

December 16, 2010

Mr. George H. Gellrich
Vice President
Calvert Cliffs Nuclear Power Plant, LLC
1650 Calvert Cliffs Parkway
Lusby, MD 20657

SUBJECT: ACCEPTANCE REVIEW OF RENEWAL APPLICATION TO MATERIALS
LICENSE SNM-2505 FOR THE CALVERT CLIFFS SITE SPECIFIC
INDEPENDENT SPENT FUEL STORAGE INSTALLATION (TAC NO. L24475)

Dear Mr. Gellrich:

By letter dated September 17, 2010, Calvert Cliffs Nuclear Power Plant (CCNPP), LLC, submitted a license renewal application to the U. S. Nuclear Regulatory Commission (NRC) for the CCNPP site-specific Independent Spent Fuel Storage Installation (ISFSI). The purpose of this letter is to provide the results of the NRC staff's acceptance review of this license renewal application. The staff used the following regulatory documents to perform its acceptance review:

- Spent Fuel Storage and Transportation Office Instruction - 14, "Acceptance Review Process,"
- NUREG - 1927, Draft, "Standard Review Plan for Renewal of Independent Spent Fuel Dry Storage Installation Licenses and Dry Cask Storage System Certificates of Compliance."

The acceptance review was performed to determine if there is sufficient technical information in scope and depth to allow the NRC staff to commence its detailed technical review. The acceptance review is also intended to identify whether the application has any readily apparent information insufficiencies in its characterization of the regulatory requirements or the licensing basis of the CCNPP ISFSI.

The NRC staff has reviewed your application and concluded that it did not provide technical information in sufficient detail to enable the NRC staff to complete its detailed review and make an independent assessment regarding the acceptability of the proposed system in terms of regulatory requirements, and the protection of public health and safety, and the environment.

Request for supplemental information

1. License renewal application Section 3.3.5 "Aging Effects Requiring Management for the DSCs [Dry Storage Canisters]" states "There are no aging effects requiring management for the carbon steel, stainless steel, aluminum, or the lead subcomponents of the DSCs." NUREG 1927 Appendix E, "Component-Specific Guidance" identifies a 20-year interval "lead" cask storage system inspection. There was no discussion of a lead canister inspection report and evaluation provided in the license renewal application.

- a. Provide the results of the lead canister inspection to demonstrate no adverse DSC conditions.
- b. State how the selected lead canister bounds the conditions of all the DSCs under renewal.

This information is required to evaluate compliance with 10 CFR 72.24(d).

2. Time Limited Aging Analysis

- a. Provide a thermal fatigue analysis for the DSC which demonstrates whether or not thermal fatigue of the DSC needs to be accounted as an aging mechanism. Provide copies of applicable references and any measurement data required to support your response. The purpose is to evaluate the significance of thermal fatigue of the DSC and whether it needs to be included in the Aging Management Activity/Program (AMA/AMP).
- b. Provide a thermal fatigue analysis for the DSC support structure contained within the HSM which demonstrates whether or not thermal fatigue of the DSC support structure needs to be accounted as an aging mechanism. Provide copies of all references and any measurement data required for justification of your response. The purpose is to evaluate the significance of thermal fatigue of the DSC support structure and whether it needs to be included in the Aging Management Activity/Program (AMA/AMP).

This information is necessary to ensure compliance with 10 CFR 72.24(d) and 10 CFR 72.120.

3. Provide corrective action procedures, applicable corrective actions, and applicable 10 CFR 72.48 changes related to the scoped systems, components, and structures of the ISFSI license renewal.

Corrective action sections were briefly mentioned on page A-3, A-4 etc. of the application. Per NUREG-1927 (section 1.4.4, 3.6.1.3), corrective action procedures, corrective actions that have been implemented, and 10 CFR 72.48 changes related to the scoped items of the ISFSI license renewal should be provided as part of a complete application.

This information is required to evaluate compliance with 10 CFR 72.120.

4. Provide historic radiation survey data for the CCNPP ISFSI.

The Calvert Cliffs ISFSI Updated Safety Analysis Report (USAR) (rev. 12) discusses area radiation and airborne radioactivity monitoring instrumentation (page 7.3-2). Provide historic radiation survey data of the area surrounding the ISFSI, as discussed in NUREG-1927 (page 24). Per NUREG-1927, assessing the trend of historical measures will aid in determining the condition of shielding and confinement/containment. As mentioned in the SSNPP ISFSI renewal application (page E-25), similar information will be recorded during the renewed license period.

This information is required to evaluate compliance with 10 CFR 72.126.

5. Provide justification that originally backfilled helium remains within the spent fuel canisters during the extended license period.

The Helium within a canister ensures cooling of the spent fuel and prevents oxidation of the spent fuel cladding. Considering the 40-year license renewal time period beyond the current 20-year license period, the staff is required to evaluate the justification that the canisters will maintain the required design basis Helium throughout the license renewal period.

This information is required to evaluate compliance with 10 CFR 72.120(d), and 10 CFR 72.122 (a, l).

In order to make the application complete, the NRC staff requests that CCNPP supplement the application to address the issues identified by December 31, 2010. If CCNPP requires additional time beyond this date to prepare its response, please notify me by December 23, 2010. This will enable the NRC staff to commence its detailed technical review. If the information responsive to the NRC staff's request is not received by the above date, the application may not be accepted for review pursuant to 10 CFR 2.101, and the NRC staff will cease its review activities associated with the application. If the application is subsequently accepted for review, you will be advised of any further information needed to support the NRC staff's detailed technical review by separate correspondence. The information requested and associated response time in this letter was discussed with Ms. Patricia Furio of your staff on December 15, 2010.

Please reference Docket No. 72-8 and TAC No. L24475 in future correspondence related to this licensing action. If you have any questions, please contact me at (301) 492-3325.

Sincerely,

/RA/

John Goshen, P.E., Project Manager
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Docket No.: 72-8

TAC No.: L24475

cc: CCNPP Service List

5. Provide justification that originally backfilled helium remains within the spent fuel canisters during the extended license period.

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John Goshen, P.E., Project Manager
Licensing Branch
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Docket No.: 72-8

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cc: CCNPP Service List

ADAMS: ML

File location: G:\SFST\Calvert Cliffs ISFSI\License Renewal\CC license renewal RSI.doc

OFC:	SFST	SFST	SFST	SFST	SFST	SFST
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DATE:	12/10/2010	12/15 /10	12/13 /10	12/14 /10	12/ 13/10	12/ 13/10
OFC:	SFST	SFST	SFST			
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DATE:	12/ 16 /10	12/ 13 /10	12/16 /10			

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