



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
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December 9, 2020

**MEMORANDUM TO:** Andrea L. Kock, Director  
Division of Fuel Management  
Office of Nuclear Material Safety  
and Safeguards

**THRU:** Damaris Marcano, Acting Chief  
Fuel Facility Licensing Branch  
Division of Fuel Management  
Office of Nuclear Material Safety  
and Safeguards

**FROM:** Osiris Siurano-Perez, Project Manager  
Fuel Facility Licensing Branch  
Division of Fuel Management  
Office of Nuclear Material Safety  
and Safeguards

**SUBJECT:** SUMMARY OF OCTOBER 28-29, 2020, MEETING WITH THE  
NUCLEAR ENERGY INSTITUTE, FUEL CYCLE INDUSTRY  
REPRESENTATIVES AND STAKEHOLDERS TO DISCUSS FUEL  
CYCLE REGULATORY ACTIVITIES AND CUMULATIVE EFFECTS OF  
REGULATION

The staff of the U.S. Nuclear Regulatory Commission (NRC) conducted a virtual WebEx meeting with representatives of the Nuclear Energy Institute (NEI), fuel cycle industry, and members of the public on October 28-29, 2020. The purpose of this Category 2 public meeting was to discuss the status of several initiatives involving the fuel cycle industry. Topics discussed during the meeting included the resolution of action items from the April 22, and July 22, 2020, meetings; an update of the cumulative effects of regulation (CER) integrated schedule and its supplement; NRC actions in response to the COVID-19 public health emergency (PHE); NRC regulatory relief evaluation process and industry feedback on this process; status of the staff development of the guidance for material control and accounting plan for special nuclear material of moderate strategic significance; industry-generated and inspection program issues/topics; enforcement; fuel facilities inspection guidance; industry feedback on the smarter inspection program; status of efforts to implement the smarter licensing recommendations implementation; status of implementation of inspection modifications and smarter inspection program working group (WG) recommendations; the fuel cycle operating experience program; billable and non-billable work in the fuel facilities business line; status of efforts on low safety significance issues; and potential topics for the 2021 Regulatory Information Conference.

The public meeting notice with the agenda topics, the NRC staff and NEI presentations, the list of attendees, the fuel cycle integrated schedule, and its supplement are available in the Agencywide Documents Access and Management System (ADAMS) Accession No. ML20338A182. No regulatory decisions or commitments were made during the meeting.

Following the opening remarks by NRC staff from the Division of Fuel Management (DFM) and the NEI representative, NRC staff from DFM kicked off the meeting by discussing the NRC staff resolution of four action items resulting from the April 22, 2020, and July 22, 2020, CER meetings. The action items were the following:

- Action item 1:
  - Development of NUREG-2159, “Acceptable Standard Format and Content for the Material Control and Accounting Plan Required for Special Nuclear Material of Moderate Strategic Significance”
    - Consider a 60-day comment period, instead of a 45-day period since this may not be enough

The staff determined to publish the draft guidance document in January 2021 for a 60-day comment period. This item is closed.

- Action item 2 - Smarter Inspection Program:
  - NEI will send letter re-emphasizing previous issues with chemical safety and safety margin
  - Requested that these be extensively discussed during today’s meeting

During the meeting, the NRC staff and NEI conducted extensive discussions on these topics. However, given the mutual interest on these issues, additional/future discussions may still be necessary. The item will remain open.

- Action item 3 - Remote inspections:
  - The NRC should consider a combined approach for conducting remote inspections (i.e., part conducted remotely and part on site)

This item was extensively discussed during the meeting. The NRC is currently using a combined approach on a case by case basis, depending on licensee operating history, enforcement activities, issues related to the COVID-19 PHE and other factors. The NRC included guidance in its latest revision to Inspection Manual Chapter 2600 that provides flexibility for the use of remote inspection where it is appropriate. Staff also continues to incorporate lessons learned in its inspection processes regarding remote inspections. Since inspection guidance already provides the flexibility for remote inspections and considered a combined approach for remote inspection, this item is considered closed.

