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**To:** [Cameron Goodwin \(cgoodwin@rinsc.ri.gov\)](mailto:cgoodwin@rinsc.ri.gov)  
**Cc:** [Jeff Davis](#); [Adams, Alexander](#)  
**Bcc:** [Morgan D. Libby](#)  
**Subject:** Confirmation request related to planned RAI supplemental responses  
**Date:** Friday, October 14, 2016 8:25:00 AM

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Dr. Cameron,

This email summarizes the NRC staff understanding of the anticipated Rhode Island Nuclear Science Center (RINSC) request for additional information (RAI) supplemental responses.

Some the RAI responses submitted to the Nuclear Regulatory Commission (NRC) on March 1, 2016 were incomplete. A conference call was conducted on April 15, 2016 discussing the NRC staff's position on the RAI responses. At that time RINSC agreed to supplement the March 1, 2016 RAI responses. The NRC staff did not issue additional RAIs but considered the RAIs to be supplemented to be still open.

It is the NRC staff's understanding that supplements are being provided to address the following concerns which were discussed with your staff:

RAI-4.34 (a. and b.) Comparison of measure core reactivity values to calculated values:  
For example, a table or similar presentation of the information stating how closely the calculated values match the measured values for excess reactivity and control rod worth. The deviation from the measured to the predicted should include a safety based justification.

RAI 13.27 – The response was a statement that the SAR would be updated in the future: Provide the safety analysis that demonstrates that the safety limits will mitigate the consequences of accidents such as, 1) Insertion of excess reactivity (experiment type failure), 2) Loss of Coolant Accident (pool drain), and 3) Uncontrolled Rod Withdrawal (malfunction of the rod control system) also called the startup accident

RAI 13.28 – Maximum Hypothetical Accident (MHA):  
Provide the MHA (fuel element failure) safety analysis consistent with the applicable guidance. The NRC staff acknowledges that you have been submitting information related to this analysis as you are revising the calculations to be consistent with the guidance. The supplement to the RAI response is expected to include the revised calculations and updated assumptions.

SAR Section 7 – “Instrumentation and Control Systems”

The NRC staff acknowledges that we do not have an outstanding RAI on this particular item, but it was discussed during the phone call on April 15, 2016. The NRC staff is looking for a table or similar presentation of material that clearly articulates which items described in the existing section 7 of the SAR are important to safety and which items provide supplemental operator information. Section 7 in NUREG-1537 provides guidance for discussing the safety impact of the various systems and identifies which systems are expected to be present at the facility. The supplemental response needs to describe the equipment related to the

following sections or provide an explanation why the section does not apply to RINSC: 7.3 "Reactor Control System," 7.4 "Reactor Protection System," 7.5 "Engineered Safety Features Actuation Systems," 7.6 "Control Console and Display Instruments," 7.7 "Radiation Monitoring Systems"

The final version of the RAI responses are expected on October 31, 2016.

Please confirm your understanding of the supplemental information and due date are consistent with the NRC staff position.

Sincerely,  
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