**INSPECTION & TEST PLAN**

**Client:** M-I SWACO  
**Project:** Drilling Fluids Facility, Port of Adelaide  
**Task Description:** Workshop Fabrication and Testing of Pipe Spooling

### Comments:
- Non-conformance & corrective Actions shall be dealt in accordance with QP 14

### Summary of Requirements

#### Process Qualifications
- **Weld Procedures:**
  - ASME IX
  - OE-IX-001 Rev00
  - OE-IX-072 Rev00
  - OE-IX-177 Rev00
- **Welder Qualifications:**
  - ASME IX
- **Traceability**
  - **Welding:**
    - Identify Welders per drawing
    - Identify Welders per joint
    - Tack welds qualified

#### Principle Codes / Standards
- **Australian/International Standards:**
  - ASME B31.3 Process Piping
  - ASME IX Welding, Brazing, and Fusing Qualifications
- **Client Specifications / Work Instructions:**
  - M-I SWACO Doc 25079-01-01-1000 Pipe Specifications
  - M-I SWACO Doc 25079-01-09-1000 Pipe, Valves and Fittings
  - M-I SWACO Doc 25079-01-99-1910 Coating Systems
- **Ottoway Procedures / Work Instructions:**
  - QP-02 Tender & Contract Review
  - QP-06 Purchasing
  - QP-07 Material Control and Delivery
  - QP-08 Production Control
  - QP-09 Control of Welding
  - QP-12 Inspection & Test Status
  - QP-14 Control of non-conformance
  - QP-22 Documentation of MDR

#### Materials:
- Certificates with supply
- Identify per joint
- Alloy verification

#### Consumables:
- None
- Certificates with supply
- Identify per joint

### Responsibility / Nominee Legend
- **PM** – Project Manager
- **PE** – Project Engineer
- **WSP** – Workshop Superintendent
- **QC** – Quality Co-ordinator
- **WS** – Welding Supervisor
- **SC** – Sub-contractor
- **SV** – Supervisor
- **ST** – Store Representative
- **QM** – Quality Manager

### Responsible / Nominee Legend
- **N Rubbo**  
  - PM
- **C Anstey**  
  - PE
- **S Taylor**  
  - QM
- **D Weaver**  
  - QC
- **B McCullum**  
  - SV
- **J Johannes**  
  - SV
- **B Muir**  
  - SV
- **L Patterson**  
  - WS
- **R Williams**  
  - WS
- **B Promnitz**  
  - ST

### Signature Register

---

**Prepared by:** C Anstey  
**Signed:**  
**Company:** Ottoway Engineering  
**Date:** 17/03/16

**Approved by:** D Weaver  
**Signed:**  
**Company:** Ottoway Engineering  
**Date:** 17/03/16

**Accepted by:**  
**Signed:**  
**Company:** M-I SWACO Pty Ltd  
**Date:**
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| 1.  | Submission and Approval of Project Quality Documentation | • Client Approval  
• Scope of work  
• WPS Reviewed and approved by client  
• Verified by a Cert 10 Welding Supervisor | • Doc 25079-01-99-1920 Welding Procedures and Specification  
• Doc 25079-01-01-1000 Pipe Specifications  
• ASME IX  
• OE-IX-001  
• OE-IX-072  
• OE-IX-177 | • Approved ITP endorsed and filed in MDR  
• Purchase order filed in Project Folder  
• M-I SWACO Approved Procedures  
• Project Allocated Weld Procedure Register 9836-WPS-001 | PM  
WS  
H  
R |
| 2.  | Procure and Receive Materials | • Materials conform to specifications  
• All materials shall be of United States, Japan, Australia or West European manufacture unless prior written approval is received from M-I SWACO.  
• Quantity, size, grade  
• Letters of conformity  
• Material condition/ damage | • M-I SWACO Doc 25079-01-99-1000 Pipe, Valves and Fittings  
• QP07 Material Control and Delivery  
• QP06 Purchasing | • Material certificates of conformance in MDR folder.  
• Project BOM  
• Purchase orders  
• Mark materials with job number  
• Material Register QF08B2  
• File certificates in MDR folder | ST  
QC  
H |
| 3.  | Select welders as per M-I SWACO Approved Welding Procedures | • Cert 10 Welding Supervisor to select Qualified welders | • Doc 25079-01-99-1920 Welding Procedures and Specification  
• ASME IX  
• QP09 - Control of Welding | • Index of Qualified procedures  
• Index of Welder qualifications  
• File in MDR | WS  
R  
R |
| 4.  | Material receipt, Inspection & Storage | • Inspect and identify all materials on receipt.  
• Review and file all certification.  
• Store materials in allocated storage area.  
• Ensure materials are stored correctly, i.e. on pallets or bearers. | • QP 12 Inspection & Test Status  
• QP 07 Material Control and Delivery. | • Material Traceability Number Allocation Register QF12A1 completed.  
• Material Traceability Register QF08B2 completed. | QC  
ST  
H |

