



SECRETARY

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 3, 2019

COMMISSION VOTING RECORD

DECISION ITEM: SECY-18-0104

TITLE: DRAFT FINAL RULE: AMENDMENTS TO MATERIAL CONTROL
AND ACCOUNTING REGULATIONS (RIN 3150-AI61; NRC-2009-
0096)

The Commission acted on the subject paper as recorded in the Staff Requirements Memorandum (SRM) of April 3, 2019.

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Commission.

A handwritten signature in blue ink, appearing to read "Annette L. Vietti-Cook", written over a horizontal line.

Annette L. Vietti-Cook
Secretary of the Commission

Enclosures:

1. Voting Summary
2. Commissioner Vote Sheets

cc: Chairman Svinicki
Commissioner Baran
Commissioner Burns
Commissioner Caputo
Commissioner Wright
OGC
EDO
PDR

VOTING SUMMARY – SECY-18-0104

RECORDED VOTES

	<u>APPROVED</u>	<u>DISAPPROVED</u>	<u>ABSTAIN</u>	<u>NOT</u> <u>PARTICIPATING</u>	<u>COMMENTS</u>	<u>DATE</u>
Chrm. Svinicki		X			X	03/20/19
Cmr. Baran		X			X	02/15/19
Cmr. Burns		X			X	03/20/19
Cmr. Caputo		X			X	03/22/19
Cmr. Wright		X			X	03/19/19

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary
FROM: CHAIRMAN SVINICKI
SUBJECT: SECY-18-0104: Draft Final Rule: Amendments to
Material Control and Accounting Regulations (RIN
3150-AI61; NRC-2009-0096)

Approved ___ Disapproved XX Abstain ___ Not Participating ___

Comments: Below ___ Attached XX None ___



SIGNATURE

03/  /19

DATE

Entered on "STARS" Yes No ___

Chairman Svinicki's Comments on SECY-18-0104
Draft Final Rule: Amendments to Material Control and Accounting Regulations
(RIN 3150-AI61; NRC-2009-0096)

I join my colleagues in disapproving the draft final rule. Moreover, the staff should be directed to discontinue this rulemaking activity altogether. In his vote, Commissioner Baran has delineated the systematic failings of the draft final rule provisions and the staff analysis that purports to justify their imposition. His assessment is thorough, logical, and well-articulated, and his thinking is aligned with my own. Consequently, I need not restate the findings he has presented so ably.

What I will recount, however, is my personal association with the Commission's tortured, decade-long deliberation on this rulemaking activity. In 2008, I joined the Commission majority in voting to eliminate the dubious portions of the staff's rulemaking plan (SECY-08-0059); in 2012, I again joined the Commission majority in voting to disapprove substantial portions of the staff's proposed rule (SECY-11-0175); and in 2013, I joined the Commission majority in disapproving the publication of the staff's reformulated draft final rule (COMSECY-12-0026). In retrospect, this pattern would seem to reveal that – had the Commission looked for the root cause of our repeated rejection of the staff's proposals – we might have diagnosed the fundamental shortcomings and sideways drift of the staff's efforts and avoided some portion of the staff's ten year investment of sweat equity and the agency resources that accompanied it. The staff's desire to have a clear material control and accountability regulatory framework under which licensees would implement best practices, while an admirable desire in the abstract, is simply not a basis for new regulations under our regulatory framework. No amount of sunk investment or earnest staff intent can alter that.

I encourage the staff to evaluate the history of this rulemaking activity as a lessons-learned/case study under the agency transformation initiative. Additionally, the Committee to Review Generic Requirements should evaluate its endorsement of this draft final rule and provide a report to the Commission on any lessons-learned or modifications that may be needed to its evaluation criteria, given the Commission's disapproval of the rule's issuance.


