

CCNPP3eRAIPEm Resource

From: Arora, Surinder
Sent: Thursday, February 09, 2012 3:52 PM
To: Infanger, Paul; UNECC3Project@unistarnuclear.com
Cc: CCNPP3eRAIPEm Resource; Segala, John; Wilson, Anthony; Vrahoretis, Susan; Felts, Russell; Lee, Pete; Miernicki, Michael
Subject: Final RAI 338 NSIR RSLB 6213
Attachments: Final RAI 338 NSIR RSLB 6213 .doc

Paul,

Attached please find the subject request for additional information (RAI) on FSAR Section 13.6. The draft of this RAI was sent to you on January 31, 2012. A clarification phone call on this RAI, requested by UniStar, was held on February 9, 2012. No changes to the technical content of the draft RAI questions were required as a result of the clarification call. However, several minor editorial changes have been incorporated in the attached version of the RAI.

The schedule we have established for review of your application assumes technically correct and complete responses within 30 days of receipt of RAIs. For any RAIs that cannot be answered within 30 days, it is expected that a schedule date for submitting your technically correct and complete response will be provided to the staff within the 30 day period so that the staff can assess how this information will impact the review schedule of the applicable FSAR Chapter.

Your response letter should also include a statement confirming that the response does or does not contain any sensitive or proprietary information.

Thanks.

SURINDER ARORA, PE
PROJECT MANAGER,
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Hearing Identifier: CalvertCliffs_Unit3Col_RAI
Email Number: 180

Mail Envelope Properties (B46615B367D1144982B324704E3BCEED8B98AA18C2)

Subject: Final RAI 338 NSIR RSLB 6213
Sent Date: 2/9/2012 3:51:32 PM
Received Date: 2/9/2012 3:51:36 PM
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Post Office: HQCLSTR01.nrc.gov

Files	Size	Date & Time
MESSAGE	1314	2/9/2012 3:51:36 PM
Final RAI 338 NSIR RSLB 6213 .doc		46586

Options

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

Request for Additional Information No. 338 (eRAI 6213)

2/9/2012
Calvert Cliffs Unit 3
UniStar
Docket No. 52-016

SRP Section: 13.06.01 - Physical Security - Combined License
Application Section: Part 2 FSAR, Section 13.6 - Physical Security, CCNPPU3 Security Assessment
Revision 7

QUESTIONS for Reactor Security Rulemaking and Licensing Branch (NSIR/DSP/RSRLB)

13.06.01-23

(U) Followup to RAI 272, Question 13.05-19, CCNPP Unit 3, Security Assessment, Appendix G, Section G.2, Operator Actions and Section G.3, "Interpreting Target Sets," (Pages G-2 through G-8):

Provide additional information to describe and clarify operator actions identified in combinations of target sets in Table G-1, "Target Sets," Target Group No.1 through 6. Specifically address the following:

- (a) **(U)** Clarify that all criteria in RG 5.81, "Target Set Identification and Development of Nuclear Power Reactors," Table 2, "Preventive Operator Actions" are applicable for operator actions identified in Target Set Groups No.1, 2, 3, 5, and 6. State clearly that the RG 5.81 criteria are also applicable to operator actions related to support systems identified for each target set group.
- (b) **(U)** Clarify the timing of operator actions for identified combinations of systems and operator actions. Include descriptions of the overall significance to target set group, and the timing as related to core damage, for the identified combinations of target sets if operators are unavailable in Target Set Group No. 1, 2, 5, and 6.
- (c) **(U)** Identify operator actions required for systems indicated as element within the identified combination systems for Target Set Group No. 5 and the 2nd and 3rd combinations of systems within Target Set Group No. 6.
- (d) **(U)** Indicate the needed operator actions for support systems that are identified in Note 2 of Target Set Group No. 1 and 2.
- (e) **(U)** Clearly indicate in the CCNPP3 Security Assessment, that information of TR ANP-10295, Appendix C, is incorporated by reference for the discussions in Sections G.1, G.2, and G.3. Specifically, indicate that operator actions described in Appendix C (i.e., C.1 through C.8) of the TR ANP-10295 correspond to descriptions indicated in Appendix G.2 (i.e., operator action items 1 through 8).
- (f) **(U)** Clarify the assumptions of free movement and re-establish safe travel routes for operator actions at specified times to take preventive or additional mitigating actions (i.e., as indicated in AREVA TR ANP-10295, "U.S. EPR Security Design Features," Revision 2, Appendix C, "Operator Action Benefiting Security," Section C.3; CCNPP3 Security Assessment, Revision 6, Section 6.1.1., "Developing Methodology," (4th paragraph), and supporting AREVA engineering documentation No. 51-9036187-002, "Target Set Analysis," dated May 2, 2011). If the intention is to ensure reliability and availability of operators to freely travel or re-establish safe routes of

travel at specific times indicated, then provide the supporting licensing basis addressing required engineered, administrative and management controls (e.g., security capabilities, performances, and intended functions, engineered systems, equipment, and personnel required, preplans, specific training, etc.) to establish security posture that would enable assumptions indicated.

