

NUCLEAR REGULATORY COMMISSION

10 CFR Part 40

RIN 3150 - AG64

Transfers of Certain Exempt Source
Materials by Specific Licensees

AGENCY: Nuclear Regulatory Commission.

ACTION: Proposed rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is proposing to amend its regulations to require NRC approval for transfers from licensees of unimportant quantities of source material (less than 0.05 percent by weight) to persons exempt from licensing requirements. The object of this proposed action is to ensure that the regulations regarding transfers of materials containing low concentrations of source material are adequate to protect public health and safety.

DATES: Submit comments by (Insert date 75 days after publication in the Federal Register). Comments received after this date will be considered if it is practical to do so, but the Commission is able to ensure consideration only for comments received on or before this date.

ADDRESSES: Comments may be sent to: Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Attention: Rulemakings and Adjudications Staff.

Hand deliver comments to: 11555 Rockville Pike, Rockville, Maryland, between 7:30 am and 4:15 pm on Federal workdays.

You may also provide comments via the NRC's interactive rulemaking web site through the NRC home page (<http://www.nrc.gov>). This site provides the availability to upload comments as files (any format), if your web browser supports that function. For information about the interactive rulemaking site, contact Ms. Carol Gallagher (301) 415-5905; e-mail CAG@nrc.gov.

Documents related to this action are available for public inspection at the Commission's Public Document Room (PDR) located at One White Flint North, 11555 Rockville Pike, Rockville, MD 20852. Documents created or received at the NRC after November 1, 1999 are also available electronically at the NRC's Public Electronic Reading room on the internet at <http://www.nrc.gov/NRC/ADAMS/index.html>. From this site, the public can gain entry into the NRC's Agency Document Access and Management System (ADAMS), which provides text and image files of NRC's public documents. For more information, contact the NRC Public Document Room (PDR) Reference staff at 1-800-397-4209, or by email to pdr@nrc.gov.

FOR FURTHER INFORMATION CONTACT: Clark Prichard, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone (301) 415-6203, e-mail cwp@nrc.gov.

SUPPLEMENTARY INFORMATION:

The NRC regulations in 10 CFR Part 40 exempt certain materials from licensing requirements. These exempt materials are referred to as "unimportant quantities." One of

these exemptions, § 40.13(a), is for “chemical mixtures, compounds, solutions, or alloys” in which the source material is by weight less than 0.05 percent. Section 40.13(a) exempts any person from NRC licensing requirements “to the extent that such person receives, possesses, uses, transfers, or delivers source material in any chemical mixture, compound, solution, or alloy in which source material is by weight less than one-twentieth of 1 percent (0.05 percent) of the mixture, compound, solution, or alloy.” This exemption stems from regulations adopted approximately 40 years ago. The 0.05 percent by weight limit appears to have been chosen on the basis of concentrations of source material that are necessary to be a useful source of fissionable material. (The 0.05-percent by weight limit is equivalent to approximately 339 picocurie uranium/gram (pCiU/gram) for natural uranium and 116 picocurie thorium/gram (pCiTh/gram) for natural thorium.)

Some NRC licensees are in possession of unimportant quantities of source material. They are licensed because they possess other, higher concentration source material that is not exempt. Specific licensees are subject to requirements for decommissioning in Part 40 (§ 40.42) and waste disposal requirements in Part 20. However, under current regulations, §§ 40.51(b)(3) and (b)(4), an NRC licensee (either general or specific) may transfer unimportant quantities of source material to exempt persons under § 40.13(a). After this material is transferred, it is no longer subject to NRC requirements because an exempt person is not subject to the requirements for decommissioning and disposal. For some limited types and quantities of materials that fall under the exemption in § 40.13(a), transfers could potentially result in scenarios where exposure limits in 10 CFR Part 20 could be exceeded.

Recent estimates of possible radiation doses from thorium and uranium suggest that quantities of source material in concentrations below the 0.05-percent limit in certain situations could result in individual doses of more than 1 millisievert/year (mSv/yr) (100 millirem/year

(mrem/yr)). These estimates can be found in "Systematic Radiological Assessment of Exemptions for Source and Byproduct Materials," draft report for comment, NUREG-1717, December 1999. The draft report analyzed potential doses from handling of low concentration source material from mineral-derived products, such as in zircon processing activities, and handling waste-derived products, such as phosphate slag in building and road construction. The dose assessments for this exemption include estimates of doses from practices and materials known to present the greatest potential for exposure. The report found that the primary exposure pathways appear to be dust inhalation and direct irradiation.

