

PMNorthAnna3COLPEmails Resource

From: Thomas Kevern
Sent: Friday, April 17, 2009 8:57 AM
To: Regina.Borsh@dom.com
Cc: John Segala; Steven Bloom; Larry Wheeler; NorthAnna3COL Resource; Jeffrey Cruz; Michael Eudy
Subject: NA SER 9.2.1 open items - telecon
Attachments: NA SER openitems 9.2.1.doc

Gina:

The staff is completing its SER/OI re Chapter 9 and open items remain re Section 9.2.1 (Plant Service Water). The open items - and corresponding previously-issued RAIs - are summarized in the attached table. We would appreciate a telecon with your technical staff to clarify - and identify a path for resolution - these items. Monday or Tuesday next week is our preference.

Thanks.
Tom

Hearing Identifier: NorthAnna3_Public_EX
Email Number: 721

Mail Envelope Properties (CEEAA97CC21430049B821E684512F6E5EB7AF387F5F)

Subject: NA SER 9.2.1 open items - telecon
Sent Date: 4/17/2009 8:56:59 AM
Received Date: 4/17/2009 8:57:00 AM
From: Thomas Kevern

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Post Office: HQCLSTR01.nrc.gov

Files	Size	Date & Time
MESSAGE	423	4/17/2009 8:57:00 AM
NA SER openitems 9.2.1.doc	48634	

Options

Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

NA3 open item	NRC review and recommendations
1. <u>Interface requirements</u>: the ITAAC proposed by the applicant (Table 2.4.2-1, item 1) specifies a cooling tower basin water inventory requirement as a way of demonstrating that the heat removal capability specified by the DCD. No explanation or description was provided for how this water inventory requirement was established. (OI 9.2.1-01). [RAI 9.2.1-01]	DOM has proposed to use cooling tower basin water level as conformation for the PSWS to remove 1.92 e10 BTU over a 7 day period of time. Recommendation: • Audit DOM calculations • Revised the ITAAC to add a report exists that the PSWS will remove 1.92 e10 BTU over 7 days without active makeup.
2. <u>NAPS COL 9.2.1-1A</u> (material selection). Fiberglass reinforced polyester pipe (FRPP) will be used for buried PSWS piping. [RAI 9.2.1-02]	DOM stated that FRPP will not have a negative impact on PSWS reliability or availability assumptions. Recommendation: • FRPP is presently being evaluated by the NRC staff.
3. <u>NAPS COL 9.2.1-1A</u> (material selection). DOM did not address material selections for any other parts of the PSWS, including cooling towers and related components. [OI 9.2.1-03]. [RAI 9.2.1-03]	DOM stated that materials are selected based on PSWS water treatment regime. Recommendation: • Update the FSAR with materials to be used for the PSWS.
4. NAP COL item 9.2.1-1-A (long term corrosion and fouling of the PSWS). It does not adequately address all of the potential PSWS vulnerabilities that have been identified over time as a result of industry operating experience (GL 89-13). [OI 9.2.1-04] [RAI 9.2.1-04]	DOM stated that GL 89-13 is not applicable and monitoring and trending of the PSWS will be performed on maintenance rule. Recommendation: • State programmatic controls are necessary to periodically monitor the condition and performance of PSWS components over time to maintain the availability and reliability of the system (related to GL 89-13) • Show the chemical add system to the PSWS drawings

5. NAPS FSAR and Table 9.2-201 repeat information that was included in Tier 2 of the DCD and there is no distinction between the plant-specific (NAPS CDI) and the standard plant design information. [OI-9.2.1-05]	DOM stated no FSAR change was required. Recommendation: • DOM to split out the DCD information from the CDI information.
6. NAP CDI (Unit 3 utilizes mechanical draft plume abated cooling towers for the AHS). The FSAR does not address bounding conditions and limiting assumptions that pertain to the functional capability of the cooling towers and programmatic controls that assure that the functional capability of the cooling towers will be maintained over the life of the plant. [OI-9.2.1-06] [RAI 9.2.1-06]	DOM stated that the PSWS is non-safety-related the applicant felt that the information in the FSAR was adequate. Recommendation: • DOM to address the cooling tower design, vulnerabilities, degraded mechanism, programmatic controls to assure the reliability and availability of the PSWS over time and other related interactions in the FSAR related to RTNSS and cooldown.
7. The PSWS initial test program is discussed in the DCD, Tier 2 Sections 14.2.8.1.51, "Plant Service Water System Preoperational Test," and 14.2.8.2.18, "Plant Service Water System Performance Test." These tests do not verify that performance of the CDI portions of the PSWS (including AHS) for the various modes of operation. The referenced test programs do not fully address CDI in that cooling tower performance, including fan functions and heat dissipation capability, are not evaluated. Also, the capability of the PSWS to properly function without initiating a water hammer following a loss of power is not addressed by the test program. [OI 9.2.1-07] [RAI 9.2.1-07]	DOM stated that CDI portions of the PSWS are described in 14.2. Recommendation: • DOM to address AHS performance and testing related to water hammer.