(U) Regulatory Basis: Subpart C of Title 10 CFR (10 CFR) 52, § 52.79(a)(35)(i), (ii), and (iv) requires that information submitted for combined license (COL) include how the applicant will meet the requirements of 10 CFR 73 and descriptions of implementation of the physical security plan and safeguards contingency plan. Title 10 CFR 73.55(b)(3)(i) requires applicant to ensure that the capabilities to detect, assess, interdict, and neutralize the DBT and maintain at all times such capabilities. Title 10 CFR 73.55(b)(4) requires applicants to analyze and identify site specific conditions, including target sets, that may affect the specific measures needed to implement the requirements of 10 CFR 73 and account for conditions in the design of the physical protection program. Complete and accurate information (i.e., descriptions) of what must be protected (i.e., target sets) must be provided in accordance with requirements of 10 CFR 73.55(b)(3)(i).

(U) RAI 272, Question 13.05-19, requested the applicant to describe the operator actions that are included in elements of target sets and provide sufficient detail to demonstrate that components (operator, equipment, action, locations) have been considered and specifically identified in elements of target sets. The applicant response provided additional information provided on the docket, Appendix G of CCNPP3 Security Assessment, must be sufficient for the NRC staff to determine that target sets are complete and accurate, including sufficiently detailed supporting technical bases to allow the flow-down of identified target sets information and credited operator actions in developing detailed target sets for operations.

(U) During NRC licensing security audit conducted on November 8-9, 2011, the staff identified a need to address and clarify how the applicant will credit operator actions and the significance of operator actions for identified combinations of target sets in Appendix G of the CCNPP3 Security Assessment. Additional information is required to clarify how the applicant has represented on the docket the target sets that are complete, and provide an accurate representation of what safety functions and systems, along with operator actions, must be protected to prevent radiological sabotage due to core damage or spent fuel sabotage. The identification of what must be protected, establish in part, the licensing bases for meeting the performance requirements of 10 CFR 73.55(b) to protect against radiological sabotage.

(U) In addition, the applicant states specific assumptions for free movement and re-establish safe travel routes for operator actions at specified times (i.e., as indicated in AREVA TR ANP-10295, "U.S. EPR Security Design Features," Revision 2, Appendix C, "Operator Action Benefiting Security," Section C.3; CCNPPU3 Security Assessment, Revision 6, Section 6.1.1., "Developing Methodology," (4th paragraph), and supporting AREVA engineering documentation No. 51-9036187-002, "Target Set Analysis," dated May 2, 2011), The assumptions requires clarifications in context of reliability and availability of operator actions described for complete and accurate target sets. Clarification is required on whether the applicant intend to establish the necessary security measures for the security envelope necessary for enabling the stated assumptions. If so, specific details must be included within the applicant's licensing basis for security.

(U) *Note: The information addressing specific details related to security features or providing security functions will be safeguards information (SGI) and should be marked and protected in accordance with 10 CFR 73.21. The applicant should portion mark text in the response to request for additional information (RAI) as appropriate to identify SGI (or security-related information) that reveals the specific details of security features.*

(U) Followup to RAI 272, Question 13.05-19, CCNPP Unit 3, Security Assessment, Section G.1, "Target Set Preparation," and Section G.3, "Interpreting Target Sets," (Pages G-1, G-3 through G-8):

Provide additional descriptions of target set preparation that is captured in details contained in supporting document (51-9036187-002, "Target Set Analysis," dated May 2, 2011) to enhance the descriptions currently provided in Section G.1 to indicate and reflect the depth and completeness of analysis shown in the supporting document and demonstrate application of guidance and conformance with RG 5.81. In addition, provide clarification of the specifics indicated for the applicant's analysis and documentation for target sets:

