ACCREDITED TEST FACILITY

Welder:

Test ID:

AWS ROUTING SHEET & WELDER APPLICATION: QUALIFIER'S TESTING INSTRUCTIONS

(TO BE USED DURING TESTING)

The AWS Routing Sheet and Welder Application: Qualifier's Testing Instructions is a document developed in accordance with AWS QC47 requirements. It serves as a comprehensive record that captures both the welder's personal and qualification details, as well as the step-by-step routing of their performance qualification test within an Accredited Test Facility (ATF).

Submitting this document as the welder application is not acceptable. The welder application must be submitted to AWS via the online platform, WeldCert Pro. Duplicate or add additional pages as needed to ensure complete documentation of the qualification process, including each weld test when multiple plates are welded to achieve all position qualification.

Test Information

ATF Standard Test ID # _____ **Date Coupon was Welded** (mm/dd/yyyy) _____

AWS B2.1 SWPS Name/Identification _____ **Alternate WPS Name/Identification** _____

Governing Standard/Code _____ **Governing Standard/Code Edition** (yyyy) _____

Visual Acuity Exam(s) Select _____

Welder Information

Name (First, Middle, Last) _____ **Date of Birth** (mm/dd/yyy) _____

Mailing Address _____

City _____ **State/Province/District** _____ **Country** _____ **Zip/Postal Code** _____

Phone Number _____ **Email Address** _____

Welder Identification Verification

Photo Submitted (passport style) ☐ Yes

Identification Verification ☐ Yes

Identification Verification Used (government-issued photo ID) ☐ Driver's License ☐ Passport ☐ Other _____

Test Administration

This is a Test Administered ☐ at an ATF ☐ remote/off-site location by ATF Qualifier

ATF Name _____ **ATF ID #** _____

Qualifier's Information

Name _____ **CWI #** _____ **CWI Exp Date** _____

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Test Information

Welding Process Select or Type **Welding Type** Select **Joint Type** Select **Test Coupon Position(s)** Select or Ty

Material

Plate: Thickness _____ **Pipe: Diameter** _____ **Pipe: Thickness(es)** _____

M/P Number _____ **to** _____ **Material Type, Grade** _____ **to** _____

☐ **With Backing** (also applies to CJP welded from both sides) ☐ **Without Backing** (CJP welded from one side)

Filler Metal Used

AWS Spec _____ **AWS Class** _____ **F-No** _____

Diameter _____ **Deposit Thickness #1** _____ **Deposit Thickness #2** _____

Consumable Insert Type _____

Torch Shielding Gas Type & Flow (if applicable)
AWS A5.32 _____ **Flow Rate** _____

Root Shielding Gas Type & Flow (if applicable)
AWS A5.32 _____ **Flow Rate** _____

Mode of Metal Transfer (for GMAW) Select **Current** _____ **Polarity** _____

Pretest Sequence – Qualifier Responsibilities

☐ 1. Verify Welder is using required PPE.

☐ 2. Welding Equipment and tools function as designed.

☐ 2.1 Verify Welding Equipment Calibration is in compliance with the ATF's Quality Manual (either per calibration program or actual measurement during welder practice session)

☐ 2.2 Zero out machine

☐ 3. Verify proper hand tools are available.

☐ 4. Verify proper power tools are available and proper use (power brush allowed between passes; power grinder only for feathering tacks and weld tie-in's at starts and stops; no power tools on completed face of weld, it is presented in the as-welded condition only).

☐ 5. Proper Coupon available, coupon adequately cleaned, and degree of bevel verified per WPS

☐ 6. Base materials and consumables in accordance with ATF's material control requirements

☐ 6.1 MTRs for test coupon (base materials)

☐ 6.2 Certificates of Conformance/MTR (filler metals & shielding gas, as applicable)

☐ 6.3 Base Materials and Consumables properly selected per the WPS

☐ 7. AWS CW Application and Maintenance of Certification (Renewal) Process is reviewed with the welder.

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Duplicate the remaining sections on pages 3 and 4 for each test plate to ensure complete documentation.

Pretest Sequence – Qualifier Responsibilities

- ☐ 8. Mark test coupon with unique identification
- ☐ 9. Review WPS with Welder. Determine Additional potential hold points per WPS (e.g. check amps, volts, travel speed, back gouging, etc. and record if applicable).

