <b>Manually Operated</b> <b>Hoist: 001</b> <b>Rev NO.: 00</b> <b>PAGE : Page 1 of 1</b> <b>DATE: 28.06.2021</b>	<b>##Enquiry No:</b>  <b>## Supplier Name &amp; Address:</b>  <b>##Offer reference:</b>  <b>##Date:</b>  <b>Contact Official Name:</b> <b>Mobile no:</b> <b>Email id:</b>
<b>MAIN CONTRACTOR:</b> <b>BHEL – RANIPET</b>		<b>UDANGUDI STPP STAGE I</b> <b>(2 X 660 MW)</b> <b>(BHEL WO No: R4T0)</b>			
<b>SUB CONTRACTOR &amp; ADDRESS:</b>  <b>(To be filled by VENDOR)</b>					
<b>Sl. NO.</b>	<b>DESCRIPTION</b>	<b>BHEL/TANGEDCO Requirements</b>			<b>##Specific confirmations by the vendor</b>

**ITEM: MANUALLY OPERATED HOISTS**

01	<b>Quality plan Requirement</b>	<ol style="list-style-type: none"> <li>MQP is applicable for these Manually Operated Hoist and accordingly Hoist Manufacturer shall submit the MQP for BHEL and ultimate customer TANGEDCO approval.</li> <li>If any of Hoist Manufacturer is having ultimate customer TANGEDCO approved MQP (Manufacturing Quality Plan) / NTPC approved RQP (Reference Quality Plan) and having validity, the same is applicable for these Manually Operated Hoist for inspection subject to obtaining ultimate customer TANGEDCO formal approval in the event of an order.</li> <li>If Hoist Manufacturer does not have MQP/RQP, they should submit a fresh MQP to BHEL (in BHEL format) for review &amp; approval. (copy attached).</li> </ol>	
02	<b>Inspection Methodology</b>	<p>BHEL/BHEL AIA and Ultimate customer TANGEDCO Inspection is must before dispatch.</p> <p>No material shall be dispatched without BHEL/Ultimate Customer TANGEDCO inspection with required CHP/MDCC clearances.</p>	
03	<b>For inspection call</b>	To raise inspection call by BHEL/BHEL AIA inspection including for type test witnessing, vendor is requested to contact 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 for inspection related activities for immediate response / resolution.	
04	<b>Packing</b>	Required Packing & preservation shall also to be ensured as per requirements stipulated in Engg spec / drg / data sheet/PO condition to avoid any damage during transit., handling damages & storage at site.	
05	<b>Painting</b>	Paint color and coating thickness to be ensured as per requirements stipulated in Engg spec / drg / data sheet.	
06	<b>Document package</b>	<p>Specific confirmation for Document Package in the event of an order (2 hard copies + 2 CDs in Pdf file) is to be given containing the following with proper linkages (.)</p> <ol style="list-style-type: none"> <li>Index Sheet</li> <li>SQP</li> <li>TCs identified by BHEL/TANGEDCO for record for “CHP” and Verification portion as given in SQP.</li> <li>Final Inspection Report + all applicable Test Certificates</li> <li>BHEL/BHEL authorized Inspection Agency report + TC</li> <li>Type test reports conducted/submitted with approval with approved data sheet and BOM with actual make used with Customer approved drgs.</li> <li>TANGEDCO CHP/MDCC.</li> </ol>	

**##Supplier signature with seal**

## Necessarily to be filled up by the vendor at the time of offer itself otherwise their offer may not be considered w.r.t Quality Requirements being customer specific requirements.



**Annexure Q**

Annexure Q		Enq NO:
Sl.No	BHEL / Customer Requirements	##Specific confirmations by the manufacture(Acceptable/Not acceptable)
1	<b>Quality Plan Requirement: (If SQP is not given &amp; Vendor QP applicable)</b>	
	(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 invariably 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.	
	<b>Important Notes shall be included in MQP :</b> (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 Acceptance Norms, as per ASME Section V.	
2	<b>Domastic / Inland Inspection</b> 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	<b>Inspection Agency for Foreign Bidders and also for Indian Bidder but importing from Forgign Sources:</b> (1) Any one of the flollowing 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. <b>List of TPIA</b> 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) to TPI/Bidder's own inspection agency to avoid delay in the manufacturing processes.	