This recent information on doses from less than 0.05 percent by weight source material has led the Commission to review its regulations concerning source material. This is especially important in light of decommissioning and decontamination of facilities where less than 0.05 percent by weight source material is present in significant quantities and often involves questions of disposal options for this material. Therefore, the Commission is proposing to amend § 40.51 to require NRC approval for transfers of material derived from specifically licensed material to ensure that these transfers do not pose a health and safety concern. This approval does not apply to the general license provisions in Part 40 -- the proposed approval is limited to source material derived from specifically licensed material. This is because of the more limited quantities of material handled under general license. In addition, uranium and thorium are present naturally in very low concentrations in many materials, such as soil, and it would not be appropriate to require approval for transfers of this material. The concern referenced above is only where significant quantities of licensed material have ended up in lower concentrations meeting the exemption.

In making its determination regarding transfers of less than 0.05 percent source material the NRC staff would: (1) expect to approve transfers under this provision if the radiation dose to

any individual is not expected to exceed 1 mSv/yr (100 mrem/yr); and (2) inform the Commission in cases where the individual dose is expected to exceed 0.25 mSv/yr (25 mrem/yr). A licensee seeking to transfer source material derived from specifically licensed material now under the concentration limit of § 40.13(a) would have to submit information on the type and quantity of material, where it would be transferred, the individual public dose estimates, and the parameters and assumptions used in estimating the dose.

Several licensees have requested NRC approval to transfer less than 0.05 percent source material to exempt persons in the past several years. The Commission has made decisions on a case-by-case basis. Pending publication of these amendments to § 40.51 as a final rule, the Commission will continue its current policy of approving requests to transfer material to exempt persons under § 40.13(a) on a case-by-case basis, using the 1 mSv/yr (100 mrem/yr) criterion.

In addition to this proposed rule, the NRC is presently developing a plan for a comprehensive rulemaking to improve the control of distribution of source material to exempt persons and to general licensees in order to make Part 40 more risk-informed.

Agreement State Compatibility

Section 40.13 is presently a compatibility “B” item, and Section 40.51 is presently a compatibility “C” item, except for 40.51 (b)(6) which deals with exports and is reserved for NRC. The compatibility status reflects the extent to which Agreement State regulations must conform to NRC regulations, as detailed in “Policy Statement on Adequacy and Compatibility of Agreement State Programs”, published September 3, 1997 (62 FR 46517). The proposed amendments, if made final, would not change the compatibility status of Section 40.13 or

Section 40.51. Agreement States are expected to have the same 1 mSv/yr (100 mrem/yr) or more stringent criteria than NRC's when making their determination regarding transfers of less than 0.05 percent source material.

Plain Language

The Presidential Memorandum dated June 1, 1998, entitled, "Plain Language in Government Writing", directed that the Government's writing be in plain language. This memorandum was published June 10, 1998 (63 FR 31883). In complying with this directive, editorial changes have been made in the proposed revisions to improve the organization and readability of the existing language of paragraphs being revised. These types of changes are not discussed further in this notice. The NRC requests comments on this proposed rule specifically with respect to the clarity and effectiveness of the language used. Comments should be sent to the address listed under the heading "ADDRESSES," above.

Voluntary Consensus Standards

The National Technology Transfer and Advancement Act of 1995, Pub. L. 104-113, requires that agencies use technical standards that are developed or adopted by voluntary consensus standard bodies unless the use of such a standard is inconsistent with applicable law or otherwise impractical. In this proposed rule, the NRC is presenting amendments to its regulations that allow transfers of unimportant quantities of source material (less than 0.05 percent by weight) to exempt persons under § 40.13(a). This action does not constitute the

establishment of a standard that establishes generally applicable requirements, and the use of a voluntary consensus standard is not applicable.

Finding of No Significant Environmental Impact: Availability

The Commission has determined that, under the National Environmental Policy Act of 1969, as amended, and the Commission's regulations in Subpart A of Part 51, this proposed rule, if adopted, would not be a major Federal action significantly affecting the quality of the human environment and that an environmental impact statement is not required. The licensees affected by this rule fall into two groups: those licensees who would continue to be allowed to transfer their unimportant quantities of source material to exempt persons and those licensees who would not be allowed to transfer their unimportant quantities of source materials to exempt persons. For the first group there are no environmental impacts associated with this rule because the only change brought about by this rule is the requirement to apply for such approval. There would be no change to human health or the environment as a result.

