Qua ty Assurance Labs Inc
NON-DESTRUCTIVE TESTING AND INSPECTION SERVICES
80 PLEASANT AVENUE • SOUTH PORTLAND, MAINE 04106 • TEL: (207) 799-8911 • FAX: (207) 799-7251

INSPECTION REPORT

CUSTOMER: S.W. COLE ENG.			PAGE 1 OF 1
ADDRESS: GRAY , ME.			
ATTENTION: ROGER DOMINGO			
COPIES:			
PROJECT: UNIVERSITY CREDIT UNION			
OWNER:			
CONTRACTOR:			
JOB No.: 07-0559	REPORT No.: QAL-07-1631	P. O. NUMBER:	DATES INSPECTED: 08-29-07

REMARKS

VISUAL INSPECTION OF STRUCTURAL STEEL CONNECTIONS : GRID LINES 1 - 5 , A - E AND 6 - 8 , F - G .

> BOLTED CONNECTIONS COMPLETED .

> TS 12 X 4 SHOWS THREE CONNECTIONS INCOMPLETE FOR VERTICLE WELDS .

> ALL REMAINING HSS CONNECTIONS COMPLETE FOR ALL LOCATIONS .

COMPLETED ITEMS COMPLY WITH AWS D1 1 REQUIREMENTS FOR VISUAL ACCEPTANCE .

FAA REPAIR STATION NUMBER RX5R187N
METHOD(S),PROCESS(ES),PROCEDURE(S) MERCURY FREE

ADDITIONAL INFORMATION - SEE ATTACHED: ☐ SKETCH(ES) ☐ SUPPLEMENTARY SHEET(S) ☐ NDT REPORTS ☐ VIDEO

SIGNATURES	CERTIFICATION	LEVEL	DATE M D Y
INSPECTOR MICHAEL DREW CWI# 99050211			08 | 29 | 07
SUPERVISOR			

(FORM Q703 REV 0)

Quality Assurance Labs Inc.
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PAGE 1 OF 1

JOB No.:	REPORT No.:	P. O. NUMBER:	DATES INSPECTED:
07-0559	QAL-07-1746		10-18-07

REMARKS

FINAL VISUAL INSPECTION OF PREVIOUSLY IDENTIFIED INCOMPLETE HSS VERTICLE FIELD WELDS.

> COMPLETED VERTICLE WELDS COMPLY WITH SITE DRAWINGS AND AWS D1.1 REQUIREMENTS FOR VISUAL ACCEPTANCE. THIS COMPLETES ALL STRUCTURAL STEEL ITEMS LISTED ON SITE DRAWINGS FOR AWS D1.1 INSPECTION.

END ITEMS ///

FAA REPAIR STATION NUMBER RX5R187N
METHOD(S),PROCESS(ES),PROCEDURE(S) MERCURY FREE

ADDITIONAL INFORMATION - SEE ATTACHED: ☐ SKETCH(ES) ☐ SUPPLEMENTARY SHEET(S) ☐ NDT REPORTS ☐ VIDEO

SIGNATURES	CERTIFICATION LEVEL		DATE M D Y
INSPECTOR MICHAEL DREW CWI# 99050211			10 | 22 | 07
SUPERVISOR			

(FORM Q703 REV 01

PRECISION WELDING AND FABRICATION, INC.

Structural Steel - Miscellaneous Metals

(207) 854-9330 Telephone
(207) 854-9694 Fax
(207) 854-1167 Accounting

690A Stroudwater St.
P.O. Box 880
Westbrook, Maine 04098-0880

TO: BUILD PARTNERS
ATTN: NICK McKENNEY
FROM: SOL GAY
11-1-07

REF: UNIVERSITY CREDIT UNION – PORTLAND, MAINE

NICK,
ON THE PAGES FOLLOWING ARE COPIES OF OUR WELDER CERTIFICATIONS, MEMBERSHIP OF SSFNE, WELDING ROD & A325 BOLT SPECS. IF YOU NEED ANYTHING ELSE PLEASE CALL.

