QW-482   SUGGESTED FORMAT FOR WELDING PROCEDURE SPECIFICATIONS (WPS)
(See QW-200.1, Section IX, ASME Boiler and Pressure Vessel Code)

Company Name _____ By _____

Welding Procedure Specification No. _____ Date _____ Supporting PQR No.(s) _____

Revision No. _____ Date _____

Welding Process(es) _____ Type(s) _____
(Automatic, Manual, Machine, or Semi-Automatic)

JOINTS (QW-402)   Details

    Joint Design _____

    Root Spacing _____

    Backing: Yes _____   No _____

    Backing Material (Type) _____
               (Refer to both backing and retainers)

      Metal   Nonfusing Metal

      Nonmetallic   Other

    Sketches, Production Drawings, Weld Symbols, or Written Description
    should show the general arrangement of the parts to be welded. Where
    applicable, the details of weld groove may be specified.

    [At the option of the manufacturer, sketches may be attached to illustrate
    joint design, weld layers, and bead sequence (e.g., for notch toughness
    procedures, for multiple process procedures, etc.)]

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*BASE METALS (QW-403)

P-No. _____ Group No. _____ to P-No. _____ Group No. _____

    OR

Specification and type/grade or UNS Number _____

to Specification and type/grade or UNS Number _____

    OR

Chem. Analysis and Mech. Prop. _____

to Chem. Analysis and Mech. Prop. _____

Thickness Range:

    Base Metal: Groove _____   Fillet _____

    Maximum Pass Thickness $\leq$ $^1/_2$ inch (13 mm)   (Yes)   (No)

    Other _____

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*FILLER METALS (QW-404)	1	2
Spec. No. (SFA) _____		
AWS No. (Class) _____		
F-No. _____		
A-No. _____		
Size of Filler Metals _____		
Filler Metal Product Form _____		
Supplemental Filler Metal _____		
Weld Metal		
Thickness Range:		
Groove _____		
Fillet _____		
Electrode-Flux (Class) _____		
Flux Type _____		
Flux Trade Name _____		
Consumable Insert _____		
Other _____		

*Each base metal-filler metal combination should be recorded individually.

(03/08)

WPS No. _____ Rev. _____

POSITIONS (QW-405)
Position(s) of Groove _____
Welding Progression: Up _____ Down _____
Position(s) of Fillet _____
Other _____

PREHEAT (QW-406)
Preheat Temperature, Minimum _____
Interpass Temperature, Maximim _____
Preheat Maintenance _____
Other _____
(Continuous or special heating, where applicable, should be recorded)

POSTWELD HEAT TREATMENT (QW-407)
Temperature Range _____
Time Range _____
Other _____

GAS (QW-408)

Percent Composition

	Gas(es)	(Mixture)	Flow Rate
Shielding	_____	_____	_____
Trailing	_____	_____	_____
Backing	_____	_____	_____
Other	_____	_____	_____

ELECTRICAL CHARACTERISTICS (QW-409)

_____

_____

Weld Pass(es)	Process	Filler Metal Classifi-cation	Filler Metal Diameter	Current Type and Polarity	Amps (Range)	Wire Feed Speed (Range)	Energy or Power (Range)	Volts (Range)	Travel Speed (Range)	Other (e.g., Remarks, Comments, Hot Wire Addition, Technique, Torch Angle, etc.)

Amps and volts, or power or energy range, should be recorded for each electrode size, position, and thickness, etc.

Pulsing Current _____   Heat Input (max.) _____

Tungsten Electrode Size and Type _____
(Pure Tungsten, 2% Thoriated, etc.)

Mode of Metal Transfer for GMAW (FCAW) _____
(Spray Arc, Short Circuiting Arc, etc.)

Other _____

TECHNIQUE (QW-410)
String or Weave Bead _____
Orifice, Nozzle, or Gas Cup Size _____
Initial and Interpass Cleaning (Brushing, Grinding, etc.) _____
_____
Method of Back Gouging _____
Oscillation _____
Contact Tube to Work Distance _____
Multiple or Single Pass (Per Side) _____
Multiple or Single Electrodes _____
Electrode Spacing _____
Peening _____
Other _____