

From: "Kemp, Brian" <Brian.Kemp@nmcco.com>
To: <msh@nrc.gov> — M. Holmberg — *PH*
Date: 5/17/04 10:11AM
Subject: PBNP Additional Information

Mel,

I understand that you have been sent copies of the additional information that was provided on Saturday to the NRC staff relating to our relief request and relaxation request. I also have been told that you have the latest copy of the extent of evaluation prepared by Tomes.

Attached are two additional pieces of information on the 95% coverage and the welding PQR.

Please page me with questions. 800-225-9372

[]

EX2

Have a great day.

Brian Kemp

>> <<NPM 2004-0320.doc>> >> <<051404 huting.doc>>

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Act, exemptions *5, 6*
FOIA/PA-2004-0282

L-28

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Subject: PBNP Additional Information
Creation Date: 5/17/04 10:10AM
From: "Kemp, Brian" <Brian.Kemp@nmcco.com>

Created By: Brian.Kemp@nmcco.com

Recipients

nrc.gov
ch_po.CH_DO
MSH (Melvin Holmberg)

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ch_po.CH_DO

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Files	Size	Date & Time
MESSAGE	518	05/17/04 10:10AM
NPM 2004-0320.doc	27136	
051404 huting.doc	520704	
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NPM 2004-0320

To: Brian Kemp

From: Bryan Woyak

Date: May 17, 2004

Subject: Surface Area of Unit 1 Reactor Vessel Dome

Copy To:

Brian, I have computed the surface area of the Unit 1 Reactor Vessel dome and the surface area obstructed by the shroud support ring and three lifting lugs. The total unobstructed surface area of the dome only, is approximately 1.5%. This was determined using the dimensions from the following permanent drawings:

B/W 117814E rev. 4

B/W 117849E rev. 5

Feel free to contact me if you need additional information.

Bryan Woyak
x7429
pager 5799

tlp

Date 5/14/04

From Kim Bezzant

Location Monticello

To Mark Huting

Location Hudson

Subject Areva WPS WP3/43/F43TBSCa-3-01 -- Point Beach
#26 Reactor Head Nozzle Repair

Per your request I have reviewed Areva Welding Procedure Specification (WPS) WP3/43/F43TBSCa3-01 and the associated Procedure Qualification Records (PQRs), 55PQ7183-03 and 55PQ7164-03, for their application to the Point Beach #26 reactor head nozzle repair. A review of the WPS and supporting PQRs, indicates that the procedure is qualified to make the dissimilar metal repair weld on the #26 nozzle. The procedure meets the specific requirements of ASME Section IX and XI and Code Case N-638 and represents sound engineering judgment and practices in both the methodology of the repair and the selection of the filler metal used in the repair.

As I understand the issue, there is concern that the Areva procedure may not be qualified for this repair because the ERNiCrFe-7 (Inconel Filler Metal 52) weld metal being used for the repair would overlap the existing ERNiCr-3 and ENiCrFe-3 (Inconel Filler Metal 82 and Electrode 182 respectively) weld metal. QW-404.4 of ASME Section IX specifies that a change in a filler metal F-Number requires requalification. Filler metal F-Number grouping is based essentially on their usability characteristics, and qualification with one filler metal classification qualifies all filler metals within that classification.

ERNiCrFe-7 and ERNiCr-3 are both F-43 filler metals, therefore qualification with one would qualify the other. ENiCrFe-3 is also an F-43 filler metal but was deposited with the SMAW process rather than the GTAW process. Since the welding process is also an essential variable, the Areva procedure would not be qualify for this filler metal. However, QW-200.4 states that *"More than one procedure having different essential or nonessential variables may be used in a single production joint. Each procedure may include one or a combination of process, filler metals, or other variables."* Using this criteria, Areva's procedure would be qualified to deposit GTAW applied ERNiCrFe-7 filler metal over existing SMAW applied ENiCrFe-3 filler metal as well as the GTAW applied ERNiCr-3 filler metal.

QW-431 of ASME Section IX states that F-Number groupings are made *"to reduce the number of welding procedure and performance qualifications, where this can be logically done. The grouping does not imply that base metals or filler metals within a group may be indiscriminately substituted for a metal which was used in the qualification test without consideration of the compatibility of the base and filler metals from the standpoint of metallurgical properties, postweld heat treatment design and service requirements and mechanical properties."*

Using the requirements of QW-431 as a litmus test, all the criteria have been met. ERNiCrFe-7 filler metal has identical mechanical properties to the ERNiCr-3 and ENiCrFe-3 filler metals. It is metallurgically compatible with the existing base metals

and filler metals and is specifically intended for dissimilar metal weld applications. The postweld heat treatment requirements have been satisfied by qualifying to a code approved temperbead procedure. Additionally, ERNiCrFe-7 filler metal has shown superior corrosion resistance in primary water applications.

Therefore, it is my opinion that Areva's Welding Procedure Specification (WPS) WP3/43/F43TBSCa3-01 meets all the requirements of ASME Section IX, XI and Code Case N-638 and is qualified to make the repair to the #26 reactor head nozzle. Additionally, sound engineering judgment has been used in the selection of the filler metal to be used in the repair due to its compatibility with existing materials and its superior corrosion resistance in primary water applications.

Kim Bezzant
NMC Fleet Welding Engineer