THANK YOU,
SOL

STRUCTURAL STEEL FABRICATORS OF NEW ENGLAND

BY AUTHORITY OF THE BOARD OF DIRECTORS

Precision Welding & Fabricating, Inc.

having been duly elected to membership
is hereby certified as

Member

and entitled to all privileges thereof

Elected September 1989

Consultant

President

Quality Assurance Labs Inc.
NON-DESTRUCTIVE TESTING AND INSPECTION SERVICES
80 PLEASANT AVENUE • SOUTH PORTLAND, MAINE 04106 • TEL: (207) 799-8911 • FAX: (207) 799-7251

WELDING PROCEDURE SPECIFICATION (WPS) PREQUALIFIED Yes [X]
QUALIFIED BY TESTING or PROCEDURE QUALIFICATION RECORDS (PQR) Yes [ ]

Ben. R

ANNEX E

WELDING PROCEDURE SPECIFICATION (WPS) Yes ☒

PREQUALIFIED ✓ QUALIFIED BY TESTING ____

or PROCEDURE QUALIFICATION RECORDS (PQR) Yes ☐

Ben. B

Identification # 1

Revision N/A Date ____ By M. Schroeder

Company Name Precision Welding + Fabrication Authorized by ____ Date ____

Welding Process(es) FCAW Type—Manual ☐ Semi-Automatic ☒

Supporting PQR No.(s) PREQUALIFIED Machine ☐ Automatic ☐

JOINT DESIGN USED

Type:

Single ☒ Double Weld ☐

Backing: Yes ☒ No ☐

Backing Material: ASTM A36

Root Opening 1/4" Root Face Dimension —

Groove Angle: 45° Radius (J–U) —

Back Gouging: Yes ☐ No ☐ Method —

POSITION

Position of Groove: 2G Fillet: ____

Vertical Progression: Up ☐ Down ☐

ELECTRICAL CHARACTERISTICS

Transfer Mode (GMAW) Short-Circuiting ☐

Globular ☐ Spray ☒

Current: AC ☐ DCEP ☒ DCEN ☐ Pulsed ☐

Other ____

Tungsten Electrode (GTAW)

Size: ____

Type: ____

BASE METALS

Material Spec. ASTM A36

Type or Grade ____

Thickness: Groove 1" Fillet ____

Diameter (Pipe) ____

FILLER METALS

AWS Specification AWS 5.20

AWS Classification E71T-1

TECHNIQUE

Stringer or Weave Bead: STRINGER / WEAVE Root

Multi-pass or Single Pass (per side) MULTI PASS

Number of Electrodes ONE

Electrode Spacing Longitudinal —

Lateral ____

Angle —

SHIELDING

Flux —

Gas Argon / CO_2

Composition 75% - 25%

Electrode-Flux (Class) ____

Flow Rate 35-40 CFH

Gas Cup Size 5/8"

Contact Tube to Work Distance 3/4"

Peening NONE

Interpass Cleaning: hand wire brush, Chipping hammer, grinder on Spatter

PREHEAT

Preheat Temp., Min —

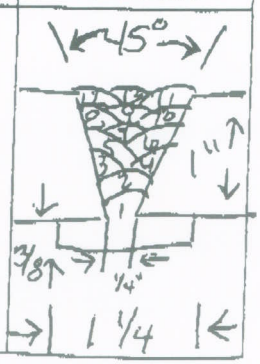
Interpass Temp., Min — Max —

POSTWELD HEAT TREATMENT

Temp. ____

Time ____

WELDING PROCEDURE

Pass or Weld Layer(s)	Process	Filler Metals		Current		Volts	Travel Speed	Joint Details
		Class	Diam.	Type & Polarity	Amps or Wire Feed Speed			
1-13	FCAW	E71T-1	.045	VertiCore DC+	200 AMPS.	26.5		

Form E-1 (Front)

Quality Assurance Labs Inc.

NON-DESTRUCTIVE TESTING AND INSPECTION SERVICES

80 PLEASANT AVENUE • SOUTH PORTLAND, MAINE 04106 • TEL: (207) 799-8911 • FAX: (207) 799-7251

INSPECTION REPORT

CUSTOMER'S NAME: PRECISION WELDING | P.O. NO.: N/A | PAGE 1 OF 1

RADIOGRAPHY REPORT NO.: QAL-02-843 | PROCEDURE NO.: 0913 | QUANTITY: 1

PART NO.: TEST COUPON | JOB NO.: N/A

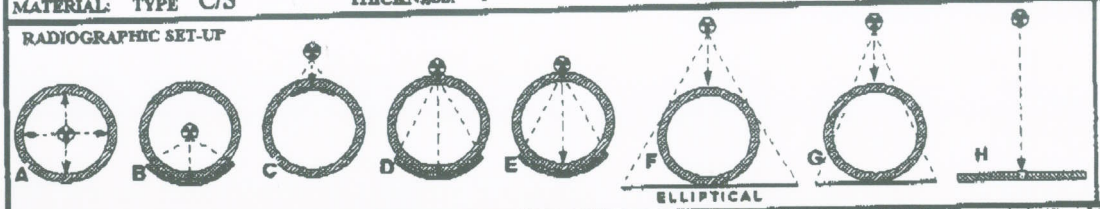
SOURCE: TYPE Iridium 192 | SIZE: .107 X .118 | CURIES: 30 | KV: N/A | MA: N/A | SFD: 20"