I have reviewed the WPS to be used for this performance qualification test and agree that it is appropriate for its intended purpose. I have received orientation on the conduct during this qualification test. I understand that this is the first step of welder certification and that the weldments I complete today must undergo further evaluation before certification can be determined.

I understand that this performance qualification test is not complete at the end of welding. Successful completion will depend upon meeting the requirements of the governing code requirements for subsequent NDE or destructive tests. I understand the test can be terminated at any point at the discretion of the Qualifier.

Signature of Welder: _____

Weld Test Hold Points – Qualifier Responsibilities

Position of Test Coupon _____

- ☐ 1. Allow the welder a practice session on scrap/sample material and verify the welder's chosen machine settings comply with the WPS.
- ☐ 2. Verify Unique Identification is present on the Test Coupon(s).
- ☐ 3. Verify fit-up of the weld joint after tacking for compliance with the WPS allowance.
- ☐ 4. Have welder position the tacked coupon into the fixture.
- ☐ 5. Verify proper test position of the weld joint in the fixture before welding begins.
- ☐ 6. Have welder complete the root pass then clean (if needed), observe volts and amps, and perform visual inspection.
- ☐ 7. Root pass visual inspection. ☐ **Pass** ☐ **Fail** **VOLTS** _____ **AMPS** _____
- ☐ 8. Resume welding with periodic observation of fill passes and cleaning methods by the welder and verify technique in accordance with WPS. **VOLTS** _____ **AMPS** _____ **OTHER** _____
- ☐ 9. If multiple welding processes are used, measure deposited weld metal thickness for process #1. Then verify and record actual welding parameters for process #2.
  Welding Process #1: THICKNESS OF DEPOSITED WELD METAL _____
  Welding Process #2: THICKNESS OF DEPOSITED WELD METAL _____ **VOLTS** _____ **AMPS** _____
- ☐ 10. Complete the test weld following the WPS (coupon remains in fixture for visual inspection)
- ☐ 11. Clean by brushing only (no grinding on cover passes) for presentation for final visual inspection
- ☐ 12. Final visual inspection ☐ **Pass** ☐ **Fail**
- ☐ 13. Coupon is maintained in as-welded condition for ATF evaluation
- ☐ 14. Other hold points as applicable: _____

I attest that I have conducted this welder performance qualification test in accordance with the requirements of the standards listed above. This signature does not constitute welder certification.

Signature of Qualifier: _____

ACCREDITED TEST FACILITY

Welder:

Test ID:

Destructive Testing Checklist

1. ATF Qualifier

- ☐ 1. Condition: Required markings are evident on the coupon (i.e. ID marks, processing marks)?
- ☐ 2. Examine received coupon. Are they in the as-welded condition?
- ☐ 3. Visual Inspection of Received Coupons acceptable?
- ☐ 4. Verify the specimen preparation and received materials using the governing standard; verify the materials and quantity of materials are adequate to perform the required tests. Acceptable?

2. Specimen Preparation

Follow ATF procedures for specimen preparation that address the minimum activities required as per QC4 7.

3. Mechanical Testing

Guided Bend Tests (as required by the governing standard) (state "not applicable" in the notes column for unused side bend types or other not used tests including radiography)

	Pass	Fail	Notes
Face 1			
Face 2			
Root 1			
Root 2			
Side 1			
Side 2			
Side 3			
Side 4			

4. Other Tests (as required by the governing standard)

	Pass	Fail	Notes
Nick Break			
Other			
Macro-etch			
Bend Break / Fracture Test			
Radiographic Testing (in lieu of bends, when permitted by the governing standard/code)*			
Laboratory Report**	☐ Yes ☐ No		Report # (if applicable) _____
Radiographer Name		☐ Level I ☐ Level II	☐ Level III

5. Overall Test Summary (Required)

- ☐ **Pass**
- ☐ **Fail**

Reason (if test failed)

***Reader Sheet to be retained by ATF.** ***Laboratory Report to be retained by ATF.**

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Laboratory Report**	☐ Yes ☐ No		Report # (if applicable) _____
Radiographer Name		☐ Level I ☐ Level II	☐ Level III

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