

CCNPP3COLA PEmails

From: John Rycyna
Sent: Wednesday, February 25, 2009 5:39 PM
To: 'Poche, Robert'; 'Jennifer.McQueeney@unistarnuclear.com'
Cc: CCNPP3COL Resource; Edward McCann; Robert Radlinski; Peter Hearn; Joseph Colaccino; James Biggins; Adam Gendelman
Subject: Draft RAI No 75 SFPT 1052.doc (PUBLIC)
Attachments: Draft RAI No 75 SFPT 1052.doc

Rob,

Attached is DRAFT RAI No. 75. You have until March 11, 2009 to review it and to decide whether you need a conference call to discuss it. After the call or after March 11, 2009 the RAI will be finalized and sent to you. You then have 30 days to respond.

John Rycyna, PE
Sr. Project Manager
Division of New Reactor Licensing
Office of New Reactors
U.S. Nuclear Regulatory Commission
301-415-4122

Hearing Identifier: CalvertCliffs_Unit3Cola_Public_EX
Email Number: 581

Mail Envelope Properties (499C2FC6BB962446994CA8682D8ADF331719EF2799)

Subject: Draft RAI No 75 SFPT 1052.doc (PUBLIC)
Sent Date: 2/25/2009 5:38:59 PM
Received Date: 2/25/2009 5:38:59 PM
From: John Rycyna

Created By: John.Rycyna@nrc.gov

Recipients:

"CCNPP3COL Resource" <CCNPP3COL.Resource@nrc.gov>
Tracking Status: None
"Edward McCann" <Edward.McCann@nrc.gov>
Tracking Status: None
"Robert Radlinski" <Robert.Radlinski@nrc.gov>
Tracking Status: None
"Peter Hearn" <Peter.Hearn@nrc.gov>
Tracking Status: None
"Joseph Colaccino" <Joseph.Colaccino@nrc.gov>
Tracking Status: None
"James Biggins" <James.Biggins@nrc.gov>
Tracking Status: None
"Adam Gendelman" <Adam.Gendelman@nrc.gov>
Tracking Status: None
"Poche, Robert" <robert.poche@unistarnuclear.com>
Tracking Status: None
"Jennifer.McQueeney@unistarnuclear.com" <Jennifer.McQueeney@unistarnuclear.com>
Tracking Status: None

Post Office: HQCLSTR02.nrc.gov

Files	Size	Date & Time
MESSAGE	434	2/25/2009 5:38:59 PM
Draft RAI No 75 SFPT 1052.doc		36858

Options

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

Request for Additional Information No. 75

DRAFT

2/25/2009

Calvert Cliffs Unit 3

UniStar

Docket No. 52-016

SRP Section: 09.05.01 - Fire Protection Program

Application Section: 9.5.1

QUESTIONS for Fire Protection Team (SFPT)

09.05.01-1

- 1) COL Table 9.5-1 supplement information for RG 1.189 Regulatory Position 1.8 which corresponds to COL Information Item 9.5-5 states that "If FPP[Fire Protection Program] program changes or deviations are required the plant will use risk-informed, performance-based methodologies consistent with R.G. 1.174 to evaluate and justify changes/deviations." While a risk-informed, performance based (RI/PB) approach to evaluating plant changes that impact the FPP is permitted, the industry and staff requirements and guidance have not been promulgated for this plant change process for new reactors. A RI/PB change process requires a well defined and acceptable program that includes a peer-reviewed fire PRA that is in accordance with industry standards, use of approved fire models, configuration control procedures, etc. Submit a detailed description of this program to the NRC based on the guidance currently provided by National Fire Protection Association (NFPA) 805 and RG 1.205 and provide the license condition for this program or justify using RG 1.174 guidance for new reactor applications. Submit the program for NRC approval prior to it's application by the applicant or licensee. This commitment and the schedule for completion should be included in the license conditions for the FPP.

09.05.01-2

Provide an ITAAC to identify and evaluate deviations between the COL FSAR and the as-purchased, as-built plant for the Fire Protection System. This ITAAC is to direct the applicant to perform a Final Fire Hazards and Safe Shutdown Analyses which is based on the final plant cable routing, fire barrier ratings, fuel loading, ignition sources, purchased equipment, equipment arrangement, and includes a review against the assumptions and requirements stated in the COL FSAR Fire Hazards and Safe Shutdown Analysis. The final Fire Hazards Analysis and Safe Shutdown Analysis includes a detailed post-fire safe-shutdown circuit analysis performed and documented using a methodology similar to that described in RIS 2005-30. This ITAAC is to direct the applicant to describe the documentation and performance of this as-built analyses and determine the methods to identify the deviations from the COL FSAR, if any.