FILM: TYPE II | SPEED: 100 | SINGLE ☑ | DOUBLE ☐ | SIZE: 4½ x 10 | SCREENS: 0.010" | FRONT ☑ | BACK ☑ | FILM SIDE ☐ | SOURCE SIDE ☑

IQI: SIZE ASTM "B" WIRE | GROUP: I | SENSITIVITY: .020 | SHIM: N/A

MATERIAL: TYPE C/S | THICKNESS: 1" | ACCEPTANCE STANDARD: ASME SECTION IX

RADIOGRAPHIC SET-UP



OTHER

SERIAL NUMBER	VIEW NUMBER	CONDITION OF PART (See Definitions)	ACCEPT	REJECT	SERIAL NUMBER	VIEW NUMBER	CONDITION OF PART (See Definitions)	ACCEPT	REJECT
BEN B.	0 - 1	2,5	✓						
FCAW									

REMARKS

DEFINITIONS:

1. Crack
2. Porosity
3. Incomplete Fusion
4. Incomplete penetration
5. Slag
6. Inclusions
7. Gas Holes
8. Shrink
9. No Apparent Defects
10. Film Artifacts
11. Hi/Lo
12. Surface
13. Undercut
14. Void
15. Internal concavity

SIGNATURE: R. Russell #2687716 Ryan Russell

DATE: M / D / Y 12/09/2002 LEVEL: II

(FORM XXXX REV 0)

AWS D1.1:2000

WELDING PROCEDURE SPECIFICATION (WPS) Yes ☑

PREQUALIFIED ✓ QUALIFIED BY TESTING ☐
or PROCEDURE QUALIFICATION RECORDS (PQR) Yes ☐

Identification # 1
Revision N/A Date ____ By S.E. Craig
Authorized by ____ Date 4-13-04
Type—Manual ☐ Semi-Automatic ☑
Machine ☐ Automatic ☐

Edward P. Maclaren
Company Name Pittsburgh Testing Laboratory
Welding Process(es) FCAW
Supporting PQR No.(s) 13A - Qualified

JOINT DESIGN USED

Type:
Single ☒ Double Weld ☐
Backing: Yes ☒ No ☐
Backing Material: ASTM A36
Root Opening 1/4" Root Face Dimension —
Groove Angle: 45° Radius (J-U) —
Back Gouging: Yes ☐ No ☐ Method —

POSITION

Position of Groove: 2G Fillet: ____
Vertical Progression: Up ☐ Down ☐

ELECTRICAL CHARACTERISTICS

Transfer Mode (GMAW) Short-Circuiting ☐
Globular ☐ Spray ☒
Current: AC ☐ DCEP ☒ DCEN ☐ Pulsed ☐
Other ____
Tungsten Electrode (GTAW)
Size: ____
Type: ____

BASE METALS

Material Spec. ASTM A36
Type or Grade —
Thickness: Groove 1" Fillet ____
Diameter (Pipe) ____

TECHNIQUE

Stringer or Weave Bead: Stringer / Weave Root
Multi-pass or Single Pass (per side) Multi Pass
Number of Electrodes One
Electrode Spacing Longitudinal —
Lateral —
Angle —

FILLER METALS

AWS Specification AWS 5.20
AWS Classification E71T-1

SHIELDING

Flux —
Electrode-Flux (Class) ____
Gas Argon / CO_2
Composition 75%-25%
Flow Rate 35-40 CFH
Gas Cup Size 5/8"

Contact Tube to Work Distance 3/4"
Peening None
Interpass Cleaning: Hand wire brush and Carbide Hammer Scratch or Spatter

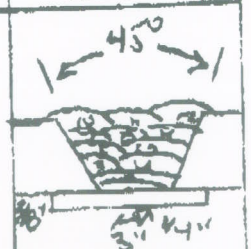
PREHEAT

Preheat Temp., Min —
Interpass Temp., Min — Max —

POSTWELD HEAT TREATMENT

Temp. ____
Time ____

WELDING PROCEDURE

Pass or Weld Layer(s)	Process	Filler Metals: Class	Filler Metals: Diam.	Current: Type & Polarity	Current: Amps or Wire Feed Speed	Volts	Travel Speed	Joint Details
1-13	FCAW	E71T-1	.045	Vertical DCEP	Variable 150-200 amps	26-32		

Form E-1 (Front)

[redacted]

Edward P Nadeau

Cert # 0009030W SSN# 257-98-2162

[redacted]

