Regulatory Analysis for Proposed Rulemaking - Regulatory Improvements to the Nuclear Materials Management and Safeguards System

Draft Report for Comment

U.S. Nuclear Regulatory Commission
Office of Nuclear Materials Safety and Safeguards

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Draft Regulatory Analysis for Proposed Rulemaking - Regulatory Improvements to The Nuclear Materials Management and Safeguards System (RIN: 3150-AH85)

1. Statement of the Problem and Objective

1.0 Introduction

The U.S. Nuclear Regulatory Commission (NRC) is proposing to amend its regulations related to the reporting requirements for certain source material and special nuclear material (SNM) to the Nuclear Materials Management and Safeguards System (NMMSS). These amendments are needed to improve the accuracy of material inventory information maintained in the NMMSS.

The purpose of this regulatory analysis is to evaluate the costs and benefits associated with the proposed rule under consideration by the Commission. The proposed rule would amend 10 CFR Parts 40, 72, 74, and 150. This document presents background material, rulemaking objectives, rulemaking alternatives, and analysis results for each alternative in terms of constant 2005 dollars. Public comments are requested for the proposed rule text and this regulatory analysis.

1.1 Background

The NMMSS is the national database used in the United States for NRC licensees, Agreement State licensees, and Department of Energy (DOE) contractors to report the possession of certain special nuclear material (SNM) and source material. NRC reporting requirements related to the NMMSS are primarily contained in 10 CFR Parts 40, 72, 74, 75, 76, and 150. Using licensee submittals, the NMMSS database serves two important functions: 1) meeting international reporting obligations, and 2), assisting in the oversight of licensee material control and accounting (MC&A) programs, required by 10 CFR Parts 40, 72, 74, 75, and 150. As a result of these reporting requirements, the NMMSS can provide the NRC staff, the quantities of reportable materials located, shipped, or received at a particular licensee site.

In October 2001, the DOE Office of the Inspector General (OIG) issued a report based on an audit of the NMMSS for DOE-owned nuclear materials.[1] One of the findings of that report was that DOE could not fully account for DOE-owned nuclear materials loaned or leased to licensees. A similar audit conducted by NRC's OIG, also raised concerns over the accuracy of material inventories in the NMMSS.[2]

As a result of its audit, NRC took immediate steps to verify and reconcile inventories in the NMMSS database by issuing NRC Bulletin 2003-04: "Rebaselining of Data in the Nuclear Materials Management and Safeguards System." The bulletin was sent to all 1,337 NRC and Agreement State licensees then holding NMMSS accounts and requested them to provide

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[1] This report entitled, "Accounting for Government Owned Nuclear Materials Provided to Non-Department Domestic Facilities" (October 26, 2001), is available at http://www.ig.doe.gov/pdf/ig-0529.pdf.

[2] This report entitled , "Audit of NRC's Regulatory Oversight of Special Nuclear Materials" (OIG-03-A-15, May 23, 2003), is available at http://www.nrc.gov/reading-rm/doc-collections/insp-gen/2003/03-a-15.pdf.

inventory information to the NMMSS. Also, the NRC staff conducted site visits to review selected licensees' submitted information in comparison to actual physical inventories. The review concluded that licensees did not submit or update inventories to the NMMSS for several years (or decades) because they possessed or transferred materials that did not meet minimum reporting thresholds. These efforts also helped identify accounts with zero balances. The rebaselining efforts resulted in decreasing the number of active accounts and supported a further review and reconciliation of material inventories in the remaining accounts.

At the end of these efforts, NRC determined that enhanced reporting of inventory information by those licensees not presently required to do so, would provide greater assurance about the accuracy of licensee inventory information maintained in the database. To maintain the usefulness of the database for international and domestic regulatory needs, NRC believes that licensee inventories must be submitted regularly and reconciled in comparison to values maintained in the NMMSS database.

1.2 Objectives of the Proposed Rule

The objectives of the proposed rulemaking are to improve the quality of information in the NMMSS database, reduce licensee burdens, provide for more timely reporting and reconciliation of the material inventory information maintained in the database, and enhance public confidence in NRC's ability to monitor small licensees' material holdings.

