



1. Typical /Indicative /Standard QAP(s) for equipment /package attached is reference document and to use by successful bidder in future for preparation and submission of QAP for BHEL /CUSTOMER approval.
2. No deviation to reference document is acceptable.

| | | | |
|--|--|--|-------------|
| Form No. |  HYDERABAD | PRODUCT STANDARD PROJECT ENGINEERING & SYSTEMS DIVISION HYDERABAD | ANNEXURE |
| | | | Rev No. 00 |
| | | | Page 2 of 3 |
| <p style="text-align: center;"><u>GUIDELINES TO VENDORS FOR PREPARATION OF QUALITY ASSURANCE PLAN</u></p> <ol style="list-style-type: none"> QAP shall be made in landscape mode on A4 size paper as per the format enclosed. Font size shall be minimum 10. Each page of QAP shall contain the following information. <ol style="list-style-type: none"> Vendor's name & address. Customer: BHEL, Hyderabad. Project. BHEL Product Standard Number/revision number as referred in P.O. BHEL Purchase Order Number & Date. Product as per P.O. description. QAP Number (unique and shall not repeat)/revision number/date. Page number and number of pages QAP shall contain four parts / stages as follows. <ol style="list-style-type: none"> Raw materials and bought out items. In process Control / Inspection. Final assembly, Inspection & Testing. Painting, preservation & packing. Under 'Component', indicate name of the component (say casing, rotor, pressure gauge, etc). Under 'Characteristics', indicate appropriately (say chemical analysis, mechanical properties, NDT (UT, DP etc.), hydrostatic test, calibration check etc.) Under 'Class', indicate minor, major or critical depending on the importance of characteristic. Under 'Type of check', indicate appropriately (say chemical, mechanical, UT, DP etc.) Under 'Quantum of check', indicate appropriately (say 100%, 10%, sample, per melt, per heat, all pieces etc.) Under 'Reference document' and 'Acceptance norms', appropriate National & International standards, BHEL standards, approved drawing references etc. should be indicated. It is not correct to mention as "Vendor's internal standards or Vendor's standard practice etc.". If vendors' internal standards are referred, same shall be in line with BHEL Spec. indicated in the P.O. These may require review & approval by our Engineering dept. Under 'Format of record', indicate appropriately supplier's test certificate, calibration certificate, lab report, inspection report etc. Please refer 'Agency' in QAP format. Under P: Perform, W: Witness, V: Verify Indicate against each characteristic 1: (BHEL CQS/Nominated inspection agency), OR | | | |
| Ref. Doc | | | |

COPYRIGHT AND CONFIDENTIAL

The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED . It must not be used directly or indirectly in any way detrimental to the interest of the company.