AWS Certified Welde

Welders, Brazers, & Operators

Qualifications 01.1-SM-F4-P-A-L

ID# 007-44-1265 Issued 6/7/96

Ronald H. Moody

Valid Only If Accompanied By Photo ID

[redacted]

G-D1.1-SM-F4-P-A-L

ID# 397-54-1403 Issued 6/27/96

Gary H. Zarate

Valid Only If Accompanied By Photo ID

AWS Certified Welde

Welders, Brazers, & Operators

Qualifications G-D1.1-SM-F4-P-A-L

ID# 007-72-9877 Issued 8/2/96

Solomon R. Gay

Valid Only If Accompanied By Photo ID

WELDER, WELDING OPERATOR, OR TACK WELDER QUALIFICATION TEST RECORD

Type of Welder Pipeline welding & Fabrication Identification No. 257-98-2162
Name Edward L Andrews Date 9-13-04
Welding Procedure Specification No. 1 Rev n/a

Variables	Record Actual Values Used in Qualification	Qualification Range
Process/Type [Table 4.10, Item (1)]	FCAW	All
Electrode (single or multiple) [Table 4.10, Item (8)]	E71T-1	
Current/Polarity	DCEP	
Position [Table 4.10, Item (4)]	2G	1G, 2G
Weld Progression [Table 4.10, Item (5)]		
Backing (YES or NO) [Table 4.10, Item (7)]	YES	YES
Material/Spec.	to	
Base Metal		
Thickness: (Plate)		
Groove	1"	unlimited
Fillet	n/a	unlimited
Thickness: (Pipe/tube)		
Groove	n/a	unlimited
Fillet	n/a	unlimited
Diameter: (Pipe)	n/a	
Groove	n/a	
Fillet	n/a	
Filler Metal [Table 4.10, Item (3)]		
Spec. No.	A5.20	
Class	E71T-1	
F-No. [Table 4.10, Item (2)]	F6	F6
Gas/Flux Type [Table 4.10, Item (3)]	75% Argon 25% CO_2	
Other	n/a	n/a

VISUAL INSPECTION (4.8.1)
Acceptable YES or NO

Guided Bend Test Results (4.30.5)

Type	Result	Type	Result

Fillet Test Results (4.30.2.3 and 4.30.4.1)
Appearance
Fracture Test Root Penetration
Fillet Size
Macroetch
(Describe the location, nature, and size of any crack or tearing of the specimen.)

Inspected by
Organization
Test Number
Date

RADIOGRAPHIC TEST RESULTS (4.30.3.1)

Film Identification Number	Results	Remarks	Film Identification Number	Results	Remarks
Edward	Acceptable				

Interpreted by David Cuff
Organization DAL
Test Number
Date 5/5/04

We, the undersigned, certify that the statements in this record are correct and that the test welds were prepared, welded, and tested in accordance with the requirements of section 4 of AWS D1.1, (yes) Structural Welding Code—Steel.

Manufacturer or Contractor
Authorized By
Date

Form E-4

Quality Assurance Labs Inc.

NON-DESTRUCTIVE TESTING AND INSPECTION SERVICES

80 PLEASANT AVENUE • SOUTH PORTLAND, MAINE 04106 • TEL: (207) 799-8911 • FAX: (207) 799-7951

INSPECTION REPORT

CUSTOMER'S NAME: PRECISION WELDING & FABRICATION P.O. NO.: PAGE 1 OF 1

RADIOGRAPHY REPORT NO.: QAL-04-280 PROCEDURE NO.: 0913 QUANTITY: 1

PART NO.: 1" WELDER TEST PLATE JOB NO.:

SOURCE: TYPE: Iridium 192 SIZE: .118 X .132 CURIES: 24.9 KV: MA: SID: 18"

SINGLE ☑ FRONT ☑

FILM: TYPE II SPEED: 100 DOUBLE ☐ SIZE: 4½ x 10 SCREENS: 0.010" BACK ☑

FILM SIDE

IQI: SIZE ASTM "B" WIRE GROUP: I SENSITIVITY: .025 SHIM: N/A SOURCE SIDE ☑

MATERIAL: TYPE C/S THICKNESS: 1" ACCEPTANCE STANDARD: AWS D1.1

RADIOGRAPHIC SET-UP:

OTHER

WELD NUMBER	VIEW NUMBERS	DIAMETER OR PART	ACCEPT	REJECT	WELDER NUMBER	WELDER NUMBER	THICKNESS OF PART	ACCEPT	REJECT
EDWARD	0-1	9	✓						

