



NMMSS News

Nuclear Materials Management & Safeguards System
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September 2017

Topics in this Issue

- Mark Your Calendar – 2018 Users Training Meeting
- DOE Project Number Conversion
- Fiscal Year 2017 DOE Inventories are due to NMMSS by October 16, 2017
- Soliciting Case Studies!
- NUREG/BR-0006 and NUREG/BR-0007 Revisions
- Helpful Tips for Inventory Reconciliation
- Upcoming DOE and NRC Training Courses
- Current List of Foreign Obligation Codes
- Products to Assist the NMMSS Community
- Important Due Dates
- Upcoming 2017-2018 Observed Holidays
- NMMSS Points of Contact
- Unclassified Mail Addresses

Mark Your Calendar for the 2018 NMMSS Annual Users Training Event

The 2018 annual training will be held May 14-17, 2018, in New Orleans, LA. Registration information will become available in December 2017. There is no fee associated with participating in this unique nuclear materials management training opportunity.

Additionally, if you are interested in a specific topic or would like to make a presentation, please send your suggestions to Mr. Pete Dessaulles at pete.dessaules@nnsa.doe.gov or Ms. Mirabelle Shoemaker by email at Mirabelle.shoemaker@nrc.gov.



DOE Project Number Conversion

The DOE Project Number Conversion process commenced on August 1st. This annual process provides field elements and material managers with the opportunity to update their project numbers, as required by DOE O 410.2, *Management of Nuclear Materials*, without the extra work of filling out a 741 form for each inventory. Project numbers must be annually updated and validated, as required by the Order, so that material inventories are only associated with an active funding source, identified by Budget and Reporting (B&R) code, used to manage or use that material.

We have updated the validation process to support your efforts and prepared an updated guidance (now available on the [NMMSS website](#)) for fiscal year (FY) 2018 that aims to streamline the conversion process, address areas of confusion, and contain the most recent information and reference links. Once we receive your project number submittals, we will be validating those numbers against the FY18 B&R codes released by the DOE Office of the Chief Financial Officer. We will provide our feedback as soon as possible, doing our part to ensure that all project numbers are active and as up to date as possible.

As a reminder, your responses are due by September 24th. We are available to address any questions you may have and welcome your comments and suggestions on changes for the FY19 project number guidance document.

Fiscal Year 2017 DOE Inventories Are Due to NMMSS by 10/16/2017

[DOE O 474.2](#), Change 4, *Nuclear Material Control and Accountability*, requires that DOE sites annually reconcile their facility data after submitting their September 30 inventory.

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The reconciliation of the annual inventory is to be completed by November 15. The process is as follows:

- The facility submits its inventory for the period and is provided with the results of processing in NMMSS.
- Preliminary reports are available upon request from NMMSS for facility use in comparing facility data with NMMSS balances.
- The data at the facility and reported data in NMMSS are compared.
- Adjustments are made to the facility books or to NMMSS, as appropriate, regarding balances of material by type, ownership code, and project number (if DOE-owned), and foreign obligations, if applicable.

Please contact Mary McConnell at Mary.McConnell@nnsa.doe.gov or (301) 903-6240 with any questions.

Soliciting Case Studies

NMMSS is soliciting “case study” scenarios from the entire stakeholder community to integrate real-life facility circumstances and reporting issues, lessons learned, and best practices into NMMSS training classes. The case studies highlight the congruence of facility-specific business practices and regulatory requirements and examine unique circumstances that necessitate a fresh look at reporting protocols. The solicited topics are intended to be diverse and encompass a broad range of topics, including the reporting of imports and exports, obligations, transactions involving domestic facilities (including between NRC and DOE facilities), licensing, reporting updates or corrections to previously reported transactions, reporting batch names, and accounting for government-owned material. The facility-specific aspects of the case studies will remain anonymous, as all case studies are presented as hypothetical scenarios.

Please send any case studies to Mirabelle Shoemaker at Mirabelle.shoemaker@nrc.gov or Pete Dessaulles at pete.dessaules@nnsa.doe.gov.