**Inspection / Surveillance Legend:**  
## Inspection & Test Plan

### Task Description:

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| 5.  | Fabrication | • Maintain Identification throughout production  
• Item marking – Spool identification hard stamped on flanges  
• Dimensions – Pre-welding | • Work pack consisting of Work order, Construction drawings and Weld maps  
• QP08 – Production Control  
• QP12 – Inspection test Status  
• QP07- Material Control & Delivery  
• ASME B31.3 | • Material numbers and fitter ID recorded on Weld Traceability Sheet  
• Inspection recorded on workshop drawing | SV QC | H |
| 6.  | Welding | • WPS Approval  
• Ensure welders are qualified  
• Monitor welding parameters  
• Remove slag spatter and sharp edges.  
• Dimensions  
• Item marking – Welder ID and last two digits of year of manufacture stamped onto pipe not more than 6” from Weld  
• Visual inspection 100%  
• Complete weld traceability sheet | • M-I SWACO Doc 25079-01-99-1920 Welding Procedures and Specification  
• QP12 –Inspection & test status  
• ASME B31.3 | • Dimensional checks recorded on as built drawings  
• Welder ID, Welding Consumables, Material unique number recorded on Weld Traceability Sheet  
• QF12C1 Weld trace sheet.  
• Weld maps | WS V |
| 7.  | NDT | • 100% Visual Inspection of all welds  
• 5% RT of all butt welds  
• 5% LPT of all branch connections and socket welds | • M-I SWACO Doc 25079-01-99-1000 Pipe, Valves and Fittings  
• QF09 A4 Request for Test | • Report numbers and results recorded on Weld traceability Register  
• Hold until receipt of reports  
• Verify all welds comply  
• NATA endorsed test reports reviewed and filed in MDR folder | PM QC | R |

**Inspection / Surveillance Legend:**  
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| 8   | Surface Coating | • Abrasive blast to SSPC-SP10 Near White 2-3mil profile **HOLD**  
• 1st Coat – Interplus 1180 MIO (Total DFT 150-250 µm)  
• 2nd Coat Interthane 990 US 5177 Gray Urethane Finish to DFT 75-100 µm  
• Total DFT 225-300 µm. | • M-I SWACO Doc 25079-01-99-1910 Coating Systems – System 4  
• QP-12 Inspection & Test Status | • Surface Coating Reports filed in MDR | QC | H | H |
| 9   | Finalise Manufactures Data Report (MDR) | • Review MDR documents as complete | • QP 22-Documentation of MDR | • MDR reviewed and endorsed by Ottoway | PM | S | R |
| 10  | Prepare Spools for Transport Packaging | • Internal cleanliness  
• Flange faces protected with 5mm thick plywood or plastic flange covers  
• Pipe caps and plugs fitted to exposed connections and seal openings | • QP 07 – Material Control and Delivery  
• Request for Transport  
• Work order | • Delivery docket completed with detailed list of all items and endorsed by Ottoway.  
• Copy of DD filed in project folder  
• Copy of inspection release to be filed in MDR  
• QF16A3 Inspection Release Note | SV | V |  

**Inspection / Surveillance Legend:**  