- Action item 4 - Issues with technology:
  - Consider alternatives to avoid issues during meetings, including conducting dry-runs

In preparation for this meeting, the staff used a combined approach with a bridge line for audio discussions and WebEx for the visual presentations. The staff also conducted dry-runs, both with NEI members and amongst themselves, to ensure issues were identified and addressed prior to the meeting and for quickly addressing any other issues that may arise during the meeting. This item is closed.

The NRC staff provided updates to the rulemaking and regulatory activities listed on the integrated schedule of regulatory activities for fuel cycle and the supplement to the schedule. The industry and NEI representatives were informed that the list of regulatory activities on the integrated schedule remained unchanged since the July 2020 update. Information on the following four activities shown on the integrated schedule chart were updated on October 21, 2020:

- Part 61 - Low-level Waste Disposal
- Part 73 - Enhanced Security for SNM
- Part 73 - Cyber Security Rulemaking
- Enhanced Weapons Rulemaking

Information on the following four activities shown on the integrated schedule supplement were updated on October 21, as well:

- Part 61, Low-level Waste Disposal
- Enhanced Weapons Rulemaking
- American Nuclear Society Standard 57.11
- Regulatory Information Conference
- Smarter Inspection Program

The NRC staff posted the updated integrated schedule and updated supplement on the NRC public web site at <https://www.nrc.gov/materials/fuel-cycle-fac/regs-guides-comm.html#cumeffects>. The NEI representatives requested that information on the status of the development of NUREG-2159, "Acceptable Standard Format and Content for the Material Control and Accounting Plan Required for Special Nuclear Material of Moderate Strategic Significance," be included in both the chart and the supplement. A brief discussion regarding the current status of the development of the American Nuclear Society Standard 57.11, "Integrated Safety Assessment for Non-Reactor Nuclear Facilities," followed. Industry representatives also inquired about future plans regarding the Part 61 rulemaking and requested that the integrated schedule chart be revised to reflect these. The NEI and industry members requested the NRC staff to consider other potential topics for discussion at the next CER meeting, such as the termination of the interagency agreement with the U.S. Department of Energy (DOE), lessons learned on remote inspections, and the status of Accident Tolerant Fuel (ATF) activities.

A roundtable discussion regarding the NRC actions during the COVID-19 PHE followed. Remote inspections during the PHE continue to be a topic of interest to the industry. In general, remote inspections have worked well, although facility-specific issues are sometimes challenging. Some licensees expressed that the process has worked very well, others that a remote inspection cannot replace the "eyes at the site." For some licensees the remote inspections have resulted in efficiencies since most documents can be reviewed in advance, travel expenses are reduced, and unnecessary exposures to the COVID-19 virus are greatly reduced. Other licensees expressed that the remote inspections are not more efficient or not

efficient at all. Review of sensitive information is a concern due to the transmittal of the information for staff evaluation, which requires more time and resources to prepare for transmittal, which also increases the potential for information spills. A hybrid/combined approach (i.e., remote and on-site) appears to be the recommended approach. The NRC staff noted that it has, and continues, to consider lessons learned throughout this process, including how to improve and maintain information technology infrastructure, day-to-day communications, and the criteria the staff considers for conducting a remote vs. an on-site inspection, which are currently determined on a case-by-case basis. The staff also noted that it continues to evaluate options for moving forward during subsequent phases of the PHE emergency, including completing core inspections and maintaining communications and effective coordination. The NRC staff noted that, at this point, it is still uncertain when the current measures for conducting inspections and maintain regulatory oversight will be terminated. In response to questions from the industry, the staff noted that it continues to develop additional guidance for the conduct of inspections during the PHE and that, regardless of the current measures, continues to move forward with its plans to fully implement the smarter inspection program recommendations by 2021.

