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CENGSM

a joint venture of



CALVERT CLIFFS
NUCLEAR POWER PLANT

April 24, 2013

U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: Document Control Desk

SUBJECT: Calvert Cliffs Nuclear Power Plant
Independent Spent Fuel Storage Installation
Material License No. SNM-2505, Docket No. 72-8
Response to Request for Additional Information, RE: Calvert Cliffs Independent
Spent Fuel Storage Installation License Renewal Application (TAC No. L24475)

REFERENCES:

- (a) Letter from G. H. Gellrich (CCNPP) to Document Control Desk (NRC), dated September 17, 2010, Site-Specific Independent Spent Fuel Storage Installation (ISFSI) License Renewal Application
- (b) Letter from Mr. J. Goshen (NRC) to Mr. G. H. Gellrich (CCNPP), dated October, 31, 2012, Third Request for Additional Information for Renewal Application to Special Nuclear Materials License No. 2505 for the Calvert Cliffs Site Specific Independent Spent Fuel Storage Installation (TAC No. L24475)
- (c) Letter from G. H. Gellrich (CCNPP) to Document Control Desk (NRC), dated July 27, 2012, Response to Request for Supplemental Information, RE: Calvert Cliffs Independent Spent Fuel Storage Installation License Renewal Application (TAC No. L24475)

In Reference (a), Calvert Cliffs Nuclear Power Plant, LLC, submitted a license renewal application to the U.S. Nuclear Regulatory Commission for the Calvert Cliffs site-specific independent spent fuel storage installation. In Reference (b), the Nuclear Regulatory Commission issued a request for additional information (RAI) to support their review of Calvert Cliffs' license renewal application.

Attachment (1) contains Calvert Cliffs response to RAI# E-3. The responses to the remaining two RAIs (E-1 and E-2) are currently in progress and will be provided at a later date in a separate letter. The two remaining RAIs are associated with the possible susceptibility of our dry shielded canisters (DSC) to Chloride Induced Stress Corrosion Cracking (CISCC) and the development of an aging management

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program for this issue. This is an emerging issue that currently has no established industry or regulatory standards. As such Calvert Cliffs has initiated several analyses and evaluations with industry experts that are in progress or undergoing reviews. Among the steps taken in developing responses to these RAIs are:

- Conduct thermal analysis to model temperature conditions on the DSC shell.
- Evaluation of environmental conditions required for CISCC to initiate.
- Development of a finite element calculation of residual weld stresses in the DSC shell welds.
- Conduct crack growth rate analyses to determine penetration time for CISCC once conditions for initiation are reached.

However, in support of the RAI# E-1, Calvert Cliffs can provide additional information at this time on the results of laboratory analyses of samples taken from the DSC shell surface during the June 2012 inspection that were mentioned briefly in Reference (c). This information is included as Attachment (2), and will be used to support some of the above mentioned analyses.

Calvert Cliffs will submit the responses to the remaining RAIs no later than June 14, 2013.

This letter contains a regulatory commitment as listed in Attachment (3).

Should you have questions regarding this matter, please contact Mr. Douglas E. Lauver at (410) 495-5219.

I declare under penalty of perjury that the foregoing is true and correct. Executed on April 24, 2013.

Very truly yours,



GHG/KLG/bjd

- Attachment: (1) Calvert Cliffs Response for RAI# E-3
(2) Collection and Analysis of Surface Deposits from a Calvert Cliffs DSC
Enclosure: 1 EPRI Chemical Analysis Results
(3) Regulatory Commitment

cc: N. S. Morgan, NRC
W. M. Dean, NRC
Resident Inspector, NRC

S. Gray, DNR
C. Haney, NMSS
J. M. Goshen, NMSS