| | | | | |
|--|----------|---|--|----------|
| | Form No. |  HYDERABAD | <p align="center">PRODUCT STANDARD</p> <p align="center">PROJECT ENGINEERING & SYSTEMS DIVISION HYDERABAD</p> | ANNEXURE |
| | | Rev No. 00 | | |
| | | Page 3 of 3 | | |
| <p align="center">COPYRIGHT AND CONFIDENTIAL</p> <p align="center">The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED . It must not be used directly or indirectly in any way detrimental to the interest of the company.</p> | | <p>2: (Vendor / Sub vendor)</p> <p>Note: Performing agency is normally vendor or his sub vendor (Legend 2). Where witness points are indicated in specification, P.O., Drawing etc., for such operations, Under Witness (W) column use 1. Under 'Verify' column, use code 1.</p> <p>12. Under 'D' please put (<input type="checkbox"/> Tick) against each characteristic where vendor proposes to submit test certificate/report etc. OR as required as per BHEL Specification.</p> <p>13. Vendor's signature & stamp should be available on each page of QAP.</p> <p>14. Vendor should read the BHEL Product Standard thoroughly and QAP should be made only inline and relevant to the Specification & Approved Drawings.</p> <p>15. The following operations/characteristics/check points may be included (AS APPROPRIATE)</p> <ul style="list-style-type: none"> a) Visual check b) Dimensional check c) Mechanical and Chemical properties. d) Surface preparation before painting (by chemical cleaning, sand blasting, shot blasting etc. as the case may be.) e) Painting check for shade, Dry Film Thickness (DFT), Adhesion/ peel off test etc. f) Check for correctness for all components mounted as per General Arrangement Drawing, Bill of Materials (BOM), etc. for range, rating, make, color, size, location as per GA, quantity, label description including tag nos., annunciator facia, loose components, accessories, spares etc. g) Verification of test certificate for protection class for the enclosures. h) Mechanical functioning of switches. i) Continuity of earthing and provision of earth points. j) Colour coding of wiring, size, tightness & dressing of wiring. k) Review of test certificates of assembled items, raw materials, internal test reports etc. l) Witness of functional checks, which may include mechanical run & electrical run, H.V.test, IR measurement, Electrical and Mechanical tests etc. m) PQR, WPS, Welder Qualification Record, welding records (fit up, DP) etc. n) Material identification (for punch marks of serial numbers, Heat No, Melt No, Inspector's stamp etc.) o) Hydraulic Pressure Test, Pneumatic Pressure Test, Liquid Penetration Examination and other Non-Destructive Tests. p) Tests on Galvanised items (Visual, Hammer Test, Knife Test, Thickness, Pierce Test (Copper sulphate test), Hydrogen evaluation test, Stripping test (for Mass of Zinc coating) q) All tests as per BHEL Product Standard & approved drawings including Type tests and Routine tests on individual items and on System as a whole. r) Packing and Preservation. <p>16. QAP Format enclosed.</p> <p>17. Typical Manufacturing QAP(s) is /are attached.</p> | | |
| | | Ref. Doc | | |

| VENDOR'S NAME & ADDRESS: | | | | TYPICAL MANUFACTURING QUALITY PLAN | | | | | QP. NO.: | | | | |
|---|----------------------|--|-------|------------------------------------|-------------------------|--|------------------|----------------------|----------|-----------------|---|------|----------------|
| CUSTOMER: BHEL, HYDERABAD – 32. PROJECT: PRODUCT: | | | | BHEL P.O.NO.: | | REV. NO: | | DATE: | | PAGE 2 OF 10 | | | |
| | | | | P.O. DATE: | | REV: | | | | | | | |
| SL NO | COMPONENTS | CHARACTERISTICS | CLASS | TYPE OF CHECK | QUANTUM OF CHECK | REFERENCE DOCUMENT | ACCEPTANCE NORMS | FORMAT OF RECORD | * D | AGENCY P W V | | | REMARKS |
| 1.0 RAW MATERIALS & BOUGHT OUT ITEMS | | | | | | | | | | | | | |
| 1.1 | Steels, Structures | Chemical & Mechanical Properties | Major | Chem., Mech. Analysis | One per Lot/Batch /Heat | BHEL Specification/ Approved Datasheet/ Approved Drawing | | OEM certificates | ✓ | 2 | 2 | 1, 3 | |
| 1.2 | Pipes | Chemical & Mechanical Properties | Major | Chem., Mech. Analysis | One per Lot/Batch /Heat | | | OEM certificates | ✓ | 2 | 2 | 1, 3 | |
| 1.21 | | Hydro Test | Major | Hydro Test | 100% | | | | ✓ | 2 | 2 | 1, 3 | |
| 1.3 | Pipe Fittings | Chemical & Mechanical Properties | Major | Chem., Mech. Analysis | One per Lot/Batch /Heat | | | OEM certificates | ✓ | 2 | 2 | 1, 3 | |
| 1.31 | | NDE # | Major | MPI/LPT | 20% | | | | ✓ | 2 | 2 | 1, 3 | # Refer Note:1 |
| 1.4 | Flanges | Chemical & Mechanical Properties | Major | Chem., Mech. Analysis | One per Lot/Batch /Heat | | | OEM certificates | ✓ | 2 | 2 | 1, 3 | |
| 1.41 | | Rating, Type etc. | Major | Visual | 100% | | | | ✓ | 2 | 2 | 1, 3 | |
| 1.5 | Plates and Dish ends | Chemical & Mechanical Properties | Major | Chem., Mech. Analysis | One per Lot/Batch /Heat | | | OEM certificates | ✓ | 2 | 2 | 1, 3 | |
| 1.51 | | UT if thickness >=16mm, Heat treatment for cold formed dish ends | Major | UT and HT as required | 100% | | | IR/ OEM certificates | ✓ | 2 | 2 | 1, 3 | |
| 1.6 | Valves | Chemical & Mechanical Properties | Major | Chem., Mech. Analysis | One per Lot/Batch /Heat | | | OEM certificates | ✓ | 2 | 2 | 1, 3 | |