- (a) **(U)** Describe how safety functions provided by Main Steam Relief Isolation and Control valves (MSRIV and MSRCV) were analyzed, in Document No. 51-9058854-001, "U.S. EPR PRA – Internal Fires Report," and whether these functions are considered or not in the analysis of sequences of events leading to core damage. Discuss applicability of actions described in Section C.6 of Appendix C of TR ANP-10295.
- (b) **(U)** Clarify how initiating event of interfacing loss of cooling accidents outside of containment is considered. Clarify whether all system combinations addressed by the PRA success criteria were included in the scope for the target sets.
- (c) **(U)** Describe how maintenance of systems and its impact on the availability of safety trains was considered within the analysis of target sets. Describe how the combinations of target sets where more than one train of a given system may be available are treated in the analysis to ensure the appropriate credit for safety systems and associated operator actions.
- (d) **(U)** Describe how the impact of the loss of any key system cross-connects are considered within the analysis target sets.
- (e) **(U)** Verify that the nomenclature or identifiers for target set systems are consistent with the same system identifiers on the vital equipment list found in TR ANP-10295.
- (f) **(U)** Provide additional information to clarify the basis for not considering initiating events from the scope of the analysis of target sets (i.e., as identified in CCNPPU3 Security Assessment, Revision 6, Appendix G, "Target Sets," Section G.1, "Target Set Preparation (2nd paragraph). Clarify what specific actions indicated in Section G.2, "Operator Actions," are applicable and whether descriptions in Section C.2 of TR ANP-10295, Appendix C, "Operator Action Benefiting Security," are also applicable. Confirm and indicate whether there are other initiating events (i.e., combination of systems) that have been removed from the scope of target set analysis, and if so, provide justification for their removal.

(U) Regulatory Basis: Subpart C of Title 10 CFR (10 CFR) 52, § 52.79(a)(35)(i), (ii), and (iv) requires that information submitted for combined license (COL) include how the

applicant will meet the requirements of 10 CFR 73 and descriptions of implementation of the physical security plan and safeguards contingency plan. Title 10 CFR 73.55(b)(3)(i) requires applicant to ensure that the capabilities to detect, assess, interdict, and neutralize the DBT and maintain at all times such capabilities. Title 10 CFR 73.55(b)(4) requires applicants to analyze and identify site specific conditions, including target sets, that may affect the specific measures needed to implement the requirements of 10 CFR 73 and account for conditions in the design of the physical protection program. Complete and accurate information (i.e., descriptions) of what must be protected (i.e., target sets) must be provided in accordance with requirements of 10 CFR 73.55(b)(3)(i).

(U) RAI 272, Question 13.05-19, requested the applicant to describe how target sets are systematically analyzed and developed (i.e. traced back and clearly mapped) based on source documents of the U.S. EPR DCD (e.g., U.S. EPR Vital Equipment List, FSAR equipment and system lists, PRA success criteria, FSAR dependencies matrix, Fire PRA, etc.). The additional information provided on the docket, Appendix G of CCNPPU3 Security Assessment, must be sufficient for the NRC staff to determine that target sets are complete and accurate based on the U.S. EPR standard design and site specific information, with sufficient detail of supporting technical bases to allow the flow-down of target set functions and systems and credited operator actions in developing detailed target set information for operations. The applicant supporting document (51-9036187-002, "Target Set Analysis," dated May 2, 2011) examined during licensing audit demonstrated details, depth, rigor, and thoroughness of applicant's process and application of guidance in analysis of target sets that is only partially represented in the descriptions captured in the descriptions provided in Appendix G.1. The information provided on the docket must provide sufficient information of how target sets were determined, for the staff to confirm that the applicant's process and analysis for the results presented in Section G.3 were in sufficient detail, depth, rigor, thoroughness, without requiring submittal of 51-9036187-002 on the docket for regulatory determination of completeness and accuracy.

(U) During licensing audit conducted on November 8-9, 2011, the staff identified a need to clarify how certain systems and initiating events were considered. Additional information is required to clarify how the applicant has represented on the docket the target sets that are complete and provide an accurate representation of what safety functions and systems must be protected to prevent radiological sabotage due to core damage or spent fuel sabotage, as a part of licensing bases meeting the performance requirements of 10 CFR 73.55(b). Additional information is needed to establish that the specific discussion of operator actions in TR ANP-10295, Appendix C, are incorporated by reference in the discussions presented in Appendix G, Target Set, as site specific information.

(U) Note: The information addressing specific details related to security features or providing security functions will be safeguards information (SGI) and should be marked and protected in accordance with 10 CFR 73.21. The applicant should portion mark text in the response to request for additional information (RAI) as appropriate to identify SGI (or security-related information) that reveals the specific details of security features.