

SAMPLE PROCEDURE QUALIFICATION RECORD (PQR)

for SAW, SMAW, GMAW, GTAW, FCAW

Company _____ Approved by _____
 (Signature Required)
 PQR No. _____ Date _____
 Welding Process(es) _____ Type(s) _____
 (Manual, Semiautomatic, Automatic, Robotic, Mechanized)

Joints (see 4.14.1)

Joint Type _____
 Backing _____
 Backing Material (Type) _____
 Groove Angle _____
 Root Opening Radius: U J
 Root Face _____
 Backgouging: Yes No
 Backgouging Method _____

Joint Details

Sketches, production drawings, welding symbols, or written description should show the general arrangement of the parts to be welded. Where applicable, the root details of the weld groove may be specified.

Base Metals (see 4.14.2)

M-No. _____ Group No. _____ or to M-No. _____ Group No. _____
 Specification Type and Grade _____ to Specification Type and Grade _____
 Thickness Range of Base Metal: Groove _____ Fillet _____
 Pipe Diameter Range: Groove _____ Fillet _____
 Other _____

Filler Metals (see 4.14.3)

Filler Metal F-No. _____ Other _____
 AWS Classification _____ AWS Specification _____
 Weld Metal Analysis A-No. _____ Other _____
 Filler Metal Size _____ Electrode Flux (Class) _____
 Weld Metal Thickness _____ Flux Trade Name _____
 Consumable Insert _____ Other _____

Positions (see 4.14.4)

Position(s) of Groove _____
 Position(s) of Fillet _____
 Weld Progression _____

Preheat (see 4.14.5)

Preheat Temperature (Min.) _____
 Temperature (Max.) _____

PWHT (see 4.14.6)

Temperature _____ Time _____

Shielding (see 4.14.7)

| | Torch Shielding | Root Shielding | Trailing | Environmental Shielding |
|-------------|-----------------|----------------|----------|-------------------------|
| Gas(es) | | | | |
| Composition | | | | |
| Flow Rate | | | | |

Figure F.3—Example of a Procedure Qualification Record

**Electrical Characteristics and Welding Parameters
(see 4.13.8)**

Other Variables (see 4.14.9)

Current Type/Polarity _____
 Pulsing: Yes No
 Current (Range) _____
 Voltage (Range) _____
 Wire Feed Speed (Range) _____
 Travel Speed (Range) _____
 Tungsten Electrode Size/Type _____
 Transfer Mode _____
 Pulsing Parameters _____
 Heat Input _____
 Other _____

Cup or Nozzle Size _____
 Collet Body or Glass Lens
 Cleaning Method _____
 Technique: Stringer or Weave Bead
 Number of Electrodes _____
 Number of Passes per Side _____
 Other _____

Test Results

Visual Test Results _____

Tensile Results

| Specimen No. | Width | Thickness | Area | Results | | | | Failure Type and Location |
|--------------|-------|-----------|------|------------|----------------|--------------|------------------|---------------------------|
| | | | | Yield Load | Yield Strength | Tensile Load | Tensile Strength | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| Guided Bend Tests | Qualification Results for Toughness Application |
|--------------------------|--|
| Type and Figure Number | Type and Figure Number |
| | |
| | |
| | |
| Results | Results |
| | |
| | |

| Fillet Weld Tests | Other Tests |
|--------------------------|------------------------|
| Type and Figure Number | Type and Figure Number |
| | |
| | |
| | |
| Results | Results |
| | |
| | |

We, the undersigned, certify that the statements in this record are correct and the test welds were prepared, welded, and tested in accordance with the requirements of AWS B2.1/B2.1M, (_____), *Specification for Welding Procedure and Performance Qualification*.
 (year)

Manufacturer or Contractor _____

Date _____ By _____
 Please Print Signature Required

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Figure F.3 (Continued)—Example of a Procedure Qualification Record