REMARKS

METHOD(S): PROCEDURE(S): MERCURY FREE

DEFECT CODES:
1. Crack
2. Porosity
3. Incomplete Fusion
4. Incomplete penetration
5. Slag
6. Undercut
7. Gas Pocket
8. Scratch
9. Arc Strike
10. Film Artifact
11. Rust
12. Mottling
13. Undercut
14. Weld
15. Internal geometry

SIGNATURE: D. Pratt #2368772

DATE: M / D / Y 05/05/2004 LEVEL: II

FORM 0001 REV D

The Lincoln Electric Company
22801 St. Clair Avenue
Cleveland, Ohio 44117-1199

CERTIFICATE OF CONFORMANCE
(APPLIES ONLY TO U.S. PRODUCTS)

SUPPLIED TO:
Order No.:
Production Code No.:
Size:

AIRCO

Product: Code-Arc® 7018 MR™
Classification: E7018 (ALSO MEETS THE REQUIREMENTS OF E7018H4R)
Specification: AWS A5.1-91, ASME SFA-5.1
Date Completed: May 1, 2000

[1 Year]

This is to certify that the product named above and supplied on the referenced order number is of the same classification, manufacturing process, and material requirements as the material which was used for the test that was conducted on the date shown, the results of which are shown below. All tests required by the specifications shown for classification were performed at that time and the material tested met all requirements. It was manufactured and supplied according to the Quality System Program of the Lincoln Electric Company, Cleveland, Ohio, U.S.A., which meets the requirements of ISO9002, NCA3800, ANSI/AWS A5.01, JIS Z 9902, and other specification and Military requirements, as applicable. The Quality System Program has been approved by ASME, ABS, and VdTUV.

Operating Settings, Mechanical Properties *(in the as-welded condition)* and Chemical Analysis of the weld deposit were as follows:

	AWS/ASME REQUIREMENTS	5/32 AC	5/32 DC+	3/16 AC	3/16 DC+	1/4 AC	1/4 DC+
Current (amps)		190	175	250	220	355	335
Plate Thickness (in.)		3/4	3/4	3/4	3/4	1	1
Passes/Layers		10/5	10/5	14/7	14/7	10/5	10/5
Preheat Temp. (°F)	225 min.	225	225	225	225	225	225
Interpass Temp. (°F)	225 to 350	300	350	325	325	325	325
Tensile Strength (psi)	70,000 min.	82,800	82,700	84,400	81,800	81,700	76,900
Yield Strength (psi)	58,000 min.	70,300	69,200	69,000	68,700	66,200	65,200
Elongation, % in 2"	22 min.	29	30	28	30	31	31
Hardness, Rockwell B (avg)	Not Required	91	87	86	87	87	86
Impacts Properties (Charpy V-notch) ft-lbs at -20°F	20 min.	78 (64, 84, 86)	162 (138, 141, 208)	84 (81, 84, 86)	164 (76, 116, 120)	105 (98, 104, 114)	166 (108, 148, 251)
C		.06	.05	.06	.05	.06	.05
Mn	Not Req.	1.28	1.24	1.11	1.16	1.09	1.16
Si	1.00 max	.54	.58	.59	.58	.48	.51
Ni	.75 max	.05	.05	.05	.05	.03	.03
Cr	.30 max	.04	.04	.03	.03	.04	.04
Mo	.20 max	.01	.01	.01	.01	<.01	<.01
V	.08 max	<.01	<.01	<.01	<.01	.01	.01
Total alloys (-Fe)	1.75 max	1.37	1.35	1.25	1.30	1.16	1.24
Coating Moisture (%)	0.6 max.	.07		.06		.10	

RADIOGRAPHIC TEST: Grade 1: Met requirements.
Fillet Weld Test (positions as required): Met requirements.
1/32" SIZES ARE CLASSIFIED AS E7018H4, PER AWS A5.1-91.
The electrode diameters required to be tested for this classification are 5/32", 3/16" and 1/4". The 5/32" size met the requirements.

Diffusible Hydrogen (1)	3/32"	1/4"
AWS A4.3-93 (ml/100g)	3	1.4

(1) Test atmospheric condition of 80% relative humidity at 79°F. Total of 21 grains of moisture per pound of dry air.

Cert. No. 61500

STATE OF OHIO, COUNTY OF CUYAHOGA
SUBSCRIBED AND SWORN TO BEFORE ME THIS
1st day of May, 2000
Notary Public
MY COMMISSION EXPIRES: September 23, 2004

Donald L. Bill
DONALD L. BILL, CERTIFICATION SUPERVISOR

David A. Fink
DAVID A. FINK, MANAGER, MATURE PRODUCTS
CONSUMABLE R&D DEPT.