NUREG/BR-0006 and NUREG/BR-0007 Revisions

The NRC has published interim revisions of NUREG/BR-0006, Rev. 8 and NUREG/BR-0007, Rev. 7 that do not affect how licensees in the 50 United States report to NMMSS. The purpose of the interim revisions was to meet a milestone in the NRC’s project schedule for revising Title 10 of the Code of Federal Regulations (10 CFR) Part 75, which will require nuclear material status reporting from licensees in the U.S. Caribbean Territories. As such, the NUREGs were updated with new appendices that will be applicable only to licensees reporting under INFCIRC/366, *U.S.-IAEA Caribbean Territories Safeguards Agreement*.

The specific changes to the NUREGs include:

- New Appendix G in NUREG/BR-0006, Rev. 8, containing instructions for licensees required to report under INFCIRC/366.
- New Appendix E in NUREG/BR-0007, Rev. 7, containing instructions for licensees required to report under INFCIRC/366.

The only change to NUREG/BR-0007, Rev. 7 that pertains to NMMSS users is an update to Appendix C, page C-1, which identified material balance codes. This sheet was previously available as an erratum in April 2014. It was formatted and incorporated into the NUREG text with this interim publication.

At the 2017 Annual NMMSS Users Meeting, the NRC delivered a presentation on the purpose of bifurcating the revision schedule for the NUREGs and provided a status of the effort to revise the NUREGs in full.

Please contact Mirabelle Shoemaker at (301) 415-7363 or Mirabelle.shoemaker@nrc.gov with any questions on the NUREGs.

Inventory Reconciliation of NRC Licensees – Helpful Tips for Information

NRC regulations require licensees to report to NMMSS if they possess one gram or more of special nuclear material (SNM) (plutonium, uranium-233, or uranium-235 contained in enriched uranium) or one kilogram or more of foreign-obligated source material (natural uranium, depleted uranium, or thorium). Below are some tips to help facilitate a smooth reconciliation. As always, NMMSS analysts are available to provide technical assistance by phone or email.

1. All Government-owned material is reportable per NUREG/BR-0006, Rev. 8, including all SNM, source material, and other materials listed in the Reportable Elements and Isotopes section of the [NMMSS User's Guide](#).
2. For non-government-owned material, licensees are required to submit a Material Balance Report (MBR) or Material Status Report (742 or 742C) when their facilities:
 - Possessed, shipped, or received one gram (≥ 0.5 g) or more of SNM during the reporting period (see the table below); OR
 - Possessed, shipped, or received one kilogram (≥ 0.5 kg) or more of foreign obligated source material (natural uranium, depleted uranium, or thorium – see Table 1 below); OR
 - Imported or exported 1 kg (≥ 0.5 kg) or more of source material.
3. The following reports, which are available from any NMMSS analyst, may help licensees prepare for reconciliation:
 - M-742A, Material Balance Report by Action Date
 - IA-OBL-05, Obligation Summary Report
 - TJ-045, Transaction Detail for Shipments, Receipts, and Onsite Gains and Losses
4. Fillable Forms 742 and 742C are posted on the NMMSS website – <http://nnsa.energy.gov/aboutus/ourprograms/nuclearsecurity/nmmsshome/nmmssinfo/doenrcforms>.

The forms are also posted on the NRC website – <http://www.nrc.gov/reading-rm/doc-collections/forms>.

Below is a table showing the material types that must be reported by NRC licensees along with the required reporting units.

Material	Material Type	Reporting Unit (rounded up)	Weight that is Reported
Enriched uranium*	20	Whole gram	Element and isotope
Plutonium	50	Whole gram	Element and isotope
Uranium-233	70	Whole gram	Element and isotope
Plutonium-238	83	Tenth of a gram	Element and isotope
Depleted uranium	10	Whole kilogram	Element and isotope
Normal uranium	81	Whole kilogram	Element only
Thorium	88	Whole kilogram	Element only

*Assay levels of enriched uranium (from NUREG/BR-0007, Rev. 7)

Report enriched uranium by assay level (see below) on separate MBR forms.

- E-1** Greater than normal but less than 5%
- E-2** 5% or more, but less than 20%
- E-3** 20% or more, but less than 80%
- E-4** 80% or more

For any regulatory questions, please contact Mirabelle Shoemaker, NRC NMMSS Project Manager, by telephone at 301-415-7363, or by email at mirabelle.shoemaker@nrc.gov.

