

Part 21 (PAR)

Event # 52204

Rep Org: CRANE NUCLEAR, INC.	Notification Date / Time: 08/26/2016 18:00 (EDT)
Supplier: CRANE NUCLEAR, INC.	Event Date / Time: 08/03/2016 (CDT)
	Last Modification: 08/26/2016
Region: 3	Docket #:
City: BOLINGBROOK	Agreement State: Yes
County:	License #:
State: IL	
NRC Notified by: BURT ANDERSON	Notifications: ANTHONY DIMITRIADIS R1DO
HQ Ops Officer: DONG HWA PARK	ERIC MICHEL R2DO
Emergency Class: NON EMERGENCY	JAMNES CAMERON R3DO
10 CFR Section:	RAY KELLAR R4DO
21.21(d)(3)(i) DEFECTS AND NONCOMPLIANCE	PART 21/50.55 REACTORS EMAIL

PART 21 - SAFETY RELATED COMPONENT WELDING BY AN UNQUALIFIED WELDER

The following was excerpted from a letter by Crane Nuclear, Inc.:

"Shielded metal arc welding (SMAW) with F-5 filler metal was welded on safety related components by an unqualified welder.

"Crane Nuclear Quality Assurance Manual, 12th Edition Rev. 2, dated 8/8/16 requires that welder performance qualification shall conform to the requirements of ASME Section IX for processing ASME B&PV Section III and safety related valve and valve part orders. During processing of a safety related order, it was identified that one welder was missing the required qualification documentation to perform weld repairs with F-5 filler metals (as defined in ASME Section IX) using the shielded metal arc welding process (SMAW). The safety hazard which could be created by such a defect could be a potential weld failure.

"Crane Nuclear has completed a review of all applicable welding records based on the welder hire date of September, 2011. We identified a total of 10 orders that were supplied with welding performed by an unqualified welder. Notification has been made to the purchasers of the affected safety related orders on the same date as this notification.

"Should you have any questions regarding this matter, please contact Burt Anderson, Site Leader, at (630) 226-4990, Rosalie Nava, Director of Safety and Quality at (630) 226-4940, or Jason Klein, Engineering Manager at (630) 226-4953."

The following facilities received these safety related orders: Duke-McGuire, Exelon-Byron, Duke-Brunswick, Entergy-ANO, Exelon-TMI, Exelon-Quad Cities, Exelon-Dresden.

IE19
NRR

* * * COMMUNICATION RESULT REPORT (AUG. 26. 2016 4:46PM) * * *

FAX HEADER:

TRANSMITTED/STORED : AUG. 26. 2016 4:44PM
FILE MODE OPTION

ADDRESS

RESULT

PAGE

275 MEMORY TX

13018165151

OK

4/4

*8/26/16 Corrected Letter Attached.
pg. 3 date correct from Sept 30, 2015
to Sept 30, 2016
R Nava 8/26/16*

REASON FOR LINE FAIL
E-1) BUSY
E-2) NO FACSIMILE CONNECTION



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CRANE NUCLEAR, INC.

860 REMINGTON BOULEVARD

BOLINGBROOK, IL 60440

Date: August 26, 2016

Attn: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-001

Subject: 10 CFR Part 21 Investigation Report
Notification of Safety Related Component Welding by an Unqualified Welder

Dear Sir or Madam:

This letter provides notification of the Crane Nuclear investigation into welding of safety-related components by an unqualified welder. The information required for this notification is provided below:

(i) Name and address of the individual or individuals informing the Commission.

The following individuals are located at the above address.

Burt Anderson
Site Leader

Rosalie Nava
Director Safety and Quality

Jason Klein
Engineering Manager

(ii) Identification of the basic component supplied for such facility or such activity within the United States which may fail to comply or contains a potential defect

Shielded metal arc welding (SMAW) with F-5 filler metal was welded on safety-related components by an unqualified welder.

(iii) Identification of the firm supplying the basic component which fails to comply or contains a defect.

Crane Nuclear
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Bolingbrook, IL 60440

(iv) Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.



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Crane Nuclear "Nuclear Quality Assurance Manual, 12th Edition Rev. 2, dated 8/8/16 requires that welder performance qualification shall conform to the requirements of ASME Section IX for processing ASME B&PV Section III and safety-related valve and valve part orders.

During processing of a safety-related order, it was identified that one welder was missing the required qualification documentation to perform weld repairs with F-5 filler metals (as defined in ASME Section IX) using the shielded metal arc welding process (SMAW).

The safety hazard which could be created by such a defect could be a potential weld failure.

(v) The date on which the information of such defect or failure to comply was obtained.

