

## **NRR-PMDAPEm Resource**

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**From:** Chawla, Mahesh  
**Sent:** Tuesday, December 30, 2014 11:51 AM  
**To:** hletheridge@aep.com; mkscarpello@aep.com  
**Cc:** Jackson, Christopher; Palmrose, Donald; Dickson, Elijah; Shoop, Undine; Parillo, John; Erwin, Kenneth; Grover, Ravinder; Elliott, Robert; Edmonds, Shavon; Som, Swagata; Obodoako, Aloysius; Woodyatt, Diana; Zimmerman, Jacob; Kulesa, Gloria; Dennig, Robert; Lee, Mike; Mazaika, Michael; Pelton, David; Riemer, Kenneth; Ellegood, John; Taylor, Thomas  
**Subject:** LIC-109 Acceptance Review of D.C.Cook Units 1 and 2 LAR to adopt TSTF-490, Revision 0, and implement full-scope AST - MF5184 and MF5185 - Unacceptable with Opportunity to Supplement

By letter dated November 14, 2014, Indian Michigan Power Company (I&M) (the licensee) submitted a license amendment request for Donald C.Cook Nuclear Plant (CNP), Units 1 and 2. The proposed license amendment request (LAR) would replace the current CNP Units 1 and 2 TS 3.4.16 limit on reactor coolant system (RCS) gross specific activity with a new limit on RCS noble gas specific activity. The noble gas specific activity limit would be based on a new dose equivalent Xe-133 definition that would replace the current E Bar average disintegration energy definition. In addition, the current dose equivalent 1-131 definition would be revised to allow the use of additional thyroid dose conversion factors. Additionally, I&M proposes to revise the CNP Units 1 and 2 licensing basis and TS to adopt the alternative source term (AST) as allowed in 10 CFR 50.67.

The purpose of this letter is to provide the results of the U.S. Nuclear Regulatory Commission (NRC) staff's acceptance review of this amendment request. The acceptance review was performed to determine if there is sufficient technical information in scope and depth to allow the NRC staff to complete 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 plant.

Consistent with Section 50.90 of Title 10 of the *Code of Federal Regulations* (10 CFR), an amendment to the license (including the technical specifications) must fully describe the changes requested, and following as far as applicable, the form prescribed for original applications. Section 50.34 of 10 CFR addresses the content of technical information required. This section stipulates that the submittal address the design and operating characteristics, unusual or novel design features, and principal safety considerations. In order to make the application complete, the NRC staff requests that I&M supplement the application to address the information requested in the enclosure. This will enable the NRC staff to begin its detailed technical review.

***Please arrange a teleconference with the NRC staff listed in cc; within next 5 working days to discuss the following request for supplemental information:***

### **SUPPLEMENTAL INFORMATION NEEDED FOR THE AMENDMENT REQUEST**

In the LAR, the thermal-hydraulic inputs to the accident dose calculations have changed from the values in the CLB. However, there is no description of the thermal hydraulic (TH) analysis and no references are provided for the current licensing bases (CLB). On December 12, 2014, a teleconference was held between the NRC staff and representatives of the licensee to get further clarification on the CLB and the various values utilized in calculation of the AST. However, during the discussion, the licensee only provided a general methodology of adoption of the various terms from the current licensing bases (CLB). The licensee stated that they are still relying on their existing CLB, TH analyses; however they are extracting different values to input into the dose calculations.

To begin a review of this amendment, the NRC staff requires a description of the TH analysis. The licensee will need to describe how they used their CLB analysis to generate new inputs to the accident dose calculations.

After receiving this information, the staff will proceed to complete the acceptance review of the LAR. The NRC staff is also requesting an opportunity to do the site audit of the analyses to verify the information provided by the licensee.

In case of any further questions, please feel free to contact me. Thanks

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**Subject:** LIC-109 Acceptance Review of D.C.Cook Units 1 and 2 LAR to adopt TSTF-490, Revision 0, and implement full-scope AST - MF5184 and MF5185 - Unacceptable with Opportunity to Supplement

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