The Commission's proposed rule is not intended to impose unnecessary regulatory burden beyond what is necessary and sufficient for ensuring the secure use and management of radioactive materials. This purpose is consistent with NRC's policy, as discussed in "U.S. Nuclear Regulatory Commission Strategic Plan, Fiscal Year 2005-2009," to assure that the nation's use of radioactive material is conducted in a manner that promotes common defense and security. The proposed action is also consistent with NRC's goal that its actions are effective, efficient, realistic and timely. The proposed action would meet NRC's effectiveness strategy by improving NRC regulations by adding needed requirements and eliminating unnecessary requirements.

2. Identification of Regulatory Alternatives

This regulatory analysis evaluates the values and impacts of two regulatory alternatives. The following subsections describe these two alternatives.

2.1 No Action Alternative: Alternative 1

The no action alternative retains the current regulations described above. If NRC does not take action, there would not be any changes in costs or benefit to the public, licensees or NRC. The no action alternative would not address identified concerns. However, this alternative provides a baseline condition from which the other alternative will be assessed.

2.2 Proposed Rule Alternative: Alternative 2 (preferred alternative)

Under the proposed rule alternative, NRC would amend 10 CFR Parts 40, 72, 74, and 150 related to the material reporting requirements in the NMMSS database. The proposed amendments would lower the threshold of the quantities of special nuclear materials and certain source materials that require the submission of material status reports to the NMMSS. Also, the proposed amendments would make some modifications to the types of and timing of

submittals of transaction reports to the NMMSS. The amendments would also require licensees to reconcile any material inventory discrepancies identified by the NRC in the NMMSS database. The proposed amendments would reduce some regulatory burden by reducing the current reporting requirements related to the export of certain source and special nuclear materials. However, the proposed changes would result in new annual reporting requirements for licensees that possess less than 350 grams of SNM. These amendments are needed to improve the accuracy of material inventory information maintained in the NMMSS.

The next section describes the methodology used to analyze benefits and costs of implementing the proposed rule.

3. Analysis of Values and Impacts

This section examines the values (benefits) and impacts (costs) expected to result from NRC's proposed rule. The benefits and costs are analyzed for implementation of the proposed rule under Alternative 2. Alternative 1 is described below as the "baseline" for the analysis.

Section 3.1 lists the affected attributes. Section 3.2 describes the methodology for calculating the values and impacts associated with each attribute. The analysis is done over a ten-year time period.

The results are shown in Section 4.0, in constant 2005 dollars. The results are presented for the one-time costs and the annual operating expense to implement the proposed rule. The implementation cost is the cost to NRC. The proposed rule changes are expected to result in savings (Benefit) in annual operational cost to both NRC and licensees. Total benefit of the rule over the 10-year implementation period is estimated using 7 percent and 3 percent real discount rates for savings over 10 years and subtracting the one-time implementation cost. The estimated total savings (Benefit) are $716,977 and $969,850 at 7 percent and 3 percent discount rate, respectively.

3.1 Identification of Affected Attributes

The attributes that the proposed rule could affect were identified using the list of potential attributes provided in Chapter 5 of NUREG/BR-0184, "Regulatory Analysis Technical Evaluation Handbook," dated January 1997. Each attribute listed in Chapter 5 was evaluated. The affected attributes are: industry implementation, industry operation, NRC implementation, regulatory efficiency, and safeguards and security considerations.

- ***Industry Implementation.*** These are the one-time costs industry would incur, both capital and labor, to implement the rule. No cost is anticipated for those licensees who are subject to current reporting requirements. For the licensees who would be affected by lowering the reporting thresholds, there will be negligible costs because these licensees have participated in the "rebaseliniing project" and also are required to perform and maintain inventory records. The reporting of the maintained information would be a new requirement and these costs are estimated under "Industry Operation," described below.

- ***Industry Operation***. Under the proposed rule, licensees that possess one gram or more of SNM or one kilogram or more of foreign obligated source material, would incur an increase in annual cost to implement the rule. The cost would be in making annual report to the NMMSS and in reconciling any discrepancies identified by NRC in the NMMSS database. However, licensees who are under current reporting requirements (that

possess more than 350 grams of SNM or, 1000 kilograms of source material), NRC expects a net decrease in burden because of a reduction in the reporting requirements related to the export of SNM and source material.

