

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS
OFFICE OF NUCLEAR REACTOR REGULATION
Washington, D.C. 20555-0001

October 8, 2003

NRC BULLETIN 2003-04: REBASELINING OF DATA IN THE NUCLEAR MATERIALS
MANAGEMENT AND SAFEGUARDS SYSTEM

Addressees

All U.S. Nuclear Regulatory Commission (NRC) licensees, Agreement State licensees, and Certificate Holders (hereafter referred to as licensees) who:

- (1) Have in their possession, or are licensed to possess, one or more of the following: foreign obligated natural uranium, depleted uranium, or thorium; uranium enriched in the isotope U-235, U-233, plutonium, plutonium-238, or who currently have unreconciled nuclear material balances with the Nuclear Materials Management and Safeguards System (NMMSS).

Purpose

NRC is issuing this bulletin to:

- (i) Notify licensees about performance concerns associated with their reporting data to, and the resulting material balances contained in, the NMMSS database;
- (ii) Request affected licensees to perform a one-time reporting of the quantities of special nuclear material (SNM) and/or foreign obligated source material in their possession, specified as:
 - (a) A quantity of SNM defined by 10 CFR 72.76, 72.78, 74.15, and 150.16, as 1 gram or more of contained uranium-235, uranium-233, plutonium, or 0.1 gram or more plutonium-238 that is greater than 10 percent of the total plutonium by weight; or
 - (b) A quantity of foreign obligated source material (i.e., natural uranium, depleted uranium, or thorium) defined by 10 CFR 40.64 and 150.17 as 1 kilogram or more.
- (iii) Request affected licensees to perform a one-time reporting of the quantities of other types of Government-owned materials, specified as any quantity of deuterium, tritium, curium, americium, neptunium, californium, berkelium, or enriched lithium in their possession (hereafter referred to as other Government-owned materials);

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- (iv) Request affected licensees to submit the results of this one-time reporting of the balances of the requested material types directly to NMMSS, as described in NUREG/BR - 0006 or 0007 and NMMSS Report D-24, as referenced in 10 CFR 40.64, 72.76, 72.78, 74.13, 74.15, 150.16, and 150.17, and to coordinate with NMMSS staff, the resolution of any discrepancies that become evident, based on a comparison of the results of the one-time reporting and previously existing licensee nuclear material balances.

Background/Discussion

NMMSS is the U.S. national database used jointly by the U.S. Department of Energy (DOE) and NRC for tracking certain nuclear materials and other Government-owned materials. A DOE contractor maintains NMMSS for both agencies.

A recent audit report by the DOE Office of Inspector General found that DOE could not fully account for Government-owned materials and nuclear materials loaned or leased to domestic licensees, based on information contained in the NMMSS database. (This report is available through the Internet at <http://www.ig.doe.gov/pdf/ig-0529.pdf>.) NRC believes that until NMMSS balances are confirmed on the basis of an accurate one-time reporting of the requested inventory data, NMMSS cannot be considered a useful tool to monitor nuclear material holdings at licensee sites.

NRC's objective is to confirm that the licensee inventories and the NMMSS database records are in agreement for SNM and foreign-obligated source material. NRC regulations contained in 10 CFR 40.64, 72.76, 72.78, 74.13, 74.15, 150.16, and 150.17 require licensees to report material transfers and inventory adjustments to NMMSS. Presently, licensees that are not required to report their physical inventories of source material and SNM to NMMSS do not have a way to reconcile their inventory information with the NMMSS database. In these cases, the quantities and types of source, SNM, and Government-owned materials in NMMSS represent only "book" values that change over time, depending on the details contained in material transfer reports which the licensees are required to submit when nuclear material is moved from one site to another, or when an inventory adjustment occurs at the licensees' site.

Ascertaining the actual locations and quantities of nuclear material licensees possess through a one-time reporting of inventory holdings, and identifying and resolving obvious NMMSS database discrepancies, are the first steps toward eliminating anomalous balances and restoring credibility to NMMSS account balances.

Once the licensees' inventory values are submitted to NMMSS, the NMMSS staff will compare the reported information to the NMMSS book values. Where discrepancies are identified, NMMSS staff will attempt to resolve them by examining existing NMMSS records and assisting licensees to correct errors that may have occurred. Discrepancies that cannot be resolved readily, in contacts between NMMSS staff and licensees, may be referred to NRC, which will take further steps to resolve the discrepancies.