For the second group, transfers to exempt persons would not be approved. Consequently, unimportant quantities of source materials at these licensed facilities would need to remain on site or could be transferred to or disposed at other licensed facilities. As a result, this source material would continue to be managed in a regulated manner that would provide significantly greater protection to the public and the environment from exposure to radiation. Workers at licensed facilities are expected to be exposed to lower doses of radiation than the levels to which workers at unregulated exempt facilities would be exposed, because of the routine safety precautions required at licensed facilities.

Because under adoption of the proposed rule, there would be either 1) no change to human health or the environment or 2) greater protection of human health and the environment (relative to the current regulation), this rulemaking is environmentally protective.

Paperwork Reduction Act Statement

This proposed rule amends information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). This rule has been submitted to the Office of Management and Budget for review and approval of the information collection requirements.

The burden to the public for this information collection is estimated to average 50 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. The U.S. Nuclear Regulatory Commission is seeking public comment on the potential impact of the information collections contained in the proposed rule and on the following issues:

1. Is the proposed information collection necessary for the proper performance of the functions of the NRC, including whether the information will have practical utility?
2. Is the estimate of burden accurate?
3. Is there a way to enhance the quality, utility, and clarity of the information to be collected?
4. How can the burden of the information collection be minimized, including the use of automated collection techniques?

Send comments on any aspect of this proposed information collection, including suggestions for reducing the burden, to the Records Management Branch (T6E6), U.S. Nuclear

Regulatory Commission, Washington, DC 20555-0001, or by Internet electronic mail at BJS1@NRC.GOV; and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0020), Office of Management and Budget, Washington, DC 20503.

Comments to OMB on the information collections or on the above issues should be submitted by (insert date 30 days after publication in the Federal Register). Comments received after this date will be considered if it is practical to do so, but assurance of consideration cannot be given to comments received after this date.

Public Protection Notification

If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

Regulatory Analysis

The NRC has prepared a draft regulatory analysis for this proposed regulation. The analysis examines the costs and benefits of the alternatives considered by the NRC. The regulatory analysis is available for inspection in the NRC Public Document Room, 2120 L Street NW. (Lower Level), Washington, DC. Single copies of the analysis may be obtained from Clark Prichard, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC, 20555-0001; telephone (301) 415-6203.

Regulatory Flexibility Certification

As required by the Regulatory Flexibility Act (5 U.S.C. 605(b)), the Commission certifies that this proposed rule, if adopted, would not have a significant economic impact on a substantial number of small entities. The proposed rule, if finalized, would require licensees to apply to the Commission for approval to transfer unimportant quantities of source material to exempt persons under 10 CFR 40.13(a). In total, the NRC estimates that, of the approximately 114 licensees under 10 CFR Part 40, approximately three to six licensees per year would apply to the Commission, i.e., about three to five percent of all Part 40 licensees. The NRC further estimates that the vast majority of licensees would need only submit an application to the NRC at an estimated one-time cost of about \$3,600 to \$5,300 per licensee. The NRC further estimates that, in rare circumstances, a licensee may be denied permission to transfer the material and, as a result, incur significant costs above the current (i.e., baseline) regulatory program. However, the NRC estimates that this would happen to about one licensee per year, i.e., less than one percent of all Part 40 licensees.

In sum, because the annual number of licensees submitting an application to NRC is expected to be very small (3-6 licensees annually), the NRC believes that the proposed rule would not impact a substantial number of entities, large or small.

Backfit Analysis

The NRC staff has determined that the backfit requirements in 10 CFR Parts 50, 72, and 76, do not apply to this proposed rule and, therefore, a backfit analysis is not required.

List of Subjects in 10 CFR Part 40

Criminal penalties, Government contracts, Hazardous materials transportation, Nuclear materials, Reporting and recordkeeping requirements, Source material, Uranium.

For the reasons set out above and under the authority of the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; and 5 U.S.C. 553. the NRC is proposing to adopt the following amendments to 10 CFR Part 40.

