Company Name: Los Alamos National Laboratory
By Kelly Bingham

Welding Procedure Specification Number: 1000-20 Ga spot-1 Galv.-1
Date 1/15/2008

Supporting Procedure Qualification Test Record(s) No. 1000-1-20 Ga Spot1 Galv.
Welding Process(es) SMAW Type Manual
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
  - Backing Yes ( ) No (X)
  - Backing 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 steel A1008 or A653
  - Support Steel AWS D1.1 Table 3.1 Group 1&2
- Thickness Range:
  - Sheet Steel 20 Gauge
  - Support Steel All
  - Thickness 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
- Flow Rate N/A
- Percent Mixture N/A

**FLUX (1.4.5.2)** 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&quot;</td>
<td>59.8 – 111.3</td>
<td>24 - 30</td>
<td>1.5 – 3.0 Sec.</td>
<td>6.0 / 10sec.</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.

(year)
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: [Signature] Signatures on file at ENG: [Signature] Date: 3/23/2011