

April 15, 2011

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION TO SUPPORT THE  
ENVIRONMENTAL REVIEW OF THE RENEWAL REQUEST FOR THE  
CALVERT CLIFFS INDEPENDENT SPENT FUEL STORAGE INSTALLATION  
SITE SPECIFIC LICENSE (TAC NO. J00839)

Dear Mr. Gellrich:

By letter dated September 17, 2010, as supplemented on February 11, 2011, Calvert Cliffs Nuclear Power Plant, LLC (CCNPP) submitted a license renewal application to the U.S. Nuclear Regulatory Commission (NRC) for the CCNPP site-specific Independent Spent Fuel Storage Installation (ISFSI). By these submittals, CCNPP is requesting that the NRC license for the ISFSI be renewed for a period of 40 years. On March 11, 2011, the NRC staff found CCNPP's application to be acceptable for detailed review.

As part of this review, the NRC staff is assessing the potential environmental impacts of CCNPP's proposed action to renew the ISFSI license for 40 years and has determined that additional information is required to complete our assessment. The Request for Additional Information is enclosed. Within 30 days of your receipt of this letter, please provide the information requested. If CCNPP requires additional time beyond that date to prepare its response, please inform us of the date CCNPP can be expected to provide the information, within 15 days of your receipt of this letter. We are available to meet with you to discuss the requested information.

If you have any questions concerning this letter, please contact Mr. James Park of my staff, either by telephone at (301) 415-6935, or by e-mail at [James.Park@nrc.gov](mailto:James.Park@nrc.gov)

G. Gellrich

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In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Sincerely,

/RA/

Diana Diaz-Toro, Chief  
Environmental Review Branch-A  
Environmental Protection and  
Performance Assessment Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

Docket No.: 72-08  
License No.: SNM-2505

Enclosure:  
Request for Additional Information

G. Gellrich

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<b>NAME</b>	JPark	JGoshen	TMoon	DDiaz-Toro
<b>DATE</b>	4/01/2011	4/11/2011	4/04/2011	4/15/2011

**OFFICIAL RECORD COPY**

**Calvert Cliffs Nuclear Power Plant, LLC  
Docket No. 72-08  
Renewal of the CCNPP Independent Spent Fuel Storage Installation  
Site Specific License**

**Request for Additional Information**

**RAI 1**

**Provide documentation from the State of Maryland concerning the consistency certification required under the Coastal Zone Management Act of 1972.**

- By letter dated June 15, 2010, Calvert Cliffs Nuclear Power Plant (CCNPP) wrote to the Maryland Department of the Environment to request concurrence that renewal of the Independent Spent Fuel Storage Installation (ISFSI) license for 40 years is consistent with the Maryland Coastal Zone Management Program (see enclosures to the supplemental Environmental Report [ER]).
- Pursuant to 15 CFR 930.62, the State agency is to notify the NRC and CCNPP whether the State concurs with or objects to the consistency certification.

Provide determination by State of Maryland whether the proposed ISFSI license renewal is consistent with the state's Coastal Zone Management Plan program. This information is needed to fulfill NRC's requirements in meeting the provisions of the Coastal Zone Management Act of 1972.

**RAI 2**

**Provide information regarding presence of threatened, endangered, and special status species, or their critical habitat.**

- By letter dated June 3, 2010, CCNPP wrote to the U.S. Fish and Wildlife Service (USFWS) to request concerns and data related to the potential impact of the ISFSI license renewal to threatened and endangered species (see enclosures to the supplemental ER).
- By letter dated June 3, 2010, CCNPP wrote to the Maryland Department of Natural Resources, Wildlife and Heritage Service (MDNR) to request concerns and data related to the potential impact of the ISFSI license renewal to threatened and endangered species (see enclosures to the supplemental ER).
- On page E-10 of CCNPP's ISFSI license renewal application, it is stated that none of the endangered, threatened, or special animal or plant species identified in Table E3.3-1 of the supplemental ER are known to occur within the six-acre ISFSI facility site or areas of operation.

Provide copies of any further correspondence between CCNPP and the USFWS and MDNR related to the proposed ISFSI renewal and threatened and endangered species.