With regard to licensing, the staff briefly discussed its approach for evaluating and approving regulatory relief requests during the PHE and the guidance that has been issued for approving these requests. The industry provided feedback on the regulatory relief requests evaluation process and noted that extensions to currently approved reliefs may still be necessary. In general, the industry noted that the process has worked very well and that the agency has been responsive to their concerns. The staff encouraged the industry to consider pre-application meetings to discuss extensions for regulatory reliefs and to determine whether the need for the extensions is specific or generic.

The NRC staff discussed the current status of the development of NUREG-2159, "Acceptable Standard Format and Content for the Material Control and Accounting Plan Required for Special Nuclear Material of Moderate Strategic Significance." The NRC staff plans to issue the document for public comments in January of 2021. The NRC staff noted that, as the industry suggested during the previous CER meeting, the draft document will be issued for a 60-day comment period. The staff expects to issue the final document by May 2021. The industry requested that this information be included in the Integrated Schedule chart and requested that the staff consider a public meeting to discuss the draft document within 3 to 4 weeks after its issuance for public comment.

A discussion on the NRC fuel facility inspection program followed. The staff generally discussed violations of regulatory requirements specific to performance requirements and management measures program areas, the NRC enforcement policy, and inspection guidance, which is a highly important topic for the industry. The NEI and industry representatives expressed concerns regarding the safety and regulatory bases for Severity Level (SL) IV violations recently issued to licensees as a result of failed management measures, even though applicable performance requirements were met. These concerns were previously expressed by the industry in NEI's, July 24, 2020, letter. The industry stated that the basis for these SL IV violations, which began following the 2017 revision to Inspection Manual Chapter (IMC) 0616, is not transparent and that it is not clear that a failed or degraded management measure that does not result in failure to meet the performance requirements of 10 CFR 70.61 is a violation at all. The industry also noted that examples e and j of IMC 0616, Appendix B are inconsistent and further stated that if the NRC determines that a failed or degraded management measure that does not result in noncompliance with the performance requirements is a violation (contrary to Example e in Appendix B to IMC 0616), then such violations should be considered "minor"

and (at most) result in a non-cited violation. The industry questioned whether the basis for issuing SL IV violations is a change in position by the NRC of the requirements regarding management measures in Subpart H to Part 70 and, if so, then the NRC should consider the backfitting implications of the new or different interpretation. The NRC staff discussed the Enforcement Policy, which discusses the escalated enforcement actions to be taken when performance requirements are not met and stated that issuing SL IV violations for failed management measures is not a new position. The NRC staff then stated that it will correct the more than minor example j in IMC 0616. The industry suggested that the NRC consider issuing IMCs under revision for public review and comment to allow industry or public stakeholders to receive proper clarity on the regulatory basis of given revision(s) or transparency on the development of these documents and to eliminate the potential for backfit, as viewed by the industry, appears to be the case for the August 2017 revision of IMC 0616. A discussion on performance requirements related to items relied on for safety (IROFS) followed. It is the NRC's position is that any control designated as an IROFS must meet the management measures requirements in 10 CFR Part 70, Subpart H. For the industry, these appears to be a "disincentive" for establishing defense in depth IROFS. However, the NRC staff noted that it does not disincentivize defense in depth measures and that credit for IROFS that provide increased safety margin is given in the enforcement process.

