

NMMSS News

Published Periodically by and for the NMMSS Community

Highlights

August 2025

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- Project Number Conversion
- Preparing for the Fiscal Year-End Reconciliation Season
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NMMSS Website



NMMSS Annual Technical Exchange Event

The Nuclear Materials Management and Safeguards System



29th Annual Users Technical Exchange
May 12-15, 2025



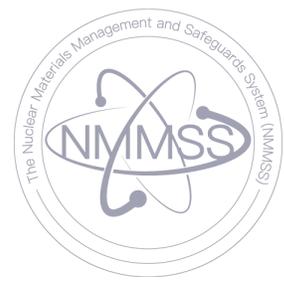
The NMMSS 2025 29th Annual Users Technical Exchange event was held virtually May 12-15, 2025. Over 300 people from government, industry, and the international community registered, making this a record-breaking event. Although we missed the face-to-face interactions, the accessibility of this year's model drew 120 new participants.

Topics included new fuels, use of augmented reality, licensing of advanced reactors, tritium accountancy, nuclear materials management, MC&A inspections, foreign obligations and 123 agreements, and methods of XML reporting. If you were unable to attend or just want a refresher, these presentations are still available to view at:

<https://presentations.nmmss2025.linksolutions.com>.

Thank you to all the presenters, who took time from their busy schedules to prepare a video presentation and to the organizers who handled the broadcasting logistics to make this event a success.

If you would like to contribute to the planning of the 30th Annual NMMSS Users Technical Exchange, please send your suggestions and expression of interest to NMMSS@nnsa.doe.gov with the subject line NMMSS 2026 Planning Ideas.

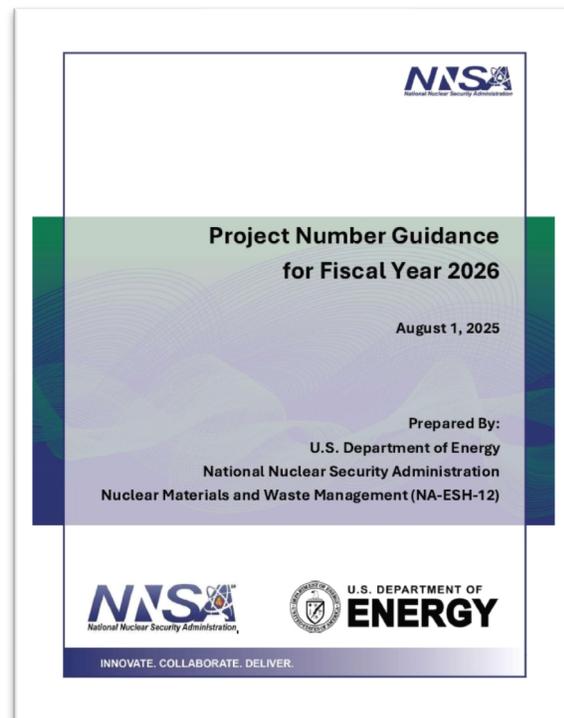


Fiscal Year 2026 DOE Project Number Conversion

It's time for the annual project number review and conversion process! DOE project numbers must be updated and validated annually so that material inventories are associated with an active funding source, identified by Budget and Reporting (B&R) code. NMMSS distributed a listing of the 629 active project numbers owned by DOE/NNSA sites on August 1. The FY 2026 Project Number Guidance was issued by the NNSA Nuclear Materials and Waste Management Division (NA-ESH-12).

NRC licensees possessing DOE-owned nuclear material need to be kept apprised of any project number changes that may affect their inventory submissions. In addition, when loaning material to licensees, DOE site personnel should ensure that the quantities classification of the project number under which the material is being sent is equal to or lower than the classification assigned to the RIS that will be receiving the material. Please contact NMMSS@nnsa.doe.gov with any questions related to project number or RIS classifications.

Please feel free to contact Donna Hutchinson, the NMMSS project number specialist, by telephone at (301) 903-2226 or by email at donna.hutchinson@nnsa.doe.gov with any questions.



Tips for Smoother Fiscal Year-End Reconciliations

The annual reconciliation of DOE site inventories with NMMSS records starts October 1. DOE sites are to submit their fiscal year end (September 30) Physical Inventory Listings (PILs) by October 15.

Some licensees possessing DOE-owned material align their physical inventories with the DOE fiscal year end (September 30). It is especially crucial for licensees holding DOE-owned material to report their material status reports in a timely manner because other DOE/NNSA organizations require NMMSS data for other deliverables. Licensees should also consider the following tips for success:

- Segregate DOE-owned and non-DOE owned materials when completing the Material Balance Report and PIL.
- Use the specific material type codes listed in Table 2-3 of the NMMSS Users Guide on the PIL for DOE-owned materials.
- Do not use reactor-specific composition codes in the 860-866 series for inventories of DOE-owned material; rather, use a composition code that best describes the material (ask a NMMSS analyst for a full list of composition codes).
- If possible, include additional helpful details such as a batch name and the weight percent isotope value on the PIL.

NMMSS analysts will be working closely with facility personnel to achieve the best possible reconciliation result.

