

Welding Procedure Specification (wps) Yes (X)
 PREQUALIFIED ___ QUALIFIED BY TESTING X___
 or PROCEDURE QUALIFICATION RECORD (PQR) YES ()

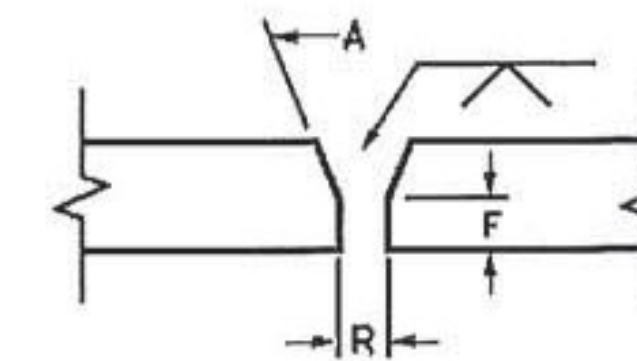
Company Name A.R.C. Enterprises, Inc.
 Welding Process(es) SAW
 Supporting PQR No.(s) ARC PQR # 45

Identification # ARC WPS #45
 Revision 10 Date 1/10/2017 By SVH
 Authorized by STEVE HOWARD Date 1/10/2017
 Type - Manual () Semi - Automatic ()
 Machine () Automatic x

JOINT DESIGN USED Type <u>B-L2c-S</u> Single <u>()</u> Double Weld <u>(X)</u> Backing <u>()</u> NO <u>(X)</u> Backing Material _____ Root Opening <u>0"</u> Root Face Dimension _____ Groove Angle <u>60 degrees</u> Radius (J-U) _____ Back Gouging <u>(YES)</u> Method <u>open</u>	POSITION Position of Groove <u>1G</u> Fillet _____ Vertical Progression <u>()</u>
BASE METALS Material Spec <u>A709</u> Type or Grade <u>36 50 50W HPS50W</u> Thickness <u>Groove U</u> Fillet _____ Diameter <u>(Pipe)</u> _____	ELECTRICAL CHARACTERISTICS Transfer Mode (FCAW) _____ Globular () Spray <u>(X)</u> Current : AC () DCEP <u>(X)</u> DCEN () Pulsed () OTHER : _____
FILLER METALS AWS Specification <u>A5.23</u> AWS Classification <u>ENi1K-Ni1-H8</u>	TECHNIQUE Stringer or Weave Bead <u>STRINGER</u> Multi-pass or Single Pass (per side) <u>MULTI</u> Number of Electrodes <u>ONE</u> Electrode Spacing _____ Longitudinal _____ Lateral _____ Angle _____
SHIELDING Flux <u>960 Lincoln</u> Gas _____ Composition _____ Electrode - Flux (Class) _____ Flow Rate _____ <u>F8A2-ENi1K-Ni1-H8</u> Gas Cup Size _____	Contact Tube to Work Distance <u>1"1/4 stickout +/-1/4"</u> Peening <u>none</u> Interpass Cleaning : <u>Hand or Power tools</u>
Preheat <u>3/4" = 50 degrees 3/4" - 1 1/2" = 70 degrees.</u> <u>1 1/2" - 2 1/2" = 150 degrees Over 2 1/2" = 225 degrees F.</u>	POSTWELD HEAT TREATMENT Temp _____

WELDING PROCEDURE

Pass or Weld Layer(s)	S	Filler Metals		Current		Volts	Travel Speed	Joint Details	
		Class	Diameter	Type & Polarity	Amps or Wire Feed Speed			Root = 0"	Tolerance
	SAW	ENi1K	3/32"	DCEP	370-440	28.5-31	13.5-15.4 ipm	Face = > 1/2" - 1" = 1/4"	+ 1/16"
								> 1" - 1 1/2" = 3/8"	+ 1/4"
								> 1 1/2" - 2" = 1/2"	+ 1/4"
								Angle = 60 degrees	+ 10 - 5



Vermont Agency of Transportation
RECEIVED
 CK'D BY RSF, TAM OK'D BY JD G
 February 9, 2017
 RESUBMIT No Approved As Noted
 BY K. Higgins DATE 02/14/2017