| LEGEND: P: PERFORM, W: WITNESS, V: VERIFICATION. INDICATE 1 FOR BHEL/BHEL Nominated TPJA & 2 FOR VENDOR/SUB VENDOR AS APPROPRIATE AGAINST EACH COMPONENT /CHARACTERISTIC UNDER P, W & V COLUMNS. * FOR ITEMS MARKED ✓ (TICK) IN COLUMN 'D', TEST CERTIFICATES SHALL BE SUBMITTED TO BHEL FOR RECORDS. | | PREPARED BY | APPROVED BY | APPROVED BY |
|---|--|----------------------------|---------------------------|------------------------------|
| | | VENDOR'S SIGNATURE & STAMP | BHEL QA SIGNATURE & STAMP | CUSTOMER'S SIGNATURE & STAMP |

| VENDOR'S NAME & ADDRESS: | | | | TYPICAL MANUFACTURING QUALITY PLAN | | | | | | QP. NO.: | | | | | | | |
|---|---------------------|---|-------|------------------------------------|-------------------------------|---------------|--|------------------|--|----------|---|-------|------|-----------------|--|---------|--|
| CUSTOMER: BHEL, HYDERABAD – 32. PROJECT: PRODUCT: | | | | BHEL P.O.NO.: | | | | REV NO: | | DATE: | | | | | | | |
| | | | | P.O. DATE: | | | | PAGE 3 OF 10 | | | | | | | | | |
| | | | | BHEL SPEC: | | | | | | | | | | | | | |
| REV: | | ACCEPTANCE | | REFERENCE | | FORMAT OF | | * AGENCY | | REMARKS | | | | | | | |
| SL NO | | CHARACTERISTICS | | CLASS | | TYPE OF CHECK | | QUANTUM OF CHECK | | DOCUMENT | | NORMS | | RECORD | | D P W V | |
| 1.61 | | NDE, Hydro Test, Fire Safe certificate, etc. # | Major | Hydro, NDE | As per BHEL Spec/ Datasheet | | | | | ✓ | 2 | 2 | 1, 3 | # as applicable | | | |
| 1.7 | | Chemical & Mechanical Properties | Major | Chem., Mech. Analysis | One per Lot/Batch /Heat | | | | | ✓ | 2 | 2 | 1, 3 | | | | |
| 1.71 | Control Valves | Seat Leakage test, Hydro test, Cv test, Actuator pneumatic test, Functional test, Completeness# | Major | TC Review | 100% | | | | | ✓ | 2 | 2 | 1, 3 | # as applicable | | | |
| 1.8 | Safety Relief Valve | Chemical & Mechanical Properties | Major | Chem., Mech. Analysis | One per Lot/Batch /Heat | | | | | ✓ | 2 | 2 | 1, 3 | | | | |
| 1.81 | | Hydro Test, Set Pressure Test | Major | Testing | 100% | | | | | ✓ | 2 | 2 | 1, 3 | | | | |
| 1.9 | | Chemical & Mechanical Properties, Calibration | Major | Chem., Mech. Analysis | One per Lot/Batch /Heat, 100% | | | | | ✓ | 2 | 2 | 1, 3 | | | | |
| 1.91 | Instruments | Hydro test(as applicable), Type Test(Weather Proof & Hazardous area certification etc.)# | Major | Hydro, Type Test | 100% | | | | | ✓ | 2 | 2 | 1, 3 | # as applicable | | | |
| 1.10 | Junction Box | Chemical & Mechanical Properties | Major | Chem., Mech. Analysis | One per Lot/Batch /Heat | | | | | ✓ | 2 | 2 | 1, 3 | | | | |