- ***NRC Implementation.*** NRC will incur one-time costs to support development of the proposed rule, and following publication in the *Federal Register,* through publication of the final rule. NRC will also need to prepare guidance documentation during this implementation time period.

- ***NRC Operation.*** Although the number of licensees required to make annual reports would increase from 180 to 380, the proposed rule would result in a net decrease in the number of forms submitted to the NMMSS (Appendix A, NRC Costs). A decrease in the number of submitted forms would result in savings (Benefit) to NRC. No additional expense to NRC is anticipated since the inspection efforts would be included in the routine inspections.

- ***Safeguards and Security Considerations.*** NRC is required to collect nuclear material transaction information and make it available to the IAEA. The information maintained in the NMMSS, enables NRC to submit the data to IAEA to fulfill its reporting responsibilities, to satisfy the terms of the US/IAEA Safeguards Agreement, and for the domestic inspection program. More accurate data in NMMSS would support NRC to fulfill its responsibilities for IAEA safeguards and in the protection of common defense and security.

- ***Other Government***. The proposed alternative would not result in cost to Agreement State governments since no new rules need to be developed by the States. The Agreement States efforts will be limited to making their licensees aware of the amended regulations. This cost is insignificant and is not included in the analysis.

- ***Regulatory Efficiency***. The alternative under consideration would result in decreasing burden on the licensees by making changes to the requirements related to the export of certain materials. Also, the proposed requirements of timely reports would result in more accurate data in the NMMSS.

- ***Other Considerations***. Public confidence in NRC may be affected positively by the rule. The public may have more confidence in NRC's program for secure use and management of radioactive materials.

The proposed rule would not be expected to affect the following attributes:

- Public Health (Accident)
- Public Health (Routine)
- Occupational Health (Accident)
- Occupational Health (Routine)
- Offsite Property
- Onsite Property
- General Public
- Improvements in Knowledge
- Antitrust Considerations
- Environmental Considerations

3.2 Analytical Methodology

This section describes the process used to evaluate values and impacts associated with the affected attributes discussed above for the alternative method to implement the rule. The *values* (benefits) include any desirable changes in affected attributes. The *impacts* (costs) include any undesirable changes in affected attributes, such as increased costs for different segments of industry to conduct their business in accordance with new regulations. These attributes have quantifiable values and impacts due to implementing the rule:

– Industry Implementation
– Industry Operation
– NRC Implementation
– NRC Operation

Costs are calculated for Alternative 2 (proposed rule) to implement the rule. This requires input assumptions for the following:

- Number of existing licensees that may be affected by the rule;

- Industry costs for recordkeeping and reporting to comply with new regulations;

- NRC's costs for review of submitted forms to NMMSS

NRC obtained the input assumptions for this analysis from the following sources: NMMSS users, NRC Workgroups and NRC Staff experience; NRC reports and documents (e.g., OMB burden statements); and independent research. The number of affected entities for this proposed rule was estimated using NRC information on existing licensees, NRC staff best professional judgement, and consultation with the NMMSS operator/contractor.

3.2.1 General Assumptions

The general input assumptions for the analysis are discussed below.

- NRC wage rate: $87.00/hour. This is NRC's incremental labor rate which includes only the variable costs associated with implementation and operation costs of the rule; this labor rate is consistent with Section 5.2 of NUREG/CR-4627, Generic Cost Estimates Revision 1 & 2, January 1992.

- Industry wage rate: $87.00/hour.

- No incremental costs are expected to occur for this rule for amending the definitions sections of the regulations in 10 CFR Parts 40, 72, 74 and 150, although there are rule text changes in these sections resulting from introducing the definition of "reconciliation."

- The time period for the analysis is 10 years. We estimate implementation costs and an increase in annual operating expense to support implementation of the rule. The values for annual operating expense are identical for each of the 10 years in the analysis, and are based primarily on labor hours contained in current OMB submission statements for the affected regulations. The annuity formula used to discount the annual expense values is on page B.3 of the "Regulatory Analysis Technical Evaluation Handbook, Final Report," NUREG/BR-0184, January 1997.

