

REGULATORY ANALYSIS

DRAFT REGULATORY GUIDE DG-5051 SHIPPING, RECEIVING, AND INTERNAL TRANSFER OF SPECIAL NUCLEAR MATERIAL (Proposed New Regulatory Guide)

1. Statement of the Problem

The U.S. Nuclear Regulatory Commission (NRC) is considering the issuance of new guidance for the shipping, receiving, and internal transfer of special nuclear material (SNM). The need for new guidance arises because there is a need for consolidation and update of the following RGs:

- RG 5.28, "Evaluation of Shipper–Receiver Differences in the Transfer of Special Nuclear Material," published in June 1974;
- RG 5.49, "Internal Transfers of Special Nuclear Material," in published March 1975; and
- RG 5.57, "Shipping and Receiving Control of Strategic Special Nuclear Material," in June 1980.

The reason for the consideration of revising these guides is because the current versions of the regulatory guides do not cite the correct sections of the regulations, and the need for more current safeguards and security to prevent loss or diversion of material. Nuclear material control and accounting (MC&A) requirements are now found in 10 CFR Part 74, "Material Control and Accounting of Special Nuclear Material."

The control of and accounting for SNM has expanded in scope and importance since the RGs were issued. The addition of uranium enrichment production facilities and the potential addition of other facilities have broadened the scope of NRC regulation. The importance of the MC&A function has grown as a consequence of the increase in seriousness of the threat of theft or diversion of SNM for malevolent activity after the terrorist attacks of 9/11. The increased interest in controlling the actions of colluding persons in theft scenarios has resulted from the necessity of ensuring that the MC&A program is performing effectively in the execution of its activities.

2. Objective

The objective of this regulatory action is to update NRC guidance and provide applicants with a method to demonstrate compliance with the 10 CFR Part 74 requirements when developing MC&A program capabilities for monitoring facility shipments and receipts, as well as internal transfers.

3. Alternative Approaches

The NRC staff considered the following alternative approaches:

1. Do not revise RGs 5.28, 5.49, and 5.57.
2. Withdraw RGs 5.28, 5.49, and 5.57.

3. Develop a new RG that revises and combines RGs 5.28, 5.49, and 5.57 to reflect the current shipping, receiving, and internal transfer guidelines in agreement with 10 CFR Part 74 and other NRC guidance documents.

Alternative 1: Do not revise RGs 5.28, 5.49, and 5.57

Under this alternative, the NRC would not revise guidance, and the current guidance would be retained. If the NRC does not take action, there would not be any changes in costs or benefit to the public, licensees, or the NRC. However, the “no-action” alternative would not address identified concerns with the current versions of the regulatory guides. The NRC would continue to review each application on a case-by-case basis. This alternative is considered the “no-action” alternative and provides a baseline condition from which any other alternatives will be assessed.

This alternative is maintaining the RGs as written along with the drawbacks of using outdated and, in some instances, incomplete guidance. The basis for the previous versions is 10 CFR Part 70, which was designed based on the information and technologies of that period. There is no added value in this alternative.

Alternative 2: Withdraw RGs 5.28, 5.49, and 5.57

Under this alternative, the NRC would withdraw these regulatory guides. This would eliminate the current conflict that exists between the current RGs and the newer regulations. It would also eliminate the only readily available description of the methods the NRC staff considers acceptable for demonstrating compliance with the 10 CFR Part 74 requirements related to shipping, receiving, and internal transfer of SNM. Although this alternative would be less costly than the proposed alternative, it would impede the public’s accessibility to the most current guidance information.

Alternative 3: Develop a new RG that revises and combines RGs 5.28, 5.49, and 5.57

Under this alternative, the NRC would develop a new RG titled “Shipping, Receiving, and Internal Transfer of Special Nuclear Material,” that revises and combines RGs 5.28, 5.49, and 5.57. RGs 5.28, 5.49, and 5.57 would then be withdrawn. This revision would incorporate the latest information in the regulations, supporting guidance, and review practices. By so doing, the NRC would ensure that the guidance available in this area is current and accurately reflects the staff’s position.

The impact to the NRC would be the costs associated with preparing and issuing the RG revision. The impact to the public would be the voluntary costs associated with reviewing and providing comments to the NRC during the public comment period. The value to NRC staff and its applicants would be the benefits associated with enhanced efficiency and effectiveness in using a common guidance document as the technical basis for license applications and other interactions between the NRC and its regulated entities.

4. Conclusion

Based on this regulatory analysis, the NRC staff recommends creation of a new RG, “Shipping, Receiving, and Internal Transfer of Special Nuclear Material,” that revises and combines RGs 5.28, 5.49, and 5.57, which would be withdrawn concurrently with the issuance of the new guidance. The staff concludes that the proposed action would enhance facility MC&A

program effectiveness related to shipping, receiving, and internal transfer of SNM and, therefore, increase the likelihood of meeting the facility performance objectives as delineated in the applicable sections of 10 CFR Part 74, "Material Control and Accounting of Special Nuclear Material."