The NEI lead the presentation on flexibility to the core inspection program based on good performance. The NEI provided a brief description of the activities conducted since 2019 to assess and improve the NRC fuel cycle inspection program under the smarter licensing and inspection initiative and provided its views on this effort. The NEI indicated that, although significant progress has been made since the initiative was started, there are still improvements that could be made to provide flexibility for conducting and reducing the number of core inspections based on licensee's performance and improve the overall efficiency of the inspection program. The industry provided examples of criteria for providing flexibility for conducting core inspections under the smarter inspection program, such as no escalated enforcement actions, low or decreasing doses to workers and the public, reduced production of wastes, an excellent record of shipments of nuclear materials without incidents, and repetitive periods of performance under LPR resulting in areas not needing improvement. The NEI also suggested that the licensee performance review (LPR) process could be used to determine whether adjustments should be made to the core inspection program by reducing or increasing the frequency and/or duration of inspections. NRC staff indicated that consistent with the rest of the oversight programs in the agency, the fuel facilities core inspection program is what the staff deems necessary to obtain reasonable assurance for safety. NRC staff also noted the revisions to inspection guidance as a result of the smarter inspection program initiative already provides a plus or minus 10% flexibility per inspection procedure, that staff evaluated and found appropriate. Lastly, NRC staff shared the importance to implement a minimum baseline or core inspection program to successfully fulfill our safety mission. The industry suggested to revisit this proposal as necessary in the future. Following this presentation, the public was afforded an opportunity to provide comments or ask questions on the topics discussed during the meeting. No comments or questions were provided.

Following NEI's presentation, the NRC staff discussed the smarter licensing action plan status. During this presentation, the NRC staff discussed the present efforts to implement the smarter licensing action plan's near-term recommendations and reviewed the established smarter licensing WG's schedule for prioritizing work and incorporating improvements and WG recommendations into licensing guidance. The schedule includes near, medium, and long-term goals planned to be completed as follows: 1) near-term - by December 2020; 2) mid-term - by March 2021; and long-term – by January 2022. The NRC staff provided responses to NEI and

members of the industry additional questions on the status of the efforts. The NEI and members of the industry requested the NRC staff to keep them aware and informed of the status of the implementation efforts to ensure support for these activities is continued. Following this presentation, the public was afforded an opportunity to provide comments or ask questions on the topics discussed during the meeting. There were no comments provided or questions asked.

Before closing the meeting, the NRC staff provided a summary of the discussions for the October 28, 2020, session. Following this discussion, the meeting was adjourned to be continued on the next day.

In the morning of October 29, 2020, the NRC staff, NEI, and industry representatives reconvened to continue the discussions on the topics on the agenda for the day. Following opening remarks by NRC staff and NEI representatives, the activities and discussion of topics resumed.

The NRC staff opened the October 29, 2020, session by discussing the status of inspection modifications for incorporating the smarter inspection WG recommendations. The NRC staff provided an overview of the activities and efforts made to date, which included: revising fuel cycle inspection guidance documents to adjust the frequency of inspections and number of hours in accordance with the risk of activities, and reducing inspection frequency for facilities with an approved corrective action program; training inspectors on the revised guidance documents, with full implementation starting January 2021; complete assessment of the scope of the resident inspector program; and formalizing the process for incorporating operating experience into inspection program after the revision of inspection guidance documents is completed. The NRC staff briefly discussed the process for revising inspection guidance and the proposed changes to the most relevant procedures. Following their presentation, the NRC staff provided responses to questions from NEI and members of the industry.

The NRC staff continued the meeting's activities with a presentation on the Fuel Cycle Operating Experience Program. The NRC staff presented this topic in response to an NEI request during the July 2020 meeting. The NRC staff provided an overview of the program. The NRC discussed discussing the program's purpose, description, the data evaluation process, products, and future plans, including incorporation of information and experience gathered through the program into the fuel cycle inspection program. Following their presentation, the NRC staff provided responses to questions from NEI and member of the industry on this topic. The public was afforded an opportunity to provide comments or ask questions on the status of inspection modifications and the Fuel Cycle Operating Experience Program. There were no comments provided or questions asked.

