

# **RULEMAKING ISSUE**

## **(Affirmation)**

May 7, 2012

SECY-12-0071

FOR: The Commissioners

FROM: R. W. Borchardt  
Executive Director for Operations

SUBJECT: FINAL RULE: DOMESTIC LICENSING OF SOURCE  
MATERIAL - AMENDMENTS/INTEGRATED SAFETY ANALYSIS  
(RIN 3150-AI50)

PURPOSE:

To request Commission approval to publish a final rule, in the *Federal Register*, that would amend Title 10 of the *Code of Federal Regulations* (10 CFR) Parts 40 and 150. The amendments would require source material licensees possessing significant amounts of uranium hexafluoride (UF6) to perform integrated safety analyses (ISAs) similar to the ISAs performed by 10 CFR Part 70 licensees. The amendments would also set possession limits for UF6 in determining whether the U.S. Nuclear Regulatory Commission (NRC or the Commission) or Agreement States have licensing authority over source materials at UF6 facilities.

SUMMARY:

The amendments would require source material licensees authorized to possess 2000 kilograms or more of UF6 to perform ISAs similar to those performed by 10 CFR Part 70 licensees; set possession limits for UF6 for determining licensing authority for source material (NRC or Agreement States); add defined terms to 10 CFR Part 40; require the NRC to perform a backfit analysis under specified circumstances; and make administrative changes to the structure of 10 CFR Part 40. The ISA requirements do not apply to facilities that are currently undergoing decommissioning under the provisions of 10 CFR 40.42.

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In developing the final rule the staff considered input from public meetings and written comments submitted by industry and Agreement State representatives.

#### BACKGROUND:

On November 30, 2010, in the Staff Requirements Memorandum (SRM) (NRC's Agencywide Document Access and Management System (ADAMS) Accession No. ML103350037) for SECY-10-0128, the Commission approved publication of the proposed rule for public comment. The proposed rule and draft guidance were published in the *Federal Register* on May 17, 2011 (76 FR 28336, ADAMS Accession No. ML111380207).

The Nuclear Energy Institute (NEI), by letter dated June 21, 2011, requested a public meeting on the proposed rule and draft guidance, and requested an extension of the 75-day comment period. The NRC held a public meeting on August 17, 2011, and extended the comment period to 115 days, closing on September 9, 2011. The NRC received nine comment letters from States, licensees, industry organizations, and an individual. The *Federal Register* notice (Enclosure 1) includes comment summaries and responses.

In a related matter, as directed in the SRM for SECY-10-0022, the staff reviewed a petition for rulemaking (PRM-70-8) from NEI, in which NEI requested that several changes be made to 10 CFR Part 70, Appendix A ("Reportable Safety Events"). The draft final reporting requirements are partially based on these reporting requirements in Part 70. The 10 CFR 40.88(a) and 40.88(b) 60-day requirements for follow-up written reports to the NRC Operations Center are partially responsive to NEI's position in PRM-70-8 that the 30-day report deadlines stated in the comparable Appendix A to Part 70 provisions are unnecessarily short.

#### DISCUSSION:

The NRC staff is recommending that 10 CFR Part 40 be amended (and a conforming amendment made to 10 CFR Part 150) to require licensees or applicants who are authorized or plan to possess 2000 kg (4400 lb) or more of UF6 to conduct an ISA, and submit an ISA summary. In the final rule, the NRC would regulate all source material at facilities which are authorized to possess 2000 kg or more of UF6. Agreement States retain their licensing authority to regulate byproduct materials as defined in 10 CFR 150.3(1) (e.g., byproduct material in gauges, sealed sources, and laboratory materials) at such facilities. Any UF6 facility that is currently in the process of decommissioning is exempt from the new requirements. All source material at any future facilities that may be authorized to possess 2000 kg or more of UF6 would be licensed by the NRC.