Upcoming NRC NMMSS I Training Course

NMMSS training for NRC licensees and Federal employees is scheduled for **October 31-November 2, 2017**, at DOE Headquarters in Germantown, MD. This course is designed for individuals with limited experience in NRC reporting requirements or those who need a refresher. The course content is based on NUREG/BR-0006, Rev. 8 and NUREG/BR-0007, Rev. 7. The following topics, among others, will be included:

- Completion of data forms: transactions, inventory, and material balance;
- Inventory reconciliation;
- Foreign obligations reporting; and
- Report products.

If interested, please contact Mitch Hembree by October 27, 2017.

Current List of Foreign Obligation Codes

U.S. shipping or receiving facilities are responsible for reporting foreign obligation information with each transaction. Below is the most recent listing of obligation codes, both for reporting in boxes 17 through 21 of DOE/NRC Form 741 for transactions and in Section B of DOE/NRC Form 742, *Material Balance Report*. This list is also posted on the NMMSS [website](#). Please feel free to contact a NMMSS analyst if you have any questions regarding foreign obligations.

The term “obligated” as applied to nuclear material means that:

- It is being used solely for peaceful uses;
- The U.S. is legally able to trade nuclear material and equipment with foreign countries in accordance with the Agreements for Cooperation required in Section 123 of the Atomic Energy Act of 1954, as amended;

Transaction Code	Material Balance Code	Obligation Entity	Transaction Code	Material Balance Code	Obligation Entity
31	85	Australia	70	B1	LES Centrifuge Enrichment ¹ /Japan
32	86	Canada	71	B2	Australia/Japan/LES
33	87	EURATOM ²	72	B3	Canada/Japan/LES
34	88	Japan	73	B4	EURATOM/Japan/LES
35	89	People’s Republic of China	74	B5	Australia/EURATOM/Japan/LES
36	C1	Russia	75	B6	Canada/EURATOM/Japan/LES
37	A8	Switzerland	76	B7	China/Japan/LES
38	A1	Argentina	77	A9	Australia/Canada/EURATOM/Japan/LES

¹ Louisiana Energy Services, now known as URENCO USA.

² EURATOM comprises 28 member states: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the UK.

Transaction Code	Material Balance Code	Obligation Entity	Transaction Code	Material Balance Code	Obligation Entity
39	A2	Brazil	81	94	Australia/Japan
40	A3	Chile	82	95	Canada/Japan
41	D1	India	83	96	EURATOM/Japan
42	D2	Republic of Korea	84	97	Australia/EURATOM/Japan
43	D3	Taiwan	85	98	Canada/EURATOM/Japan
44	D4	Vietnam, Socialist Republic of	86	99	China/Japan
65	C4	Japan/Russia	87	I1	Australia/Canada
66	C5	EURATOM/Russia	88	I2	Australia/Canada/EURATOM
67	C6	Australia/Japan/Russia	90	A4	LES Centrifuge Enrichment
68	C7	Canada/Japan/Russia	91	91	Australia/EURATOM
69	C8	EURATOM/Japan/Russia	92	92	Canada/EURATOM
93	A5	LES Centrifuge Enrichment/Australia	96	C2	Australia/Russia
94	A6	LES Centrifuge Enrichment/Canada	97	C3	Canada/Russia
95	A7	LES Centrifuge Enrichment/EURATOM	WR	93	Former Soviet Union Weapons

Available Products to Assist the NMMSS Community

The following products are available to NMMSS users upon request.

- D-2: **DOE Directory of Reporting Identification Symbols (RIS)**. This directory contains a listing of RISs for the DOE sites that NMMSS accepts as valid as of May 2017.
- D-3: **NRC Directory of Reporting Identification Symbols (RIS)**. This directory contains a listing of RISs for the licensed sites that NMMSS accepts as valid as of May 2017.
- D-15: **International Nuclear Facilities**. This directory contains a listing of RISs for nuclear sites located outside of the United States that NMMSS accepts as valid as of May 2017.

