

## SeabrookNPEm Resource

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**From:** Cunanan, Arthur  
**Sent:** Tuesday, April 10, 2012 7:21 AM  
**To:** Cliche, Richard  
**Subject:** Seabrook draft RAIs  
**Attachments:** SBK RAIs.doc

Rick,

Attached is the draft RAIs to discuss for our conference call.

Sincerely,  
Arthur Cunanan  
Project Manager  
Division of License Renewal  
U.S. Nuclear Regulatory Commission  
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**From:** Cunanan, Arthur

**Created By:** Arthur.Cunanan@nrc.gov

**Recipients:**  
"Cliche, Richard" <Richard.Cliche@fpl.com>  
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### **RAI B.2.1.11-3**

Background: SRP-LR, Section A.1.2.3.10 states that operating experience of existing AMPs, including past corrective actions resulting in program enhancements, should be considered. It also states that a past failure would not necessarily invalidate an AMP because the feedback from operating experience should have resulted in appropriate program enhancements.

The staff issued RAI B.2.1.11-2, requesting the applicant to provide any enhancements to the Open-Cycle Cooling Water System program as a result of the corrective actions taken in response to the degradation of the polyvinyl chloride (PVC) lined piping which potentially affected the intended function of a diesel generator heat exchanger. The applicant's response, dated February 7, 2012, stated that the Open-Cycle Cooling Water System program has provisions for managing protective coatings and therefore, enhancements are not required to the aging management program. The response also listed the following corrective actions that appear to affect the implementation of the program, but have not been completed:

A process will be established that ensures monitoring and inspection programs comply with system performance monitoring guidelines and that long term strategies comply with Regulatory Commitments (such as GL 89-13)

Actions have been assigned to support replacement of the PVC- lined pipe in the subsequent refueling outage (currently scheduled for fall of 2012).

Actions have been assigned to evaluate concrete-lined piping in the screen wash and circulating water systems for determination of liner adequacy.

Actions have been assigned to determine if other coatings in the service water system have service life limitations.

Issue: Although the existing program has provisions for managing protective coatings, based on the operating experience associated with the degraded PVC-lined piping, the existing program does not appear to be adequate in that the first corrective actions cited above requires a change to the program to ensure that the monitoring and inspection programs align with long term [aging] strategies. The second corrective actions states that a design change will be implemented, but insufficient detail was provided for the staff to reach a conclusion on the adequacy of managing the aging of the replacement items. The final two corrective actions have an indeterminate outcome in that the evaluations have not been completed related to the adequacy of the concrete-lined pipe and service life limitations of other coatings in the service water system. Until these actions are complete, the staff does not have adequate information to complete its review of these items.

#### Request:

- a) Provide a commitment to enhance the Open-Cycle Cooling Water System program to incorporate the first corrective action, above as discussed in the response to RAI B.2.1.11-2.
- b) State the materials that will be utilized to replace the PVC-lined pipe described in the second corrective action. Add new or revise existing AMR items, if necessary, to age manage the replacement materials.
- c) If the PVC-lined pipe described in the second corrective action will not be replaced prior to completion of the SER, state a commitment to replace the piping prior to the period of

- extended operation.
- d) State the results of the evaluations described in the third and fourth corrective actions described above.

#### **RAI B.2.1.12-10**

Background: SRP-LR, Section A.1.2.3.10 states that operating experience of existing AMPs, including past corrective actions resulting in program enhancements, should be considered. It also states that a past failure would not necessarily invalidate an AMP because the feedback from operating experience should have resulted in appropriate program enhancements.

The staff issued RAI B.2.1.12-6 requesting the applicant to provide information to confirm that the operating experience associated with recurring loss of material due to cavitation erosion downstream of throttled valves in the primary component cooling water system had been eliminated. The applicant's response, dated January 13, 2011, stated that flow re-balancing of the primary component cooling water system was implemented in 2003 and this action was expected to eliminate the cavitation-induced wear downstream of the throttled butterfly valves in the system. The response also stated that to ascertain whether the loss of material due to cavitation erosion has been eliminated, the piping downstream of the valves in question will be inspected for loss of material prior to entering the period of extended operation.

Issue: It is unclear to the staff why a commitment had not been made to enhance the Closed-Cycle Cooling Water System program to incorporate the activity discussed in the response to RAI B.2.1.12-6, which potentially affects the implementation of the AMP.

Request: Provide a commitment to enhance the Closed-Cycle Cooling Water System program to incorporate wall thickness measurements downstream of the throttled valves in the primary component cooling water system until such time that the flow re-balancing, or a subsequent design modification if necessary, has been demonstrated to be effective at eliminating the cavitation-induced wear.