

WELDING PROCEDURE SPECIFICATION (WPS)
PREQUALIFIED ☐ QUALIFIED BY TESTING ☐
or PROCEDURE QUALIFICATION RECORDS (PQR) Yes ☐
AASHTO/AWS D1.5 Qualification Type 7.12.2 ☐ – 7.12.3 ☐ – 7.12.5 ☐

Contractor/
 Organization _____
 Welding Process(es) _____
 Type: Manual ☐ Semiautomatic ☐
 Mechanized ☐ Automatic ☐
 Tandem ☐ Parallel ☐

JOINT DESIGN USED

Single ☐ Double Weld ☐
 Backing: Yes ☐ No ☐ Material _____
 Root Opening _____ Root Face Dimension _____
 Groove Angle _____ Radius (J–U) _____
 Backgouging: Yes ☐ No ☐ Method _____
 Root Treatment _____

BASE METALS

Material Spec. _____
 Type or Grade _____
 Thickness: Groove _____ Fillet _____
 Diameter (Pipe) _____

FILLER METALS

AWS Specification _____
 AWS Classification _____
 Manufacturer Trade Name _____

SHIELDING

Flux _____ Mfg. Trade Name _____
 Electrode-Flux (Class) _____
 Gas Composition _____
 Flow Rate _____ Gas Cup Size _____

Identification _____
 Revision _____ Date _____ By _____
 Authorized by _____ Date _____
 Supporting PQR No.(s) _____

POSITION

Position of Groove _____ Fillet _____
 Vertical Progression: Up ☐ Down ☐

ELECTRICAL CHARACTERISTICS

Transfer Mode (GMAW): Globular ☐ Spray ☐
 Current: AC ☐ DCEP ☐ DCEN ☐ Pulsed ☐
 Electrical Stick Out _____
 Other _____

TECHNIQUE

Stringer or Weave Bead _____
 Multi-pass or Single Pass (per side) _____
 Number of Electrodes _____
 Electrode Spacing: Longitudinal _____
 Lateral _____ Angle _____
 Interpass Cleaning _____

PREHEAT

Preheat Temp., Min. _____
 Interpass Temp., Min. _____
 Interpass Temp., Max. _____

POSTWELD HEAT TREATMENT

Temp. _____ Hold Time _____
 Heating/Cooling Rate _____

HEAT INPUT

Calculated Heat Input Value: kJ/in ☐ kJ/mm ☐
 Max. Heat Input _____ Min. Heat Input _____

WELDING PROCEDURE

Pass or Weld Layer(s)	Process	Filler Metals	Current		Volts	Travel Speed	Joint Details
		Diam.	Type & Polarity	Amps or Wire Feed Speed			

Form N-2

Form N-2—Sample Welding Procedure Specification