



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
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MEMORANDUM TO: Craig G. Erlanger, Director  
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and Environmental Review  
Office of Nuclear Material Safety  
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SUBJECT: MEETING SUMMARY APRIL 11, 2018: MEETING WITH THE  
INDUSTRY AND STAKEHOLDERS TO DISCUSS FUEL CYCLE  
REGULATORY ACTIVITIES AND CUMULATIVE EFFECTS OF  
REGULATION

The staff of the U.S. Nuclear Regulatory Commission (NRC) met with representatives of the Nuclear Energy Institute (NEI), fuel cycle industry, and members of the public on April 11, 2018, in Rockville, MD. The purpose of this Category 2 public meeting was to discuss the status of several initiatives involving the fuel cycle industry. The NRC staff presented updates on the Cumulative Effects of Regulation (CER) Integrated Schedule, Region II, Division of Fuel Facility Inspection (DFFI) activities, Licensing Efforts Estimates, the administrative regulations review, and Interim Staff Guidance (ISG) on Financial Assurance. The staff also gave presentations on two recently issued Information Notices, Natural Phenomena Hazards Generic Letter (GL) Closeout Actions, NRC Transformation Initiative, Draft Regulatory Issue Summary (RIS) titled, "Clarification of Export Reporting Requirements," and the Insider Threat Program. The meeting announcement and agenda is available in the Agencywide Documents Access and Management System (ADAMS) under Accession Number ML18089A368. The ADAMS Accession numbers for the presentations (if provided), attendees list, the fuel cycle integrated schedule, and its supplement are enclosed. No regulatory decisions or commitments were made during the meeting.

### **Cumulative Effects of Regulation**

The NRC staff provided updates to the rulemaking and regulatory activities listed on the Integrated Schedule of Regulatory Activities for Fuel Cycle and Supplement. The NRC staff committed to adding the draft RIS titled, "Clarification of Export Reporting Requirements," to the June 2018 integrated schedule update. Two items were completed and removed from the integrated schedule since the December 2017 update. In September 2017, the staff completed its effort to update the material control and accounting regulatory guides. In March 2018, the

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NRC staff completed a panel at the Regulatory Information Conference on the current environment and future trends in the fuel cycle industry. Also, there were two changes to non-rulemaking activities. The first is the staff's decision to issue an information notice on unplanned contamination events instead of a regulatory issue summary. This change allows for the communication to be consistent with the agency's regulatory position. The second item is the staff's decision to discontinue the development of draft regulatory guidance to non-reactor and non-power reactor licensees on the implementation of the Title 10 of the *Code of Federal Regulations* (10 CFR) Part 21. However, the staff believes that there is value in the previously accomplished work, therefore, the staff will determine, at a later date, an appropriate vehicle to document 10 CFR Part 21 staff guidance for fuel cycle facilities (i.e., NUREG-1520, Interim Staff Guidance, etc.). The staff posted the integrated schedule and supplement on the public website available at <http://www.nrc.gov/materials/fuelcycle-fac/regs-guides-comm.html#cumeffects>.

### **Region II/DFFI Update**

As a result of the lessons-learned effort based on the Westinghouse scrubber condition that was reported to the NRC in July 2016, the NRC staff will make enhancements to the inspection guidance. The staff is revising inspection procedures to ensure that the effects of multiple plant modifications are considered in inspection planning. Also, the staff is revising inspection procedures to ensure that all systems that present a high or intermediate consequence hazard, albeit the probability of occurrence is low, are inspected at least once every five calendar years.

Recently, the staff completed a review of the regional inspection procedures and determined that some operational safety and fire protection inspections can be transferred to the senior resident inspectors at Category I facilities. This transfer gains regional efficiency and saves expenses. The staff also provided an overview of requirements for biannual inspections for licensees that have an adequate corrective action program.

### **Update on Licensing Efforts Estimates**

During the September 2017 CER meeting, NEI and industry stated that other organizations at the NRC provided schedule and resource estimates for licensing action reviews in acceptance letters and views this as best practice. Recognizing the benefits of sharing best practices and key learnings across licensing organizations, an NRC Licensing Process Commonalities Steering Committee was formed in January 2018. This Steering Committee is composed of various organizations in which the main objective is to align on appropriate licensing strategies across the agency and assist in evaluating options for efficient and effective implementation of licensing processes.

