

From: [STEWART, TRACEY](#)
To: [Valentin-Olmeda, Milton](#)
Cc: [MOORE, MICHAEL S](#); [STEWART, TRACEY](#)
Subject: [External_Sender] RE: Request for Additional Information on VC Summer SFPLI Levels
Date: Tuesday, March 28, 2017 8:54:59 AM
Attachments: [SFP Elevation View, Revision 2 3-21-17.pdf](#)

Good morning, Milton:

Below you will find Virgil C. Summer's response to the following NRC request for additional information concerning Virgil C. Summer's Spent Fuel Pool Level Instrumentation (SFPLI) strategies.

NRC RAI

During preparation of SE [safety evaluation] inputs for the spent fuel pool level instrumentation (SFPLI), the NRC staff discovered that VC Summer proposed SFPLI range does not cover Level 3. In its OIP [overall integrated plan] (ADAMS Accession No. ML13063A099), the licensee stated that the measured range will be continuous from the normal pool level elevation 461 feet 5 inches to the top of the spent fuel seated in the racks at elevation 437 feet 5 inches. In its letter dated August 30, 2013 (ADAMS Accession No. ML13063A099), the licensee provided a sketch depicting the elevations identified as Levels 1, 2, and 3, and the top of the fuel rack. The NRC staff reviewed this sketch and noted Level 3 is identified at an elevation of 437.0 feet (the top of fuel rack). Given that the instrument range only goes 5 inches above elevation 437.0 feet (Level 3), the NRC staff understands that the instrument range specified for the licensee's instrumentation will not cover Level 3. Not ensuring that Level 3 would still cover the spent fuel could place VC Summer out of compliance with Order EA-12-051. For that reason, the licensee is requested to provide additional information regarding the capability of the SFPLI to detect Level 3 in a way that the fuel is covered and actions to implement make-up water are not deferred. Potential alternatives for the licensee may be to either change the Level 3 to 437 feet 5 inches, or change the procedures to have spent fuel pool water make up before water level reaches 437 feet 5 inches. Either of these alternative may require to update pertinent procedures and guidance documents that support the SFPLI strategies.

SCE&G Response

The information included in the Sketch in Figure 1 of the August 2013 letter to the NRC (RC-13-0119) was intended to be preliminary information, as noted in the information provided with the asterisk. The actual top of the Fuel Racks is elevation 437.3 feet, which is also the 0% range of the calibration for the SFPLI system. NEI 12-02 states L3 is to be +/- 1 foot from the top of the racks, to account for the instrument inaccuracies. The final L3 level is adjusted to approximate elevation of 437.6 feet. Therefore, Virgil C. Summer is in compliance with Order EA-12-051.

See revision 2 of Figure 1, "Spent Fuel Pool Elevation View." (This was formerly entitled "Longitudinal Section through Fuel Pool" in RC-13-0119, dated August 28, 2013.)

If you require any additional information, please contact me.

Thank you.

From: Valentin-Olmeda, Milton [mailto:Milton.Valentin-Olmeda@nrc.gov]
Sent: Thursday, February 09, 2017 1:50 PM
To: MOORE, MICHAEL S
Cc: STEWART, TRACEY
Subject: Request for Additional Information on VC Summer SFPLI Levels

Michael,

My email dated 01/12/2017 included the following request for additional information (here enhanced for better understanding and references included) to support the ongoing audit of the VC Summer SFPLI strategies:

During preparation of SE [safety evaluation] inputs for the spent fuel pool level instrumentation (SFPLI), the NRC staff discovered that VC Summer proposed SFPLI range does not cover Level 3. In its OIP [overall integrated plan] (ADAMS Accession No. ML13063A099), the licensee stated that the measured range will be continuous from the normal pool level elevation 461 feet 5 inches to the top of the spent fuel seated in the racks at elevation 437 feet 5 inches. In its letter dated August 30, 2013 (ADAMS Accession No. ML13063A099), the licensee provided a sketch depicting the elevations identified as Levels 1, 2, and 3, and the top of the fuel rack. The NRC staff reviewed this sketch and noted Level 3 is identified at an elevation of 437.0 feet (the top of fuel rack). Given that the instrument range only goes 5 inches above elevation 437.0 feet (Level 3), the NRC staff understands that the instrument range specified for the licensee's instrumentation will not cover Level 3. Not ensuring that Level 3 would still cover the spent fuel could place VC Summer out of compliance with Order EA-12-051. For that reason, the licensee is requested to provide additional information regarding the capability of the SFPLI to detect Level 3 in a way that the fuel is covered and actions to implement make-up water are not deferred. Potential alternatives for the licensee may be to either change the Level 3 to 437 feet 5 inches, or change the procedures to have spent fuel pool water make up before water level reaches 437 feet 5 inches. Either of these alternative may require to update pertinent procedures and guidance documents that support the SFPLI strategies.

As the draft safety evaluation input is being developed, the NRC staff believes appropriate to refer to VC Summer's response in the final safety evaluation. For that reason, I am requesting this response to be sent via email (fastest way), so it can be included in ADAMS and made available to the public. A supplement letter would also be an option, but it may take longer to process and further delay our review.

In addition, the NRC staff noticed that figures used to describe elevations in the above mentioned letters are inconsistent. Letter dated February 28, 2013 speaks of measured ranges between 461 feet 5 inches and 437 feet 5 inches, when the sketch in letter dated August 30, 2013 includes elevations such as 461.5 feet. Please note that 461.5 feet is not the same as 461 feet 5 inches. That said, please provide the correct elevations in feet and inches and include a revised final version of the sketch in the August 30, 2013 letter. Also, the NRC staff recommends that the licensee ensures consistency across its internal procedures and documents to prevent further confusion during implementation of the SFPLI strategies.

To expedite the review process, please respond to the above questions by replying to this email. Your responses, along with this email, will be made available to the public in ADAMS as these will be referred in our final safety evaluation.

Don't hesitate to call me if you have any questions pertaining this request.

Respectfully,

Milton Valentín, PM
US NRC Japan Lessons Learned Division
Office of Nuclear Reactor Regulation
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