Sl.No	BHEL / Customer Requirements	##Specific confirmations by the manufacture(Acceptable/Not acceptable)
5	<b>Inspection before despatch for domestic supplier</b> : Inspection before despatch at supplier's works shall be carried out by Bidder appointed Inspection agency(As in Sl no.3.) Inspection shall be done as per approved Quality plan/ Technical specification/ Approved Drawing/ Approved Data sheet .	
6	Inspection at Foreign 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	<b>Painting</b> 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 adavance 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/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 + 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	<b>Packing / Seaworthy Packing</b> 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	<b>Important Note:</b> 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	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.	
13	## 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.	
VENDOR SIGN AND STAMP:		Vendor Name & Address:

Manufacturer Logo		MANUFACTURER'S NAME & ADDRESS		MANUFACTURING QUALITY PLAN			PROJECT: MAIN CONTRACTOR: M/s BHEL-RANIPET PO NO:						
				Item/subsystem:	QP NO: Rev: Date: Page:								
SL NO 1	COMPONENT & OPERATION 2	CHARACTERISTICS 3	CLASS 4	TYPE OF CHECK 5	QUANTUM OF CHECK 6		REFERENCE DOCUMENTS 7	ACCEPTANCE NORMS 8	FORMAT OF RECORD 9 D	AGENCY 10			REMARKS 11
					M	B/C				M	B	C	

A RAW MATERIAL INSPECTION													
1		CHEMICAL COMPOSITION	MAJOR	CHEMICAL ANALYSIS	1 SAMPLE / HEAT			MTC	√	P	V	V	
		MECHANICAL PROPERTIES	MAJOR	TENSILE TEST	1 SAMPLE / HEAT			MTC	√	P	V	V	
		SURFACE EXAMINATION	MAJOR	VISUAL INSPECTION	100%			IR	√	P	V	V	
2		CHEMICAL COMPOSITION	MAJOR	CHEMICAL ANALYSIS	1 SAMPLE / HEAT			MTC	√	P	V	V	
		MECHANICAL PROPERTIES	MAJOR	TENSILE TEST & HARDNESS	1 SAMPLE / HEAT			MTC	√	P	V	V	
		HEAT TREATMENT (As applicable)	CRITICAL	REVIEW OF TIME-TEMP CHART	100%			HT CAHRT	√	P	V	V	
		SURFACE EXAMINATION	MAJOR	VISUAL INSPECTION	100%			IR		P	V	V	
3								MTC	√	P	V	V	
								MTR	√	P	V	V	

M – Manufacturer / Subcontractor, B - MAIN CONTRACTOR/ BHEL /BHEL Authorized Inspection Agency, C- Customer / Customer Authorized Inspection Agency, P - Perform, V - Verification of reports, W - Witness, TC - Test certificate, DR – Dimensional report. * Record, identified with "tick" (√) under column 'D' shall be submitted to customer as a QA documentation package.	Prepared by	Reviewed by	Approved by

Manufacturer Logo		MANUFACTURER'S NAME & ADDRESS		MANUFACTURING QUALITY PLAN			PROJECT: MAIN CONTRACTOR: M/s BHEL-RANIPET PO NO:						
				Item/subsystem:		QP NO: Rev: Date: Page:							
SL NO 1	COMPONENT & OPERATION 2	CHARACTERISTICS 3	CLASS 4	TYPE OF CHECK 5	QUANTUM OF CHECK 6		REFERENCE DOCUMENT S 7	ACCEPTANCE NORMS 8	FORMAT OF RECORD 9 D	AGENCY 10			REMARKS 11
					M	B/C				M	B	C	

<b>B IN PROCESS INSPECTION</b>													
5	DIMENSIONAL	MAJOR	MEASURE					IR	√	P	V	V	
	HYDROSTATIC TEST OF CASTING	CRITICAL	PRESSURE TEST	100%				IR	√	P	W	V	SEE NOTE -1
6	DIMENSIONAL	MAJOR	MEASURE					IR	√	P	V	V	
	DYNAMIC BALANCING	CRITICAL	MEASURE	100%				IR	√	P	W	V	SEE NOTE-1
7	SOUNDNESS OF CASTING	MAJOR	NDT-DPT					DPT Report	√	P	V	V	
8	DIMENSIONAL	MAJOR	VISUAL					IR	√	P	V	V	
	SOUNDNESS	CRITICAL	ULTRASONIC TEST					UT Report	√	P	W	V	FOR SHAFT DIA ≥ 50 MM ONLY (EXCEPT THREADED PORTION) SEE NOTE-1
	DP TEST ON MACHINED AREA	MAJOR	DP TEST	100%				DPT Report	√	P	V	V	
<b>C FINAL INSPECTION</b>													

