

## SeabrookNPEM Resource

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**From:** Plasse, Richard  
**Sent:** Thursday, November 17, 2011 10:19 AM  
**To:** Cliche, Richard  
**Subject:** FW: RAPB RAI - Seabrook TRP 21  
**Attachments:** SBK OCCW RAI B 2 1 11-2 Gavula Holston.doc

Draft rai

**Hearing Identifier:** Seabrook\_License\_Renewal\_NonPublic  
**Email Number:** 2375

**Mail Envelope Properties** (Richard.Plasse@nrc.gov20111117101900)

**Subject:** FW: RAPB RAI - Seabrook TRP 21  
**Sent Date:** 11/17/2011 10:19:15 AM  
**Received Date:** 11/17/2011 10:19:00 AM  
**From:** Plasse, Richard

**Created By:** Richard.Plasse@nrc.gov

**Recipients:**  
"Cliche, Richard" <Richard.Cliche@fpl.com>  
Tracking Status: None

**Post Office:**

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	11	11/17/2011 10:19:00 AM
SBK OCCW RAI B 2 1 11-2 Gavula Holston.doc		32766

**Options**  
**Priority:** Standard  
**Return Notification:** No  
**Reply Requested:** No  
**Sensitivity:** Normal  
**Expiration Date:**  
**Recipients Received:**

## Open-Cycle Cooling Water

### RAI B.2.1.11-2

**Background:** GALL Report AMP XI.M20, "Open-Cycle Cooling Water," states that the program includes surveillance and control techniques to manage aging effects caused by various aging mechanisms including protective coating failures. GALL Report, Table IX.F, "Aging Mechanisms," states that fouling includes macrofouling (e.g., peeled coatings and debris), and can result in a reduction of heat transfer or loss of material.

SRP-LR Section A.1.2.3.10 "Operating Experience," states that past corrective actions for existing AMPs should be considered and that feedback from past failures should have resulted in appropriate program enhancements. The SRP-LR also states that operating experience information should provide objective evidence to support the conclusion that the effects of aging will be managed adequately so that the structure and component intended function(s) will be maintained during the period of extended operation.

LRA Section B.2.1.11 describes the Open-Cycle Cooling Water System Program as an existing program that manages the aging effects due to various mechanisms including "liner/coating degradation." In addition, the Operating Experience section for this programs states:

*The cement lined above ground piping associated with the Diesel Generator heat exchangers has been replaced with flanged Plastisol PVC lined carbon steel spool pieces. The size and accessibility of this piping did not permit the use of AMEX-10/WEKO seals. Follow up inspections of weld areas by ultrasonic testing and internal visual examinations during refueling outages have confirmed that the engineering design change has been effective in preventing loss of material.*

**Issue:** According to recent information provided by Regional NRC personnel, the Plastisol PVC lining has degraded to the extent that it was found missing in certain portions of the carbon steel piping, which potentially affected the intended function of the diesel generator heat exchangers. Based on this plant-specific operating experience, additional information is needed by the staff relative to the effectiveness of past aging management activities for the Open-Cycle Cooling Water System Program, and any enhancements, if warranted, to address this degradation.

### **Request:**

- 1) Provide a description of the recent PVC lining degradation event, including the associated cause and extent of condition. As part of the response, address the expected life span of the PVC lining material. In addition, provide a discussion of the previous aging management activities that were performed to manage liner degradation prior to the event, including whether any previous activities were specifically performed on the degraded areas.
- 2) Provide a description of the corrective actions taken in response to the recent event and provide any enhancements made to the Open-Cycle Cooling Water Program to ensure that components' intended function(s) will not be impacted during the period of extended operation.

If enhancements will not be made, provide the bases for why there is reasonable assurance that the intended functions of will be maintained consistent with current licensing bases.