

January 16, 2015

MEMORANDUM TO: Chairman Burns COMSECY-15-0002
Commissioner Svinicki
Commissioner Ostendorff
Commissioner Baran

FROM: Mark A. Satorius */RA/*
Executive Director for Operations

SUBJECT: TERMINATION OF RULEMAKING TO REVISE TITLE 10 OF *THE CODE OF FEDERAL REGULATIONS* PART 40, "DOMESTIC LICENSING OF SOURCE MATERIAL" AND STAFF PLANS TO ADDRESS OTHER ITEMS IN STAFF REQUIREMENTS MEMORANDUM FOR SECY-12-0071 (RIN 3150-A150)

The purpose of this memorandum is to (1) request Commission approval of the staff's plan to terminate the subject rulemaking revising Title 10 of *the Code of Federal Regulations* (10 CFR) Part 40, "Domestic Licensing of Source Material," and (2) describe the path forward to implement the other items in the Staff Requirements Memorandum (SRM) for SECY-12-0071, "Final Rule: Domestic Licensing of Source Material—Amendments/Integrated Safety Analyses," dated May 3, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13123A127). The U.S. Nuclear Regulatory Commission (NRC) staff has concluded that licensee actions after the 10 CFR Part 40 rulemaking was initiated in 2007, as well as other subsequent developments discussed below, have obviated the need for this rulemaking at this time.

The staff originally intended to incorporate into 10 CFR Part 40 the integrated safety analysis (ISA) requirements in 10 CFR Part 70 ("Domestic Licensing of Special Nuclear Material"), and to make these ISA requirements applicable to uranium conversion and deconversion facilities, as stated in SECY-07-0146, "Regulatory Options for Licensing New Uranium Conversion and Depleted Uranium Deconversion Facilities," dated October 10, 2007 (ADAMS Accession No. ML072830536). At that time, the staff anticipated that within the near term, commercial entities would submit license applications for new uranium conversion and depleted uranium deconversion facilities. However, since 2007, no applications for new uranium conversion facilities have been submitted to the NRC, and only one application, from International Isotopes, Inc., has been submitted for a deconversion facility.

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Under 10 CFR Part 40, the NRC issued International Isotopes a 40-year source material license for its planned deconversion facility to be constructed in Hobbs, New Mexico. As part of its safety basis, and as a condition to receiving its license, International Isotopes was required to conduct an ISA, identify items relied on for safety, and submit an ISA summary as part of its license application. This licensing approach is consistent with the Commission's direction in SRM-SECY-07-0146, "Regulatory Options for Licensing New Uranium Conversion and Depleted Uranium Deconversion Facilities." The NRC does not currently expect for the foreseeable future any additional 10 CFR Part 40 applications for new uranium conversion or depleted uranium deconversion facilities.

The other major 10 CFR Part 40 fuel facility that the NRC licensed is the Honeywell uranium conversion facility in Metropolis, Illinois. Honeywell incorporated aspects of the 10 CFR Part 70 ISA requirements into its license as a means of defining accidents for its safety basis. Its license contains the following commitments:

- Identify high and intermediate consequence accident sequences.
- Assign plant features and procedures to mitigate the consequences or likelihood of accidents.
- Establish management measures.
- Implement a configuration management program.

In 2012-2013, Honeywell updated its ISA to better address natural phenomena hazards due to vulnerabilities identified during follow-up inspections in response to the events related to the Japanese nuclear accident at Fukushima Dai-ichi. The NRC subsequently issued Confirmatory Order EA-12-157, dated October 15, 2012, which documented Honeywell's agreement to implement certain corrective actions, including updates to the ISA, prior to restarting the facility. In response to the confirmatory order, Honeywell modified the facility and submitted an updated ISA summary to the NRC. This ISA update demonstrated that for seismic and tornado events, the modifications that the facility made will prevent intermediate and high-consequence releases of licensed and related hazardous materials, so that the chance of such releases occurring are unlikely and highly unlikely, respectively. The NRC completed a detailed evaluation of Honeywell's ISA summary, and conducted physical inspections of the modifications. In July 2013, the NRC confirmed Honeywell's full implementation of the confirmatory order (ADAMS Accession No. ML13183A336) and granted Honeywell the authorization to resume full operations. The order also required Honeywell to submit a revised ISA 6 months subsequent to restart and on August 11, 2014, after a thorough review of the revised ISA, the NRC staff amended Honeywell's license to incorporate the revised ISA (ADAMS Accession No. ML14188C459).