Chairman Svinicki 03/20/19

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: Commissioner Baran

SUBJECT: SECY-18-0104: Draft Final Rule: Amendments to
Material Control and Accounting Regulations (RIN
3150-AI61; NRC-2009-0096)

Approved Disapproved Abstain Not Participating

COMMENTS: Below Attached None

Entered in "STARS"

Yes

No



SIGNATURE

2/15/19

DATE

**Commissioner Baran's Comments on SECY-18-104,
"Draft Final Rule: Amendments to Material Control and Accounting Regulations"**

Ten years ago this month, the Commission approved the initiation of a rulemaking to consolidate, update, clarify, and strengthen NRC's material control and accounting (MC&A) regulations in Part 74. Over the past decade, the content of the rule has changed at various points. The draft final rule now before the Commission would make a number of changes to the existing MC&A regulations. The staff's recommended changes include: consolidating existing general performance objectives and applying those general performance objectives to additional facilities; lowering the possession threshold for the requirement to have written MC&A procedures; revising the requirements applicable to Category II licensees¹; establishing new item control system requirements for nuclear power reactors and independent spent fuel storage installations; limiting the current item control system exemption for items individually containing less than 500 grams of Uranium-235; limiting the current item control system exemption for items in inventory less than 14 days; requiring Category III licensees to maintain and follow tamper-safing procedures if tamper-safing devices are used; and requiring licensees to designate material balance areas and/or item control areas and assign material custodians to those areas. The staff argues that some of these changes are necessary to ensure adequate protection of public health and safety.

At this late stage of the rulemaking process, there remains considerable disagreement among both the NRC staff and external stakeholders about the value of this rule. Given the significant effort that has gone into the rulemaking, I think it was the right move for the staff to send the draft rule to the Commission for a final decision.

I appreciate the staff's desire to have a clear MC&A regulatory framework under which licensees are implementing best practices. But the key provisions in the draft final rule suffer from some overarching problems.

First, the rule is internally inconsistent about whether the MC&A regulations should be performance-based or prescriptive. The regulations are currently performance-based, and the draft final rule aims to enhance that aspect of the regulations with updated general performance objectives that are more broadly applied. But rather than allow for different ways of meeting the general performance objectives, several of the major provisions of the rule would prescribe particular ways to meet the performance-based standards. To explain this approach, the NRC staff argues that it cannot rely on a voluntary practice in lieu of a binding regulation to ensure adequate protection of public health and safety. While this is true, the practices discussed in these portions of the rule are not voluntary; they are the methods by which licensees are meeting the existing performance-based requirements.

For example, existing item control provisions require Category III licensees to maintain current knowledge of special nuclear material and handle this material in a manner so that unauthorized removal would be detected. The regulations do not specifically require the use of tamper-safing devices on containers or vaults, but "[t]amper-safing is a common and routine practice at Category III facilities" to meet NRC's performance-based MC&A requirements.² Licensees generally prefer the tamper-safing approach to other alternatives, such as material

¹ There are currently no Category II licensees, but medical isotope production and utilization facilities would possess Category II quantities of special nuclear material.

² Backfit Evaluation for Final Rule: Amendments to Material Control and Accounting Regulations (2018) at 63.

surveillance through the two-person rule or closed-circuit cameras. The draft final rule would not require the use of tamper-safing devices, but it would require Category III licensees to maintain and follow tamper-safing procedures if these devices are used. This is an oddly prescriptive requirement to establish for one of several acceptable methods of complying with the performance-based item control standards. Regulatory guidance would be a more appropriate means of conveying what the staff would assess in determining whether a facility's tamper-safing approach meets existing performance-based regulatory requirements.

Similarly, the existing regulations do not require licensees to designate material balance areas, item control areas, or material custodians, but all Category III licensees have opted to take these actions to comply with the performance-based requirement to maintain current knowledge of special nuclear material in their possession. The draft final rule would keep this performance-based requirement and then add a prescriptive requirement to take these specific actions. I have not heard a convincing rationale for this approach, and it is unclear what problem needs to be solved.

Another example of layering a prescriptive standard on top of a performance-based approach is the new requirement for nuclear power reactors and independent spent fuel storage installations to establish formal item control systems. These licensees are currently subject to several recordkeeping and reporting requirements but are not explicitly required to have a formal item control system. According to the staff, "if a licensee did not have accurate, specific information on the quantities and locations of material in its possession (i.e., an item control system or something similar), it would be difficult for a licensee to demonstrate compliance with current recordkeeping and reporting requirements."³ Yet the draft final rule would unnecessarily add a separate prescriptive requirement for a formal item control system.