In response to Agreement State and public comments on the proposed rule, the staff is proposing some changes to the final rule language and statements of consideration (SOC). The staff modified the wording of 10 CFR 40.3a to clarify the scope of the NRC's regulatory authority at facilities which are authorized, or will be authorized, to possess 2000 kg or more of UF6. In the final rule, 10 CFR 40.3a specifies that the NRC will be the sole licensing authority over all source material at such facilities. The SOC explains that Agreement States will retain any authority they now exercise to regulate byproduct material at UF6 facilities (e.g., byproduct material in gauges, sealed sources, and laboratory materials). Proposed 10 CFR 40.84(b) was a provision that would have supplemented the existing emergency planning requirements in

10 CFR 40.31(j) regarding the potential offsite chemical hazards posed by the operation of UF6 facilities. After considering public comments, the staff decided there was no need to supplement the existing 10 CFR 40.31(j) requirements and did not include the proposed provision in the final rule. The wording of the final 10 CFR 40.84 matches the existing requirements in 10 CFR 70.65. A more detailed discussion of these changes, and other minor changes and corrections made to the final rule language and SOC is provided in Enclosure 1.

The staff is recommending that Part 40 be restructured into subparts. This restructuring includes the addition of a new subpart entitled, "Additional Requirements for Certain Licensees Authorized to Possess 2000 Kilograms (4400 lb) or More of Uranium Hexafluoride." The rulemaking would also add definitions to 10 CFR 40.4 that pertain to the proposed ISA requirements. These definitions are essentially the same as those used in 10 CFR Part 70, Subpart H.

In SRM-SECY-10-0128, the Commission directed the staff to "remain cognizant of the ongoing development of the ISA/PRA comparison paper and any direction that the Commission might provide as a result of its consideration of this subject," and stated that "the final rule should reflect any relevant changes that result from the Commission's review of the ISA/PRA comparison paper." The SRM also directed the staff to seek public comments on the potential challenges and impacts regarding the use of probabilistic risk assessment (PRA) methodology at facilities licensed under 10 CFR Part 40.

All of the public comments received on the PRA topic were opposed to using the PRA methodology at 10 CFR Part 40 facilities. The commenters stated that an ISA is the most appropriate tool for analyzing the risk from operations of fuel facilities.

On January 5, 2012, the Commission issued SRM-SECY-11-0140 (ADAMS Accession No. ML120050322) "Enhancements to the Fuel Cycle Oversight Process." Regarding the use of the PRA methodology in general, the SRM stated that "for the longer-term, the staff should develop and test the use of focused PRA-like analyses," as was recommended by the Advisory Committee for Reactor Safeguards. Otherwise, the SRM directed the staff to "continue their interaction with stakeholders, including use of public workshops, to develop the optimal basis for the cornerstones, ultimately recommending the path that is most likely to help ensure safe operations." The SRM further stated that the existing fuel cycle oversight process is effective and ensures safety and security and "consequently, the activities undertaken to enhance the NRC's fuel cycle oversight process are truly that – enhancements – and are a lower funding priority than some other recently emergent, unfunded activities, such as the Commission-approved post-Fukushima response actions."

Based on the public comments and SRM-SECY-11-0140, the final rule does not include any requirements for using the PRA methodology at 10 CFR Part 40 facilities.

Amending 10 CFR Part 40 to require an ISA for those licensees authorized to possess 2000 kg or more of UF6 supports the NRC's 2008-2013 Strategic Plan regarding safety. In the area of safety, the final rule supports Safety Goal Implementation Strategy 1 (develop, maintain, implement, and improve licensing and regulatory programs for material users to ensure the adequate protection of health and safety) by requiring an ISA. An ISA enhances safety by requiring a risk-informed assessment to identify and rank potential accidents. Safety is further

enhanced by the development of a safety program that includes the requirement to describe items relied on to prevent or mitigate an accident and a description of how these items will be maintained.

Amending 10 CFR Parts 40 and 150 to reserve to NRC regulatory jurisdiction over source material at facilities authorized to possess 2000 kg or more of UF6 supports NRC's 2008-2013 Strategic Plan regarding security. In the security area, the final rule supports Security Goal Implementation Strategy 7 (maintain the programs for controlling the security of radioactive sources and strategic special nuclear material commensurate with their risk, including actions required by the *Energy Policy Act of 2005*) by ensuring that the common defense and security concerns and the health and safety concerns will be regulated in an integrated manner.

