



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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June 4, 2020

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

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SUBJECT: SUMMARY OF APRIL 22, 2020, MEETING WITH INDUSTRY 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 Skype meeting with representatives of the Nuclear Energy Institute (NEI), fuel cycle industry, and members of the public on April 22, 2020. The purpose of this Category 2 public meeting was to discuss the status of several initiatives involving the fuel cycle industry. Topics included the update on the cumulative effects of regulation integrated schedule, building a smarter fuel cycle inspection and licensing programs, non-fee billable work, process for handling the Coronavirus Disease 2019 (COVID-19) related requests for regulatory relief, exemptions from reporting unplanned contamination events, prioritization efforts regarding annual fee expenditures, and NRC fuel cycle activities for accident tolerant fuel (ATF) and advanced reactor fuel.

The meeting announcement, agenda, staff presentations, attendees list, and the fuel cycle integrated schedule and its supplement are available in the Agencywide Documents Access and Management System (ADAMS) Accession No. [ML20134H929](#). No regulatory decisions or commitments were made during the meeting.

Cumulative Effects of Regulation: Current Regulatory Activities

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 December 2019 update. The 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>.

During the meeting, the NRC staff provided and discussed the updated information for each activity during their respective presentations. Members of the industry requested that the NRC staff revise the charts on the integrated schedule to more clearly identify the placement of change and event markings on the timeline and thus better understand the status of each activity. A topic that continues to generate interest from the meeting participants was the enhanced weapons, firearms background checks, and security event notifications rulemaking. The fuel fabrication industry stated that it will provide additional input and comments on this activity, and noted it wants to ensure changes in physical security event notification and recordkeeping requirements are made as intended and clearly justified. The industry committed to providing their questions on this rule to the staff so that the staff could clearly understand the questions and respond.

During the discussion regarding the American Nuclear Society Standard, ANS 57.11, "Integrated Safety Assessment of Nonreactor Nuclear Facilities," NEI representatives requested the NRC to take into consideration the vote from the *Nuclear Criticality Safety Consensus Committee* which unanimously voted to disapprove the standard. The NRC staff noted that there are currently internal discussions regarding whether or not NRC support for this standard should be continued and that Commission direction may be necessary.

The NRC staff did not discuss in detail the activities related to the Regulatory Information Conference. Updated information regarding this activity was provided in the supplement to the schedule.

The NRC staff continued dialogue with NEI and fuel cycle industry representatives regarding the smarter fuel cycle inspection program and provided updated information on this initiative. The NRC staff informed the industry of the issuance of the working group's (WG) report, "Proposed Recommendations for Building a Smarter Fuel Cycle Inspection Program," dated March 18, 2020 (ADAMS Accession No. [ML20073G659](#)), which summarizes the staff's recommendations resulting from the implementation of the WG initiatives, stakeholder correspondence, and feedback from public meetings. The staff noted that, with the issuance of the report, the initiative now moves to implementation of the WG's recommendations, which includes updates to Inspection Manual Chapter 2600, "Fuel Cycle Facility Operational Safety and Safeguards Inspection Program" and inspection procedures. No additional public meetings on the smarter inspection program are planned. Members of the industry at the meeting expressed their satisfaction with the latest developments and stated that they look forward to continuing the dialogue with NRC staff on additional topics identified during the smarter inspection initiative.

The NRC staff continued dialogue with NEI and fuel cycle industry representatives regarding the smarter fuel cycle licensing program initiative. The NRC staff presented the status of the initiative and noted that the smarter fuel cycle licensing program final report—with recommendations—and an integrated implementation plan to address the 37 individual recommendations (currently under development) is expected to be issued by the end of May 2020. The NRC staff noted that an implementation plan WG has already been formed, that closure of near-term actions is planned by the fall of 2020, followed by the closure of the mid-term actions by early 2021. The staff will look for opportunities (e.g., public meetings) to inform the industry, as necessary, on the status of implementation.