| LEGEND: P: PERFORM, W: WITNESS, V: VERIFICATION. INDICATE 1 FOR BHEL/BHEL NOMINATED TPIA & 2 FOR VENDOR/SUB VENDOR AS APPROPRIATE AGAINST EACH COMPONENT /CHARACTERISTIC UNDER P, W & V COLUMNS. * FOR ITEMS MARKED ✓ (TICK) IN COLUMN 'D', TEST CERTIFICATES SHALL BE SUBMITTED TO BHEL FOR RECORDS. | | PREPARED BY | APPROVED BY | APPROVED BY |
|---|--|----------------------------|---------------------------|------------------------------|
| | | VENDOR'S SIGNATURE & STAMP | BHEL QA SIGNATURE & STAMP | CUSTOMER'S SIGNATURE & STAMP |

| VENDOR'S NAME & ADDRESS: | | | | TYPICAL MANUFACTURING QUALITY PLAN | | | | | | QP. NO.: | | | | | | |
|---|--|--|-------|---|-------------------------------|--|------------------|---------------------------------------|---|--------------|---|---|------|---------|-------|--|
| CUSTOMER: BHEL, HYDERABAD – 32. PROJECT: PRODUCT: | | | | BHEL P.O.NO.: P.O. DATE: BHEL SPEC: | | | | | | REV NO: | | | | | DATE: | |
| | | | | REV: | | | | | | PAGE 4 OF 10 | | | | | | |
| | | | | | | | | | | | | | | | | |
| SL NO | COMPONENTS | CHARACTERISTICS | CLASS | TYPE OF CHECK | QUANTUM OF CHECK | REFERENCE DOCUMENT | ACCEPTANCE NORMS | FORMAT OF RECORD | * | D | P | W | V | REMARKS | | |
| 1.10.1 | | Type Tests (Weather Proof & Hazardous area certification etc.) | Major | Type Test | 100% | BHEL Specification/ Approved Datasheet/ Approved Drawing | | | ✓ | 2 | 2 | 2 | 1, 3 | | | |
| 1.11 | Strainer | Chemical & Mechanical Properties, Rating, Hydro Test | Major | Chem., Mech. Analysis, Hydro test | One per Lot/Batch /Heat, 100% | | | OEM certificates | ✓ | 2 | 2 | 2 | 1, 3 | | | |
| 1.12 | Filter Elements | Chemical & Mechanical Properties, Degree of filtration | Major | Chem., Mech. Analysis, Testing | One per Lot/Batch /Heat | | | OEM certificates | ✓ | 2 | 2 | 2 | 1, 3 | | | |
| 1.13 | Cable & Cable Gland | Chemical & Mechanical Properties, Routine test, Type test | Major | Chem., Mech. Analysis | One per Lot/Batch /Heat | | | OEM certificates/ Statutory Approvals | ✓ | 2 | 2 | 2 | 1, 3 | | | |
| 1.14 | Local Gauge Board | Chemical Analysis, Routine tests, Weather proof protection | Major | Chem. Analysis, Routine test, IP Cert. | 100% | | | MTC and type test certificates | ✓ | 2 | 2 | 2 | 1, 3 | | | |
| 1.15 | Heater Element, Baffle Plate, Terminal box | Chemical & Mechanical Properties, Type test (IP, Ex-proof) | Major | Visual | 100% | | | OEM certificates/ Statutory Approvals | ✓ | 2 | 2 | 2 | 1, 3 | | | |
| 1.16 | Gaskets , Fasteners, Lugs, cable trays | Chemical & Mechanical Properties | Major | Visual | 100% | | | OEM certificates | ✓ | 2 | 2 | 2 | 1, 3 | | | |

