

| INSPECTION & TEST PLAN | | | | | | | | | | | | | | | | | |
|---|---|---------------------------------------|---|--|---|--------|------|---|--|--|--------------------|--|--|---------|--|--|--|
| CLIENT | | | | ITP NO : TBA | Rev. 00 | | | | | | DATE : 04.09.2024. | | | | | | |
| PROJECT | TBA | | | JOB TITLE | REFRIGERATION SKID PACKAGE | | | | | | | | | | | | |
| P.O.No & Date | TBA | | | SKID GA. | TBA | | | | | | | | | | | | |
| W.O.NO | TBA | | | DRG. NO. | | | | | | | | | | | | | |
| VENDOR | TBA | | | | | | | | | | | | | | | | |
| CLIENT | | | | | | | | | | | | | | | | | |
| SL NO | QUALITY RELATED ACTIVITY | REFERENCE | CHARACTERISTICS TO | ACCEPTANCE | VERIFYING | AGENCY | | | | | | | | | | | |
| | | DOCUMENTS | BE VERIFIED | STANDARD | DOCUMENTS | VENDOR | ENER | | | | | | | REMARKS | | | |
| INSPECTION & TEST PLAN (FOR PIPING) | | | | | | | | | | | | | | | | | |
| 1.0 ENGINEERING DOCUMENTATION & DRAWING | | | | | | | | | | | | | | | | | |
| 1.1 | Review fabricaton drawing | Conformance to B31.3, Clent Spec. | Drawings | ASME B 31.3, Clent Spec | Project Documents. | H | | R | | | | | | | | | |
| 1.2 | Welding Procedures & Procedure Qualification Records & Welding Repair Procedure | ASME Sec IX, ASME B31.3, Client Spec. | Approved WPS / PQR | ASME Sec IX ,Client Spec. | WPS / PQR | H | | R | | | | | | | | | |
| | | | | | | H | | R | | | | | | | | | |
| 1.3 | Welder's Performance Qualification Records | ASME Sec IX, Client Spec. | Approved WPQR | ASME Sec IX, Client Spec. | WPQR | H | | R | | | | | | | | | |
| 1.4 | NDE Procedures (RT , MT & PT), Hardness test procedure | ASME Sec V / Client Spec. | NDE Procedures, Hardness test procedure | ASME SEC V / Client Spec. | NDE Procedures, Hardness test procedure | H | | R | | | | | | | | | |
| 1.5 | NDE Operator Qualification | ASME Sec V / Client Spec. | Qualification & Renewal of operators. | ASNT-SNT-TC-1A , Client Spec. | Certificates | H | | R | | | | | | | | | |
| 1.6 | Visual Inspection procedure | Conformance to B31.3, Client Spec. | Visual Inspection procedure | Approved Drg - ASME B 31.3, Client Spec. | Visual Inspection procedure | H | | R | | | | | | | | | |
| 1.7 | PMI Procedure | Approved drawing & ASME Sec II Part A | Elements to be confirmed | As per approved drawing & ASME Sec II Part A | PMI Procedure | H | | R | | | | | | | | | |
| 1.8 | Hydro Test Procedure | Conformance to B31.3, Client Spec. | Pressure Testing of process piping | Approved Drg - ASME B 31.3, Client Spec. | Hydro Test Procedures | H | | R | | | | | | | | | |
| 1.9 | Pickling & Passivation Procedure | ASTM A380 | Pickling & Passivation Procedure | As per approved procedure, ASTM A380 | Pickling & Passivation Procedure | H | | R | | | | | | | | | |