New Topics

New topics discussed during this meeting included the agency's efforts to improve tracking and oversight of non-fee billable work, the process for handling COVID-19 related requests for

regulatory relief requests, exemptions from reporting unplanned contamination events, status and path forward, NMSS prioritization efforts regarding annual fee expenditures, and fuel cycle activities for accident tolerant fuel and advanced reactor fuel.

Agency Efforts to Improve Tracking and Oversight of Non-Fee Billable Work

During the discussion of this topic, the NRC staff stated that on November 5, 2018, a memorandum was issued directing the NMSS, Division of Fuel Management (DFM) staff to begin opening enterprise project identifiers (EPIDs) for non-billable (NB) projects. The NRC staff was tasked, in December 2018, with performing a self-assessment on non-billable work in the fuel facilities business line. A self-assessment report was issued on April 15, 2019, providing recommendations to improve the tracking and oversight of NB resources. Currently, reports of non-billable charges are reviewed each quarter by DFM management for progress on opening EPIDs and tracking NB work. A computer tracking system for NB projects is currently under development.

Process for Handling Requests for Regulatory Relief

On January 31, 2020, the U.S. Department of Health and Human Services declared a public health emergency (PHE) for the United States to aid the nation's healthcare community in responding to COVID-19. On March 11, 2020, the COVID-19 outbreak was characterized as a pandemic by the World Health Organization. The NRC recognized that during the current COVID-19 PHE, licensees may experience challenges in meeting certain regulatory requirements. The NRC has multiple methods of providing relief from regulatory requirements while continuing to maintain safety and security. These methods fall broadly into different categories, which include exemptions from regulatory requirements, amendments to license conditions or technical specifications, and enforcement discretion.

In response to the current COVID-19 PHE, "Temporary Staff Guidance – Fuel Facility Requests for Regulatory Relief Related to COVID-19" was issued on April 21, 2020 (ADAMS Accession No. [ML20108E911](#)). The NRC staff discussed the development and issuance of the internal guidance and the objectives that included: ensuring that public health and safety are maintained; to promote consistency in the processing of requests for regulatory relief, improve the efficiency and effectiveness of internal and external communications, increase technical consistency, and enhance public confidence in the NRC's decisionmaking process for these requests.

Exemptions From Reporting Unplanned Contamination Events: Status and Path Forward

During the meeting, the NRC staff stated that the following applications for an exemption from the reporting requirements for unplanned contamination events have been received:

- Letter dated January 9, 2019, from GNFA (ADAMS Accession No. [ML19009A271](#))
- Letter dated April 24, 2019, from BWXT (ADAMS Accession No. [ML19120A285](#))
- Letter dated May 15, 2019, from NFS (ADAMS Accession No. [ML19154A368](#)).

A request for additional information was issued to each applicant in March 2020. The GNFA response was received on April 16, 2020, and is currently under review. However, NFS and BWXT requested more time to respond.

The NRC staff noted that granting the exemption could reduce the level of transparency to the public of unplanned contamination events. An estimate of the resources saved is needed to make a finding that a reduced level of transparency is justified.

NMSS Prioritization Efforts Regarding Annual Fee Expenditures

The NRC staff discussed current non-billable projects that are currently ongoing. Among others, these included the following:

- smarter licensing
- smarter inspection
- tracking and oversight of non-billable work
- DFM workload management tool
- accident tolerant fuel support
- advance reactor support
- quarterly Barasso report
- draft guidance—licensing greater than critical mass facilities
- DFM guidance consolidation
- COVID-19 Regulatory Relief Working Group

Fuel Cycle Activities for Accident Tolerant Fuel and Advanced Reactor Fuel

The NRC staff discussed recent efforts regarding the regulation of accident tolerant fuel and advanced reactor fuel. The NRC staff reported that it continues to assess the regulatory framework to identify challenges and/or data needs. Specifically, the NRC staff noted that the current regulations in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 70 are adequate for conducting reviews of licensing actions associated with new technologies for enrichment and fabrication of fuel at higher enrichments (High Assay Low Enriched Uranium greater than 5% but less than 20% ²³⁵U). In addition, the NRC staff reported that it continues to improve its processes and conducts risk informed and efficient reviews. The NRC staff encourages applicants to engage early to ensure a common understanding of the implications of these advanced fuels.

