

April 24, 2015

Rodney J. McCullum,
Director of Used Fuel Programs
Nuclear Energy Institute
1201 F Street NW, Suite 1100
Washington, DC 20004

SUBJECT: FINAL RESPONSE TO THE SEPTEMBER 10, 2012, NEI SUBMITTAL:
"GUIDELINES FOR 10 CFR 72.48 IMPLEMENTATION," REVISION 0

Dear Mr. McCullum:

The Nuclear Regulatory Commission (NRC) staff has completed its review of Nuclear Energy Institute (NEI) 12-04, "Guidelines for 10 CFR 72.48 Implementation," Revision 0 (Agencywide Document Access Management System (ADAMS) Accession No. ML12258A354). The NRC staff issued its first interim response to NEI 12-04, (ADAMS Accession No. ML13260A029) dated September 26, 2013. The initial response provided global comments and edits on selected sections to illustrate how to address those comments. The staff issued the 2nd Interim Response to NEI 12-04 on December 11, 2014 (ADAMS Accession No ML14349A318). The 2nd Interim Response documented completion of our review of the body of the guidance text. It also provided the "NRC Staff Position on Method of Evaluation Approval," and a redline strike-out version of NEI 12-04, including comments in the margin. The NRC's 10 CFR 72.48 Task Group is providing this final response to NEI 12-04, completing our review of the guidance document and appendices, with comments and edits on the examples provided in Appendices A and B.

The staff's comments and edits from the first two interim responses need to be considered in conjunction with those reflected in this final response. Because we have included several global comments and edits, NEI should ensure that conforming changes are made throughout the entire NEI 12-04 document. The staff also recommends that NEI review the guidance document to identify and correct editorial errors that are located in the document.

Although this was mentioned in the 2nd Interim Response, the staff continued to identify several references in Appendix A, "Examples for Individual Guidance Subsections," and Appendix B, "Examples of 72.48 Reviews of Realistic Activities," where NEI evaluated against only the eighth criterion of 72.48, for changes regarding method of evaluation (MOE). In most cases, the first seven criteria were evaluated against, implying that there was no need to evaluate the change against all eight criteria. The staff continues to interpret the regulation to mean that changes should be evaluated against all eight 10 CFR 72.48 criteria.

In our review, the staff noticed that for several of the 72.48 evaluation questions discussed in Section 6, part of each of the 72.48(c)(2) criteria (i)–(viii) was truncated, leaving off the "previously evaluated or as described in the FSAR (as updated)." Failure to include this aspect of the criteria caused confusion during the review of the examples. For the sake of clarity, the staff suggests adding this point to the evaluation questions.

The staff cautions NEI that while examples in NEI 12-04 may eventually be endorsed by the NRC, they rely heavily on the specific facts (not always explicitly stated) in each example. Different or additional facts may result in significant reductions in safety and changes in the technical analysis and outcome. Because the analyses that support 72.48 evaluations are fact specific, the NRC encourages licensees and certificate of compliance holders to continue engaging the NRC when there are questions regarding 72.48 screenings or evaluations. We also encourage NEI to incorporate such caution in this guidance document.

During discussions of realistic examples, the staff identified a few additional examples that may be worth consideration for adding to Appendix B. One would be an example that addresses cask movement due to a beyond design-basis earthquake event, similar to what occurred at the North Anna Nuclear Power Station specifically licensed independent spent fuel storage installation (ISFSI). A second example would be one that addresses differential settlement of the storage pad due to liquefaction and/or other poor soil conditions. A third example, would be where a licensee considers increasing the number of casks on the ISFSI storage pad, beyond the maximum number of casks that the pad was originally designed to accommodate. These examples should include consideration of issues such as the structural adequacy of the storage pad to continue to support casks already on the pad (e.g., to account for changes in cask spacing) or to accommodate extra weight due to additional casks, thermal impacts from any changes in cask spacing, and verification of other potentially affected functional requirements. Any examples that are added to Appendix B should address all relevant technical and regulatory aspects of the changes described in the examples.

Additionally, NEI should clarify the appropriate limit for use in evaluations to respond to 72.48 evaluation question four (i.e., the 10 CFR 72.48(c)(2)(iv) criterion). The clarification should also include the basis for why the selected limit is appropriate. This criterion involves a determination regarding more than a minimal increase in the consequences of a malfunction of an SSC important to safety as previously evaluated in the FSAR (as updated). It is not clear from the current text what limit is used for the determination and why that limit is the appropriate limit for this determination regarding consequences of a malfunction.

If you have any questions regarding the staff review, please contact Raynard Wharton. He can be reached at (301) 415-7497. If you are interested in discussing the review in a public meeting, propose a meeting date to John Wise, NRC NEI Counterpart, at (301) 415-8085 and he will coordinate the meeting.

Sincerely,

/RA/

Patricia A. Silva, Chief
Inspections and Operations Branch
Division of Spent Fuel Management
Office of Nuclear Material Safety
and Safeguards

cc: Kristopher Cummings, NEI

Enclosure 1 – Appendix A “Examples for
Individual Guidance Subsections,”
Mark-Up Including Marginal Comments

Enclosure 2 – NRC Comments on Appendix B,
“Examples of 72.48 Reviews
Of Realistic Activities”

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OFC	SFM/PM	SFM/LA	OGC NLO	SFM/IOB/BC
NAME	RWharton	WWheatley via e-mail	SClark	PSilva
DATE	04/02/15	03/ 31 /15	04/08 /15	04/21/15

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