Fermilab

# Fermi National Accelerator Laboratory

**Technical Division-Machine Shop**

## Welder Performance Qualification Record

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Welder's Name** | | *Ryan Mahoney* | | **FNAL #** | *15470N* | **ASME #** | *W-2* |
| **Welding Process:** | **1st** | *GTAW* | Type | *Manual* | **2nd** | | Type |
| Performed in accordance with: | | | | *Fermi WPS-SS-8-001* | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Joint:** | ~~Fillet:~~ | | ~~Production Weld~~ | | *Test Coupon* | |
| **Groove:** | ~~Double Welded:~~ | ~~Yes~~ | *No* | | | |
| | Single Welded: | ~~Metal Fused~~ | ~~Metal Non-Fused~~ | ~~Non-Metal~~ | *Open Root* | Consumable Insert |
| | | ~~With Solid Backing~~ | *Without Solid Backing* | | | |

| **Base Metal:** | Specification: | *SA 213, Type 304/304L* | TO | *SA 213, Type 304/304L* | *ASME P #8, Gp 1* | TO | *ASME P # 8, Gp 1* |
|---|---|---|---|---|---|---|---|
| **Plate** | | **Pipe** | | | **Tube** | | |
| Actual Thickness: | | Nominal Diameter: | | Actual Diameter | Overall Diameter: *0.250"* | | |
| Qualified Range: | | Wt/Schedule: | | Qualified Thickness Range | Wall: *0.035"* | | |
| | | Actual Thickness | | Qualified Diameter Range: . | Qualified Thickness Range: *0.070" Maximum* | | |
| | | | | | Qualified Diameter Range: *0.250" Minimum* | | |

| **Filler:** | **1st Process** | | **2nd Process** | |
|---|---|---|---|---|
| | Specification: *5.9* | Class: *308/308L* | Specification: | Class: |
| | Diameter(s): *.035, .045, 1/16* | | Diameter(s): | |
| | F #: *6* | | F #: | |
| | Deposit Thickness: *0.035* | Range Qualification: *0.070 Maximum* | Deposit Thickness: | Range Qualification: |

| | | | | | |
|---|---|---|---|---|---|
| **Welding Position:** *6G* | If Vertical: *Uphill* ~~Down~~ | | | | |
| **Gas (Type & Composition:** | Shielding: *Argon 99.9%* | | Root Side Backing - *Argon 99.9%* | | |
| **Electrical Characteristics** | Type Current | ~~AC~~ | ~~DCEP~~ | *DCEN* | |
| | ~~Transfer GMAW~~ | ~~Spray~~ | ~~Globular~~ | ~~Pulse~~ | ~~Short Circuit~~ |

| **Visual Inspection** | | | | | |
|---|---|---|---|---|---|
| Appearance: | *Satisfactory* | Undercut: | *None* | Piping Porosity: | *None* |

| **Guided Bend Test** | | | | | |
|---|---|---|---|---|---|
| Type and Figure | Results | Type and Figure | Results | Type and Figure | Results |
| | | | | | |
| | | | | | |
| Test Conducted by: | | | Lab Test #: | | Date: |

| **Radiographic Test** | | | |
|---|---|---|---|
| Results: *Satisfactory* | Per ASME IX-2007 | | |
| Radiographer: *Alloyweld Inspection Co., Inc.* | Examiner: *Jennifer Anaya-Level II* | Register # *5615* | Date: *6/18/2010* |

| **Fillet Weld Test Results** | | | | |
|---|---|---|---|---|
| Fracture Test: (Location, Nature, and size of Crack or Tear in Specimen) | | | | |
| Length of Weld: | Length of Defect: | Percent of Defect | | |
| Macro Test: Fusion | | | | |
| Appearance: Fillet Size | inch X | inch | ☐ Convex | ☐ Concave |
| Test Conducted by: | | Lab Test #: | | |

| | | |
|---|---|---|
| Test Verified by: *Roger Hiller, 00362N* | Verification Report #*5112010-2RH* | |
| | | Signature |

We certify that the statements in this record are correct and that the test welds were prepared, welded, and tested in accordance with the requirements of **ASME IX-2007 & AWS D1.1-06** ***Fermi National Accelerator Laboratory***

By: Roger Hiller 00362N — Roger E Hiller — Authorized Representative — Date: *6/18/2010*