Based on NEI and industry feedback, and best practices shared via the internal steering committee, the NRC will include schedule and staff hour estimates for each fuel facility licensing action submitted to NRC for review in the near future. The staff stated that it will revise internal guidance documents to ensure the information is provided in the acceptance letter. The staff believes that providing this information will enhance licensee awareness of the expected costs for a specific review and aid in planning and budgeting of future licensing action requests.

### **Administrative Regulations Review**

On April 5, 2018, the NRC Commission issued a staff requirements memorandum for SECY-17-0119, "Retrospective Review of Administrative Regulations," (ADAMS Accession Number ML18096A553) approving the staff's proposed strategy for conducting a retrospective review of the NRC's administrative regulations. In SECY-17-0119 (ADAMS Accession Number ML17286A069), the staff stated that it will be conducting a retrospective review for the purpose

of identifying outdated or duplicative administrative requirements that may be eliminated, without an adverse effect on public health or safety, common defense and security, protection of the environment, or regulatory efficiency and effectiveness. The staff expects the retrospective review to identify ways that the NRC can improve how applicants and licensees submit information, keep records, and report to the agency. This effort will enhance the agency's efficiency and ensure that the agency's regulations remain current, appropriate, and effective. Stakeholders and the public will be able to provide comments on the staff's recommended screening criteria. Upon completion of the vetting process for the screening criteria, the staff will submit the final proposed criteria to the Commission for its review and approval.

### **ISG on Financial Assurance**

The staff is currently developing a new ISG on decommissioning funding plans for material licensees. The NRC staff provided a presentation describing the information that will be included in the ISG. The draft ISG intends to address decommissioning cost estimates (DCEs) covering current facility conditions including onsite inventory onsite. With respect to financial instruments, it will provide guidance on submitting originals, review of side letters, and developing a "sight" draft. It will also provide guidance on how to add efficiency to preparing decommissioning funding plans by directly addressing the 8 factors from the decommissioning rule. The draft ISG is scheduled to be complete by the end of June 2018 and released for a 45-day public comment period. The final ISG is scheduled to be completed by the end of October 2018.

### **Information Notice on Unanalyzed Conditions Involving Long-Term Fissile Accumulation**

The staff provided an overview of IN 2018-05, "Long-Term Fissile Material Accumulation Due to Unanalyzed or Improperly Analyzed Conditions at Fuel Cycle Facilities," dated March 26, 2018, (ADAMS Accession Number ML18022A211). Information Notice 2018-05 is addressed to facilities licensed under 10 CFR Part 40, "Domestic Licensing of Source Material," 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material," and all holders or applicants for, a construction permit or operating license for a production facility, including a medical isotope facility, under 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities." The purpose of this IN is to inform addressees of recent operating experience involving unanticipated, long-term accumulation of fissile material in uncontrolled geometry systems due to improper analysis of credible plant conditions.

Recognizing the variability among processes and conditions throughout the fuel cycle industry, the NRC reviewed operating experience and identified that incorrect assumptions have led to inadequate analysis of credible events and have been a contributing factor in the unanticipated accumulation of fissile material. Regulatory requirements necessitate that, through the Integrated Safety Analysis, a licensee evaluates all credible pathways that could potentially lead to a consequence of concern. Therefore, licensees are encouraged to review credible events or conditions whose likelihood has either been underestimated or not considered, especially those events or conditions involving the potential for long-term fissile material accumulation. Additionally, licensees are encouraged to review analyses for areas designated as low risk, which have no controls applied, because those analyses may have unchallenged or unverified assumptions.

### **Information Notice on Adequate Management Measures**

The staff provided an overview of IN 2018-06, "Determination of Management Measures for Process Isolation Controls Designated as Items Relied on for Safety and Implementation of Adequate Quality Assurance Measures for Plant Features and Procedures," dated April 10, 2018, (ADAMS Accession Number ML18029A105). IN 2018-06 is addressed to

facilities licensed under 10 CFR Part 40, "Domestic Licensing of Source Material," 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material," and all holders or applicants for, a construction permit or operating license for a production facility, including a medical isotope facility, under 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities." The purpose of this IN is to inform addressees of recent operating experience regarding programs and procedures for determining and implementing management measures for isolation controls. These isolation controls may be required to be available and reliable to perform specific safety functions to prevent or mitigate accident sequences.