Requested Action

Within 90 days of the date of this bulletin, and preferably, as soon as is reasonably achievable, affected licensees are requested to report their possessed quantities of nuclear materials of the types specified above. Typically, such listings may be the result of the most recent physical

inventory or book values. Licensees should report these quantities as stipulated in NUREG/BR-0006 or 0007 and NMMSS Report D-24, which are referenced in 10CFR 40.64, 72.76, 72.78, 74.13, 74.15, 150.16, and 150.17. Licensees should ensure that their onsite material balances are accurately reflected in the NMMSS database. Copies of NUREG/BR-0006 and 0007 may be obtained from NRC's web site at <http://www.nrc.gov/reading-rm/doc-collections/nuregs/brochures/>, or by contacting the technical contacts, listed below, in the Office of Nuclear Security and Incident Response, Division of Nuclear Security, Washington, DC 20555-0001.

Licensees reporting other types of Government-owned materials, specified as any quantity of deuterium, tritium, curium, americium, neptunium, californium, berkelium, or enriched lithium, should contact Mr. Kelly Coady at DOE (301-903-1360 or kelly.coady@hq.doe.gov) for guidance.

Addressees that do not currently possess any amounts of the types of nuclear material to be reported should report this in the format described in NUREG/BR - 0007. Addressees that believe this request is not applicable to them or who cannot meet the requested submission date are requested to submit a written response to that effect, by regular mail, to: U.S. Nuclear Regulatory Commission, Attn. Larry Harris, Mail stop T-4-D-8, Washington, DC 20555-0001. Such response should include the licensee's name and address, as described in the specific license, and the licensee's reporting identification symbol (RIS) code, normally used for submitting electronic reports to the NMMSS database, and a statement of why it is not responding in a manner consistent with this bulletin.

Federal Register Notification

A notice of opportunity for public comment on this bulletin was not published in the *Federal Register* because NRC is requesting information from affected licensees, on an expedited basis, to assess compliance with applicable regulatory requirements. The information is time-sensitive, since it is for the purpose of confirming that NMMSS records accurately reflect licensee inventory holdings.

Paperwork Reduction Act Statement

This Bulletin contains information collection requirements that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501, et seq.). These information collections were approved by the Office of Management and Budget (OMB), approval number 3150-0011, which expires January 31, 2004.

The burden to the public for these mandatory information collections is estimated to average six hours per response. This time includes the time for reviewing instructions, searching existing data sources, gathering the data needed, and completing and reviewing the information collection. Send comments about this burden estimate or any other aspect of these information collections, including suggestions for reducing the burden, to the Records Management Branch (T-5F52), U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, or by Internet e-mail to INFOCOLLECTS@NRC.GOV; and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0011), Office of Management and Budget, Washington, D.C. 20503.

Public Protection Notification

NRC may not conduct nor sponsor, and a person is not required to respond to, an information collection, unless the requesting document displays a currently valid OMB control number.

Small Business Regulatory Enforcement Fairness Act

NRC has determined that this action is not subject to the Small Business Regulatory enforcement Fairness Act of 1996.

If you have any questions about this matter, please contact the technical contacts listed below.

/RA/

Bruce A. Boger, Director
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

/RA/

Charles L. Miller, Director
Division of Industrial and
Medical Nuclear Safety
Office of Nuclear Material Safety
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Technical Contacts: Larry Harris, NSIR
E-mail: nmmss@nrc.gov

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Attachment: List of Recently Issued NRC Bulletins

LIST OF RECENTLY ISSUED
NRC BULLETIN NOTICES

Bulletin No.	Subject	Date of Issuance	Issued to
2003-03	Potentially Defective 1-Inch Valves for Uranium Hexafluoride Cylinders	08/29/2003	(1) U.S. Nuclear Regulatory Commission (NRC) licensees and certificate holders authorized to possess and use source material and/or special nuclear material for the heating, emptying, and filling of uranium hexafluoride (UF ₆) in 30- and 48-inch cylinders. (2) Registered users of certificates of compliance for enriched (fissile) UF ₆ packages, under 10 CFR Part 71.
2003-02	Shadow Corrosion Resulting in Fuel Channel Bowing	08/21/2003	All holders of operating licenses for pressurized-water nuclear power reactors (PWRs) with penetrations in the lower head of the reactor pressure vessel (RPV), except those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor pressure vessel.
2003-01	Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized-water Reactors	06/09/2003	All holders of operating licenses for pressurized-water nuclear power reactors, except those who have ceased operations and have certified that fuel has been permanently removed from the reactor vessel.

Note: NRC generic communications may be received in electronic format shortly after they are issued by subscribing to the NRC listserver as follows:

To subscribe send an e-mail to <listproc@nrc.gov>, no subject, and the following command in the message portion:

subscribe gc-nrr firstname lastname