

LOW-LEVEL RADIOACTIVE WASTE FORUM, INC.

2657 Bayview Drive – Ft. Lauderdale, FL 33306
(754) 779-7551 * (754) 223-7452 FAX

U.S. Nuclear Regulatory Commission (NRC)

NRC Terminates Rulemaking re Special Nuclear Material Accounting

In April 2019, it was announced that all five members of the U.S. Nuclear Regulatory Commission (NRC) voted unanimously to terminate a decade-long, multimillion dollar program to update [federal regulations on material control and accounting](#) (MC&A) of special nuclear materials.

“The Commission has disapproved the draft final rule,” stated NRC Commission Secretary Annette Vietti-Cook in an April 3 memorandum to NRC Executive Director for Operations Margaret Doane. “The staff should discontinue this rulemaking activity. The staff should evaluate the history of this rulemaking activity as a lessons-learned/case study under the agency transformation initiative.”

Overview

According to the summary of their decisions, the Commissioners posted their votes from February 15, 2019 through March 22, 2019. The summary of their decisions included explanations of varying length.

Commissioner Jeff Baran cited three major objections to the proposal, with concurrence from NRC Chairman Kristine Svinicki and others:

- inconsistency on whether the updated rules should be performance-based or prescriptive;
- the absence of technical support for key elements of the update; and,
- that many recommendations “would not result in any real-world safety or security benefit.”

As one example, Baran noted that licensees are not forced to establish material balance areas, item control areas and material custodians, but that all Category 3 licensees have taken those steps to meet the mandate to keep track of their special nuclear material. “The draft final rule would keep this performance-based requirement and then add a prescriptive requirement to take these specific actions,” wrote Baran. “I have not heard a convincing rationale for this approach, and it is unclear what problem needs to be solved.”

Baran noted that staff affirmed that general performance objectives were not expected to force revisions to “current effective licensee practices.” However, affected licensees would still have to evaluate their MC&A operations – additional paperwork with doubtful value to strengthening safety and security.

“The staff has spent ten years and several million dollars working on this rulemaking yet the package fails to provide an adequate basis for a Commission finding that these changes to the MC&A regulations are necessary,” wrote Commissioner Annie Caputo in her comments.

According to NRC spokesman David McIntyre, the rulemaking proceeding cost just over \$2 million. By statute, 90% of agency costs must be recovered through licensee fees, although the agency has not stated whether fees covered this proceeding.

Background

The 1954 Atomic Energy Act (AEA) designates plutonium, uranium-233 and uranium enriched in uranium-233 or uranium-235 as special nuclear material. These materials contain fissile isotopes that can be used in nuclear weapons. Facilities that hold the materials are ranked in descending risk levels in Category 1, 2 or 3.

Rules for material control and accounting are primarily covered under Part 74 of Title 10 of the *Code of Federal Regulations*, which establishes requirements for NRC nuclear facilities or materials licensees.

An April 2008 plan from NRC staff laid out six options for a rulemaking on MC&A regulations. In 2009, the Commission selected a limited process to revise, clarify and augment the standing rules.

In November 2012, following extended development and public notice, NRC staff presented the Commission with a proposed rule. In May 2013, the Commission rejected publication of the proposed rule over its “two-person” provision, which would have mandated that no fewer than two “authorized and qualified persons” be present for any applicable data collection and reporting operation. Rather than continuing to analyze the provision, staff removed it and initiated another comment period for the updated proposed rule.

In October 2018, Doane presented the Commission with a draft final rule that, among other things, would:

- clarify current rules for item control at Category 2 and 3 facilities, those holding special nuclear material of low and moderate security significance;
- consolidate general performance objectives and expand them to cover additional facilities, including spent fuel storage pads;

- expand the requirement for maintaining tamper-safing procedures, if a licensee is using temper-safing (which is defined by federal regulations as “the use of devices on containers or vaults in a manner and at a time that ensures a clear indication of any violation of the integrity of previously made measurements of special nuclear material within the container or vault), to Category 3 sites; and,
- require licensees to establish at least one material balance area and item control area – zones used to ensure that special nuclear materials are accounted for and under control.

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Todd D. Lovinger, Esq.
Executive Director
LLW Forum, Inc.
(754) 779-7551

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