

## Vogle PEmails

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**From:** Reyes-Maldonado, Ruth  
**Sent:** Wednesday, February 15, 2017 8:17 AM  
**To:** Vogtle PEmails; 'ACCHAMBE@southernco.com'  
**Cc:** Patel, Chandu; Quarles, Adam Graham  
**Subject:** DRAFT Request for Additional Information (RPAC) - SNC VEGP Units 3&4: Request for License Amendment and Exemption: Ventilation System Changes (LAR-16-030)  
**Attachments:** LAR 16-030 DRAFT RAIs.docx

Good afternoon

Attached is a draft RAI in support of the technical review of Vogtle LAR 16-030: Ventilation System Changes. Please review and answer the following questions:

1. Can SNC answer within 30 days?
2. Does SNC need a clarification meeting?

The draft RAI will be made Final upon hearing from you.

thank you,  
Ruth

**Hearing Identifier:** Vogtle\_COL\_Docs\_Public  
**Email Number:** 78

**Mail Envelope Properties** (5a6b9bd0d16e4a52a7a2f4308161e6bd)

**Subject:** DRAFT Request for Additional Information (RPAC) - SNC VEGP Units 3&4:  
Request for License Amendment and Exemption: Ventilation System Changes (LAR-16-030)  
**Sent Date:** 2/15/2017 8:16:49 AM  
**Received Date:** 2/15/2017 8:16:50 AM  
**From:** Reyes-Maldonado, Ruth

**Created By:** Ruth.Reyes@nrc.gov

**Recipients:**

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Tracking Status: None  
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Tracking Status: None

**Post Office:** HQPWMSMRS03.nrc.gov

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	368	2/15/2017 8:16:50 AM
LAR 16-030 DRAFT RAIs.docx	25724	

**Options**

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

10 CFR 52.47(a)(5) requires that the FSAR contain the kinds and quantities of radioactive materials expected to be produced in the operation and the means for controlling and limiting radioactive effluents and radiation exposures within the limits set forth in 10 CFR 20.

SRP Section 12.2 indicates that the description of airborne sources should include a tabulation of the calculated concentrations of radioactive material, by nuclide, expected during normal operation, AOOs, and accident conditions for areas normally occupied by operating personnel and that the FSAR should provide the models and parameters used for the calculations.

- 1) In LAR 16-030, enclosure 1, pages 10 and 11 of 17, the licensee states that the proposed modifications to reduce the Auxiliary Building radiologically controlled area ventilation system (VAS), fuel handling area subsystem, do not adversely affect the calculated airborne radioactivity concentrations in the fuel handling area, because the calculations conservatively use a 10% lower ventilation flow rate than the expected ventilation flow rate. Consistent with this statement, the original UFSAR Table 12.2-24, "Parameters and Assumptions Used for Calculating Fuel Handling Area Airborne Radioactivity Concentrations," shows that the ventilation flow through the fuel handling area was 17,000 cubic feet per minute (cfm) and includes a note indicating that 17,000 cfm is the normal expected flow rate and for conservatism, the calculated airborne radioactivity concentrations are based on a 10% lower flow rate. However, in the LAR the licensee proposes changing the flow rate for the fuel handling area in Table 12.2-24 from 17,000 cfm to 9,000 cfm (a 47% decrease in flow rate). It is unclear to staff how it can be accurate to state that the reduced ventilation flow rates do not adversely affect the calculated airborne radioactivity concentrations in the fuel handling area, since a 47% reduction in flow is much greater than the initially conservative 10% reduction assumed.
  - a. Therefore, please provide additional information to further explain and justify the statement that airborne activity levels are not adversely impacted or revise the LAR to discuss the potential impacts of increased airborne radioactivity levels, worker doses, and/or other radiation protection related controls that may be necessary as a result of this change.
  - b. If in the response to Part "a," it is determined that the calculated airborne activity levels will increase, please update UFSAR Table 12.2-25, "Fuel Handling Area Airborne Radioactivity Concentrations," to provide updated information. If no update is necessary, please provide an explanation for why no update is needed.
  - c. As a result of the above and the changes made in the LAR, please ensure that the notes to Table 12.2-24 remain valid or modify the notes, as appropriate.
- 2) The LAR also includes the rail car bay/solid radwaste system area in the scope of the Auxiliary Building ventilation flow rate testing and the ITAAC acceptance criteria for the VAS is revised to include the rail car bay/solid radwaste system area and the flow rate is changed from 15,300 cfm to 10,300 cfm. As a result of the changes, please provide

additional information clarifying why the source term information provided in UFSAR Table 12.2-27, “Auxiliary Building Airborne Radioactivity Concentrations,” still remains accurate and valid for the non-fuel handling areas of the Auxiliary Building, including the rail car bay/solid radwaste system area.

DRAFT