

May 22, 2014

MEMORANDUM TO: Anthony Hsia, Deputy Director
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

FROM: Kristina L. Banovac, Project Manager **/RA/**
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

SUBJECT: SUMMARY OF APRIL 23, 2014, PUBLIC MEETING WITH THE
NUCLEAR ENERGY INSTITUTE ON SPENT FUEL STORAGE
RENEWAL GUIDANCE

Background

The U.S. Nuclear Regulatory Commission (NRC) staff held a public meeting with the Nuclear Energy Institute (NEI), their members, and consultants on April 23, 2014, to discuss industry and NRC plans to develop guidance for spent fuel storage renewal.

The meeting was noticed on April 10, 2014 (ML14100A329). The meeting attendance list is provided in Enclosure 1.

Discussion

The meeting discussion generally followed the meeting agenda, which is included in Enclosure 2. Enclosure 3 contains the presentations given by NRC and NEI as meeting handouts.

An NEI representative presented a status update on development of industry guidance for Operations-Based Aging Management for Dry Cask Storage (NEI 14-03), which NEI plans to submit for NRC's review and endorsement in September 2014. NEI requested that NRC provide written comments on NEI's March 18, 2014, letter (ML14080A606) that provided an annotated outline of the proposed guidance, which NRC agreed to do.

In response to NRC questions, industry representatives explained the idea of "toll gates," where licensees or Certificate of Compliance (CoC) holders would conduct periodic documented safety assessments at specific points in time in the period of extended operation. The assessments would consider cumulative operating experience, monitoring and inspection results, and research information. The toll gate would be an administrative point where the licensee or CoC holder aggregates all of the information at specified time periods, as opposed to the specific monitoring, inspection, or examination intervals that would be defined in the aging management program (AMP). Industry noted that they are still thinking about whether the toll gate reports would be reported to NRC or whether they would only be available for inspection. Industry

proposed that the commitment to conduct the toll gates would be included in the final safety analysis report (FSAR). Industry is considering whether there is a need to pilot the toll gate concept.

Industry is exploring what system or framework should be used for reporting, collecting, and sharing operating experience related to aging management of dry cask storage systems, and whether there is an existing framework that could be used (e.g., Institute of Nuclear Power Operations (INPO) database). It was noted that CoC holders and some ISFSI licensees do not contribute to INPO and would not have access to the database. If an existing framework cannot be used, industry would need to develop a framework or system on reporting and sharing operating experience and develop guidance in this area, as this will be an important aspect of an operations-focused approach to aging management. NRC would also need access to the system. In response to an NRC question on corrective action programs for general-licensed standalone ISFSIs, an industry representative noted that the licensees continue to meet the 10 CFR Part 50, Appendix B quality assurance criteria for corrective action, and that these programs are not reduced.

NEI said that NEI 14-03 will address responsibilities between CoC holders and general licensees for CoC renewals. NEI also noted that the proposed guidance would indicate that the AMPs developed by the CoC holder (applicant) would be included in the cask FSAR, to maintain flexibility for updating the AMPs in the future. NRC noted that the requirements in 10 CFR 72.240(e) recognize that the CoC can be revised when renewed, to include terms, conditions, and specifications that will require implementation of an AMP. Industry said they would consider this further as they develop their draft guidance in this area.

NRC queried NEI's mention of environmental monitoring in NEI's March 18, 2014, letter. NEI clarified that the thought is to monitor environmental conditions, as opposed to monitoring for consequences. The susceptibility criteria related to chloride-induced stress corrosion cracking (to be developed by the Electric Power Research Institute by June 2015) will assist in development of appropriate environmental monitoring at ISFSI sites.

