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**To:** dtynr@entergy.com; MICHAEL D STROUD  
**Date:** Fri, Nov 9, 2007 4:13 PM  
**Subject:** Draft RAIs on Steam Generator Tube Integrity and Chemical Programs

Donna,

After transmitting the draft RAIs to you, I noticed that one of the draft RAIs was incorrectly numbered. Attached is a revised set of draft RAIs in which the numbering has been corrected. No other changes have been made.

If you have any questions, please let me know.

Thanks,

**CC:** Bo Pham; IPNonPublicHearingFile; Rani Franovich

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Indian Point Nuclear Generating Unit Nos. 2 and 3 (IP2 and IP3)  
License Renewal Application  
Draft Request for Additional Information Set 6  
Steam Generator Tube Integrity and Chemical Programs

The Steam Generator Tube Integrity and Chemical Engineering Branch staff has reviewed the sections of the License Renewal Application (LRA) related to Steam Generator Tube Integrity, Flow Accelerated Corrosion (FAC), Containment Protective Coatings, Steam Generator Blowdown System, Charging and Volume Control System, and Boraflex and Boral in the Spent Fuel Pool. The staff has identified that additional information is needed in order to complete the review.

**D-RAI 3.1.2.2.14-1**

LRA Table 3.1.1, Item 3.1.1-32, and LRA Section 3.1.2.2.14 “Wall Thinning due to Flow Accelerated Corrosion” state that: “Wall thinning due to flow-accelerated corrosion could occur in steel feedwater inlet rings and supports and the Steam Generator Integrity Program manages loss of material due to flow-accelerated corrosion in the feedwater inlet ring using periodic visual inspections.” LRA Section B.1.35 contains a description of the Steam Generator Integrity Program but does not mention monitoring FAC in the Feedwater inlet ring.

- What is the frequency of these secondary side inspections of the feedwater inlet ring; when was the last inspection completed; what were the acceptance criteria; and, what were the results of the last inspection?

**D-RAI B.1.15-1**

LRA Table 3.1.2-4-IP2, the last component on page 3.1-152, is Blowdown pipe connection (nozzle). The interior surface aging management program (AMP) credited for monitoring degradation is Water Chemistry Control-Primary and Secondary, and refers to NUREG-1801, Vol. 2, Rev. 1, “Generic Aging Lessons Learned (GALL) Report,” Table IV, Item IV.D2-8.

- Since the component is a nozzle, explain why Item IV.D2-8 is cited here, rather than GALL Item IV.D2-7 which lists FAC as the AMP.
- Is the steam generator blowdown nozzle in the FAC program?

**D-RAI B.1.15-2**

It is noted that both units have been approved for stretch power uprates within the past three years, IP2 in 2004 and IP3 in 2005.

- Provide details on any changes made to the FAC program to account for changes to process variables resulting from those power uprates.
- Which piping systems/components are the most susceptible to FAC?
- How accurately has the CHECWORKS™ model predicted changes in FAC wear rates for the top four most susceptible systems/components for each unit since the power uprate was implemented?

#### **D-RAI B.1.4-1**

LRA Section B.1.4 states that the Boral Surveillance Program acceptance criteria for measurements are as follows: Neutron attenuation testing and B-10 areal density is equal to or greater than the B-10 gm/cm<sup>2</sup> nominal density assumed in the criticality analysis.

- What was the subcritical margin used in the criticality analysis?
- How does this acceptance criterion account for potential degradation between surveillance periods?
- Please confirm that IP3 has sufficient boral coupon samples to maintain the sampling frequency through the period of extended operation.

#### **D-RAI B.1.36-1**

LRA Section B.1.36, Structures Monitoring, contains a statement that the Structures Monitoring Program does not address protective coating monitoring and maintenance. However, LRA Table 3.5.1, Item 3.5.1-25 states, "...If protective coatings are relied upon to manage the effects of aging, the structures monitoring program is to include provisions to address protective coating monitoring and maintenance."

- Are protective coatings relied upon to manage the effects of aging? If so, what changes will be made to the Structures Monitoring Program to address protective coatings?

#### **D-RAI B.1.8-1**

LRA Section B.1.8, Containment Inservice Inspection Program, is the program credited for condition monitoring of protective coatings in containment. However, the description of this program only addresses the containment liner, integral attachments on the liner and the concrete surfaces. It does not address other steel surfaces in containment with protective coatings.

- How is the condition of the protective coatings on other metal surfaces, other than the containment liner, monitored?
- Describe the frequency and scope of the inspections, acceptance criteria, and the qualification of personnel who perform containment coatings inspections.