Between 2016 and 2017, NRC inspectors identified inadequate management measures or quality assurance (QA) measures for isolation controls credited for preventing or mitigating releases of hazardous material. This suggests that there may be administrative controls that are dependent on engineered components to perform a safety function and that those components may not be subject to adequate QA or management measures to ensure the administrative controls are effective. The staff encourages licensees to evaluate administrative controls dependent on engineered components and implement management measures for those controls required to prevent or mitigate associated accident sequences.

### **NRC Transformation Initiative**

Recently, the NRC has been assessing ways of transforming its regulatory framework, culture, and infrastructure related to the regulation of developing nuclear technology. The overall objective of this initiative is to identify potential transformative changes to further enhance our agility, efficiency, and effectiveness in accomplishing the NRC safety and security mission. The staff provided an overview of the innovation team's tasks, specific areas for consideration, and overall themes of feedback received from internal and external stakeholders. They will produce a Commission paper later this year.

### **Natural Phenomena Hazards Closeout**

The NRC staff discussed the closure activities related to GL 2015-01, "Treatment of Natural Phenomena Hazards at Fuel Cycle Facilities." The staff evaluated licensee responses, conducted inspections when necessary, and issued closure letters to each fuel facility licensee. The staff provided examples of safety improvement achieved through this effort. The NRC concludes that GL 2015-01 was an effective mechanism to provide NRC staff the basis for concluding that licensees are in compliance with applicable regulatory requirements related to natural phenomena hazards. Closure of GL 2015-01 is an example of a major regulatory effort that yielded significant programmatic accomplishments for the NRC.

### **Draft RIS: Clarification of Export Reporting Requirements for Nuclear Facilities, Equipment, and Non-Nuclear Materials**

The staff is developing a RIS to clarify NRC's position regarding reporting requirements under 10 CFR Part 110, "Export and Import of Nuclear Equipment and Material." This RIS will provide staff's position on the information that should be provided in annual and quarterly reports on export of components. The staff provided an overview of exports under a general license, Additional Protocol (AP) background, and AP quarterly requirements. Annual reports on exports of reactor components under a general license are due February 1<sup>st</sup> of each year. Quarterly reports of exports of equipment and non-nuclear material described in Annex II of the U.S. AP are due January 15<sup>th</sup>, April 15<sup>th</sup>, July 15<sup>th</sup> and October 15<sup>th</sup>.

**Insider Threat Program and Security Executive Agent Directive 3 for NRC-Licensed Facilities**

The staff provided a presentation on National Industrial Security Program Operating Manual (NISPOM) Insider Threat Program (ITP) and the Security Executive Agent Directive (SEAD) 3. NISPOM ITP directs cognizant security agencies, including the NRC, to ensure all entities that it issues security clearances to, implement an ITP. SEAD 3 establishes significant new travel reporting requirements for all covered individuals who have access to classified information or hold a sensitive position.

The presentation began with an overview of the new ITP and SEAD 3 requirements, followed by an explanation of the next steps for implementation. The discussion concluded after the staff responded to questions regarding the implementation of the new requirements. Finally, the staff indicated additional discussions on the subject would continue as part of scheduled Bi-Weekly Information Sessions. Participants could find the details on those meetings on the NRC's public meeting website (<https://www.nrc.gov/pmns/mtg>).

**Enclosures:**

1. Cumulative Effects Presentation  
(ML18101A002)
2. ISG on Financial Assurance Presentation  
(ML18101A006)
3. Long-Term Fissile Accumulation Presentation  
(ML18101A008)
4. Adequate Management Measures Presentation  
(ML18101A001)
5. NRC Transformation Initiative Presentation  
(ML18101A007)
6. Natural Phenomena Hazards Presentation  
(ML18101A005)
7. Draft RIS: Export Reporting Presentation  
(ML18101A004)
8. Insider Threat Program for Licensed Facilities  
(ML18101A003)
9. List of Attendees  
(ML18122A281)

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**\* via email**

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