3.2.2 Specific Assumptions for Alternative 1

Under the No-Action alternative (Alternative 1), NRC would maintain the current reporting requirements for the NMMSS. Thus, relative to existing requirements, no values or impacts would result from Alternative 1. The costs (impacts) and benefits (values) to be derived from alternative 2 (proposed rulemaking) would not be realized.

3.2.3 Specific Assumptions for Alternative 2

The specific assumptions are shown below for Alternative 2, the proposed rulechange for each affected Part. Appendix A shows the line item assumptions for the implementation and annual operating expense for Alternative 2.

10 CFR Part 40, Domestic Licensing of Source Material

- We assume there are 130 existing licensees under Part 40 reporting requirements. The number of licensees affected by rule text change in section 40.64(a) and 40.64(b) are identified in Appendix A.

10 CFR Part 72, Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High Level Waste, and Reactor Related Greater than Class C waste

- We assume there are four licensees under current Part 72 reporting requirements.

10 CFR Part 74, Material Control and Accounting of Special Nuclear Material

- We assume there are 230 licensees subject to reporting under Part 74. The number of licensees affected by section 74.13(a), 74.15(a), and 74.15(c) is given in Appendix A.

10 CFR Part 150, Exemptions and Continued Regulatory Authority in Agreement States and in Offshore Waters Under Section 274

- We assume there are 150 licensees subject to reporting under Part 150. The number of licensees affected by section 150.16(a)(1), 150.16(a)(2), 150.17(a), 150.17(b(1), and 150.17(b)(2) is given in Appendix A.

3.3 Analysis of Impacts

NRC Implementation. The NRC staff estimates that 2.0 FTE (Appendix A) will be needed to complete this proposed rulemaking and revise the Guides, NUREG/BR-0006 and NUREG/ BR-0007. Assuming a labor rate of $87 per staff-hour, the associated cost to NRC is $254,040 (based on 1,460 hours/FTE). These are assumed to occur in a single year.

NRC Operations

It is estimated that the collection of information requires an average of 5 minutes/form of NRC staff time. In the proposed regulations, there will be an estimated decrease of 1200 submissions of Form 741(transaction reports), an increase of 200 submittals of Form 742 (material balance reports) and an increase of about 200 submittals of Form 742C (physical inventory listing). These changes would result in a net decrease of 800 forms per year and a saving of (800x5=4000 minutes or approximately 67 hours). At the NRC's current labor cost of

$87 per staff hour, the annual saving will be $5829.00 (Appendix A) and will be considered in 10 year analysis. Other costs are attributed to operating the Nuclear Materials Management and Safeguards System (NMMSS).[3] Since the total number of submittals are expected to decrease, no added cost is anticipated for operating the NMMSS.

4.0 Results

This section presents results of values and impacts that are expected to be derived from the proposed rule. The results are shown for each affected part in Title 10 of the Code of Federal Regulations and by the following four attributes as discussed in section 3.2:

– Industry Implementation
– Industry Operation
– NRC Implementation
– NRC Operation

The rule is expected to provide values in other attributes, such as Safeguards and Security Considerations, Regulatory Efficiency, Other Considerations, but these values are not quantified because there is no verifiable input available at this time to support input assumptions. As a result, the quantifiable results in this analysis are entirely on the impacts (i.e., costs) expected from implementation of the rule to enhance regulatory improvements to NMMSS. The costs are presented in constant 2005 dollars, for both implementation and annual operating expense. The impact of the rule over a 10-year analysis period is estimated using 7 percent and 3 percent real discount rates to show an overall effect in terms of constant 2005 dollars.

4.1 Summary of Results

Table 4-1 presents the net impact of the rule for both alternatives, at 7 percent and 3 percent real discount rates, including all benefits and costs, over the 10-year analysis period.