PART 40 - DOMESTIC LICENSING OF SOURCE MATERIAL

1. The authority citation for Part 40 continues to read as follows:

Authority: Secs. 62, 63, 64, 65, 81, 161, 182, 183, 186, 68 Stat. 932, 933, 935, 948, 953, 954, 955, as amended, secs. 11e(2), 83, 84, Pub. L. 95-604, 92 Stat. 3033, as amended, 3039, sec. 234, 83 Stat. 444, as amended, (42 U.S.C. 2014(e)(2), 2092, 2093, 2094, 2095, 2111, 2113, 2114, 2201, 2232, 2233, 2236, 2282); sec. 274, Pub. L. 86-373, 73 Stat. 688 (42 U.S.C. 2021); secs. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846); sec. 275, 92 Stat. 3021, as amended by Pub. L. 97-415, 96 Stat. 2067 (42 U.S.C. 2022); sec. 193, 104 Stat. 2835, as amended by Pub. L. 104-134, 110 Stat. 1321, 1321-349 (42 U.S.C. 2243).

Sec. 40.7 also issued under Pub. L. 95-601, sec. 10, 92 Stat. 2951 (42 U.S.C. 5851).
Section 40.31(g) also issued under sec. 122, 68 Stat. 939 (42 U.S.C. 2152). Section 40.46 also

issued under sec. 184, 68 Stat. 954, as amended (42 U.S.C. 2234). Section 40.71 also issued under sec. 187, 68 Stat. 955 (42 U.S.C. 2237).

2. Section 40.51 is amended to read as follows:

§ 40.51 Transfer of source or byproduct material.

(a) No licensee shall transfer source or byproduct material except as authorized pursuant to this section.

(b) Except as otherwise provided in his license and subject to the provisions of paragraphs (c), (d), and (e) of this section, any licensee may transfer source or byproduct material:

(1) To the Department of Energy;

(2) To the agency in any Agreement State that regulates radioactive materials pursuant to an agreement with the Commission or the Atomic Energy Commission under section 274 of the Act:

(3) To any person exempt from the licensing requirements of the Act and regulations in this part, to the extent permitted under such exemption;

(4) To any person in an Agreement State subject to the jurisdiction of that State who has been exempted from the licensing requirements and regulations of that State, to the extent permitted under such exemptions;

(5) To any person authorized to receive such source or byproduct material under terms of a specific license or a general license or their equivalents issued by the Commission or an Agreement State;

(6) To any person abroad pursuant to an export license issued under part 110 of this chapter; or

(7) As otherwise authorized by the Commission in writing.

(c) Before transferring source or byproduct material to a specific licensee of the Commission or an Agreement State or to a general licensee who is required to register with the Commission or with an Agreement State prior to receipt of the source or byproduct material, the licensee transferring the material shall verify that the transferee's license authorizes receipt of the type, form, and quantity of source or byproduct material to be transferred.

(d) The following methods for the verification required by paragraph (c) of this section are acceptable:

(1) The transferor may have in their possession, and read, a current copy of the transferee's specific license or registration certificate;

(2) The transferor may have in their possession a written certification by the transferee that he or she is authorized by license or registration certificate to receive the type, form, and quantity of source or byproduct material to be transferred, specifying the license or registration certification number, issuing agency, and expiration date;

(3) For emergency shipments, the transferor may accept oral certification by the transferee that he or she is authorized by license or registration certificate to receive the type, form, and quantity of source or byproduct material to be transferred, specifying the license or registration certificate number, issuing agency, and expiration date, provided that the oral certification is confirmed in writing within 10 days;

(4) The transferor may obtain other sources of information compiled by a reporting service from official records of the Commission or the licensing agency of an Agreement State

as to the identity of licensees and the scope and expiration dates of licenses and registrations;
or

(5) When none of the methods of verification described in paragraphs (d)(1) to (4) of this section are readily available or when a transferor desires to verify that information received by one of these methods is correct or up-to-date, the transferor may obtain and record confirmation from the Commission or the licensing agency of an Agreement State that the transferee is licensed to receive the source or byproduct material.

(e) The licensee shall obtain written approval from the NRC before transferring any source material derived from specifically licensed material to persons exempt under § 40.13(a) or equivalent Agreement State regulations. A licensee seeking NRC approval to transfer must submit a dose assessment with information containing the estimated annual total effective dose equivalent to a member of the public that would result from the transfer, and the parameters and assumptions used in the assessment.

Dated at Rockville, Maryland, this _____ day of _____, 2000.

For the Nuclear Regulatory Commission.

Annette Vietti-Cook,
Secretary of the Commission.