Enclosure

Additionally, provide further justification/support for the statement that none of the Federal or State threatened, endangered, or special status species are known to occur within the ISFSI area or area of operations.

This information is necessary to support NRC's determinations with respect to the Endangered Species Act of 1969, as amended.

### **RAI 3**

#### **Provide additional information and/or references to calculations of estimated public and occupational radiological doses over the proposed license renewal period.**

- Sections E4.1.1 and E4.1.2 of the supplemental ER refer the reader to Revision 17 of the CCNPP ISFSI Updated Safety Analysis Report (USAR) for a detailed discussion of public and occupational doses. This USAR revision is not a publicly available document.
- In Section E4.1.2 of the supplemental ER, CCNPP provides the estimated radiological dose to the maximum exposed member of the public from a full ISFSI and from the remaining uranium fuel cycle activities in the area. It is not clear if this is a bounding estimate of the expected doses that is reflective of (1) recent license amendments addressing use of a NUHOMS-32P DSC and increased burnup fuel; (2) the anticipated loading schedule for the ISFSI; and (3) the anticipated evolution of activities of Units 1 and 2 at the CCNPP site and the proposed construction and operation of Unit 3.
- In Section E4.1.2 of the supplemental ER, CCNPP provides an estimate of the collective dose to persons within two miles of the ISFSI and states that this estimate is less than one percent of the collective dose from the remaining fuel cycle operations. It is not clear if this collective dose is an annualized estimated dose or is a collective dose for the entire proposed license renewal period that is reflective of anticipated changes in activities at the CCNPP site and in the surrounding population.

Provide publicly available discussions of CCNPP's assumptions and calculations used in estimating public and occupational radiological doses for the period of the proposed license renewal.

This information is necessary in order for the NRC staff to assess the environmental impacts of the proposed action as required by 10 CFR 51.30.

### **RAI 4**

#### **Provide additional information on the current monitoring and surveillance program.**

- Section E3.4 of the supplemental ER states that meteorology and climatology for the CCNPP site were addressed in the original 1989 Environmental Report for the ISFSI license application.
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- Section E5.0 of the supplemental ER states that CCNPP performs routine monitoring activities to include: (1) the Radiological Environmental Monitoring Program for Units 1 and 2 and the ISFSI; (2) periodic monitoring of the horizontal storage modules (HSMs) and preventative maintenance as necessary; and (3) monitoring and maintenance of the perimeter and security fences.
- Section E2.2 of the supplemental ER states that flood water would need to rise at least 18 inches above yard grade to block the Horizontal Storage Module (HSM) air inlet.
- Section E4.3 of the supplemental ER provides an estimate of an increase in occupational dose due to an 8-hour debris removal period for the NUHOMS-24P and NUHOMS-32P. Documentation for this calculation is contained in Revision 17 to the USAR, which is not a publicly available document.
- Since original licensing of the ISFSI in 1991, the Federal Emergency Management Agency (FEMA) has made 11 “major disaster declarations” for the State of Maryland, to include Calvert County where the CCNPP ISFSI is located. These 11 declarations included hurricanes, snowstorms, blizzards, tornadoes, and severe storms / flooding.

Provide publicly available discussion of CCNPP’s response to severe weather events experienced at the site since 1991 to address flooding and/or blockage of the HSM air inlets of the ISFSI and the need for debris removal. This discussion should include mention of any instances of blockage of HSM air inlets, situations when on-site workers were needed to remove debris, and calculations of doses received during debris removal.

Clarify whether the estimates in estimated increases in occupational dose from debris removal are for a single HSM, multiple HSMs of the same design, or the full ISFSI reflective of the two HSM designs (i.e., NUHOMS-24P and NUHOMS-32P) and increased burnup fuel.

Additionally, revise section E3.4 of the supplemental ER, as needed, to address severe weather events experienced at the site since 1991.

This information is necessary in order for the NRC staff to assess the environmental impacts of the proposed action as required by 10 CFR 51.30.

#### Reference

Federal Emergency Management Agency (FEMA), *FEMA: Maryland State Disaster History*, [http://www.fema.gov/news/disasters\\_state.fema?id=24](http://www.fema.gov/news/disasters_state.fema?id=24), accessed on March 2, 2011.