| LEGEND: P: PERFORM, W: WITNESS, V: VERIFICATION. INDICATE 1 FOR BHEL/BHEL Nominated TPIA & 2 FOR VENDOR/SUB VENDOR AS APPROPRIATE AGAINST EACH COMPONENT /CHARACTERISTIC UNDER P, W & V COLUMNS. * FOR ITEMS MARKED ✓ (TICK) IN COLUMN 'D', TEST CERTIFICATES SHALL BE SUBMITTED TO BHEL FOR RECORDS. | | PREPARED BY | APPROVED BY | APPROVED BY |
|---|--|----------------------------|---------------------------|------------------------------|
| | | VENDOR'S SIGNATURE & STAMP | BHEL QA SIGNATURE & STAMP | CUSTOMER'S SIGNATURE & STAMP |

| VENDOR'S NAME & ADDRESS: | | | | TYPICAL MANUFACTURING QUALITY PLAN | | | | | QP. NO.: | | | | |
|---|--|---|-------|------------------------------------|------------------|--|------------------|-----------------------|----------|--------------|---|------|--------------------------|
| CUSTOMER: BHEL, HYDERABAD – 32. PROJECT: PRODUCT: | | | | BHEL P.O.NO.: | | REV. NO: | | DATE: | | PAGE 5 OF 10 | | | |
| | | | | P.O. DATE: | | REV: | | | | | | | |
| | | | | BHEL SPEC: | | | | | | | | | |
| SL NO | COMPONENTS | CHARACTERISTICS | CLASS | TYPE OF CHECK | QUANTUM OF CHECK | REFERENCE DOCUMENT | ACCEPTANCE NORMS | FORMAT OF RECORD | * D | P | W | V | REMARKS |
| 1.17 | Instruments Tubing, Ferrule, Bite coupling and Fitting | Chemical & Mechanical Properties | Major | Chem., Mech. Analysis | 100% | BHEL Specification/ Approved Datasheet/ Approved Drawing | | OEM certificates | ✓ | 2 | 2 | 1, 3 | Components as applicable |
| 2.0 INPROCESS INSPECTIONS | | | | | | | | | | | | | |
| 2.1 | For SS & AS Material | PMI | Major | PMI Check | Random | BHEL Specification/ Approved Datasheet/ Approved Drawing | | TC | ✓ | 2 | 1 | 3 | |
| 2.2 | Fabrication of vessels and piping | WPS, PQR, WQR | Major | Doc. Verification | 100% | | | WPS, PQR, WQR | - | 2 | - | 1, 3 | |
| 2.21 | | Fit up of shell, shell to disc ends, shell to nozzle, nozzle to flange etc. | Major | Doc. Verification | 100% | | | Log book/register /IR | ✓ | 2 | 2 | 1, 3 | |
| 2.3 | | Radiography | Major | RT | As per BHEL Spec | | | NDE | ✓ | 2 | - | 1, 3 | |
| 2.31 | Liquid penetrant | Major | LPT | | | | Reports, IR | ✓ | 2 | 1 | 3 | | |
| 2.4 | Vessels and Piping | Thickness check | Major | Thickness check | Random | | | TC/IR | ✓ | 2 | 1 | 3 | |
| 2.5 | Reinforcement pads | Soap solution test | Major | Testing | 100% | | | TC | ✓ | 2 | 1 | 3 | |
| 2.51 | Hydro test of vessels and piping | Hydro Test | Major | Hydro Test | 100% | | | TC | ✓ | 2 | 1 | 3 | |
| 2.6 | Skid Assembly | Visual, Dimension, Alignment and Orientation | Major | Visual, Measurement | 100% | | IR | - | 2 | 2 | - | | |