A second overarching problem with the rule is that many of its provisions would not result in any real-world safety or security benefit. For example, the staff believes that the general performance objectives "should not require changes to current effective licensee practices," but under the draft final rule, licensees would need to review their MC&A programs and procedures to confirm that they meet the general performance objectives. In my view, it is hard to justify adding a paperwork exercise that does not result in any actual safety or security improvement. According to the staff, a separate provision lowering the possession threshold for the requirement to have written MC&A procedures from 1 effective kilogram to 350 grams would affect only two sealed-source licensees. As a practical matter, these licensees would need to have procedures in place anyway in order to meet the existing requirement to conduct an annual physical inventory of their special nuclear material.

Finally, there is a lack of technical support for some of the rule's major provisions. This is a problem for the provisions limiting the current item control system exemptions for items containing less than 500 grams of Uranium-235 and items in inventory less than 14 days. The draft final rule states that, to ensure adequate protection of public health and safety, it is necessary to restrict these exemptions to items containing less than 100 grams of Uranium-235 and items in inventory less than 3 days. However, there is no substantive analysis or developed technical basis in the rulemaking package to support this conclusion. In both cases, the staff's high-level rationale is that tightening the requirements would result in additional tracking of special nuclear material and thus enhanced accounting of that material. As a general matter, this may be true. But there is no analysis of how many additional items would be tracked with the changes, no technical evaluation of why the 100 gram or 3-day cutoffs are the rights ones,

³ SECY-18-0104 at 5.

and no identified scenarios of concern or specific vulnerabilities that could be exploited by a bad actor. The item control system exemption changes for Category II facilities also suffer from a lack of supporting analysis. In short, the rulemaking package does not offer a well-developed factual or analytical foundation for a Commission finding that these particular incremental changes to the MC&A regulations are necessary.

For these reasons, I disapprove the draft final rule and conclude that this rulemaking should be discontinued.

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: Commissioner Burns

SUBJECT: SECY-18-0104: Draft Final Rule: Amendments to
Material Control and Accounting Regulations (RIN
3150-AI61; NRC-2009-0096)

Approved _____ Disapproved X Abstain _____ Not Participating _____

COMMENTS: Below X Attached _____ None _____

I join my fellow Commissioners in disapproving staff's recommendation to publish the draft final rule to amend 10 CFR Part 74. Not to belabor the point, I will simply state that I agree that staff falls short in providing a reasonable justification for modifying the requirements of the rule. As this or similar proposals have been before the Commission on more than one occasion since 2008, I do not see a need for the NRC to continue to expend further resources on this rulemaking activity or the development of associated guidance and, therefore, I support discontinuing this rulemaking activity in its entirety.



Entered in STARS

Yes X

No _____

Signature

20 March 2019

Date

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: Commissioner Caputo

SUBJECT: SECY-18-0104: Draft Final Rule: Amendments to
Material Control and Accounting Regulations (RIN
3150-AI61; NRC-2009-0096)

Approved ___ Disapproved XX Abstain ___ Not Participating ___

Comments: Below ___ Attached XX None ___

Entered in STARS

Yes X

No _____



SIGNATURE

3-22-19

DATE

Commissioner Caputo's Comments on SECY-18-0104: Draft Final Rule: Amendments to Material Control and Accounting Regulations

I concur with Commissioner Baran's and Commissioner Wright's assessment of the SECY-18-104, "Draft Final Rule: Amendments to Material Control and Accounting Regulations." Commissioner Baran's vote explicitly defines the many shortcomings in the draft final rule.

What is most striking to me about the draft final rule is not what is in it, but what is not. For example, as Commissioner Wright points out, there is no clear declaration of why this rule is necessary. The staff states that they are seeking to "update, clarify, and strengthen" the MC&A regulations to improve regulatory efficiency and effectiveness. Such intentions are laudable, but adding new, generic prescriptive requirements to the licensee's existing NRC approved site specific performance-based procedures is counter intuitive and will not meet the desired goals.