Table 4-1: Net Impact (Benefit) of Alternatives 1 and 2

Regulatory Alternative	10-Year Total 7% discount rate (2005$)	10-Year Total 3% discount rate (2005$)
1. No-Action (Alternative 1)	0	0
2. Proposed amendments to Parts 40, 72, 74 and 150 (Alternative 2)	924,798	1,177,678

[3] NRC and DOE share the cost of operating the Nuclear Materials Management and Safeguards System (NMMSS). Current NRC cost of the system for FY05 is $1,530,000. This cost is attributable to nuclear materials transaction and accounting report forms. This includes the cost of ADP, record holding, and clerical processing of all forms (DOE/NRC Forms 741, 740M, 742, and 742C).

Table 4-2 provides the estimated costs, by attribute, over the 10-year analysis period. There are no Industry Implementation costs expected as a result of the proposed rulemaking. NRC implementation costs are all one-time expenses, in 2005 dollars, and are thus not discounted. The operating attribute categories have annual expenses, so the discounted expenses are different under 7 percent and 3 percent discount rates. Costs are shown in parentheses; benefits are shown as positive numbers with no parentheses.

Table 4-2. Values and Impacts by Attribute

Attribute	Alternative 2 10-Year Total Cost (2005$)	
	7 percent discount	3 percent discount
Industry Implementation	0.00	0.00
Industry Operation	1,137,904	1,381,995
NRC Implementation	(254,040)	(254,040)
NRC Operation	40,934	49,723
Total	924,798	1,177,678

The Industry Operation attribute represents the additional annual operating expense projected to be incurred by the affected licensees as required by the regulations in the rule. Although, there will be a net saving for the industry, there will be an additional cost to licensees that possess 350 grams or less of SNM (Appendix A).

The NRC Operation attribute represents a benefit to NRC from the rulechange. A saving in operational cost to NRC is expected from the rulechange because of a decrease in total number of forms required to be submitted to NMMSS.

Table 4-3 shows the results for estimated implementation costs and annual operating expense to comply with the rule, by affected 10 CFR Parts. A reduction in cost (i.e. benefit) is shown as a positive number. Cost is shown in parentheses.

Table 4-3. Summary of One-Time Costs and Annual Labor Expenses

10 CFR Part	Alternative 2	
	One-time Cost ($)	Annual Cost ($)
40	0	48,285
72	0	0
74	0	141,375
150	0	(27,648)
NRC Operation	0	5,829
NRC Implementation	(254,040)	0
Total	(254,040)	167,841

5. Decision Rationale

Based on the assessment of costs and benefits discussed above, quantitatively when possible and qualitatively otherwise, the NRC staff recommend proceeding with the proposed rulemaking. The proposed revisions are needed to improve the inventory information maintained in the NMMSS. The proposed rule would reduce licensee burden and provide for more timely reporting and reconciliation of the material inventory information maintained in the database.

The proposed rule is consistent with NRC's strategic objective and performance goals. The proposed rule will continue to promote common defense and security and decrease unnecessary regulatory burden on the licensees.

6. Implementation

After the publication of the proposed rule in the *Federal Register* and the consideration and resolution of public comments, a final rule will be published, which will become effective 30 days after its publication in the *Federal Register*. No impediments to the implementation of the recommended alternative have been identified.

7. Effect on Small Entities

The proposed rule would affect about 180 licensees who are currently required to file reports and approximately 200 additional NRC and Agreement State licensees. Affected licensees include enrichment facilities, fuel fabricators, laboratories, reactors, universities, colleges, medical clinics, and hospitals, some of which may qualify as small business entities as defined by 10 CFR 2.810. However, this rule would not, if promulgated, have a significant economic impact on a substantial number of small entities. The total time required by small licensees (possessing 350 grams, or less SNM) to complete each inventory and material balance report is estimated to be one hour, and one hour to resolve inventory discrepancies. No research or compilation is necessary because all information is transcribed from in-house records kept for

other purposes. Costs of the proposed amendments for licensees possessing 350 grams or less SNM are estimated to be $174 per licensee.

Based on the analysis provided in Section 3 of this Regulatory Analysis, NRC believes that the selected alternative is protective of common defense and security and is not overly burdensome in order to accomplish NRC's regulatory objective.

