

## SummerRAIsPEm Resource

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**From:** Gleaves, Bill  
**Sent:** Friday, August 05, 2016 1:45 PM  
**To:** SummerRAIsPEm Resource  
**Subject:** FW: RAI related to Summer/Vogtle Alternative Request on Preservice Inspection Steam Generator Nozzle to RCP Casing Welds  
**Attachments:** RAIs for SG to RCP alternative\_REV 2.docx

**From:** Downey, Steven  
**Sent:** Friday, August 05, 2016 8:56 AM  
**To:** Gleaves, Bill  
**Cc:** Patel, Chandu  
**Subject:** FW: Requests for Additional Information related to Vogtle Alternative Request VEGP3&4-PSI-ALT-05

Bill,

FYI. These will apply to Summer as well.

Also, the RAIs have already been sent to and approved by DEIA management.

Steve

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**From:** Downey, Steven  
**Sent:** Friday, August 05, 2016 8:15 AM  
**To:** Patel, Chandu <[Chandu.Patel@nrc.gov](mailto:Chandu.Patel@nrc.gov)>  
**Cc:** Mitchell, Matthew <[Matthew.Mitchell@nrc.gov](mailto:Matthew.Mitchell@nrc.gov)>; Reichelt, Eric <[Eric.Reichelt@nrc.gov](mailto:Eric.Reichelt@nrc.gov)>; Honcharik, John <[John.Honcharik@nrc.gov](mailto:John.Honcharik@nrc.gov)>  
**Subject:** Requests for Additional Information related to Vogtle Alternative Request VEGP3&4-PSI-ALT-05

Chandu,

Attached are two RAIs related to the Vogtle Alternative Request regarding the SG nozzle-to-RCP casing butt welds. All of the associated docket numbers for Vogtle in the eRAI system are related to specific LAR requests, so I did not want to file it under the wrong place.

Let's discuss the path forward on these once you get a chance to look over everything.

Thanks,

Steve

### **Steven Downey II, Ph.D.**

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"Greatness is more than potential. It is the execution of that potential and the willingness to proceed beyond the reaches of raw talent. To be great requires the appropriate training, discipline, and drive to succeed."

**Hearing Identifier:** Summer\_COL\_eRAIs  
**Email Number:** 178

**Mail Envelope Properties** (9c6740c6cda5405484533dad11d624b0)

**Subject:** FW: RAI related to Summer/Vogtle Alternative Request on Preservice Inspection  
Steam Generator Nozzle to RCP Casing Welds  
**Sent Date:** 8/5/2016 1:45:18 PM  
**Received Date:** 8/5/2016 1:45:21 PM  
**From:** Gleaves, Bill

**Created By:** Bill.Gleaves@nrc.gov

**Recipients:**  
"SummerRAIsPEm Resource" <SummerRAIsPEm.Resource@nrc.gov>  
Tracking Status: None

**Post Office:** HQPWMSMRS05.nrc.gov

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	1860	8/5/2016 1:45:21 PM
RAIs for SG to RCP alternative_REV 2.docx		17300

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

### **Question 1**

Alternative request VEGP3&4-PSI-ALT-05 describes in detail how the ultrasonic examination of the steam generator nozzle-to-reactor coolant pump casing welds (SG-to-RCP welds) will be done using a procedure and personnel qualified in accordance with the Electric Power Research Institute Performance Demonstration Initiative (EPRI/PDI) program. In this description, the licensee indicates that ultrasonic detection and length sizing qualification was extended to the full thickness of the aforementioned weld and that the examination volume is not limited. The staff notes that this capability would allow the licensee to meet the NRC proposed condition on American Society of Mechanical Engineers (ASME) Code Case N-799 which states, in part, that the examination of dissimilar metal welds between steam generator nozzles and pumps must be full volume.

In lieu of examining the full weld volume as proposed in the condition, the licensee proposes to perform an ultrasonic examination of the inner 1/3 of the weld and a surface examination of the inner and outer weld surfaces. However, there is no technical justification provided to support the licensee's proposal to volumetrically examine only the inner 1/3 of the weld volume. Therefore, the staff is unable to determine whether the proposed alternative examinations provide an acceptable level of quality and safety in accordance with 10 CFR 50.55a(z).

To resolve this issue, the staff requests that the licensee provide additional information or analyses to justify why the proposed examinations are an acceptable alternative to examining the full weld volume. Specifically, the staff requests that the licensee, at a minimum, provide an analysis which considers the size and nature of the largest potential defect which could be expected to be present in the outer 2/3 of the weld as well as the operating loads to which the weld will be subject for the licensed lifetime of the facility. To support the requested alternative, this analysis would be expected to demonstrate that the initiation of active degradation of the weld would not be expected to occur from the postulated defect in the outer 2/3 of the weld over the licensed lifetime of the facility.

### **Question 2**

Alternative request VEGP3&4-PSI-ALT-05, Figure 2, indicates that the configuration of the SG-to-RCP weld will be a double-sided joint (i.e., double V). However, the figures used to illustrate the examination requirements in ASME Code Case N-799 and ASME Section XI (2013 Edition), IWB-2500-8 are for a single-sided weld joint. The staff requests that the licensee describe why the examination requirements proposed for a single-sided weld are applicable and acceptable for use on the SG-to-RCP weld, which is double-sided weld.