The NRC staff presented and discussed the status and results of the self-assessment of non-billable work. The report was issued in April 2019. One of the issues identified was inconsistent billing between Project Managers (PMs) and Project Inspectors (PIs). Although both perform similar duties (e.g., schedule management, routine communications, briefing packages, etc.), PM time is being billed, but not the PI time. The assessment found that the operating reactor business line uses a billable code for routine inspection related communications. Therefore, the staff decided to adopt a similar approach and defined a new, billable, cost activity code for the routine inspection-related communications. In addition, the NRC staff discussed the type of activities and billed hours under each product line and stated that it will consider sharing self-assessment documents. A discussion regarding activities and hours billed for Orders and/or enforcement activities (issuance, preparation for - and conduct of - follow-up inspections, travel,

other) was conducted. Members of the industry requested the NRC staff to provide, if possible, a breakdown of the enforcement activities that are fee-billable and asked if it was possible to provide information comparing budgeted vs. expended resources. The NRC staff stated that it will look at what info can be provided to address these requests.

The NRC staff discussed the status of efforts on low safety significance issues. The staff is currently working on addressing low safety significant issues that, in some cases, result in an excessive effort (resources and time) to resolve. Through this effort, a working team is sharing insights on implementing a consistent approach while recognizing differences in business lines with the objective of putting in place process enhancements to mitigate (risk-inform) and resolve these situations. Industry representatives asked if there was applicability of this concept to the licensing process (in addition to its current efforts that focus on inspection). The NRC staff stated that it will also be applied to the licensing process and that it will be pursued following the current activities associated with the smarter inspection program. Following this presentation, the public was afforded an opportunity to provide comments or ask questions on the status of non-fee billable work and the status of efforts on low safety significance Issues. There were no comments provided or questions asked.

For its final presentation, the NRC staff discussed the potential panel sessions for the 2021 Regulatory Information Conference. There are: 1) Front and Back End of ATF: Preparations for licensing ATF (to be presented in conjunction with staff from the Office of Nuclear Reactor Regulation); and, 2) Preparing for Advanced Reactor Fuels: preparations for advanced reactor fuels (front and back end). Following their presentation, the NRC staff provided responses to questions from NEI and members of the industry. The public was afforded an opportunity to provide comments or ask questions on this topic following the presentation. There were no comments provided or questions asked.

### ***Adjourn***

Following closing remarks from NRC staff, NEI, and members of the industry, the meeting was adjourned at 2:00 p.m. The NRC staff plans to conduct its next CER interaction with the industry early next calendar year 2021.

### ***Action Items***

The following action items resulted from the discussions during the meeting:

1. Integrated schedule and supplement
  - Update the integrated schedule chart and the supplement to:
    - reflect future plans for the Part 61 rulemaking
    - include the status of the guidance for the Cat II facilities
  - Consider whether other topics need to be added to the regulatory activities list
2. NRC Covid-19 response, Remote/On-site inspections – Feedback and Lessons Learned
  - Consider and communicate how NRC will move forward during phase II
  - Remote plus on-site inspections (combined approach): consider what can be improved

3. NUREG-2159, "Acceptable Standard Format and Content for the Material Control and Accounting Plan Required for Special Nuclear Material of Moderate Strategic Significance."
  - Consider holding a public meeting on the draft document 3-4 weeks after comment period on the document has started
4. Credit for good performance
  - Revisions to IMC 0616: look at whether the revisions changed the interpretation of minor violation vs. SL-IV violations
5. Status of non-fee billable work
  - If possible, NRC staff to provide information on:
    - breakdown of enforcement activities that are fee-billable
    - budgeted vs. expended resources
6. NEI suggestion that IMC 0616 App B risk-informed guidance for minor/more-than-minor significance is a new position
  - NRC staff will share history (provide list/copy) of SL IV violations for failed management measures with NEI
    - With OGC concurrence, the staff will document its position and subsequently:
      - ✓ communicate to the industry its position;
      - ✓ revise IMC 0616 and make corrections to examples as needed; and
      - ✓ continue discussions at next CER meeting to further communicate and answer questions.

### ***Information and Communications Technology During the Meeting***

During this meeting, the staff used a combination of WebEx for visual presentations of the slides and a bridge line with a participants' and attendees' passcodes, respectively, for audio communications. Although some minor technical issues still existed, the combination of WebEx plus the bridge line/passcodes worked very well and no major technical issues occurred.

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