

PUBLIC SUBMISSION

As of: 12/27/17 3:35 PM
 Received: December 21, 2017
 Status: Pending_Post
 Tracking No. 1k1-90h7-s6sv
 Comments Due: January 02, 2018
 Submission Type: Web

Docket: NRC-2017-0211

Standard Review Plan for Spent Fuel Dry Storage Systems and Facilities

Comment On: NRC-2017-0211-0001

Standard Review Plan for Spent Fuel Dry Storage Systems and Facilities; Request for Comment on Draft NUREG

Document: NRC-2017-0211-DRAFT-0002

Comment on FR Doc # 2017-24734

Submitter Information

Name: Rodney McCullum

Submitter's Representative: Anya Barry

Organization: Nuclear Energy Institute

11/15/2017

82 FR 52944

General Comment

①

See attached file(s)

Attachments

12-21-17_NRC_NEI Letter on NUREG 2215 2

SUNSI Review Complete

Template = ADM - 013

E-RIDS= ADM-03

Add= J. Smith (JASB)

ROD MCCULLUM

Senior Director, Fuel and Decommissioning

1201 F Street, NW, Suite 1100

Washington, DC 20004

P: 202.739.8082

rxm@nei.org

nei.org



NUCLEAR ENERGY INSTITUTE

December 21, 2017

Michael Layton

Director, Division of Spent Fuel Management

Office of Nuclear Material Safety and Safeguards

U.S. Nuclear Regulatory Commission,

Washington, DC 20555-0001

Submitted via Regulations.gov

Project Number: 689

Subject: Industry comments on draft "Standard Review Plan for Spent Fuel Dry Storage Systems and Facilities" draft NUREG-2215, *82 Federal Register 52944*, November 15, 2017 (Docket ID: NRC-2017-0211)

Dear Mr. Layton:

On behalf of the nuclear energy industry, the Nuclear Energy Institute (NEI)¹ appreciates the opportunity to provide comments on the subject draft guidance. Combining and updating NUREG-1536, NUREG-1567, and numerous Interim Staff Guides (ISGs) as proposed in the subject Federal Register notice into a single regulatory tool provides an outstanding opportunity for the Nuclear Regulatory Commission to modernize its dry storage review guidance to fulfill the stated goal of the Commission's signature efficiency improvement initiative, Project AIM²; "to enhance the agency's ability to plan and execute its mission while adapting in a timely and effective manner to a dynamic environment" by improving "effectiveness, efficiency, agility, flexibility, and performance".

¹ The Nuclear Energy Institute (NEI) is the organization responsible for establishing unified industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel cycle facilities, nuclear materials licensees, and other organizations and entities involved in the nuclear energy industry.

² Achieving Exemplary Nuclear Regulation in the 21st Century, Report on Project Aim 2020, USNRC (ML15023A579), June 8, 2015.

Industry has welcomed the Project AIM initiative. However, if NRC moves forward to finalize NUREG-2215 in its current form, the full value of this opportunity will be missed. Industry believes that a significant amount of effort and stakeholder interaction will be necessary to shape the current proposal so that it enables dry storage license and dry storage system (DSS) design reviews that are more timely and responsive. Unfortunately, the 45-day comment period provided by the subject Federal Register Notice (which spans several holidays) does not allow for the level of review and stakeholder dialogue that will be necessary to achieve this objective. We are therefore proposing that NRC advance the completion of NUREG-2215 through a two-step process.

The subject Federal Register Notice represents an important first step in this process. To facilitate the second step, NEI proposes that NRC host at least two public workshops in early 2018 to discuss draft NUREG-2215 in detail with industry and other stakeholders. NRC should then consider input received through these workshops, discuss the approach being taken with the Advisory Committee on Reactor Safeguards (ACRS), and publish a second draft in the Federal Register for comment allowing sufficient time for a more detailed review.

Industry's review to date has identified four over-arching issues that should be discussed in the proposed workshops and addressed in the finalization of NUREG-2215. These fundamental concerns exemplify the need for additional stakeholder input to assure that NUREG-2215 will be consistent with Project AIM. However, they do not represent a complete detailed list of industry comments. These fundamental concerns are:

1. **Draft NUREG 2215 would undermine NRC's ongoing improvements on the graded approach to dry storage licensing, 10 CFR 72.48 change process guidance, and dry storage license and CoC renewal.** NRC and industry are working on a Regulatory Issue Resolution Protocol, RIRP-I-16-01, to reassess and redefine the appropriate content of the ISFSI license/DSS CoC conditions and any associated appendices (e.g., technical specifications). The draft NUREG does not appear to have acknowledged or accounted for this ongoing initiative. For example:
 - Several sections of the draft NUREG mention the technical specifications that accompany a license or CoC; RIRP-I-16-01 is introducing a new appendix (Inspections, Tests, and Evaluations) to the CoC, equal to the TS in the set of licensing basis documents. This new appendix may need to be mentioned in several areas of the draft NUREG as a result of the RIRP-I-16-01 initiative.
 - Nearly every chapter mentions verifying that the technical specifications include adequate restrictions of one form or another. Those particular restrictions may or may not be determined to be appropriate for inclusion in TS as a result of the RIRP-I-16-01 results.
 - While some of the format, content, and selection criteria of RIRP-I-16-01 are very similar to the parallel sections of draft NUREG Chapter 17, they are not identical and therefore they

should be carefully considered, in order for the final NUREG to be consistent with RIRP-I-16-01 results.

- o The Chapter 17 outline of TS subjects is not consistent with the RIRP-I-16-01 suggested outline. For example, the Design Features in the RIRP-I-16-01 scheme have been moved to the license/CoC conditions.
- o In the case of CoC applications, draft NUREG Chapter 17 (Table 17-1b) cites all parts of 10 CFR 72.236 for consideration as TS whereas RIRP-I-16-01 and the regulations only consider 10 CFR 72.236(a) as minimal requirements for TS. 10 CFR 72.236(a) is augmented by the RIRP-I-16-01 format, content, and selection criteria to more clearly define CoC/TS content.

The format and content of both ISFSI licenses and DSS design CoCs should be governed by a separate guidance document (e.g., a revision to NUREG-1745 or NRC-endorsed industry-authored guidance as planned in RIRP I-16-01), which NUREG-2215 would reference. Chapter 17 should be used strictly for the technical specification bases. This approach works well with proposed technical specification bases being subject to 10 CFR 72.48 change control as part of the ISFSI or DSS FSAR. It would also allow the RIRP I-16-01 effort to be completed without requiring an almost immediate revision to NUREG-2215.

Similarly, NRC should, in NUREG-2215, adopt review process improvements from two industry guidance documents that staff is currently reviewing and one other draft NUREG on which NRC is concurrently also receiving comments. These are as follows:

- o NEI 12-04, "Guidance for 10 CFR 72.48 Implementation": This industry proposed guidance is nearing the end of the NRC review process that is expected to culminate in NRC endorsement. NEI 12-04 refers to the ISFSI or DSS FSAR as the foundational document upon which 10 CFR 72.48 reviews are performed. The NRC license or CoC application review process performed pursuant to NUREG-2215 will determine the type, and level of detail of information in the FSAR. Consequently, NUREG-2215 should provide clear and consistent expectations for FSAR content, particularly in the area of Method of Evaluation (MOE). Furthermore, to the extent NEI 12-04 directs the user to refer to the applicable NRC staff Safety Evaluation Reports (SERs) for additional background information to develop the 10 CFR 72.48 review, NUREG-2215 should provide appropriate guidance pertaining to future 10 CFR 72.48 reviews to staff reviewers who develop the SERs. Both of these connections to the 10 CFR 72.48 process implemented by licensees and CoC holders will benefit from in-depth industry interaction with the NRC on the development of NUREG-2215.
- o NEI 14-03, "Format, Content, and Implementation Guidance for Dry Cask Storage Operations-Based Aging Management": NRC and industry have reached alignment on a risk-appropriate approach to ISFSI license and DSS CoC renewal. This approach has already been applied to renew two site-specific dry storage licenses (Calvert Cliffs and Prairie Island) and two Certificates of Compliance (Standardized NUHOMS/1004 and VSC-24/1007) covering

dry storage at 22 sites. This approach is outlined in industry guidance (NEI 14-03) for which endorsement is currently pending at NRC. NUREG-2215 should be thoroughly reviewed to assure it reflects a consistent view of the risk profile of dry cask storage.

- Draft NUREG-2214, "Managing Aging Processes for Storage" (MAPS): In this document, NRC is proposing to provide guidance for aging management programs associated with dry storage license renewal. This is a companion document to NEI 14-03. NRC is currently seeking comment on NUREG-2214 and industry is concurrently submitting comments that will assure consistency between NEI 14-03 and NUREG-2214. Therefore, the thorough review requested above should also consider the resolution of these comments.

