From:	Raymond Hoffman
To:	Siva Lingam
Subject:	FW: RE: Responses to NRC staff comments on NEI 99-01, Revision 7, Draft G
Date:	Thursday, December 22, 2022 10:55:01 AM
Attachments:	NEI Response to Revised NRC Comment 6.docx

There is no SUNSI in the attached document. It can be added to ADAMS and released as a public document. Once done, we could add it to the meeting notice. Since NEI submitted it to us, I guess we really do not need to add it for NEI. But it may be useful to members of the public that may attend the meeting.

From: YOUNG, David <dly@nei.org>
Sent: Wednesday, December 21, 2022 10:37 AM
To: Raymond Hoffman <Raymond.Hoffman@nrc.gov>
Cc: Siva Lingam <Siva.Lingam@nrc.gov>
Subject: [External_Sender] RE: Responses to NRC staff comments on NEI 99-01, Revision 7, Draft G

Ray,

Good morning.

Thanks for providing the revised Comment #6 in the message below. We'll plan on discussing the response to that comment in the public meeting being scheduled for 1/9/23. The response, developed by the NEI EAL Task Force, is attached.

David Young | *Senior Technical Advisor*
Security and Incident Preparedness
Nuclear Energy Institute
(202) 739-8127

From: Siva Lingam <Siva.Lingam@nrc.gov>
Sent: Wednesday, December 14, 2022 10:24 AM
To: YOUNG, David <dly@nei.org>
Cc: Raymond Hoffman <Raymond.Hoffman@nrc.gov>
Subject: [EXTERNAL] RE: Responses to NRC staff comments on NEI 99-01, Revision 7, Draft G

We like to hold a public meeting to provide NEI with a revised NRC staff comment on Draft G of the proposed NEI 99-01, Revision 7, as noted below:

6. The currently endorsed NEI 99-01, Revision 6, included a threshold value for a loss of the fuel clad barrier that is based on containment radiation monitor readings reaching a value indicative of fuel clad damage. These readings are independent of system readings that operators would use in the performance of response procedures. To provide scheme diversity for the assessment of the fuel clad barrier, please provide a threshold value for fuel clad barrier loss that is does not rely on the solely on the operators appropriately implementing severe accident procedures or monitoring a specific indication such as core exit temperature. If possible, this threshold value should use existing methods of determining that fuel cladding damage has occurred.

We are proposing the following dates and times (EST):

1/9/23	11:00 AM to 12:00 PM
	2:30 PM to 3:30 PM
1/12/23	11:00 AM to 12:00 PM
	2:00 PM to 3:00 PM

Please let me know whether you can support the meeting during the above proposed dates and times. Thank you.

Siva P. Lingam
Project Manager
Licensing Projects Branch
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation
US Nuclear Regulatory Commission
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From: YOUNG, David <dly@nei.org>
Sent: Friday, October 14, 2022 11:09 AM
To: Raymond Hoffman <Raymond.Hoffman@nrc.gov>
Cc: Kathryn Brock <Kathryn.Brock@nrc.gov>; Clay Johnson <Clay.Johnson@nrc.gov>; Fanta Sacko <Fanta.Sacko@nrc.gov>; Leslie Fields <Leslie.Fields@nrc.gov>
Subject: [External_Sender] Responses to NRC staff comments on NEI 99-01, Revision 7, Draft G

Ray,

Good morning.

The NEI task force working on NEI 99-01, Revision 7, has completed its review of the NRC staff comments provided to us during the public meeting on 10/5/22. The staff comments are available in ADAMS - see ML22277A444. Our responses to those comments are presented below.

> **Comment #1**: The task force agrees with the comment and section 1.2 was removed.

Comment #2: The task force agrees with the comment and added the requested sentence to section 2.3.

Comment #3: The task force agrees with the comment and added the requested discussion as new section 4.4.

Comment #4: The task force agrees with the comment and made the requested text change to FPB Developer Note 2.

Comment #5: The task force agrees with the comment; however, it was determined that a threshold based on SAMG entry for PWRs would not provide the desired diversity of indications since entry primarily relies on meeting specified core exit thermocouple (CET) readings. Instead, the task force added a new Fuel Clad Loss threshold based on a reactor vessel level reading and revised the existing Potential Loss reactor vessel level threshold to align with the new Loss threshold. This meets the intent of the staff comment to have indications based on diverse RCS instrumentation (i.e., CETs and reactor vessel level) to assess both a Loss and Potential Loss of the Fuel Clad Barrier.

Comment #6 – The task force determined that the proposed change would not be beneficial to an emergency classification scheme and did not incorporate it. The reasons for this conclusion are below.

1. The PWR FPB table presented in Draft G, and as revised as described in the response to Comment #5 above, specifies a diverse set of safety-related RCS indications to assess the status of the RCS and Fuel Clad Barriers. The specified indications are found in emergency operating procedures and used by plant operators to identify RCS leakage (supporting RCS Barrier assessments) and challenges to the core cooling safety function (supporting Fuel Clad Barrier assessments). Further, the indications are subject to the requirements in 10 CFR 50.65 (aka the Maintenance Rule) and thus highly reliable. We believe the use of RCS indications is the optimum approach for assessing these barriers. Thresholds based on containment radiation monitors or RCS sampling have known limitations (associated with accuracy and timeliness, respectively) and are not ideal for barrier status assessments.
2. The task force is concerned that adding offsite dose projection-based thresholds for the Fuel Clad and RCS Barriers could cause confusion during an emergency classification. For example, adding the existing values specified in the dose projection EALs (AA1 and AS1) to the FPB table would result in having to track the same values in two locations. And lowering the AA1 and AS1 values for placement in the FPB table would result in different dose-based threshold values for the same classification level (e.g., 10 mrem TEDE in AA1 and a lowered value for FA1 as presented in the RCS Loss or Potential Loss column). The new offsite dose-based thresholds added to the Containment Barrier Potential Loss column

in Draft G are different in that they are escalatory thresholds to a General Emergency and indicate that a significant release has occurred. In this sense, they fit logically into the FPB table because, as noted in Comment #6, it's reasonable to assume that both the RCS and Fuel Clad Barriers would already be lost.

For these reasons, the task force believes that the specified RCS indications are sufficient for assessing the status of the Fuel Clad and RCS Barriers, and that offsite dose-based thresholds for requiring an Alert or SAE should remain solely in the EALs AA1 and AS1.

Following your review of these responses, please let me know if another public meeting is needed to discuss the above comments or if NEI should proceed with submitting the final version of NEI 99-01, Revision 7, to the NRC for endorsement.

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