Annex D (Informative)
Welding Procedure Specification (WPS) Form

This annex is not part of this standard but is included for informational purposes only.

WPS Number _____ Supported by PQR No.(s) _____

WPS Rev. No. _____ WPS Rev. Date _____

VARIABLES

Welding Process ☐ SMAW ☐ GTAW ☐ GMAW ☐ FCAW ☐ Other _____

Method Application ☐ Manual ☐ Semi-auto ☐ Auto ☐ Mechanized

Welding Current ☐ AC ☐ ACHF ☐ DCEP ☐ DCEN

Mode of Transfer (GMAW) _____

Base Metal(s) _____ to _____

Metal thickness range (Grooves) _____ (Fillets) _____

Coating Type _____

Joint Types ☐ Groove ☐ Fillet

Joint preparation _____

Backing material _____

Welding Positions ☐ Flat ☐ Horizontal ☐ Vertical Uphill ☐ Vertical Downhill ☐ Overhead

Filler metal specification _____

Filler metal classification/weld metal grade _____

Filler metal F number _____

Shielding gas/combination _____

Gas flow L/min [CFH] _____ Backing gas ◯ Yes ◯ No

Pass No.	Filler Metal Dia.	Welding Power		Speed of Travel in/min	Joint Details
		Current Range	Voltage Range		

We, the undersigned, certify that this document was prepared in accordance with the requirements of AWS D9.1/D9.1M, _____ (year) *Sheet Metal Welding Code.*

Authorized By: _____ Manufacturer or Contractor: _____

Signature: _____ Date: _____

Annex E (Informative)
Procedure Qualification Record (PQR) Form

This annex is not part of this standard but is included for informational purposes only.

PQR Number _____ WPS Number _____ Test Date: _____

VARIABLES USED FOR QUALIFICATION TEST

Welding process ☐ SMAW ☐ GTAW ☐ GMAW ☐ FCAW ☐ Other _____
Method of application ☐ Manual ☐ Semi-auto ☐ Auto ☐ Mechanized
Welding Current ☐ AC ☐ ACHF ☐ DCEP ☐ DCEN
Mode of transfer (GMAW) _____
Base metal(s) _____ to _____
Metal thickness _____
Coating type _____
Joint type _____
Joint preparation _____
Backing material _____
Welding Position ☐ Flat ☐ Horizontal ☐ Vertical Uphill ☐ Vertical downhill ☐ Overhead
Filler metal specification _____
Filler metal classification/weld metal grade _____
Filler metal F number _____
Shielding gas/combination _____
Gas flow L/min [CFH] _____ Backing gas ◯ Yes ◯ No

Pass No.	Filler Metal Dia.	Welding Power		Speed of Travel in/min	Joint Detail
		Current	Voltage		

VISUAL INSPECTION RESULTS

Groove Weld (see 5.4.1 or 10.4.1)	Acceptance Criteria			
	Weld		Braze Weld	
	Pass	Fail	Pass	Fail
Joint Fusion/Metallic Bond				
Required joint Penetration			N/A	N/A
Face/Root reinforcement				
Pore or Inclusion size/quantity				
Undercut			N/A	N/A
Cracks				

Fillet Weld (see 5.4.2 or 10.4.2)	Acceptance Criteria			
	Weld		Braze Weld	
	Pass	Fail	Pass	Fail
Joint Fusion/Metallic Bond				
Required minimum Effective throat				
Required maximum Convexity				
Pore or Inclusion size/quantity				
Undercut			N/A	N/A
Cracks				

Welder/Welding operator's name _____ Welder/Welding operator's ID No.: _____

Inspection performed by _____ Signature _____

We, the undersigned, certify that the statements in this record are correct and that the test specimens were prepared, joined, and examined in accordance with the requirements of AWS D9.1/D9.1M, ___ (year) *Sheet Metal Welding Code.*

Authorized By: _____ Manufacturer or Contractor: _____

Signature: _____ Date: _____

Annex F (Informative)
Welder and Welding Operator Qualification Test Record Form

This annex is not part of this standard but is included for informational purposes only.

QUALIFICATION TEST PERFORMED

Welder/Welding operator's name _____ WPS Number _____

Welder/Welding operator's I.D. number _____ Test Type: ◯ Weld ◯ Braze weld

Test date _____

	VARIABLES USED IN QUALIFICATION	ACTUAL VARIABLE RANGE
Welding process	☐ SMAW ☐ GTAW ☐ GMAW ☐ FCAW ☐ Other _____	☐ SMAW ☐ GTAW ☐ GMAW ☐ FCAW ☐ Other _____
Welding current	☐ AC ☐ ACHF ☐ DCEP ☐ DCEN	☐ AC ☐ ACHF ☐ DCEP ☐ DCEN
Method of application	☐ Manual ☐ Semi-auto ☐ Auto ☐ Mechanized	☐ Manual ☐ Semi-auto ☐ Auto ☐ Mechanized
Mode of transfer (GMAW)	_____	_____
Joint type	_____	_____
Base metal	_____ to _____	_____ to _____
Base metal thickness	_____	_____
Backing material	_____	_____
Coating type	_____	_____
Filler metal specification	_____	_____
Filler Metal Classification	_____	_____
Filler metal F number	_____	_____
Shielding gas	_____	_____
Backing Gas	_____	_____
Position(s) welded	☐ Flat ☐ Horiz ☐ Vert-up ☐ Vert-dn ☐ Overhead	☐ Flat ☐ Horiz ☐ Vert-up ☐ Vert-dn ☐ Overhead

VISUAL INSPECTION RESULTS

Groove Weld	Acceptance Criteria			
	Weld		Braze Weld	
	Pass	Fail	Pass	Fail
Joint Fusion/Metallic Bond				
Required joint Penetration			N/A	N/A
Face/Root Reinforcement				
Pore or inclusion size/quantity				
Undercut			N/A	N/A
Cracks				

Fillet Weld	Acceptance Criteria			
	Weld		Braze Weld	
	Pass	Fail	Pass	Fail
Joint Fusion/Metallic Bond				
Required minimum Effective throat				
Required maximum Convexity				
Pore or inclusion size/quantity				
Undercut			N/A	N/A
Cracks				

Inspection performed by _____ Signature _____

We, the undersigned, certify that the statements in this record are correct and that the test specimens were prepared, joined, and examined in accordance with the requirements of AWS D9.1/D9.1M, (year) *Sheet Metal Welding Code.*

Authorized By: _____ Manufacturer or Contractor: _____

Signature: _____ Date: _____