| LEGEND: P: PERFORM, W: WITNESS, V: VERIFICATION. INDICATE 1 FOR BHEL/BHEL Nominated TPIA & 2 FOR VENDOR/SUB VENDOR AS APPROPRIATE AGAINST EACH COMPONENT /CHARACTERISTIC UNDER P, W & V COLUMNS. * FOR ITEMS MARKED ✓ (TICK) IN COLUMN 'D', TEST CERTIFICATES SHALL BE SUBMITTED TO BHEL FOR RECORDS. | | PREPARED BY | APPROVED BY | APPROVED BY |
|---|--|----------------------------|---------------------------|------------------------------|
| | | VENDOR'S SIGNATURE & STAMP | BHEL QA SIGNATURE & STAMP | CUSTOMER'S SIGNATURE & STAMP |

| VENDOR'S NAME & ADDRESS: | | | | TYPICAL MANUFACTURING QUALITY PLAN | | | | | | QP. NO.: | | | | | | | | | | | | | |
|---|---------------|--|----------|------------------------------------|--------|---|--------------|---------------|---|------------------------------|---|---|--|--------------------|--|------------------|--|------------------|--|---------------|--|------------|--|
| SL NO | | | | COMPONENTS | | CHARACTERISTICS | | CLASS | | TYPE OF CHECK | | QUANTUM OF CHECK | | REFERENCE DOCUMENT | | ACCEPTANCE NORMS | | FORMAT OF RECORD | | REV. NO.: | | DATE: | |
| | | | | | | | | | | | | | | | | | | | | REV. NO.: | | DATE: | |
| | | | | | | | | | | | | | | | | | | | | P.O. DATE: | | P.O. DATE: | |
| PRODUCT: | | | | BHEL P.O.NO.: | | BHEL P.O.NO.: | | BHEL P.O.NO.: | | BHEL P.O.NO.: | | BHEL P.O.NO.: | | BHEL P.O.NO.: | | BHEL P.O.NO.: | | BHEL P.O.NO.: | | BHEL P.O.NO.: | | | |
| 3.0 FINAL INSPECTION & TESTING | | | | | | | | | | | | | | | | | | | | | | | |
| A FINE FILTER SKID | | | | | | | | | | | | | | | | | | | | | | | |
| 3.1 | Skid Assembly | Visual, Process check w.r.t P&ID, Dimensions, Alignment, BOM check | Major | Visual, Measurement | 100% | BHEL Specification/ Approved Datasheet/ Approved Drawing/ Approved FAT | IR | ✓ | 2 | 1 | 3 | - | # incase pneumatic test is not feasible. | | | | | | | | | | |
| 3.2 | | Hydro test of assembled skid # | Critical | Hydro Test | 100% | | IR | ✓ | 2 | 1 | 3 | - | | | | | | | | | | | |
| 3.3 | | Pneumatic leak test of assembled skid | Major | Pneumatic testing | 100% | | IR | ✓ | 2 | 1 | 3 | - | | | | | | | | | | | |
| 3.4 | | Spares (if any) | Minor | Visual and BOM check | 100% | | IR | ✓ | 2 | 1 | 3 | - | | | | | | | | | | | |
| 4.0 PRESERVATION & PACKING | | | | | | | | | | | | | | | | | | | | | | | |
| 4.1 | | Surface preparation, Painting (Shade, DFT) # Marking | Major | Visual, Measurement | Random | BHEL Specification/ Approved Datasheet/ Approved Drawing | TC | ✓ | 2 | 1 | - | #as applicable | | | | | | | | | | | |
| 4.2 | | Packing# | Major | Visual | Random | | Packing List | ✓ | 2 | 2 | 1 | # Sea worthy packing in case of Export orders | | | | | | | | | | | |
| LEGEND: P: PERFORM, W: WITNESS, V: VERIFICATION. INDICATE 1 FOR BHEL/BHEL Nominated TPJA & 2 FOR VENDOR/SUB VENDOR AS APPROPRIATE AGAINST EACH COMPONENT /CHARACTERISTIC UNDER P, W & V COLUMNS. * FOR ITEMS MARKED ✓ (TICK) IN COLUMN 'D', TEST CERTIFICATES SHALL BE SUBMITTED TO BHEL FOR RECORDS. | | | | PREPARED BY | | APPROVED BY | | APPROVED BY | | CUSTOMER'S SIGNATURE & STAMP | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|---|------------|-----------------|-------|---|------------------|--------------------|------------------|------------------|---|--------|---------|-------|--|
| VENDOR'S NAME & ADDRESS: | | | | TYPICAL MANUFACTURING QUALITY PLAN | | | | QP. NO.: | | | | | |
| CUSTOMER: BHEL, HYDERABAD – 32. PROJECT: PRODUCT: | | | | BHEL P.O.NO.: | | | | REV NO: | | DATE: | | | |
| | | | | P.O. DATE: | | | | PAGE 7 OF 10 | | AGENCY | | P W V | |
| | | | | BHEL SPEC: | | | | | | | | | |
| SL NO | COMPONENTS | CHARACTERISTICS | CLASS | TYPE OF CHECK | QUANTUM OF CHECK | REFERENCE DOCUMENT | ACCEPTANCE NORMS | FORMAT OF RECORD | * | D | REMARKS | | |

