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**Sent:** Thursday, March 11, 2010 1:02 PM  
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**Subject:** REQUEST FOR ADDITIONAL INFORMATION #1, REGARDING THE LICENSE AMENDMENT, NORTH ANNA, UNITS 1 AND 2, ECCS PUMP ROOM EXHAUST AIR CLEANUP SYSTEM (PREACS) TS 3.7.12

**REQUEST FOR ADDITIONAL INFORMATION (RAI) FOR NORTH ANNA POWER STATIONS (NAPS)**  
**(TAC NOS. ME2413 AND ME2414)**

By letter dated September 28, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML032730468), Virginia Electric and Power Company, (the licensee) requested an amendment to Facility Operating License Nos. NPF-4 and NPF-7 for North Anna Power Station, Units 1 and 2, respectively. The proposed change will add new conditions B and C with associated Action Statements and Completion Times to Technical Specification 3.7.12 and modify Conditions A and D of the same. These changes specifically address the filtration function of the emergency core cooling system (ECCS) pump room exhaust air cleanup system (PREACS).

The Containment and Ventilation Branch and Technical Specifications Branch have reviewed the information in the license action request and determined additional information is required to complete their review. However, please note RAI related to Accident Dose Branch will be forwarded soon.

RAI SCVB-1: Describe how the ECCS pump leakage will be monitored. Are the seals in a static condition (pump not operating) or dynamic condition (pump operating)? How is the volumetric leakage rate measured?

RAI SCVB-2: Pump seals require some leakage while operating to prevent seal failure. If the ECCS pump leakage monitoring is performed with, the pump not operating, (seals in a static condition) provide justification why this is acceptable for predicting seal leakage when the pump is operating.

RAI SCVB-3: Page 11 of the license amendment request says the proposed change includes a surveillance requirement to monitor ECCS leakage. This "surveillance requirement" is included as a Required Action for Conditions B, C, and D. No ECCS testing is being added TS 3.7.12 Surveillance Requirements. No ECCS test program is being added to section 5.5, "Programs and Manuals", of the Technical Specifications as part of this amendment request.

- (a) Is the monitoring of the ECCS system leakage part of an existing technical specification other than TS 3.7.12?
- (b) Is the new surveillance requirement added to meet the requirements of 10 CFR 50.36(c)(3), "Surveillance Requirements"?
- (c) If not, provide justification for not having a technical specification surveillance requirement to assure that the condition of the system is within the limiting conditions for operation of the ECCS PREACS system with inoperable filter or filters will be met.

RAI SCVB-4: Is the monitoring of the ECCS leakage through valve packing performed with the packing under the differential pressure expected when operating during a design basis accident?

RAI SCVB-5: What safety factor will be used for the maximum allowable ECCS leakage rate to assure that if an accident should occur any increase of leakage over the duration of the event would not cause dose limits to be exceeded?

RAI SCVB-6: What ECCS leakage would be expected when operating under accident conditions with the maximum allowable unfiltered ECCS leakage and a single failure of the worst case pump seal or valve packing? Will off-site and control room radiological doses remain within limits with two trains of ECCS PREACS filters inoperable?

RAI SCVB-7: A serial accounting of the time needed to perform the tasks needed to replace the filters, perform post-maintenance testing, and declaring the filters operable is used to justify the proposed 14-day allowed outage time for the filters. What is the estimated minimum time if some of the tasks are performed concurrently (such as removing the old charcoal concurrent with receipt of the new charcoal)?

RAI SCVB-8: The basis for 30-day completion time to restore a filter back to operable status (when only one filter train inoperable) is the time necessary to complete repairs on the filter assembly and/or its associated dampers. With two filter trains inoperable the basis for the 14-day completion time to return one filter train to operable status is that is the time required to complete necessary repairs on a filter assembly and/or associated dampers. The license amendment request states that the replacement of a charcoal filter assemble takes only 9½ days even when all tasks are performed in sequence. Provide a discussion why the necessary repairs take longer when one filter train is inoperable as opposed to two filter trains inoperable.

RAI SCVB-9: How is the operability of the ECCS Pump room boundary determined? Do technical specification surveillance requirements exist for determining boundary operability? If there is, no surveillance requirements to determine the operability of the ECCS Pump room boundary provide a discussion for determining entrance into or exit from Condition D.

RAI SCVB-10: What is the expected frequency for entry into Condition C, "Two ECCS PREACS trains inoperable due to inoperable filtration capability"?

RAI ITSB-11: The regulatory analysis found on pages 14 and 15 of Attachment 1 of the LAR does not discuss the regulatory requirements of 10 CFR 50.36. State how the proposed TS meet regulatory requirements of 10 CFR 50.36.

Please submit the docketed response to these RAI's by April 9, 2010.

Docket Nos. 50-338, 50-339 for NAPS

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EXHAUST AIR CLEANUP SYSTEM (PREACS) TS 3.7.12

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