APPENDIX A

This appendix provides details of the line-by-line input and results for Alternative 2, the proposed rulemaking. The following pages show input and results for 10 CFR Parts 40, 72, 74, 150, and NRC Costs.

10 CFR Part 40
Alternative 2

Section #	Total Number of Licensees	Total number of affected licensees	hours of labor per licensee	Total number of hours all licensees	Total Annual saving (benefit)	Net Annual saving (benefit)
40.64(a)	130	130	-3.5	-455	$ 39,585	$ 48,285
40.64(b)	130	20	-5	-100	$ 8,700	

Notes:
1. There are 130 licensees subject to reporting requirements under Part 40.
2. Proposed rulechange would result in a decrease in licensee labor-hours because the licensees that export SNM or source material would be required to file only one report, instead of two reports that are required under current requirements.
3. Negative hours represent hours of labor saved by the proposed rulechange. Cost is shown in parenthesis; saving(benefit) is shown as a positive number.

Proposed amendments to the pertinent sections are:

Section 40.64(a) Adds a requirement for licensees who utilize one kilogram or more of source material in enrichment services, downblending uranium that has an initial enrichment of the U^{235} isotope of 10 percent or more, or in the fabrication of mixed-oxide fuels, to complete and submit a Nuclear Material Transaction Report; and requires licensees who export source material complete only the licensee portion of the transaction report unless there is an indication of loss, theft, or diversion of the source material, in which case both the licensee's and the foreign facility's information on the form would have to be reported.

Section 40.64(b) Requires licensees who possess one kilogram of foreign obligated source material to report inventory of source material ; require each licensee who possesses one kilogram or more of uranium or thorium source material in the operation of enrichment services, downblending uranium that has an initial enrichment of the U^{235} isotope of 10 percent or more, or in the fabrication of mixed-oxide fuels, to complete and submit, in computer-readable format, Material Balance and Physical Inventory Listing Reports concerning all source material (both foreign obligated and non-obligated) that the licensee has received, produced, possessed, transferred, consumed, disposed, or lost in the previous reporting period; resolve any inventory discrepancies identified by the NRC and requires inventory reporting not only in the (RIS) account but include material held in all associated holding accounts.

10 CFR Part 72
Alternative 2

Section #	Total No. Of Licensees	Total number of affected licensees	hours of labor per licensee	Total number of hours per licensee	Total Annual Cost
72.72(a)	4	4	0		0
72.76(a)	4	4	0		0
72.78(a)	4	4	0		0

Notes: The reporting is covered under section 40.64 requirements. These licensees perform these reportings now with no additional requirements in the proposed rule. Rule change would formalize the licensees reporting actions by creating a link to Part 40.

Proposed amendments to the pertinent sections are:

Section 72.72(a) Requires licensees to keep records showing the receipt, inventory, disposal, acquisition, and transfer of source material in quantities as specified in section 40.64.

Section 72.76(a) Requires reports on source material as specified in section 40.64; and requires licensees to resolve any discrepancies identified during the report review and reconciliation process.

Section 72.78(a) Adds a reporting requirement when a licensee adjusts the inventory of SNM as specified by section 74.15 or source material as specified by section 40.64

10 CFR Part 74
Alternative 2

Section #	Total No. of Licensees	Total number of affected licensees	hours of labor per licensee	Total number of hours all licensees	Total Annual Cost	Net Annual saving
74.13(a)	230	50	2	100	($8,700)	$141,375
74.15(a)	230	0	2	0	0	
74.15(c)	230	230	-7.5	-1725	$150,075	

Notes:
1. There are approximately 180 licensees subject to current reporting requirements under Part 74.
2. An additional 200 licensees would be required to report due to rulechange which lowers the reporting threshold from 350 grams of SNM to I gram. It is estimated that approximately 50 of these licensees are NRC licensees subject to this Part and 150 licensees are Agreement State licenses (subject to Part 150 requirements).
3. Cost is shown by parenthesis; saving(benefit) is shown as a positive number. A decrease in labor-hours is shown by negative numbers.