09.05.01-3

Multiple Spurious Actuations – As noted in RG 1.189, Rev 1, the one-at-a-time assumption for spurious actuations may not adequately address the potential risk attributed to fire. Additionally, RIS 2005-30 states that "Post-fire safe-shutdown circuit

analyses should address any and all possible failures and combinations of multiple failures caused by spurious actuations resulting from fire-induced circuit failures in redundant systems in fire areas where the failures could impact safe shutdown." State the assumptions and methodologies that will be used by the applicant to identify, assess and resolve the potential for multiple spurious actuations that may prevent post-fire safe shutdown. Describe any associated changes to the COL FSAR.

09.05.01-4

Provide simplified Fire Protection System piping and instrumentation diagrams showing complete site-specific systems. Modify the COL application accordingly.

09.05.01-5

Ensure that FSAR Section 9.5.1.6.2, Figure 9.5-1, and Section 13.1.2 which references Section 17.5 which incorporates Topical Report NO. UN-TR-06-001 are consistent with one another. Section 9.5.1.6.2 states that the overall responsibility for the FFP rests with the Chief Nuclear Officer which is not described in UN –TR-06-001 or shown in Figure 9.5-1 which shows the overall responsibility for the FFP belonging to the Executive Management Position Responsible for Facility Operations. Include all of the key positions described in RG 1.189 in Section 9.5.1.6.2 and Figure 9.5-1 and ensure UN-TR-06-001 is consistent with Section 9.5.1.6.2 and Figure 9.5-1.

09.05.01-6

RG 1.206, Regulatory Position C.III.1, Section C.I.9.5.1.1 (Design Bases) identifies that the COL applicant should provide site specific information on the fire water supply system. RG 1.189 guidance states that fire water supplies are to be filtered and treated as necessary to prevent or control biofouling or microbiologically induced corrosion of fire water systems. Describe the program to monitor and maintain an acceptable level of quality of the fire water sources, or justify an alternative.

09.05.01-7

FSAR Section 9.5.1.2.1 states that for Fire Safe Shutdown Capability "The remainder of the plant is separated from portions of the facility containing fire safe shutdown systems or components by appropriately rated fire barriers and/or distance." Add "in accordance with RG 1.189" after distance or detail which areas do not meet RG 1.189 and provide justification for these areas.

09.05.01-8

FSAR Section 9.5.1.2.1 identifies areas that have automatic sprinkler systems that are in accordance with National Fire Protection Association (NFPA) 15. NFPA 15 is applicable to water spray systems and NFPA 13 is applicable to sprinkler systems but also

addresses water spray nozzles. Applicant should commit to follow NFPA 13 for sprinkler systems and revise this FSAR section, or justify why the change is not needed.

09.05.01-9

Include both 1-hour and continuous fire watch training and hands-on training in FSAR Section 9.5.1.6.3, Fire Watch Training and Personnel Qualification, as per guidance in RG 1.189, or justify an alternative.

09.05.01-10

COLA FSAR Appendix 9B Section 9B.2 mirrors U.S. EPR FSAR Appendix 9A Section 9A.2 such that any changes made to U.S. EPR FSAR Appendix 9A Section 9A.2 are to be reflected in COLA FSAR Appendix 9B Section 9B.2. U.S. EPR Response to RAI No.25 Question 09.05.01-45 revises U.S. EPR FSAR Appendix 9A Section 9A.2.2. Revise COLA FSAR Appendix 9B Section 9B.2.2 to agree with revision as shown in U.S. EPR Response to RAI No.25 Question 09.05.01-45.

09.05.01-11

RG 1.189 Regulatory Position 3.5.1.4 states that "A sufficient number of these drills, but not less than one for each shift's fire brigade per year, should be unannounced to determine the firefighting readiness of the plant's fire brigade, brigade leader, and fire protection systems and equipment. Persons planning and authorizing an unannounced drill should ensure that the responding shift fire brigade members are not aware that a drill is being planned until it has begun. At least one drill per year should be performed on a 'back shift' for each shift's fire brigade." U.S. EPR Response to RAI No. 25 Question 09.05.01-50 addresses this issue. Revise the Table 9.5-1 entry for R.G. Section C.3.5.1.4 "Supplement" to agree with this response or delete the supplement.

09.05.01-12

Appendix 9B Barrier Figures are unclear or difficult to read due to thick black with white dashes boundary designations that have no legend and to boundaries where one can not discern if it's meant to be black or not. Provide legible versions of these figures.