

For Steve:-

W. KRANS RECEIVED

OK'D BY: Jee OK'D BY: Jee

JAN 20 2010

WELDING PROCEDURE SPECIFICATION (WPS) YES (X) RESUBMIT \_\_\_\_\_ APPROVED   
 PREQUALIFIED  QUALIFIED BY TESTING \_\_\_\_\_ BY \_\_\_\_\_ DATE 01/29/10  
 or PROCEDURE QUALIFICATION RECORD (PQR) YES ( )

Identification # ARCWPS 19  
 Revision \_\_\_\_\_ Date \_\_\_\_\_ By \_\_\_\_\_  
 Authorized by STEVE HOWARD Date 3/22/08  
 Type - Manual \_\_\_\_\_ Semi-Automatic (X) \_\_\_\_\_  
 Machine ( ) Automatic ( )

Company Name ARC ENTERPRISES, INC.  
 Welding Process(es) GMAW  
 Supporting PQR No.(s) \_\_\_\_\_

<b>JOINT DESIGN USED</b> Type <u>B-1J3-6F</u> Single Backing YES ( ) Double Weld (X) NO (X) Backing Material _____ Root Opening <u>0-1/8</u> Root Face Dimension <u>0-1/8</u> Groove Angle <u>60 (+10, -5)</u> Radius (J&J) _____ Back Gauging YES (X) NO ( ) Method _____		<b>POSITION</b> Position of Groove <u>1G</u> Fillet _____ Vertical Progression <u>UP</u> ( ) DOWN _____	
<b>BASE METALS</b> Material Spec <u>A709 A572</u> Type or Grade <u>50</u> Thickness _____ Diameter _____ Groove <u>U</u> Fillet _____ (Pipe) _____		<b>ELECTRICAL CHARACTERISTICS</b> Transfer Mode (FCAM) _____ Short Circuiting ( ) Globular ( ) Spray (X) Current: AC ( ) DCEP (X) DCEN ( ) Pulsed ( ) OTHER: _____	
<b>FILLER METALS</b> AWS Specification <u>A5.18</u> AWS Classification <u>ER70S-7 ESAB 87 HP</u>		<b>TECHNIQUE</b> Stringer or Weave Bead <u>Stringer</u> Multi-pass or Single Pass (per side) <u>Multi</u> Number of Electrodes <u>1</u> Electrode Spacing _____ Longitudinal _____ Lateral _____ Angle _____	
<b>SHIELDING</b> Flux _____ Gas <u>98% Argon 2% O</u> Composition _____ Electrode - Flux (Class) _____ Flow Rate <u>25-40 CFH</u> Gas Cup Size <u>5/8</u>		Contact Tube to Work Distance <u>3/8-3/4</u> Peening _____ Interpass Cleaning: <u>RECEIVED</u> CK'LAY _____ OK'D BY _____	
<b>POSTWELD HEAT TREATMENT</b> Temp _____ Time _____		RESUBMIT _____ APPROVED _____ JAN 20 2010	

Non-Structural Applications

Pass or Weld Layer(s)	WELD size	Filler Metals		Current		Volts	Travel Speed	Joint Details
		Class	Diameter	Type & Polarity	Amps or Wire Feed Speed			
4	1/2"	ER70S-7	0.035	DCEP	180-220	25-27	7-11 ipm	
STATE OF MAINE DEPARTMENT OF TRANSPORTATION <input type="checkbox"/> REVIEWED <input checked="" type="checkbox"/> REVIEWED WITH COMMENTS <input type="checkbox"/> REJECTED <input type="checkbox"/> RETURNED FOR CORRECTIONS MAR 03 2008								

ATTN: BILL Doukas

THIS DOCUMENT WAS REVIEWED IN ASSISTANCE WITH STATE OF MAINE SPECIFICATIONS SECTION 1067 HIGHWAY DRAWINGS  
 William B. Doukas, P.E.