Notes: -

1. MPI/LPT Should be carried on Knuckle of Reducers, Outer bend portion of Elbows and Neck portion of Tees.
 - a) CS & AS (>=2") Material – MPI
 - b) SS Material (>=2") – LPT.
2. This typical MQP should be read along with specification (Latest revision as per PO), approved drawings & approved datasheet.
3. Drawing/datasheet shall prevail over quality plan for contradiction if any.
4. All type test reports submitted shall not be older than 5 yrs. from the date of purchase order.
5. Any project/customer specific requirements which shall be notified have to be fulfilled by the vendor at the time of execution of order.
6. The applicability of above items/products depends on scope of supply. Same to be considered accordingly during inspections.
7. IGC test for austenitic stainless steels as per ASTM A 262 practice E.

Abbreviations: -

| | | | | | |
|-----|---|----------------------------------|-----|---|---------------------------------|
| MTC | - | Material Test certificate | WPS | - | Welding Procedure Specification |
| PQR | - | Procedure Qualification Record | MPI | - | Magnetic Particle Inspection |
| WPQ | - | Welder Performance Qualification | LPT | - | Liquid Penetrant Test |
| NDE | - | Non Destructive Examination | TC | - | Test Certificate |
| PMI | - | Positive Material Identification | CS | - | Carbon Steel |
| SS | - | Stainless Steel | DFT | - | Dry Film Thickness |
| IR | - | Inspection Report | | | |

| | | | |
|---|----------------------------|---------------------------|------------------------------|
| LEGEND: P: PERFORM, W: WITNESS, V: VERIFICATION. INDICATE 1 FOR BHEL/BHEL Nominated TPJA & 2 FOR VENDOR/SUB VENDOR AS APPROPRIATE AGAINST EACH COMPONENT /CHARACTERISTIC UNDER P, W & V COLUMNS. * FOR ITEMS MARKED ✓ (TICK) IN COLUMN 'D', TEST CERTIFICATES SHALL BE SUBMITTED TO BHEL FOR RECORDS. | PREPARED BY | APPROVED BY | APPROVED BY |
| | VENDOR'S SIGNATURE & STAMP | BHEL QA SIGNATURE & STAMP | CUSTOMER'S SIGNATURE & STAMP |