Based on experience with International Isotopes and Honeywell as summarized above, the NRC staff believes that adequate protection of public health and safety can be maintained without incorporating the 10 CFR Part 70 ISA requirements into the 10 CFR Part 40 regulatory framework. This view is also based on the following reasons:

1. The ISA approach provides one acceptable approach for licensees to demonstrate adequate safety, as required by 10 CFR 40.32(c).
2. Existing NRC guidance already provides an established methodology for implementing an ISA at fuel cycle facilities, including 10 CFR Part 40 facilities (see NUREG-1520, Revision 1, "Standard Review Plan for the Review of a License Application for a Fuel Cycle Facility").
3. The hazards at Honeywell's uranium conversion facility, and the hazards at International Isotopes planned uranium deconversion facility, are facility-specific. The NRC staff does not see a compelling need to establish generic 10 CFR Part 40 ISA requirements at this time.
4. The existing conversion and deconversion licensees have demonstrated the ability to successfully incorporate ISA requirements through license conditions on a case-by-case basis.
5. The NRC staff does not expect to receive any new 10 CFR Part 40 license applications in the foreseeable future that would need to be made subject to ISA requirements.

The staff has also reanalyzed the priority of the 10 CFR Part 40 ISA rule using the common prioritization for rulemaking process. The reanalysis reduced the scores for safety, security, and organizational excellence because existing 10 CFR Part 40 licensees (i.e., International Isotopes and Honeywell) currently have approved ISAs and the NRC does not anticipate receiving additional applications for new uranium conversion or depleted uranium deconversion facilities in the near future. The score for external interest was slightly increased based on industry interest in potential impacts on existing 10 CFR Part 70 licensees. Based on this reanalysis, the NRC staff rates the priority of the 10 CFR Part 40 ISA rule as medium where it was previously rated high.

Additionally, as part of a cumulative effects of regulation (CER) interaction with stakeholders, the NRC staff solicited feedback regarding the priority of the proposed 10 CFR Part 40 ISA rulemaking at a public meeting held with the Nuclear Energy Institute (NEI) and industry in Atlanta, Georgia on March 6, 2014 (meeting summary at ADAMS Accession No. ML14072A141). NEI confirmed that it rates the priority for the 10 CFR Part 40 rulemaking as medium to low.

In addition to the direction on rulemaking, SRM-SECY-12-0071 directed the staff to prepare guidance related to 10 CFR Part 40 for a number of issues, including soluble uranium intake,

chemical exposure standards, and natural phenomena hazards. The enclosure provides a discussion of how the staff plans to address the specific items identified in the SRM. The SRM did not specifically discuss the use and applicability of guidance on these topics to 10 CFR Part 70 facilities. However, such guidance could also be directly applicable to current 10 CFR Part 70 licensees whose facilities have similar chemical-related hazards. Further, efforts to develop interim staff guidance (ISG) are already underway for facilities subject to the ISA requirements in 10 CFR Part 70 Subpart H (“Additional Requirements for Certain Licensees Authorized to Possess a Critical Mass of Special Nuclear Material”).

Thus, to address the SRM in the most efficient manner consistent with CER efforts, the staff plans to complete the development of the ISGs related to 10 CFR Part 70 facilities. This would involve developing the guidance items stated in the SRM in the context of both 10 CFR Part 40 and 10 CFR Part 70 fuel cycle licensees and applicants. The NRC staff is using the CER process, including interactions with stakeholders, to coordinate development of the documents. The Office of Nuclear Material Safety and Safeguards will track these items internally to ensure timely completion.

In summary, the staff requests approval to terminate the rulemaking. This conclusion is based on: (a) Honeywell’s existing uranium conversion facility, and the licensed but as yet un-built uranium deconversion facility to be operated by International Isotopes; both already have newly approved ISAs as required by their licenses, (b) the NRC does not anticipate new applications for 10 CFR Part 40 uranium conversion or deconversion facilities in the foreseeable future, (c) the hazards at Honeywell’s uranium conversion facility and the hazards at International Isotopes planned uranium deconversion facility are facility-specific and sufficiently controlled, (d) the NRC staff’s reanalysis of the rule has reduced the priority of the rulemaking, and (e) consideration of the cumulative effects of regulation. The staff will continue to develop guidance as described in the enclosure. By terminating the rulemaking, staff will save resources (approximately 1.5 FTE) that could be reprogrammed for higher priority work.

If approved by the Commission, this Memorandum would close WITS items SRM-S12-0071-1, SRM-S12-0071-2, and SRM-S12-0071-4.

The Office of the General Counsel has reviewed this package and has no legal objection.

SECY, please track.

Enclosure:
Staff Plans to Address Specific Items
from SRM-SECY-12-0071

cc: SECY
OGC
OCA
OPA
CFO