2. The manner in which the ISGs and two existing NUREGs are being combined is not sufficiently explained, introduces errors, expands the scope of the guidance, and does not consider the prior review history of each ISG. NRC does not adequately address the fact that it is creating a brand new guidance document by attempting to merge two independent standard review plans, which were published a decade apart together with numerous ISGs that were also published over a wide time span. These separate materials do not appear to fit together easily. For example:

- ISG-2: In attempting to incorporate ISG-2, the current draft of NUREG-2215 inappropriately changes the meaning of that ISG. The language of NUREG-2215 can be read to imply that the licensee or CoC holder must use one or a combination of the three listed methods for retrievability. ISG-2, however, made clear that these are merely three "acceptable" means, so that licensees and CoC holders are welcome to propose and justify other means. NUREG-2215 should be clarified to maintain ISG-2's intended meaning.
- ISG-3: In attempting to incorporate ISG-3 on post-accident recovery, the current draft language of NUREG-2215 implies that a licensee must maintain retrievability equipment, rather than preserving the language and intent of ISG-3 which recommended only that the design include post-accident recovery features.
- ISG-11: This guide also was not incorporated correctly. NUREG-2215 contains incorrect fuel cladding temperature limits. It also does not include all of the acceptable combinations described in the ISG. For example, NUREG-2215 states that the low-burnup fuel cladding temperature limit is 570°C during normal conditions. The actual limit for normal conditions is 400°C. Furthermore, ISG-11 says for both "off-normal" and "accident" conditions the fuel cladding temperature limit is 570°C; while NUREG-2215 states that the higher limit only applies to accident conditions.
- Various ISGs: Although recent ISGs have been issued for public comment, not all ISGs have had an equivalent level of review or opportunity for stakeholder input. Therefore, the issues addressed by these ISGs should be reviewed for technical merit and to assure that they do not have the effect of imposing new requirements without an appropriate back-fit analysis. For example, industry's comments on draft ISG-22, "Potential Rod Splitting due to Exposure

to an Oxidizing Atmosphere during Short-Term Cask Loading Operations in LWR or Other Uranium Oxide Based Fuel" suggested that the ISG created new requirements and was implemented without sufficient risk consideration, formal backfit analysis or broad-based NRC management and ACRS consideration. In industry's view, those concerns were not adequately addressed in NRC's response to our comments. We believe this issue should have been considered in the NRC generic safety issue program described in NRC Management Directive 6.4, "Generic Issues Program" to determine if a sufficient enhancement to public health and safety justified the cost of implementation of the actions described in ISG-22. NUREG-2215 appears to exacerbate this problem, which is also reflected below in our fundamental concern #4.

These examples do not reflect the full scope of concern that might become evident upon a more detailed review. In reality, this NUREG needs to be treated more like a brand new document instead of a simple consolidation, and NRC should be careful to assure that the new document is clear and consistent with the intent of project AIM 2020.

3. **The finalization of NUREG-2215 in its current form could trigger an unnecessary and costly rewrite of Emergency Plans at several sites.** Emergency Planning sections (12.4.7 & 12.5.7) are based upon 10 CFR 72.32. The most recent ISFSI-only Emergency Plans are based upon 10 CFR 50.47/Appendix E. The two regulations are similar but are not exactly identical. NUREG-2215 should address both sets of regulations so that current and future ISFSI-only sites are not arbitrarily required to completely rewrite their Emergency Plans to conform to a different format, which would introduce inefficiencies to the utilities and the NRC and provide no additional safety benefit.
4. **Draft NUREG-2215 advances new and inconsistent regulatory positions on fuel characterization prior to storage which would effectively impose new requirements on industry without any analysis of the safety benefits and costs.** Throughout Materials Evaluation Section 8, there is language which seems to imply a variety of expectations concerning what the reviewer should be looking for in terms of fuel classification and selection. This is particularly apparent in Section 8B, which is confusing and appears to call into question currently accepted practices for fuel testing.

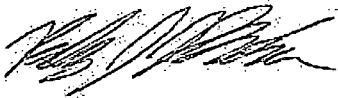
Industry looks forward to engaging with NRC on these and other issues as part of a thorough and open dialogue. We believe that a single Standard Review Plan that replaces the current structure of two Standard Review Plans and numerous ISGs would be a substantial aid to NRC reviewers. This has the potential to significantly improve the efficiency of NRC's dry storage licensing reviews. We also support the objective of enabling the ability to revise the single SRP on a chapter basis to eliminate any future need for new ISGs. A two-step process which allows NRC to effectively include the input of industry and other stakeholders in this

Mr. Michael Layton
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endeavor will assure that this potential can be realized – and establish NUREG-2215 as an important tool for achieving the goals of NRC's Project AIM.

If you have any questions or require additional information, please do not hesitate to contact me at rxm@nei.org or at my office number, 202.739.8082.

Sincerely,

A handwritten signature in black ink, appearing to read "Rod McCullum", with a stylized, cursive script.

Rod McCullum

c: Marc Dapas, NRC
Tony Hsia, NRC
May Ma, NRC