

ClinchRiverESPHFNPEm Resource

From: Sutton, Mallecia
Sent: Friday, September 15, 2017 12:59 PM
To: Schiele, Raymond Joseph
Cc: pshastings (pshastings@tva.gov); ClinchRiverESPSafRAINPEm Resource; Colaccino, Joseph; Fetter, Allen; Diec, David; Rivera, Alison
Subject: Draft RAI Pertaining to Section 13.06.03 - Physical Security of TVA application
Attachments: CRNS ESP Draft RAI PS 8735 (3).pdf

Good Afternoon,

Attached is the draft RAI pertaining to Section 13.06.03 - Physical Security of your application, (eRAI-8735) for the Clinch River Nuclear Site ESP application review.

TVA has ten working days to review the draft RAI and respond to the following:

1. A clarification call is needed to clarify any of portion of the RAIs;
2. TVA identifies any proprietary information or security-related information (SRI) located in the question(s);
3. TVA is able to respond to the RAI within 30 days.

After the call, or after ten days, NRC will finish processing the RAI through the eRAI system and issue the RAI as final to TVA. Subsequent to receipt of the final RAI, TVA will have 30 calendar days to respond to the RAIs unless additional time is specifically requested.

Please let me know if you have any questions.

Thanks
Mallecia

Mallecia Sutton

Project Manager
NRO/DNRL/LB3
U.S. Nuclear Regulatory Commission
301-415-0673

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Options

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Draft Request for Additional Information

Issue Date: 9/15/2017

Application Title: Clinch River Nuclear Site, ESP-52-047

Operating Company: Tennessee Valley Authority

Docket No. 52-047

Review Section: 13.06.03 - Physical Security - Early Site Permit

Application Section: 1, 2, 3, 13.6

QUESTIONS

13.06.03

1. In Part 2, Chapter 2 of the application, the applicant provided CRN site coordinates and indicated that a set of bounding plant parameter envelop (PPE) was identified based upon an evaluation of a number of small reactor designs technology to support the ESP application and that no specific reactor technology had been selected. As a result, the applicant stated that the power block area is only proposed as location of the reactor modules on the site. The applicant also identified a 28-acre land mass (Fig. 3.1-1) for the power block area within a 94-acre allocated for the plant area. The applicant stated that CRN land mass is sufficiently large to allow for the establishment of the security boundaries of the OCA, protected area (PA), vital area (VA), and protected area perimeter isolation zones, with sufficient distance between these security boundaries and vital areas, for the implementation of a physical protection program consistent with the requirements of 10 CFR 73.55 (*See also* 10 CFR 52.17). The staff considers the power block area specific coordinate important to demonstrate that the selected design is bounded by the PPE. Confirm that selection of any specific reactor designs technology discussed in Section 2 of the application and eventual coordinate(s) of the power block will not invalidate the proposed location of the power block area.

13.06.03

1. 10 CFR 52.17(a)(1)(x) requires that the applicant provide information demonstrating that site characteristics are such that adequate security plan and measures can be developed. 10 CFR 73.55 and Part 73, Appendix C.II.B.3.b, require an applicant to discuss site characteristics (e.g., physical layout) that could impact the development of the security plan.

In Part 2, Chapter 2, Section 2.2.3.1.1.3, the applicant discussed the effects from explosion of the two natural gas transmission pipelines within the vicinity of the CRN site. It is not clear to the staff that the applicant-conducted pipeline assessment considered any physical protection implications, specifically the failure of East Tennessee Natural Gas Pipeline 1, with regard to the heat effect of thermal radiation from a sustained jet fire and from explosions. The applicant is requested to discuss how such an event, specifically the pressure induced by such an explosion and the heat flux induced by a jet fire, was considered in the future development of the security plan.

In Table 2.2.4, there appears to be missing information with regard to distances between isolation valves of both the East Tennessee Natural Gas Pipelines 1 and 2. Identify locations and distances of these valves as part of site specific characteristics.

Note: The information addressing specific details related to site impediments and security features may 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 this request for information (RAI) as appropriate to identify SGI that reveals the specific details of security impediments. The RAI responses supplementing the Part 2 document must be publicly available.

13.06.03

1. In Part 2, Section 2.2.2.2.2, the applicant stated that the transportation route I-40 corridor is the most significant and closest highway to the CRN site, which is just over 1 mile from the site power block area. The applicant also indicated that transportation route was evaluated for potential impact to ORNL. 10 CFR 73.55 and Part 73, Appendix C.II.B.3.b, require a licensee to discuss site characteristics which could impact the development of the security plan. Confirm that the impact assessment of transportation routes for ORNL is also bounded for CRN site and will not impact the ability to develop CRN specific security plan.

Note: The information addressing specific details related to site impediments and security features may 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 this request for information (RAI) as appropriate to identify SGI that reveals the specific details of security impediments. The RAI responses supplementing the Part 2 document must be publicly available.

13.06.03

1. In Part 2, Section 13.6, the applicant stated that the characteristics of the new plant footprint are such that the applicable requirements of the following are met: 10 CFR 100.21(f) and 73.55. Confirm that selection of any specific reactor designs technology discussed in Section 2 of the application will not invalidate PPE identified in the ESP application and will not impact the development of the security plan (e.g. site specific security, engineering designed features and monitoring equipment, and security methods for screening station operating personnel) as required per NRC Regulatory Guide 4.7, General Site Suitability Criteria for Nuclear Stations; NEI 03-12, Template for Security Plan and Training and Qualification Plan; EA-03-086, Revised Design Basis Threat Order, in addition to the requirements of 10 CFR 100, §100.21(f) and 10 CFR 73, §73.55.