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| 1.10 | Painting Procedure | As per approved procedure | Painting Procedure | As per approved procedure | Painting Procedure | H | | R | | | | | | | | | |
| 2.0 MATERIAL PREPARATION & PRE FABRICATION | | | | | | | | | | | | | | | | | |
| 2.1 | Material Test Certificates | ASME Sec II Part - A. | Chemical & Mechanical Properties , Markings, Minimum Thk and Surface Conditions. | As per Approved Drawing in accordance with ASME Sec II Part - A. | MTC & Inspection Report. | H | | R | | | | | | | | | |
| 2.2 | Visual & dimensional of raw material | ASME Sec II Part - A. | Visual & dimensional inspection | As per Approved Drawing in accordance with ASME Sec II Part - A. | MTC & Inspection Report. | H | | SW | | | | | | | | | |
| 2.3 | PMI for Stainless steel materials | Approved Drawings | Elements to be verified as per approved procedure | Approved Procedure | PMI Report | H | | SW | | | | | | | | | |
| 3.0 FABRICATION | | | | | | | | | | | | | | | | | |
| 3.1 | Internal Cleaning | Approved Procedure | Visual | Approved Procedure | Inspection Report. | H | | SW | | | | | | | | | |
| 3.2 | Length Marking, Cutting | Approved Drawing | Approved Drawing , Length , Profile Cutting of plates dimensions and marking. | Approved Drawing | ... | H | | SW | | | | | | | | | |
| 3.3 | Material Traceability | Approved Drawing | Heat Number & Specification | Approved Drawing | Inspection Report. | H | | SW | | | | | | | | | |
| 3.4 | Preparation of Piping with Attachments | Approved Drawing | Approved Drawing & Dimensions | Approved Drawing | ... | H | | SW | | | | | | | | | |
| 3.5 | Pipe with flanges Attachments fitup | Approved Drawing | Parellality, Perpendicularity Orientation, Dimensions& Alignment | Approved Drawing | ... | H | | SW | | | | | | | | | |
| 4.0 VISUAL INSPECTION OF WELD | | | | | | | | | | | | | | | | | |
| 4.1 | WELDING & VISUAL INSPECTION | Approved Weld Visual Procedure ; Approved WPS | WELD SIZE. & Appearance | Approved Drawing & ASME B 31.3 Table 341.3.2 | Inspection Report. | H | | SW | | | | | | | | | |
| 5.0 NDE | | | | | | | | | | | | | | | | | |

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| 5.1 | 15 % RT On Butt welds 15 % MT / PT On other Wellds. | Approved RT, PT, MT procedure, | Weld Soundness & Quality | Approved Drawing & ASME B 31.3 Table 341.3.2, 344.4.2, 344.3.2 | RT,MT,PT REPORTS | H | | R | | | | | | | | | |
| 6.0 | Final Inspection (Before Hydro) | ASME B31.3, Approved Drawing, | Visual , Dimension & Orientation | Approved Drawing & ASME B 31.3 | Inspection Report. | H | | H | | | | | | | | | |
| 7.0 | Hydro test . | ASME B31.3, Approved Drawing, | Pressure & Holding Time | Approved Drawing & ASME B 31.3 Sec.345.4 & As per approved procedure | pressure Chart &Inspection Report. | H | | H | | | | | | | | | |
| 8.0 | Pickling / Passivation on Stainless Steel & SDSS Pipe Spools (External Surface Only) | ASTM A380 | CHECKING THE QUALITY | As per approved Pickling & Passivation Procedure | Pickling & Passivation Report | H | | SW | | | | | | | | | |
| 9.0 | Coating | | | | | | | | | | | | | | | | |
| 9.1 | Blasting | As per approved procedure | Surface profile Measurement | Approved drawing & As per approved procedure | Inspection Report. | H | | SW | | | | | | | | | |
| 9.2 | Final paint, Visual & DFT | As per approved procedure | DFT Measurement | Approved drawing & As per approved procedure | Inspection Report. | H | | SW | | | | | | | | | |
| 10.0 | Identification marking & final inspection | Drawing | Visual | Drawing | Inspection Report | H | | SW | | | | | | | | | |
| 11.0 | IRC(Inspection release certificate) & Final Document | Approved Final Data Book Index | Final Data Book | Final Data Book | Final Data Book | H | | H | | | | | | | | | |