The staff has also inappropriately employed the adequate protection exception to the backfit rule for a number of proposed requirements. The staff provides no basis for the determination that these requirements are necessary for adequate protection and does not demonstrate how the existing regulatory requirements are insufficient. Instead, staff puts forth a strained rationale: "While these rule revisions are necessary for adequate protection, they derive directly from existing requirements and reflect current licensee practices." I find this justification unpersuasive.

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. Adherence to the backfit rule would have highlighted these shortcomings sooner and mitigated the time and resources spent on an effort that was ultimately rejected.

Although I have not shared in the decade-long deliberative history of this particular rulemaking, I agree with the Chairman as she recounts in her vote that, had the Commission detected the fundamental cause of the repeated rejections of the staff's proposals in 2008, 2012 and 2013, the rulemaking may have been curtailed earlier. Fundamentally, I believe that any rulemaking activity that is rejected by the Commission should be closely scrutinized to verify whether it merits any further effort. I join my colleagues in disapproving this draft final rule and agree with them that this rulemaking should be discontinued.

I encourage the staff to improve their external awareness. When the proposed rule was issued in 2013, it received strong criticism. If these proposed revisions truly reflected licensee practices, the industry would not have reacted so strongly and repeatedly urged termination of the rulemaking. Yet, five years later, the draft final rule was not issued for public comment because, as staff stated to the press "the NRC staff believes the changes are neither extensive nor at a level [that would require staff] to request additional comment."¹ Given how divergent the staff's and stakeholders' perspectives were, this process would clearly have benefitted from additional transparency and reappraisal.

I join the Chairman in encouraging the staff to evaluate the history of this rulemaking activity for lessons-learned to improve the rulemaking process. I also fully support the Chairman's call for

¹ Steven Dolley, *Industry Concerned About Proposed NRC Rule on Material Accounting*, INSIDE NRC, Sept. 17, 2018, at 8.

the Committee to Review Generic Requirements to evaluate its endorsement of this draft final rule given the Commission's unanimous disapproval of this rule.

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: Commissioner Wright

SUBJECT: SECY-18-0104: Draft Final Rule: Amendments to
Material Control and Accounting Regulations (RIN
3150-AI61; NRC-2009-0096)

Approved ___ Disapproved X Abstain ___ Not Participating ___

Comments: Below ___ Attached X None ___

Entered in STARS

Yes ✓

No _____



SIGNATURE

3/19/2019

DATE

Commissioner Wright's Comments on SECY-18-0104: Draft Final Rule: Amendments to Material Control and Accounting Regulations

I appreciate Commissioner Baran's well-reasoned vote on this draft final rule to amend the material control and accounting (MC&A) regulations, and I share his concerns. In particular, I am concerned that this draft final rule imposes prescriptive requirements into a performance based framework without sufficient justification. I find this problematic for several reasons. First, the staff's analysis does not provide sufficient rationale or technical basis for the rule's major provisions. There is no clear statement of why this rule is needed; instead, it appears that the staff primarily intends to codify best practices. While best practices may be helpful, they should not be codified unless they are needed for adequate protection or would provide a substantial safety or security benefit. The staff has not shown that either of these are the case. In fact, the staff indicates that it "has no current and immediate security or safeguards concerns because of activities being undertaken by licensees as part of their existing MC&A programs." Without a sufficient basis for these amendments—and with adequate protection achieved under the current regulations—these proposed requirements would go beyond the NRC's mission. Second, the agency is consciously moving towards more performance-based and risk-informed regulation, and this approach is contrary to that direction. For these reasons, I disapprove the issuance of the draft final rule amending the MC&A regulations and conclude that this rulemaking should be discontinued.

I appreciate the staff providing this draft final rule to the Commission for its consideration given the ongoing disagreement between the staff and external stakeholders about its value and cost. While I do not support codifying best practices, I would support their incorporation into guidance. I also appreciate the staff's significant and sustained efforts since 9/11 to ensure that licensees adequately control and account for special nuclear material. I believe that the changes made post-9/11 to the MC&A regulations and inspections programs, such as changes to reporting requirements for source and special nuclear material to the Nuclear Materials Management and Safeguards System, incorporation of MC&A inspections into the baseline inspection program for power reactors, and revisions to the fuel cycle MC&A inspection program, appropriately strengthen the MC&A program commensurate with the dominant safeguards and security risks.