Proposed amendments to the pertinent sections are:

Section 74.13(a) Requires licensees possessing one gram or more of SNM in the inventory reporting period to make annual reports; requires inventory reporting to include not only the primary Reporting Identification Symbol (RIS) account but SNM in any associated holding accounts; and to require licensees to resolve any discrepancies identified during the report review and reconciliation process.

Section 74.15(a) Adds a reporting requirement for the licensees to submit a nuclear material transaction report when the inventory of SNM is adjusted in a quantity of one gram or more.

Section 74.15(c) Requires licensees who export one gram or more of SNM to complete only the supplier's portion of the form unless a significant shipper-receiver difference as described in sections 74.31, 74.43, or 74.59 is identified.

10 CFR Part 150
Alternative 2

Section #	Total number of affected licensees	hours of labor per licensee	Total number of hours for all licensees	Total Annual Cost	Net annual cost
150.16(a)(1)	15	1.25	19	($1,653)	($27,648)
150.16(a)(2)	4	-1.25	-5	$435	
150.17(a)	150	2.0	300	($26,100)	
150.17(b)(1)	2	2	4	($348)	
150.17(b)(2)	0	0	0	0	

Notes:
1. There are approximately 150 Agreement State licensees subject to Part 150 reporting requirements.
2. Cost is shown by parenthesis; saving(benefit) is shown as a positive number. A decrease in labor-hours is shown by negative numbers.
3. The rulechange would result in net annual cost to Agreement State licensees.

Proposed amendments to the pertinent sections are:

Section 150.16(a)(1) Adds a reporting requirement for the licensees to submit a nuclear material transaction report when the inventory of SNM is adjusted in a quantity of one gram or more. And for exporting SNM, to require completion of only the licensee's portion of the form unless a significant shipper-receiver difference as described in sections 74.31, 74.43, or 74.59 is identified.

Section 150.16(a)(2) Requires that a licensee who utilizes any uranium or thorium source material, regardless of obligation, in a quantity of one kilogram or more, in enrichment services, downblending uranium that has an initial enrichment of the U^{235} isotope of 10 percent or more, or in the fabrication of mixed-oxide fuels, to submit source material transaction reports, annually; and requires licensees to file only the licensee's portion of the form when exporting one kilogram or more of source material unless there is an indication of theft or diversion as described in section 40.64(c) of this chapter, in which case both receiver and shipper portion of the form must be completed.

Section 150.17(a) Requires each licensee who is in possession of, or had possessed in the previous reporting period, SNM in a quantity of one gram or more, to submit an annual report concerning SNM that the licensee has received, produced, possessed, transferred, consumed, disposed of, or lost. It would also require licensees to resolve any discrepancies identified during the report review and reconciliation process within 30 calendar days of submission of the information.

Section 150.17(b)(1) Requires annual inventory reporting for a licensee who possesses one kilogram or more of foreign obligated source material.

Section 150.17(b)(2) Requires reporting by a licensee who utilizes one kilogram or more of any source material in enrichment services, downblend material initially enriched in U^{235} isotope to 10 percent or more, or mixed-oxide fuel fabrication to submit material balance and physical inventory listing reports concerning source material that the licensee has received, produced, possessed, transferred, consumed, disposed, or lost; and requires licensees to resolve any discrepancies identified during the report review and reconciliation process within 30 calendar days of submission of the information.

NRC Costs

Implementation Costs

proposed rule to final rule (2.0 FTE, 1460 hours/FTE=2920 hours includes 1400 hours for revising guidance documents)	2920 hours
assumed wage rate	$ 87 per hour
labor expense	$ 254,040
other direct cost	$ 0.00
Total one-time implementation cost	$ 254,040

Operations Costs

Net Decrease in Form 741 Submittals (due to reduction in export forms)	-1200 Forms per year
Net Increase in Form 742 Submittals (due to lowering the SNM reporting threshold)	200 forms per year
Net Increase in Form 742c Submittals (due to lowering the SNM reporting threshold)	200 Forms per year
Total decrease of Submittals	-800 forms per year
Staff time saved (5 minutes per form review)	-67 hours per year
staff wage	$ 87 per hour
Annual saving (87x67)	$ 5,829