Company Name: Los Alamos National Laboratory

Welding Procedure Specification Number: 1000-20 Ga Spot2 Galv-1

Supporting Procedure Qualification Test Record(s) No.: 1000-1-20 Ga Spot2 Galv.

Welding Process(es): SMAW

Mode of Transfer for GMAW: N/A

JOINTS (Table 4.1)
Type of Welding Joint(s): Arc Spot Weld
- Sheet to supporting Member: Figure 4.6

Back: Yes ( ) No ( X )
Back Material Type: N/A

Groove Welded From:
- One side: N/A
- Both sides: N/A

BASE METAL (1.2)
Material specification type and grade:
- Sheet: A1008 or A653 & A1008 or A653
- Support Steel: AWS D1.1 Table 3.1 Group 1&2

Thickness Range:
- Sheet Steel: 20 Gauge x 2 thicknesses
- Support Steel: All

Base Metal Preparation: Clean & dry

FILLER METAL (Table 1.1)
Specification: AWS 5.1
Classification: E6010

POSITIONS (Table 1.2)
Position of Groove: Flat
Position of Fillet: F
Progression: N/A

GAS (1.4.6.2)
Shielding Gas: N/A
Percent Mixture: N/A

FLUX (1.4.5.2)
N/A

PREHEAT (1.1.1 AND 5.1)
Preheat Temperature Min: N/A
Preheat Temperature Max: N/A

TECHNIQUE

<table>
<thead>
<tr>
<th>Pass No.</th>
<th>Electrode Size</th>
<th>Welding Current</th>
<th>Travel Speed (or Weld Time for Arc Spot Welds)</th>
<th>Melting Rate</th>
<th>Wire Freed Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>E6010 1/8”</td>
<td>176 - 194 Amperes 26 - 34 Volts 9 – 17 Sec</td>
<td>6.0 / 13sec.</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

This procedure may vary due to fabrication sequence, fit-up, pass size, etc. within the limitation of variables given in ANSI/AWS D1.3 (_____ 98 & 08 _____), Structural Welding Code-Sheet Steel.
ML-1/2 projects or jobs must determine if the supporting documentation for this WPS complies with quality requirements of the project/job

Authorized by ___________ Signatures on file at ENG ___________ Date ___________ 3/23/2011 ___________