The NRC's August 26, 2019, letter to NEI regarding accident tolerant fuels (ADAMS Accession No. [ML19235A261](#)) identified a timeline for NRC reviews to support the industry's 2023 ATF goal. The NRC staff is conducting research on criticality benchmarking data for higher enrichments and ATF cladding material properties to gain efficiencies in its reviews. In addition, the NRC staff is efficiently reviewing licensing actions to allow enrichments above 5wt%U-235.

With regard to advanced reactor fuel, the NRC staff reported that physical security requirements for Category II facilities will be evaluated on a case-by-case basis. The NRC staff is conducting technical evaluations to assess necessary updates for the guidance. In addition, the NRC staff is currently updating the NRC guidance for material control and accounting for Category II fuel cycle facilities, and completed its report on possible material control and accounting approaches for a pebble bed reactor (ADAMS Accession No. [ML20112F355](#))

Public Participation

During the meeting, NRC staff provided members of the public the opportunity to ask questions and provide comments.

The public expressed concern regarding the public availability of the meeting slides prior to the meeting. Consistent with normal procedures, the slides were published in ADAMS, and a link to the slides was also posted to NRC's public Web site. However, technical difficulties with the participants' infrastructure may have caused issues with the transmittal and/or opening of the link to the slides. To address this issue, the NRC staff e-mailed the slides to those participants who requested them. The NRC staff apologized for the technical difficulty and committed to addressing the issue for future meetings.

The public also expressed concern about the perception that the NRC considers the public to be a low priority. The NRC staff noted that the comment could have resulted from a misunderstanding during the discussion of the smarter licensing topic since the status of the activities on this initiative was discussed without providing sufficient background, purpose, or context. In particular, the NRC staff noted that the scope of this initiative is on improving the effectiveness of staff licensing reviews. The NRC staff clarified that, while some guidance will be made publicly available as instructions are developed for specific review aspects per the principles of good regulation of clarity and reliability, in the context of the initiative's scope on improving effectiveness of the staff reviews the specific suggestion to make all staff review guidance publicly available was ranked as low since being publicly available in itself does not improve the effectiveness of a review. The NRC staff reiterated that the safety of the public remains its main priority.

Regarding licensees' requests for regulatory relief, members of the public expressed concerns arising from the NRC's granting of exemptions from regulatory requirements. The public expressed their perspective that by granting these exemptions during the COVID-19 pandemic, the NRC appears to be relaxing its oversight of the nuclear industry during a time when more oversight is necessary. In response to this comment, the NRC staff stated that the agency is only granting relief from specific regulatory commitments when requested by a licensee and only under certain circumstances. The NRC staff also noted that requests for regulatory relief mainly involve administrative requirements that would be approved only if the NRC staff found that they would not endanger life, property or the common defense and security. The NRC staff also stated that it will continue to make sure licensed facilities operate safely during COVID-19, consistent with NRC's mission and regulatory requirements.

Action Items

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

1. Revisit the graphic charts (Integrated Schedule) to clarify placement of change marks and events in the timeline. This was specifically noted during the discussion of the 10 CFR Part 61 rulemaking, but applies to all of the other regulatory activities.
2. NEI will provide written comments on the enhanced weapons rulemaking.
3. Determine and report if the NRC staff will continue to support development of the ANS 57.11 standard.
4. Ensure that proposed guidance is submitted to industry at the appropriate time to allow their input during development. Include timeline for planning.
5. Review industry and NRC priorities assigned to actions arising from the smarter program reviews.
6. Determine what licensing information can be shared with X-Energy and other potential applicants from recent NRC actions on applications for Category II medical isotope production facilities.

Adjourn

The meeting was adjourned at 2:15 p.m. The NRC staff plans to conduct its next CER interaction with the industry by summer 2020.

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