SAfeguards Management Software (SAMS): SAMS is a facility-based version of the NMMSS software maintained by DOE and NRC. Version 8.0, the most recent update of the SAMS software, lets users input data and perform edit checks for transactions, material balance reports, and inventories, and includes an updated Authority Reference File.

Copies of the above items are available free of charge. Please contact any member of the NMMSS staff, or send a request to the NMMSS mailbox (NMMSS@nnsa.doe.gov) if you would like any of the above items sent to you.

Transaction/Inventory Due Dates for DOE Sites

Reporting Month	Transaction Due	Inventory Due
August 2017	September 11	September 15
September 2017	October 10	October 16
October 2017	November 13	November 17
November 2017	December 11	December 15
December 2017	January 10	January 16
January 2018	February 12	February 16
February 2018	March 12	March 16
March 2018	April 13	April 17
April 2018	May 11	May 15

Upcoming 2017-2018 Observed Holidays

Columbus Day	Monday, October 9, 2017
Veterans' Day	Friday, November 10, 2017
Thanksgiving Day	Thursday, November 23, 2017
Christmas Day	Monday, December 25, 2017
New Year's Day	Monday, January 1, 2018
Martin Luther King, Jr. Day	Monday, January 15, 2018
Presidents' Day	Monday, February 19, 2018
Memorial Day	Monday, May 28, 2018

NMMSS Points of Contact for Nuclear Material Reporting Technical Support and Assistance

Name	Function	Phone	Email Address
Elaine Beacom	International operations (IAEA and obligations)	(301) 903-1328	Elaine.Beamon@nnsa.doe.gov
Mary McConnell	Domestic reporting (NRC and DOE)	(301) 903-6240	Mary.McConnell@nnsa.doe.gov
Mitch Hembree	Peaceful Use Agreements (foreign obligations), Training	(301) 903-6299	Mitch.Hembree@nnsa.doe.gov
John Cettin	NRC reconciliation Data processing	(301) 903-6870	John.Cettin@nnsa.doe.gov
Elizabeth (Liz) Mohamed	DOE reconciliation Data processing	(301) 903-2226	Elizabeth.Mohamed@nnsa.doe.gov
Brandon Zack	Records management	(301) 903-2224	Brandon.Zack@nnsa.doe.gov
James Lavery	Data processing File management	(301) 903-0092	James.Lavery@nnsa.doe.gov
Ali Tabatabai	Issues/suggestions	(301) 515-9654	Ali.Tabatabai@hq.doe.gov

Program Management

Department of Energy

Peter Dessaulles (301) 903-4525
Pete.Dessaulles@nnsa.doe.gov

Nuclear Regulatory Commission

Mirabelle Shoemaker (301) 415-7363
Mirabelle.Shoemaker@nrc.gov

International POCs

DOE International POC

Shannon Chester (301) 903-7449
Shannon.Chester@nnsa.doe.gov

NRC International POC

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Email: NMMSS@nnsa.doe.gov
Unclassified Fax: (301) 903-1998
www.nnsa.energy.gov/nmmss

NMMSS Website: <http://nnsa.energy.gov/aboutus/ourprograms/nuclearecurity/nmmsshome>



Unclassified/Overnight Surface Mailing Addresses

Unclassified

Mary McConnell

NMMSS Program, NA-532/Germantown Bldg.
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585-1290

Overnight – Unclassified

Mary McConnell

Attn: NMMSS Program, NA-532
U.S. Department of Energy
19901 Germantown Road
Germantown, MD 20874-1207

Classified

The NMMSS classified mailing address is available on the Safeguards and Security Information Management System (SSIMS) or by calling a NMMSS analyst. Identify Mary McConnell as the recipient and NA-532 as the organization.

IMPORTANT: The “DO NOT X-RAY” marking does not prevent incoming packages from being sanitized. Please package compact discs (CDs) in cardboard rather than plastic casings. The plastic is heated by the sanitization machine, thereby warping the CD. There is less chance of this occurring if the CD is packaged in cardboard.

For information on transmitting classified data to NMMSS electronically, contact Pete Dessaulles at (301) 903-4525 or Pete.Dessaules@nnsa.doe.gov.

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Please provide feedback or suggested topics of interest to Mary McConnell at Mary.McConnell@nnsa.doe.gov, (301) 903-6240.