

November 3, 2017

MEMORANDUM TO: Dennis C. Morey, Chief  
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Office of Nuclear Reactor Regulation

FROM: Joseph J. Holonich, Senior Project Manager /RA/  
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SUBJECT: SUMMARY OF OCTOBER 18, 2017, MEETING TO DISCUSS  
FLEET-WIDE RESPONSE TO DRAFT REQUESTS FOR  
ADDITIONAL INFORMATION RELATED TO GENERIC  
LETTER 2016-01

On October 18, 2017, U.S. Nuclear Regulatory Commission (NRC) staff met with representatives from the Nuclear Energy Institute (NEI) and the Electric Power Research Institute (EPRI). These organizations will be collectively called "the industry" in this summary. The purpose of the meeting was to discuss an industry proposed fleet-wide response to similar requests for additional information (RAIs). The NRC staff plans to issue the RAIs to some licensees (see example provided Agencywide Documents Access Management System (ADAMS) Accession No. ML17279A050) related to Generic Letter (GL) 2016-01, "Monitoring Of Neutron-Absorbing Materials in Spent Fuel Pools," (ADAMS Accession No. ML16097A169). All the information related to this meeting can be found in ADAMS Package Accession No. ML17278A075.

In its opening remarks, NEI stated that an openness to addressing the RAIs generically would be expected to yield notable regulatory efficiencies. NEI continued that a similar approach had been successfully used in the dry fuel storage area.

The NRC staff noted in its opening comments that the meeting was intended to discuss the generic RAI for clarification and no regulatory positions would be taken. Further, the NRC staff stated that when the meeting ended, the goal was to have had a productive discussion with industry regarding its proposal for a process to support licensee responses to some of the RAIs associated with GL 2016-01. The NRC staff also made a presentation, a copy of which can be found in the referenced ADAMS package for this meeting.

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During the meeting, industry reported that an EPRI report that could be used to support responses to the GL 2016-01 RAIs would not be issued until late March 2018. The industry concern was that the current NRC staff schedule included a target of closing the remaining GL 2016-01 responses by May 2018. Because of the EPRI report date, industry was not certain a May 2018 closeout date was achievable. The reason industry cited was the time required for licensees to submit their RAI responses and for the NRC staff to complete its closeout evaluations.

Two questions were asked by the NRC staff about the generic program for data and coupons. One question was about the robustness of the data and how plants which were running out of coupons will be affected. In response, EPRI stated that, based on an earlier Zion project, EPRI recommended stopping heat drying and re-insertion of coupons to extend the coupon lifetime. Furthermore, actual plant-water chemistry data for the spent-fuel pools (SFPs) will be included in the database and correlated with any degradation seen in the coupons.

The other item was related to how to ensure that there is a high level of participation after development of the generic program by plants that will continue to use coupons needed to support the generic program. Industry committed to take an action to ensure continued participation by sites that do have coupons.

In addition, NEI committed to develop a template that would be used by all plants responding to fleet-wide generic RAIs. This would provide the NRC staff with a standard format when reviewing the information. This was an action from the meeting.

The NRC staff noted that plants with coupon programs would be able to answer GL 2016-01. In addition, the NRC staff said that plants with commitments to develop a program could also close the GL very quickly.

Another question asked by the NRC staff was if baseline data existed from coupon vendors. EPRI reported that the database would include baseline and pre-inspection data for the coupons used in the program.

Industry asked for clarification on the following sentence in the RAI.

This includes any changes that would affect the neutron spectrum for the SFP (as opposed to the neutron spectrum used for attenuation testing purposes) in addition to any loss of neutron attenuation capability.

The NRC staff discussed that there are several ways that reactivity could be affected by the condition of the Boral. The NRC staff further explained that this sentence is there to emphasize that criticality impacts can be caused by more than just a reduction in neutron attenuation capability as represented by the boron-10 areal density. The NRC staff said justifications could include providing information to show there was no problem with the use of Boral or change in moderator. However, the NRC staff took an action to consider the necessity of or changes to the sentence.

A second industry question was why plants were receiving different forms of the RAIs, in some cases duplicate RAIs. The NRC staff responded that individual plant Project Managers were formatting the plant-specific RAI differently.

Based on the discussions during the meeting, it was agreed that there was a need for future interactions before the EPRI report, which will be published in late March 2018 and subsequent RAI responses. It was also agreed that more than one interaction was needed. NEI took an action to identify windows for future interactions and provide them to the NRC staff.

The NRC staff asked a question about how EPRI would apply analysis of multiple plants with seemingly similar SFP conditions that experience different forms or levels of degradation. EPRI acknowledged that there are instances where plants with similar SFP conditions and the same neutron-absorbing material show degradation in one SFP but not another. EPRI also acknowledged that these instances will need to be included in its analysis.

The NRC staff asked a question if the database for the program would include radiation doses for the coupons. EPRI responded that there were no plans to include radiation doses but that data related to the time in service, and when it was analyzed, would be included in the database.

An action taken by the NRC staff was to look at accommodating the changes in the time licensees needed to respond based on the EPRI report publication date in late March 2018. In addition, NEI took an action to look at a new timeline for licensees to respond to the RAIs. NEI also took an action, based on an NRC staff question, to look at the time licensees would need to prepare the plant-specific RAI responses once the EPRI report was issued in late March 2018.

Although the NRC staff raised several technical issues during the meeting (as described above), the NRC staff noted that these are not all-inclusive. The reason the NRC staff was unable to provide complete feedback was because details of the EPRI generic coupon program were not yet available. Future interactions between the NRC staff and industry will be needed in order for the NRC staff to obtain details on the industry project and provide significant feedback. It was agreed that the future interactions discussed earlier would help ensure more complete feedback.

In closing, the NRC staff reported that the actual RAI would be customized to individual plants based on the plant-specific programs in place. The generic RAIs discussed at the meeting were provided as examples to be used to facilitate clarification and response to questions.

Actions from the meeting were:

- 1) NEI and EPRI will ensure adequate plant participation in the generic program by sites having coupons so that the generic program is sufficiently supported;
- 2) NEI will develop a template so licensees answer the RAI in a standard format;
- 3) The NRC staff will consider the necessity of or changes to the sentence from the RAI clarified at the meeting;
- 4) NEI will identify windows of time for future interactions;
- 5) NEI will provide the time licensees need to prepare the RAI responses following the issuance of the EPRI report in late March 2018; and

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- 6) NRC will look at a new timeline for issuance and licensee responses to the RAIs given the March 2018 EPRI report date.

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SUBJECT: SUMMARY OF OCTOBER 18, 2017, MEETING TO DISCUSS FLEET-WIDE RESPONSE TO DRAFT RAIS RELATED TO GENERIC LETTER 2016-01 DATED: NOVEMBER 3, 2017

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**ADAMS Accession Nos.: Pkg. (ML17278A075); Summary (ML17279A626); \*via e-mail NRC-001**

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