M – Manufacturer / Subcontractor, B - MAIN CONTRACTOR/ BHEL /BHEL Authorized Inspection Agency, C- Customer / Customer Authorized Inspection Agency, P - Perform, V - Verification of reports, W - Witness, TC - Test certificate, DR – Dimensional report. * Record, identified with "tick" (√) under column 'D' shall be submitted to customer as a QA documentation package.	Prepared by	Reviewed by	Approved by

Manufacturer Logo		MANUFACTURER'S NAME & ADDRESS		MANUFACTURING QUALITY PLAN			PROJECT: MAIN CONTRACTOR: M/s BHEL-RANIPET PO NO:						
				Item/subsystem:	QP NO: Rev: Date: Page:								
SL NO 1	COMPONENT & OPERATION 2	CHARACTERISTICS 3	CLASS 4	TYPE OF CHECK 5	QUANTUM OF CHECK 6		REFERENCE DOCUMENTS 7	ACCEPTANCE NORMS 8	FORMAT OF RECORD 9 D	AGENCY 10			REMARKS 11
					M	B/C				M	B	C	

9									IR	√	P	V	V	
10									IR	√	P	W	W	
									IR		P	W	W	
									IR		P	W	W	
									IR		P	W	W	
11								IR	√	P	W	W		
12	PAINTING PACKING AND PRESERVATIONS							IR	√	P	V	-		

**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 waiver/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.
h.	This QP is applicable for Mandatory supply also.
i.	All other minor 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.

M – Manufacturer / Subcontractor, B - MAIN CONTRACTOR/ BHEL /BHEL Authorized Inspection Agency, C- Customer / Customer Authorized Inspection Agency, P - Perform, V - Verification of reports, W - Witness, TC - Test certificate, DR – Dimensional report. * Record, identified with "tick" (√) under column 'D' shall be submitted to customer as a QA documentation package.	Prepared by	Reviewed by	Approved by



Ref :INSP:CHK:001/ REV 00  
DT:10/08/2020

## Inspection document Check List

Inspection documents to be submitted after inspection of the items for getting dispatch clearance. Vendor shall provide documents to the BHEL/BHEL TPIA inspector during inspection and TPIA shall sign all the documents.

The document dossier shall contain following.

SL no.	Documents
1	Unpriced PO COPY.
2	Latest approved specification, datasheet, drawing, P&ID, test procedures, approved painting schedule, Packing etc.
3	Approved QAP.
4	CQIR Report (Disposal code should be Accepted all the offered QTY)
5	<p>As per approved QAP all the inspection documents to be submitted.</p> <p><b>Indexing of the reports as per QAP and each page wise numbered and correlated to QAP.</b> <b>If more than one test in each page, against each test the clause number of QAP to be mentioned.</b></p> <p>Inspection clause shall be mentioned against each test.</p> <p>1. Raw Material Test Certificates (NABL approved Lab TC/Manufacturer TC like Mechanical properties, Chemical Properties, UT etc. as per approved QAP.</p>

K. Kovarthan

கி. கோவர்தான்  
கி. கோவர்தான் / K. KOVARTHANAM  
பரிசுடர் இঞ্জினியர் / Sr. Engineer  
கualitas / Quality Department  
BHEL R&P RANIPET-3

	<p>2. In process Inspection Reports like Hydro test, Dimension Report, MPI,UT ,Balancing etc. as per approved QAP.</p> <p>3. Final Inspection Reports like Shop Assembly with testing reports, Hydro test/Leak / Pressure test reports, Type test Reports, WPS/PQR/WPQ Reports, PT/RT/UT/MT Reports etc. as per approved QAP.</p> <p>4. Final Inspection like packing and surface preparation &amp; Painting/Metal finishing reports. (Sea worthy packing / Special Packing requirement).</p>
6	Relevant pages of standard shall be attached with report.
7	Calibration reports of the instruments used to be signed by TPI after verification.
8	Above said documents are should be in single .pdf file with not more than 10MB (if more than 10MB can be split into multiple files)
9	Hard copy of the same to be submitted along with material dispatch.

*Kovarthanan*

**K KOVARTHANAN**

கா. கோவர்த்தனன்  
 क. कोवर्धनन / K. KOVARTHANAN  
 वरिष्ठ इंजीनियर / Sr. Engineer  
 गुणवत्ता विभाग / Quality Department  
 बीएचईएल राणीपेट, राणीपेट, BHEL, BAP, RANIPET  
**DM/QC PROC**  
**BHEL RANIPET**