

MicroBooNE
In-Process Weld Inspection Form

(as per In-Process Weld Inspection Guidelines, MicroBooNE Cryogenic System)

Date: 8-8-14 Project: MicroBooNE Cryogenics

Pipe Section: F10026168 To tank Weld Number: _____

Weld Location: _____

Welder: Ryan Mahoney #2 Inspector: T Griffin

Before Welding:

- Type of weld: (butt) (other) _____
(1) Pipe #1 Size, Schedule and Material: 3/4 sch 40 SS
(2) Pipe #2 Size, Schedule and Material: 3/4 sch 40 SS

(1) Joint Preparation and Cleanliness

Joint Preparation and Cleanliness acceptable?

(2) Welding Machine

- (a) Remote foot pedal?
(b) DC straight machine? _____

(3) Joint Fit-up, and Internal Alignment

- (a) Internal alignment acceptable?
(b) Joint clearance acceptable?
(c) End preparation acceptable?

(4) Filler Rod

- (a) AWS A5.9 stainless steel filler rod? _____
(b) Filler rod: Class 308 Diameter 1/16

(5) Purge Gas

- (a) type of purge gas: Ar
(b) time length of purge: constant purge flow rate: 45 psi

(6) Inspection After Root Pass

- (a) No visible cracks.
(b) No suck holes, which are small holes in middle of weld.
(c) No porosity or obvious imperfections:
(d) Filler material fused along edges of weld.

(7) Repeat inspection after every pass:

(8) Final Inspection:

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Date: 8-8-14 Project: MicroBooNE Cryogenics

Pipe Section: 489995 to tank Weld Number: _____

Weld Location: _____

Welder: Ryan Mahoney #2 Inspector: T Griffin

Before Welding:

Type of weld: (butt) (other) with con spacer

(1) Pipe #1 Size, Schedule and Material: 3" sch 40 SS

(2) Pipe #2 Size, Schedule and Material: 3 sch 40 SS

(1) Joint Preparation and Cleanliness

Joint Preparation and Cleanliness acceptable?

(2) Welding Machine

(a) Remote foot pedal?

(b) DC straight machine? _____

(3) Joint Fit-up, and Internal Alignment

(a) Internal alignment acceptable?

(b) Joint clearance acceptable?

(c) End preparation acceptable?

(4) Filler Rod

(a) AWS A5.9 stainless steel filler rod? _____

(b) Filler rod: Class 308 Diameter 1/16

(5) Purge Gas

(a) type of purge gas: N/A

(b) time length of purge: _____ purge flow rate: _____

(6) Inspection After Root Pass

(a) No visible cracks.

(b) No suck holes, which are small holes in middle of weld.

(c) No porosity or obvious imperfections:

(d) Filler material fused along edges of weld.

(7) Repeat inspection after every pass:

(8) Final Inspection:

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Date: 8-7-14 Project: MicroBooNE Cryogenics

Pipe Section: 493111 to tank Weld Number: #2

Weld Location:

Welder: Ryan Mahoney #2 Inspector: T Griffin

Before Welding:

- with con space*
- Type of weld: (butt) (other) _____
- (1) Pipe #1 Size, Schedule and Material: 3" sch 40 SS
- (2) Pipe #2 Size, Schedule and Material: 3" sch 40 SS
- (1) Joint Preparation and Cleanliness
- Joint Preparation and Cleanliness acceptable?
- (2) Welding Machine
- (a) Remote foot pedal?
- (b) DC straight machine? _____
- (3) Joint Fit-up, and Internal Alignment
- (a) Internal alignment acceptable?
- (b) Joint clearance acceptable?
- (c) End preparation acceptable?
- (4) Filler Rod
- (a) AWS A5.9 stainless steel filler rod? _____
- (b) Filler rod: Class 308 Diameter 1/16
- (5) Purge Gas
- (a) type of purge gas: N/A
- (b) time length of purge: _____ purge flow rate: _____
- (6) Inspection After Root Pass
- (a) No visible cracks.
- (b) No suck holes, which are small holes in middle of weld.
- (c) No porosity or obvious imperfections:
- (d) Filler material fused along edges of weld. _____
- (7) Repeat inspection after every pass:
- (8) Final Inspection:

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Date: 8-7-14 Project: MicroBooNE Cryogenics

Pipe Section: 493144 to tank Weld Number: 1

Weld Location:

Welder: Ryan Mahoney #2 Inspector: T. Griffin

Before Welding:

Type of weld: (butt) with concave (other)

(1) Pipe #1 Size, Schedule and Material: 2" Sch 40 SS

(2) Pipe #2 Size, Schedule and Material: 2" Sch 40 SS

(1) Joint Preparation and Cleanliness

Joint Preparation and Cleanliness acceptable?

(2) Welding Machine

(a) Remote foot pedal?

(b) DC straight machine?

(3) Joint Fit-up, and Internal Alignment

(a) Internal alignment acceptable?

(b) Joint clearance acceptable?

(c) End preparation acceptable?

(4) Filler Rod

(a) AWS A5.9 stainless steel filler rod?

(b) Filler rod: Class 308 Diameter 1/16

(5) Purge Gas

(a) type of purge gas: N/A

(b) time length of purge: _____ purge flow rate: _____

(6) Inspection After Root Pass

(a) No visible cracks.

(b) No suck holes, which are small holes in middle of weld.

(c) No porosity or obvious imperfections:

(d) Filler material fused along edges of weld.

(7) Repeat inspection after every pass:

(8) Final Inspection:

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Date: 8-7-14 Project: MicroBooNE Cryogenics

Pipe Section: 493181 to tank Weld Number: _____

Weld Location: _____

Welder: Ryan Mahoney #2 Inspector: T Griffin

Before Welding:

Type of weld: (butt) (other) _____ *with conspence*

(1) Pipe #1 Size, Schedule and Material: 2" sch 40 ss

(2) Pipe #2 Size, Schedule and Material: 2" sch 40 ss

(1) Joint Preparation and Cleanliness

Joint Preparation and Cleanliness acceptable?

(2) Welding Machine

(a) Remote foot pedal?

(b) DC straight machine? _____

(3) Joint Fit-up, and Internal Alignment

(a) Internal alignment acceptable?

(b) Joint clearance acceptable?

(c) End preparation acceptable?

(4) Filler Rod

(a) AWS A5.9 stainless steel filler rod? _____

(b) Filler rod: Class 308 Diameter 1/16

(5) Purge Gas

(a) type of purge gas: N/A

(b) time length of purge: _____ purge flow rate: _____

(6) Inspection After Root Pass

(a) No visible cracks.

(b) No suck holes, which are small holes in middle of weld.

(c) No porosity or obvious imperfections:

(d) Filler material fused along edges of weld.

(7) Repeat inspection after every pass:

(8) Final Inspection:

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Date: 8-8-14

Project: MicroBooNE Cryogenics

Pipe Section: 493136 to tank Weld Number: _____

Weld Location: _____

Welder: Ryan Mathoney #2

Inspector: T Griffin

Before Welding:

Type of weld: (butt) with concave (other) _____

(1) Pipe #1 Size, Schedule and Material: 2" sch 40 SS

(2) Pipe #2 Size, Schedule and Material: 2" sch 40 SS

(1) Joint Preparation and Cleanliness

Joint Preparation and Cleanliness acceptable?

(2) Welding Machine

(a) Remote foot pedal?

(b) DC straight machine? _____

(3) Joint Fit-up, and Internal Alignment

(a) Internal alignment acceptable?

(b) Joint clearance acceptable?

(c) End preparation acceptable?

(4) Filler Rod

(a) AWS A5.9 stainless steel filler rod? _____

(b) Filler rod: Class 308 Diameter 1/16

(5) Purge Gas

(a) type of purge gas: N/A

(b) time length of purge: _____ purge flow rate: _____

(6) Inspection After Root Pass

(a) No visible cracks.

(b) No suck holes, which are small holes in middle of weld.

(c) No porosity or obvious imperfections:

(d) Filler material fused along edges of weld.

(7) Repeat inspection after every pass:

(8) Final Inspection: