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# **Public Meeting to Discuss the Proposed Amendments to Material Control and Accounting Regulations and Proposed Guidance for Fuel Facility Material Control and Accounting Plans and Completing NRC Form 327**

**U.S. Nuclear Regulatory Commission Headquarters**

**January 9, 2014**

**Audio: bridge line, 888-469-0882; passcode, 12659**

**Video: webinar link, <https://www1.gotomeeting.com/join/513745073/106311468>**

# Meeting Objectives

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- To discuss the proposed rule effort to revise and consolidate the NRC regulations for material control and accounting of special nuclear material in order to update, clarify, and strengthen them
- To request written input from the public about specific questions for the new requirements
- To answer questions enabling the public to submit written comments by March 10, 2014

# Agenda

Time	Topic	Led By
10:00 – 10:05 AM	Opening Remarks Welcome <ul style="list-style-type: none"> <li>Schedule and Milestones for the Rulemaking Process</li> </ul>	NRC
10:05 AM – 12:00 PM	Overview of the Proposed Rule, Proposed Guidance, and Supporting Documents <ul style="list-style-type: none"> <li>Proposed Amendments to Material Control and Accounting Regulations</li> <li>Corresponding Proposed Revisions to Guidance for Fuel Cycle Facility Material Control and Accounting Plans and Completing NRC Form 327</li> <li>Draft Regulatory Analysis for Proposed Rule</li> <li>Cumulative Effects of Regulation</li> </ul>	NRC
1:00 – 4:55 PM	Public Participation Questions from the public participants	ALL
4:55 – 5:00 PM	Closing Remarks	NRC

# Schedule and Milestones for the Rulemaking Process

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- Written public comments are due within 60 days on March 10, 2014
- Publish the final rule and NUREGs ~ 9 months following closure of the public comment period (November 2014)
  - Resolve the public comments
  - Develop the draft final rule, regulatory analysis, and revised NUREGs
  - Hold a public meeting about implementing the final rule (summer 2014)
  - Submit draft final rulemaking package to the Commission and obtain approval to publish the final rule and revised NUREGs

# Regulatory Basis

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- April 25, 2008, SECY-08-0059 (ML080580273), Rulemaking Plan: Part 74 - Material Control and Accounting of Special Nuclear Material with Enclosure,
  - Option 4; rulemaking limited to revising and consolidating the material control and accounting (MC&A) regulations in part 74
- February 5, 2009, SRM-SECY-08-0059 (ML0903604730) approved Option 4

# Regulatory Basis (Continued)

- Option 4 included the following changes
  - MC&A requirements for SNM would be consolidated in Part 74. The NMMSS-related reporting requirements for ISFSIs would be relocated from Part 72
  - Part 74 would be revised to make it clear what requirements apply to different types of facilities
  - General performance objectives and basic system capabilities such as an item control program that would apply to nearly all licensees
  - Some current exemptions in the regulations would be deleted or modified
  - Part 74 would be revised to include definitions for some new terms and to clarify the definitions of some terms.
  - Part 74 would also be revised to strengthen requirements related to tamper-indicating device programs
  - Other miscellaneous changes would also be made to Part 74 requirements for Categories I, II, and III facilities. Plain language revisions would also be made to Subparts C, D, and E
  - Under this option, existing guidance would be revised to reflect any new requirements and a guidance document for Category II facilities would be developed

# Federal Register Notice—Availability of Proposed Rule for Public Comment

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- Federal Register /Vol. 78, No. 217 / Friday, November 8, 2013 / Proposed Rules / page 67225
  - 10 CFR Parts 40, 70, 72, 74, and 150
  - [NRC–2009–0096]
  - RIN 3150–A161
  - Amendments to Material Control and Accounting Regulations
  - AGENCY: Nuclear Regulatory Commission.
  - ACTION: Proposed rule
- Federal Register/ Vol. 78, No. 250/ Monday, December 30, 2013/ Proposed Rules/ page 79328
  - ACTION: Notice of rescheduled public meeting and extension of comment period.

## Supplementary Information

- I. Accessing Information and Submitting Comments
- II. Introduction and Summary of Proposed Revisions to MC&A Regulations
  - Table 1—Location of Proposed MC&A Requirements For Certain Types Of Facilities
- III. Specific Request for Comments on the Proposed New Requirements
- IV. Discussion
  - Question & Answer, Items A. – S.
- V. Discussion of Proposed Amendments by Section
- VI. Availability of Documents
- VII. Criminal Penalties
- VIII. Agreement State Compatibility
- IX. Plain Writing
- X. Voluntary Consensus Standards
- XI. Environmental Assessment and Finding of No Significant Environmental Impact Availability
- XII. Paperwork Reduction Act Statement
- XIII. Regulatory Analysis
- XIV. Regulatory Flexibility Certification
- XV. Backfitting and Issue Finality

List of Subjects

Proposed Rule Text



# Federal Register Notice—Availability of Draft NUREGs for Public Comment

- Federal Register / Vol. 78, No. 217 / Friday, November 8, 2013 / Proposed Rules / page 67224
  - 10 CFR Parts 40, 70, 72, 74, and 150
  - [NRC–2013–0195]
  - RIN 3150–AI61
  - Proposed Guidance for Fuel Cycle Facility; Material Control and Accounting Plans and Completing NRC Form 327
  - AGENCY: Nuclear Regulatory Commission.
  - ACTION: Draft NUREGs; request for comment
- Federal Register/ Vol. 78, No. 250/ Monday, December 30, 2013/ Proposed Rules/ page 79328
  - ACTION: Notice of rescheduled public meeting and extension of comment period.

# Federal Register notice / Proposed Rule / MC&A / Associated NUREGs

Document	ADAMS Accession No.
NUREG-1280, Revision 2, “Acceptable Standard Format and Content for the Material Control and accounting (MC&A) Plan Required for Strategic Special Nuclear Material	ML13253A308
NUREG-2159, “Acceptable Standard Format and Content for the Material Control and Accounting (MC&A) Plan Required for Special Nuclear Material of Moderate Strategic Significance”	ML13253A310
NUREG-1065, Revision 3, “Acceptable Standard Format and Content for the Material Control and Accounting (MC&A) Plan Required for Special Nuclear Material of Low Strategic Significance”	ML13253A305
NUREG-2158, (formerly NUREG/CR-5734) “Acceptable Standard Format and Content for the Material Control and Accounting (MC&A) Plan Required for Low Enriched Uranium Enrichment Facilities”	ML13253A309
NUREG/BR-0096, Revision 2, “Instructions and Guidance for Completing Physical Inventory Summary Reports”	ML13253A303

# Proposed New Requirements for 10 CFR Part 74

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- General Performance Objectives (GPOs)
- Item Control System
- Tamper-Safing
- Material Balance Areas (MBAs), Item Control Areas (ICAs), and Custodians

# General Performance Objectives (GPOs)

- Subpart A, 74.3, General performance objectives
  - (a) Maintain accurate, current, and reliable information on, and confirm the quantities and locations of SNM in its possession;
  - (b) Detect, respond to, and resolve any anomaly indicating a possible loss, theft, diversion, or misuse of SNM;
  - (c) Permit rapid determination of whether an actual loss, theft, diversion, or misuse of SNM has occurred;
  - (d) Provide information to aid in the investigation and recovery of missing SNM in the event of an actual loss, theft, diversion, or misuse; and
  - (e) Control access to MC&A information that might assist adversaries to carry out acts of theft, diversion, misuse, or radiological sabotage involving SNM.
- Regulatory Analysis (RA)
  - The RA did not analyze the GPO requirement because the new requirement is clarifying the performance objectives that licensees have already adopted as a best practice

# GPOs (continued)

- Regulatory Guidance
  - NUREG-1280 (Category I facilities) – Added new Chapter 2 on GPOs to be consistent with other NUREGs
  - NUREG-2159 – New guidance for Category II facilities, see Chapter 2 on GPOs
  - NUREG-2158 (Enrichment facilities) – Replaces NUREG/CR-5734, see Chapter 2 on GPOs
  - NUREG-1065 (Category III facilities) – see Chapter 2 on GPOs
- Specific questions for written comments from the public
  - Are there other GPOs that the NRC should consider adding?
  - Do the proposed GPOs impose unnecessary expenses or burdens on licensees?
  - Should the regulatory threshold for GPOs be higher or lower than 350 grams, and if so, why?
    - If this threshold amount is lower than 350 grams, the NRC would add a similar set of GPO requirements to 10 CFR part 150 to apply to Agreement State licensees. If that were done, how could the NRC best ensure compliance with the GPOs in Agreement States?

# Item Control System

- Subpart A, 74.4, Definitions, adding the term, Item Control System
- Subpart B, 74.19(d), adding a new requirement
  - applicable to a Part 50 or Part 52 reactor facility or a Part 72 ISFSI
  - to establish, document, implement, and maintain an item control system
- Subparts C and D, exemptions would be removed from existing requirements
  - 74.31(c)(6) or 74.33(c)(6), for a Category III facility
  - 74.43(b)(5) for a Category II facility
- Subpart E, 74.55, Item Monitoring, no modification is needed for a Category I facility

# Item Control System (continued)

- Regulatory Analysis
  - Option 1: No action
  - Option 2: Amend Regulations to Revise and Consolidate Requirements for MC&A of SNM in 10 CFR part 74
  - Option 2A: Full Credit Given for Current Industry Actions.
    - The qualitative benefits would include the enhancements to security and safeguards that are described in Section 3.3, Detailed Results.
    - It is assumed that there would be reduced qualitative benefit because licensees under 10 CFR part 50 at the 65 reactor sites are assumed to be currently performing MC&A activities which include tracking SNM at the site, which would constitute an adequate item control system.
  - Option 2B: No Credit Given for Current Industry Actions.
    - The qualitative benefits would include the enhancements to security and safeguards that are described in Section 3.3, Detailed Results.
    - Under Option 2B, the full qualitative benefit would be realized for licensees under 10 CFR part 50 at the 65 reactor sites implementing the item control system that would be required by 10 CFR 74.19(d).

# Item Control System / Regulatory Analysis (continued)

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- Decision Rationale
  - Relative to Option 1 (the no-action alternative), Option 2 would result in
    - a one-time implementation cost to the industry of approximately \$169,000 to \$193,000 and
    - a net annual cost to the industry of approximately \$72,000 to \$87,000.
  - Offsetting the net cost, the NRC believes that Option 2 would result in substantial qualitative benefits, as discussed previously in Section 3.3, Detailed Results.
  - Although costs are incurred as a result of the rule, the qualitative benefits associated with the rule outweigh its cost.
  - The NRC believes that the rule is cost-justified because the proposed regulatory initiatives would promote the common defense and security of SNM.



# Item Control System (continued)

- Regulatory Guidance
  - NUREG-1280 (Category I facilities) – Contained in Chapters 4, 11, and 12 (no change from previous revision Chapter 2 and Sections 4.7 and 4.8)
  - NUREG-2159 – New guidance for Category II facilities (Chapter 8 on item control)
  - NUREG-2158 (Enrichment facilities) – Chapter 9 on item control (previously Chapter 6 in NUREG/CR-5734)
  - NUREG-1065 (Category III facilities) – Chapter 8 on item control (Chapter 6 in previous revision)
- Specific questions for written comments from the public
  - Are requirements in proposed 74.19(d) necessary at reactor and ISFSI sites?
  - Are there alternatives that should be considered?
  - Should other types of licensees be required to have an item control system?
  - What is the appropriate regulatory threshold for requiring an item control system under 10 CFR part 74?
  - Should there be a threshold for the amount of material that is required to be tracked under an item control system?

# Tamper-Safing

- Subpart A, 74.4, Definitions, adding the term, tamper-safing
- Subpart B, no new requirement for a reactor facility or an ISFSI
- Subpart C, adding new requirements
  - 74.31(c)(9) for Category III fabrication facilities
  - 74.33(c)(9) for Category III enrichment facilities
- Subpart D and E, clarified the existing requirements
  - 74.43(c)(3) for Category II facilities
  - 74.59(f)(2)(i) for Category I facilities
- Regulatory Analysis
  - The RA did not analyze the tamper-safing requirement because the new requirements are clarifying the tamper-safing practices that licensees have already adopted as a best practice

# Tamper-Safing (Continued)

- Regulatory Guidance
  - NUREG-1280 (Category I facilities) – Contained in Chapter 15 on tamper-safing (Section 2.1.3 in previous revision)
  - NUREG-2159 – New guidance for Category II facilities (Chapter 11 on tamper-safing)
  - NUREG-2158 (Enrichment facilities) – Chapter 12 on tamper-safing (Chapters 5 and 6 in NUREG/CR-5734)
  - NUREG-1065 (Category III facilities) – Chapter 11 on tamper-safing (Chapters 5 and 6 in previous revision)
- Specific questions for written comments from the public
  - Should tamper-safing be required for Category III licensees?
  - Are there alternative measures that should be considered?

# Material Balance Area (MBA), Item Control Area (ICA), and Custodian

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- Subpart A, 74.4, Definitions, adding the terms for
  - MBA, ICA, and Custodian
- Subpart B, no requirement for a reactor facility or ISFSI
- Subparts C, D, and E, added new requirements
  - 74.31(c)(10) for a Category III fabrication facility,
  - 74.33(c)(10) for a Category III enrichment facility,
  - 74.43(c)(9) for a Category II facility, and at
  - 74.59(h)(5) for a Category I facility
- Regulatory Analysis
  - The RA did not analyze the MBA, ICA, and Custodian requirements because the new requirements are clarifying administrative controls that licensees have already adopted as a best practice

# MBAs, ICAs, and Custodians (Continued)

- Regulatory Guidance
  - NUREG-1280 (Category I facilities) – Contained in Chapter 14 on MBAs and ICAs (Section 4.11 in previous revision)
  - NUREG-2159 – New guidance for Category II facilities (Chapter 12 on MBAs and ICAs)
  - NUREG-2158 (Enrichment facilities) – Chapter 13 on MBAs and ICAs (previously Chapters 2 and 5 in NUREG/CR-5734)
  - NUREG-1065 (Category III facilities) – Chapter 12 on MBAs and ICAs (Chapters 2 and 5 in previous revision)
- Specific questions for written comments from the public
  - The NRC also proposes that the existing requirement for custodians in 10 CFR 74.59(h)(5) be revised to match the new language to provide a consistent approach for all Category I, II, and III licensees.
  - Should use of MBAs and ICAs be required?
  - Should other facilities be required to have MBAs and ICAs?
  - Are there alternatives that should be considered?

# Request for input on additional, specific topics

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- Alternatives resulting in equivalent outcome and less burden
  - Are there alternative ways to strengthen existing MC&A requirements that would impose less burden on NRC licensees while still maintaining adequate control and accounting of SNM?
  - What specific alternatives should be considered?
  - For the proposed requirements that go beyond consolidation and clarification, the NRC is seeking input on the need for such requirements in relation to the proportionate levels of risk represented by the processes and material quantities and forms of SNM that are used at different types of licensee facilities

# Request for input on additional, specific topics (continued)

- Cumulative Effects of Regulation (CER)—Section IV., Q&A, Item R
  - In light of any current or projected CER challenges, would an effective date 6 months from the date the final rule is published in the *Federal Register* provide sufficient time to implement the new proposed requirements?
  - If current or projected CER challenges exist, what should be done to address this situation (e.g., if more time is required to implement the new requirements, what period of time would be sufficient)?
  - Do other regulatory actions (e.g., orders, generic communications, license amendment requests, and inspection findings of a generic nature) influence the implementation of the proposed requirements?
  - Are there unintended consequences? Does the proposed rule create conditions that would be contrary to the proposed rule's purposes and objectives? If so, what are the unintended consequences and how should they be addressed?
  - Please comment on the NRC's cost and benefit estimates in the regulatory analysis that supports this proposed rule

# Next Steps

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- Written public comments due on March 10, 2014
- Final rule publication expected ~ 9 months following closure of the public comment period (e.g., November 2014)
  - Resolve the public comments
  - Develop the draft final rule, regulatory analysis, and revised NUREGs
  - Hold the public meeting to discuss implementation of the final rule (e.g., summer 2014)
  - Submit draft final rulemaking package to the Commission and obtain approval to publish the final rule and revised NUREGs



# Questions?

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