The staff developed a guidance document to accompany and implement this final rule (NUREG-1962, ADAMS Accession No. ML120950304) which parallels the existing guidance for the ISA requirements in 10 CFR Part 70, Subpart H, (i.e., Standard Review Plan, NUREG-1520, ADAMS Accession No. ML101390110). NUREG-1962 provides a cross walk between the identical sections in 10 CFR Parts 40 and 70, and highlights the differences which stem primarily from the fact that criticality events at special nuclear material facilities are not credible at 10 CFR Part 40 source material facilities. NUREG-1962 would be published concurrent with the final rule.

#### AGREEMENT STATE ISSUES:

There are no Agreement State compatibility issues because the NRC, in the final rule, is reserving licensing authority over all source material at facilities located in Agreement States that are authorized to possess 2000 kg or more of UF6. Such facilities will either (1) have to obtain an NRC 10 CFR Part 40 license; or (2) revise their possession limits for UF6 to below the 2000 kg threshold. Any such changes to Agreement State licenses would be conducted as part of the normal implementation process for rulemaking. Facilities located in Agreement States that are undergoing decommissioning would be exempted from the rule.

The Agreement States participated in the August 17, 2011, public meeting on the Part 40 ISA proposed rule language. They expressed concerns on the NRC being the sole licensing authority, the legality of the NRC reserving licensing authority for both source and byproduct material, and the loss of licensing fees. One Agreement State and the Organization of Agreement States (OAS) provided written comments restating their comments made during the public meeting.

A copy of the draft final rule was provided to the Agreement States for review and comment. Washington state and the OAS provided comments. Both supported the change to the rule that allows the Agreement States to continue to regulate by-product material while the NRC reserves licensing authority over source material at facilities that possess 2000 kg or more of UF6. The OAS expressed concerns on the interactions the NRC staff had with the Agreement States during the rulemaking process. Enclosure 1 summarizes the comments received along with staff's responses.

RECOMMENDATIONS:

That the Commission:

1. Approve for publication in the *Federal Register* the notice of final rulemaking (Enclosure 1).
2. To satisfy the requirement of the Regulatory Flexibility Act, 5 U.S.C. 605 (b), certify that this rule, if promulgated, will not have significant impact on a substantial number of small entities. This certification is included in the enclosed *Federal Register* notice.
3. Note:
  - a. That the Chief Counsel for Advocacy of the Small Business Administration will be informed of the certification and the reasons for it, as required by the Regulatory Flexibility Act, 5 U.S.C. 605(b);
  - b. A final Regulatory Analysis has been prepared for this rulemaking (Enclosure 2);
  - c. A final Environmental Assessment has been prepared for this rulemaking (Enclosure 3);
  - d. The staff has determined that this action is not a "major rule," as defined in the Congressional Review Act of 1996 [5 U.S.C 804(2)] and has confirmed this determination with the Office of Management and Budget (OMB);
  - e. The appropriate Congressional committees and the Government Accountability Office will be informed of this action;
  - f. A press release will be issued by the Office of Public Affairs when the final rulemaking is filed with the Office of the Federal Register; and
  - g. The final rule contains new or amended information collection requirements that must be submitted to the OMB for approval. The staff submitted the clearance package to the OMB at the proposed rule stage. The OMB approved the rule.

RESOURCES:

To implement the rulemaking, 0.3 full-time equivalent positions for FY 2013, are contained in the FY 2013 President's Budget. The necessary resources for fiscal year FY2014 and beyond will be requested through the Planning, Budgeting, and Performance Management process.

COORDINATION:

The Office of the General Counsel has no legal objection to the final rulemaking. The Office of the Chief Financial Officer has reviewed this Commission Paper for resource implications and has no objections.

***/RA by Michael F. Weber for/***

R. W. Borchardt  
Executive Director  
for Operations

Enclosures:

1. *Federal Register* notice
2. Regulatory Analysis
3. Environmental Assessment

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