### Brazing Procedure Qualification Record

**LANL Welding Program**

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>BPQR No.</td>
<td></td>
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<tr>
<td>BPS No.</td>
<td></td>
<td></td>
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<tr>
<td>Date Brazed:</td>
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</tbody>
</table>

**Joints:**

- Joint Design Used: 
- Joint Tolerances:
  - Insertion depth: 
  - Lap face: 
  - Root spacing: 
  - Retainers: 

**Base Metals:**

- Material Spec & Type: 
- to Spec & Type: 
- ASME P or S No. & Group: 
- to P or S No. & Group: 
- Thickness of Test Coupon: 
- Diameter of Test Coupon: 

**Filler Metals:**

- ASME Specification: 
- ASME Filler Metal Group No. F: 
- AWS Classification: 
- Filler Form/Size: 
- Manufacturer: 
- Heat/Lot No.: 

**Flux used:**

- Yes | No
- AWS Type: 
- Manufacturer: 
- Stock No.: 

**Orientation:**

- Positions: 
- Braze Progression: 
  - V - Up-flow | V - Down-flow |
  - Horizontal-flow | Flat-flow |

**Flame:**

- Type: 
- Fuel Gas Type: 
- Mixture: 

**Brazing:**

- Temperature range: ~ °F

**Post-braze Treatment:**

- Quench | Air-cool | Other
- Hrs./min. @ Temp. °F

**Gas:**

- Gas Backing Used: 
- Yes | No
- Composition: %
- Pressure/flow (psi – cfh) 
- Atmosphere or Internal Medium: 

**Technique:**

- Filler Placement Technique: 
- Face-fed: 
- Pre-placed: 
- Torch Tip Size: 
- Over-lap: Min. Max.
- Clearance: Min. Max.
- Cleaning Method: 

**Notes:**

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BRAZING PROCEDURE QUALIFICATION RECORD

LANL WELDING PROGRAM

TENSILE TESTS:

<table>
<thead>
<tr>
<th>Specimen No.</th>
<th>Dimensions</th>
<th>Area (sq. in.)</th>
<th>Applied Total Load (lbs.)</th>
<th>Ultimate Tensile Strength (ksi)</th>
<th>Location and Type of Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>Thickness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td></td>
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<td>T2</td>
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<td>T3</td>
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<td>T4</td>
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</tbody>
</table>

PEEL/SECTION TESTS:

<table>
<thead>
<tr>
<th>Type and Figure No.</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td></td>
</tr>
<tr>
<td>P2</td>
<td></td>
</tr>
<tr>
<td>P3</td>
<td></td>
</tr>
<tr>
<td>P4</td>
<td></td>
</tr>
</tbody>
</table>

ROOT BEND-BACK TESTS:

<table>
<thead>
<tr>
<th>Specimen No.</th>
<th>Specimen Location</th>
<th>Specimen Size</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>R3</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>R4</td>
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<td></td>
</tr>
</tbody>
</table>

HYDRO or PNEUMATIC LEAK TESTS:

<table>
<thead>
<tr>
<th>Type and Time @ Pressure.</th>
<th>Type &amp; Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

MACRO-ETCH/VISUAL TESTS:

<table>
<thead>
<tr>
<th>Code Edition and Addenda:</th>
<th>Brazer’s Name:</th>
<th>Z#</th>
</tr>
</thead>
</table>

Test(s) Conducted By:

Testing Laboratory Name and Location: LANL WELD TEST FACILITY

Laboratory Test Report No./Date:

We the undersigned, certify that this record is correct/accurate, and that the specimens were prepared, brazed, and tested in accordance with the requirements of ASME Section IX.

Organization: Los Alamos National Laboratory Welding Eng Program

Date: Certified By: