**PATH TO DEVELOPING A WPS & QUALIFYING WELDERS**

AWS D1.1:2015

(Excluding CVN requirements)

**Yes**

**No**

**WPS**

**PreQualified**

1. **Amps**
2. **Volts**
3. **Travel Speed**
4. **Gas Flow Rate**

**WPS**

**Qualified**

**Based on Supporting PQR Rate**

**Pass?**

**(Section 4.9)**

**PQR**

**Essential Variables**

**Visual**

**NDT**

**Mechanical**

**Macroetch(Fillets)**

**Can the WPS be Prequalified**

To determine prequalification, consider the following Applicable Requirements

(Section 3.1, Annex P)

* Process
* Base Metal / Filler Metal Combination
* Preheat / Interpass Temperature
* Position (Flat, Horizontal, Vertical, Overhead)
* Joint Design (Fillet, CJP, PJP Groove)
* Postweld Heat Treatment (PWHT)

**Yes**

**No**

Section 4

Parts A & B

Section 3

Section 4.9.5

**STEP 1 - DEVELOP A WPS**

Section 4.18

**Yes**

**WELDER CONTINUITY**

**(Section 4.2.3)**

Section 4.24

**No**

**Pass?**

**(Section4.22)**

**No**

Section 4

Parts A & C

**WQTR**

**Using a WPS from Step One**

**(Section 4.18)**

**Is the welder qualified?**

**STEP 2 – QUALIFY THE WELDERS**