WELDING PROCEDURE SPECIFICATION

WPS- 2010-8/11B **REV. NO.:** 0 **DATE:** 9/1/2004 ****APPLICABILITY****

WELDING PROCESS/ES GTAW **and** GTAW **ASME:** X **AWS:** X

SUPPORTING PQ 200-8/11B **OTHER:**

JOINT **This WPS shall be used in conjunction with the General Welding Standards (GWS) and Welding Fabrication Procedure (WFP) sections and criteria for joint details, repairs, NDE, inspection etc.**

Weld Joint Type Butt Joint **Class:** Full or Partial Penetration

See GWS 1-06 for details **Preparation:** Thermal or Mechanical

Root Opening: **Backing:** N/A

Backgrind root: N **Backing Mat.:** N/A

Bkgrd Method: N/A **GTAW Flux:** No **Backing Retainer:** No

FILLER METALS: **Class:** ER309L **and** ER309L

A No: **SFA Class:** 5.9 **and** 5.9 **F No:** 6 **and** 6 **Size:** 1/8 1/8

Insert: N **Insert Desc.:** N/A **Weld Metal Thickness Range:**

Flux: Type: None **Size:** **AWS:** 0.065 **thru** 1.500

Filler Metal Note: **ASME:** **thru** 1.500

BASE MATERIAL **P No.** 8 **Gr No.** **to: P No.** 11B **Gr No.**

Spec. ASTM A-240 **Grade:** 304 **to: Spec.** HSLA-100 **Grade:**

Pipe Dia Range: **Groove >** 24

Thickness Range: Groove : **AWS:** 0.120 **thru** 1.500 **ASME:** 0.065 **thru** 1.500

QUALIFIED POSITIONS 1G **Vertical Progression:** Fore

Preheat Min. Temp.: 60 **F** **GAS: Shielding:** Argon **or** Argon

Interpass Max. Temp. 400 **F** **Gas Composition:** 100 **%** 100 **%** **%**

Preheat Maintinance: **F** **Gas Flow Rate cfh** 15 **to** 30

Backing Gas/Comp: Argon 100 **%**

PWHT: Time @ F Temp. **Backing Gas Flow cfh** 0.5 **to** 1

Temp. Range: **F** **to** **F** **Trailing Gas/Comp:** N/A **%**

PREPARED BY Kelly Bingham **DATE:** 3/30/2004

Signature on file at FWO-DECS

APPROVED BY Tobin Oruch **DATE:** 9/1/2004

Signature on file at FWO-DECS

Note:For SC/SS/ML-1/ML-2 work, this WPS requires independent review.

WELDING CHARACTERISTICS:

Current: DCEN **and** DCEN **Tungsten type:** EWTH-2 **Transfer Mode:** N/A

Ranges: Amps 80 **to** 120 **Pulsing Cycle:** 0 **to** 0

Volts 16 **to** 18 **Background Current:** 0

Fuel Gas: N/A **Flame:** N/A **Braze temp. F** **to**

WELDING TECHNIQUE: **For cleaning, grinding, and inspection criteria refer to Volume 2, Welding Fabrication Procedures**

Technique: Manual **Cleaning Method:** Wire Brush, File, Grind, Chip

Single Pass of Multi Pass: M **Stringer or Weave bead (S/W):** S/W **Oscillation:** N

GMAW Gun Angle °: **to** **Forehand or Backhand for GMAW (F/B):** N/A

Maximum K/J Heat Input **Travel speed/ipm:** 3 - 5 **Gas Cup Size:** 3 - 6

PROCEDURE QUALIFIED FOR:

Charpy "V" Notch: **Nil-Ductil Transition Temperature:** **Dynamic Tear:**

Comments:

Weld Layer	Manual Process	Filler Metals	Size	Amp Range		Volt Range		Travel ipm		Nozzel Angle	Other
1	GTAW	ER309L	1/8	80	110	16	17	3	4		
2	GTAW	ER309L	1/8	110	120	17	18	3	5		
3											
4											
5											
6											
7											
8											

REM. * Weld layers are representative only - actual number of passes and layer sequence may vary due to variations in joint design, thickness and fitup.