A concern was initially raised on 8/3/16 and Corrective Action Report 16-35 was initiated on 8/9/16 to address the deviation.

(vi) In the case of a basic component which contains a defect or fails to comply, the number and location of these components in use at, supplied for, being supplied for, or may be supplied for, manufactured, or being manufactured for one or more facilities or activities subject to the regulations in this part.

Crane Nuclear has completed a review of all applicable welding records based on the welder hire date of September, 2011. We identified a total of 10 orders that were supplied with welding performed by an unqualified welder.

Notification has been made to the purchasers of the affected safety related orders on the same date as this notification for all of the following:

Valves:

1. CNI SO# 42061-01, Duke, McGuire, P.O. 00167728 – Quantity shipped = 1, Walworth, 8" Gate valve, Fig 5202 WE, Class 150, ASME Class 2, 1998 Ed., 2000 Add. Valve S/N E2647, component affected, wedge.
2. CNI SO# 42333-01, Exelon, Byron, P.O. 00503961 – Quantity shipped = 2, Flowseal, 30" Butterfly Valve, Fig 1WC-221LGX-8DG, Class 150, ASME Class 3, 1974 Ed., Summer 75 Add. Valve S/N's E2647 and E2897, component affected, adapter plate sub-assembly.
3. CNI SO# 42529-01, Duke McGuire, P.O. 00171407 – Quantity shipped = 1, Crane, 8" Gate Valve, Fig 47 ½ UF-SPL, Class 150, ASME Class 3, 1998 Ed., 20000 Add. Valve S/N E3189, component affected, wedge.
4. CNI SO# 44550-02, Duke, Brunswick, P.O. 00755501 – Quantity shipped = 1, Walworth, 3", Fig 5247PS, Class 900, ASME Class 3, 1986 Ed. Valve S/N E6287, component affected, Body/Yoke.
5. CNI SO# 46140-02, Areva, Wolsong, P.O. 1015062705 – Quantity shipped = 1, Flowseal, 12", Fig 12-1LA-221XGB-3XG, Class 150, ASME Class 2, 2013 Ed. Valve S/N E7071, component affected, Disc.



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Parts:

1. CNI SO# 39064-01, Entergy, ANO, P.O. 10314628 -- Quantity shipped = 1, Disc P/N D-50724, for an Aloyco 24" Gate Valve, Fig. N-9126-EMO-SP, Class 150, ASME Class 2, 1971 Ed., summer 72 Add. Wedge S/N E1056.
2. CNI SO# 42888-01, Exelon, TMI, P.O. 80 053409 -- Quantity shipped = 1, Cover P/N 44956, for an Aloyco 8" Swing Check Valve, Fig. N-376-SP, Class 150, Non-Code, Safety Related. Cover S/N E3352.
3. CNI SO# 43330-01, Exelon, Quad Cities, P.O. 00516018 -- Quantity shipped = 2, Disc/Lifting Nut P/N CB02868, for a Chapman 18" Tilting Disc Check Valve, Fig. L973, Class 900, Non-Code, Safety Related. Disc/Lifting Nut S/N's E4058/E4610.
4. CNI SO# 43528-01, Exelon, Dresden, P.O. 00518985 -- Quantity shipped = 3, Disc/Lifting Nut P/N per description, for a Chapman 18" Tilting Disc Check Valve, Fig. L973, Class 900, Non-Code, Safety Related. Disc/Lifting Nut S/N's E4387/E80577-5, E4388/E4061 and E4389/E4062.
5. CNI SO# 46154-01, Exelon, Dresden, P.O. 00564360 -- Quantity shipped = 1 Disc/Lifting Nut P/N per description, for a Chapman 18" Tilting Disc Check Valve, Fig. L973, Class 900, Non-Code, Safety Related. Disc/Lifting Nut S/N's E6936/E6937.

Crane Nuclear is currently evaluating these sales orders for recommended action.

(vii) The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.

Corrective Action being taken by Crane Nuclear is expected to be completed on or before September 30, 2016 as follows:

- 1) Corrective Action Report 16-35 generated to determine root cause and implement appropriate corrective actions to prevent reoccurrence
- 2) Review of the above sales order to identify scope of welding for recommended action concerning the affected components.
- 3) Qualification of the welder on the SMAW process utilizing F-5 filler metal in accordance with ASME Section IX.

(viii) Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.

Crane Nuclear will notify the respective customer for the orders that have been identified to date.

(ix) In the case of an early site permit, the entities to whom an early site permit was transferred.

Not applicable.



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Regards,

Crane Nuclear, Inc.

A handwritten signature in cursive script, appearing to read "Burt Anderson", with the date "8-26-16" written below it.

Burt Anderson
Site Leader