NRC presented its plans for updating NUREG-1927, "Standard Review Plan for Renewal of Spent Fuel Dry Cask Storage System Licenses and Certificates of Compliance." NRC presented its current thinking on some topics that may be included in the guidance revision and update (e.g., "lead canister inspection," specific guidance for CoC renewals, more detailed guidance on AMPs, AMP examples, fuel performance and cask/canister internals, and whether there are any special considerations for renewal of licenses or systems at standalone ISFSIs). The NRC also discussed the schedule and opportunities for future public involvement. The staff expects to hold a public meeting on the proposed revisions to NUREG-1927 in summer 2014 and will assess the need for additional public meetings. The staff also expects to publish the draft revised guidance for public comment before the end of calendar year 2014.

There was some discussion on the concept of the lead canister inspection in NUREG-1927, and it was recognized that it may be beneficial to have a future meeting to focus on this topic. NRC noted that this inspection is important for an operations-focused aging management approach. It provides baseline information on the condition of the dry cask storage system going into the period of extended operation, and it provides input for the applicant's time-limited aging analyses (TLAAs) and AMPs.

NRC staff presented its plans for developing new storage renewal aging management guidance, to provide specific guidance on AMPs and TLAAs that are acceptable to NRC staff. The staff

noted that development of such guidance would benefit both staff and industry, in that it would provide clear regulatory expectations, a stable, predictable, and efficient renewal framework, and knowledge management and consistency for NRC staff reviews of storage renewal applications. The staff also presented the proposed schedule for the guidance development and opportunities for public involvement. The staff expects to hold a public workshop to discuss aging management tables in November 2014. An industry representative asked that both NRC and industry consider aligning the timeframe for the NRC public workshop on the aging management tables and the Extended Storage Collaboration Program meeting, both planned for November, to maximize industry participation. The NRC staff also expects to publish draft guidance for public comment in summer 2015.

Meeting participants discussed whether guidance on standard format and content of storage renewal applications needed to be developed. NRC said it would consider whether to develop guidance in this area (e.g., in an NRC Regulatory Guide). Industry representatives said that there are no current plans to include this guidance in NEI 14-03, but it will also consider whether to develop guidance in this area.

During the public comment portion of the meeting, a member of the public inquired whether NRC was considering specific age-related degradation mechanisms, as there was not much discussion in the meeting on the topic. The NRC noted that the purpose of the meeting was to discuss industry plans and NRC plans for development of storage renewal guidance and not to specifically discuss degradation mechanisms and aging effects. However, the storage aging management report that NRC plans to develop will address specific aging effects, and there will be future public outreach (e.g., public meetings/workshops) during the development of that guidance that will get into the specifics.

NEI proposed monthly meetings with the NRC to further discuss certain topics, such as lead canister inspection, toll gates, and format and content of renewal applications. The meeting participants discussed, but there was no commitment to meet monthly. However, NRC staff felt that the June 2014 timeframe may be an appropriate time to discuss the issues in further detail. NRC also noted that when it is ready to get a broad range of stakeholder feedback on its plans for updating NUREG-1927, it would hold a Category III public meeting at that time.

TAC No.: LA0233

Enclosures:

1. Meeting Attendees
2. Agenda
3. Handouts
 - Status Update, Industry Guidance for Operations-Based Aging Management (NEI 14-03) (NEI)
 - NRC Plans for Update of NUREG-1927 (NRC)
 - Storage Aging Management Guidance Development (NRC)

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Agenda

Public Meeting with Nuclear Energy Institute on Spent Fuel Storage Renewal Guidance

April 23, 2014

9:00 A.M. – 11:45 A.M.

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| 9:00 A.M. – 9:15 A.M. | Welcome and Introductions (NRC, NEI, All) |
| 9:15 A.M. – 10:00 A.M. | Industry presentation on NEI 14-03, Operations-Based Aging Management for Dry Cask Storage (NEI) |
| 10:00 A.M. – 10:45 A.M. | NRC presentation on plans for development of storage renewal guidance documents (NRC) |
| 10:45 A.M. – 11:15 A.M. | Open Discussion (All) |
| 11:15 A.M. – 11:45 A.M. | Public Comments and Wrap Up |

PRESENTATION HANDOUTS