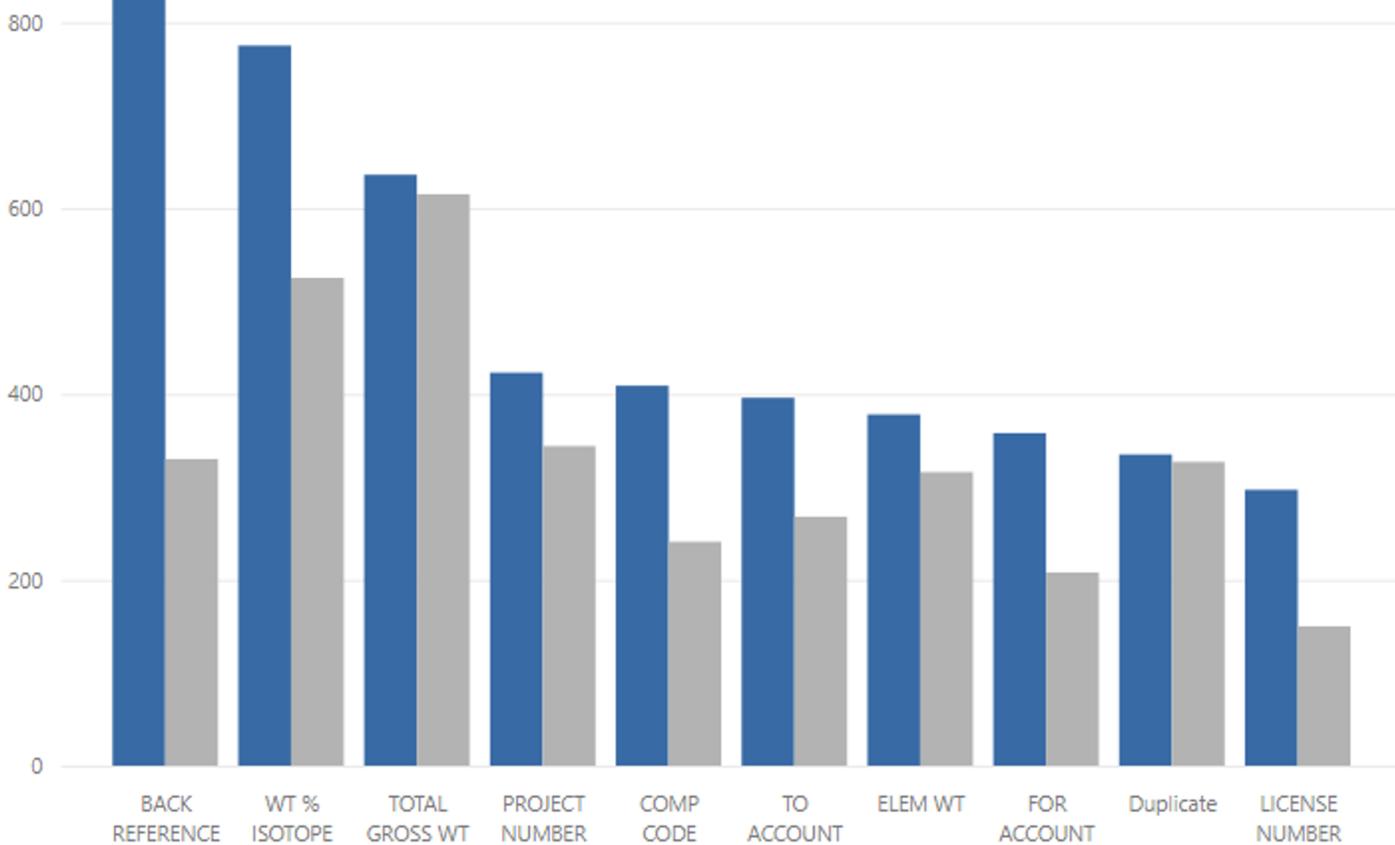
DOE sites can direct questions about the upcoming fiscal year reconciliation process to the DOE site lead, Marcos Crabtree at Marcos.Crabtree@nnsa.doe.gov.

Common NMMSS Edit Checks

Data that is imported into NMMSS is validated through a series of “edit checks” that verify compliance with the business rules originating from the applicable guidance documents. When data in a transaction fails an edit check, NMMSS flags the transaction as being in error. Edit checks in DOE data must be resolved for monthly closing. Edit checks in NRC data must be resolved for annual reconciliation. NMMSS analysts recently conducted a study of the flagged transaction data over the past five years to identify trends. Below is a chart illustrating the results of the study, which the reporting community may find useful for information.

Frequently Flagged Fields

● Total Flags Generated ● Unique 741s Flagged



NOTE: Certain fields, such as those in the transaction header, are only flagged once per transaction. Others, such as those in the detail section, can be flagged for every line of data and thus appear to be more problematic but may represent isolated incidents. Therefore, to do a balanced evaluation of the most frequently flagged fields in transaction reporting, NMMSS considered both the total number of flags generated (blue column) and the number of transactions (741s) for which NMMSS flagged that field (gray column). The ranking within the top 10 changes significantly based on the evaluation criterion, but there is no substantive change in the actual top 10.

Common NMSS Edit Checks, Continued

Weight % Isotope edit checks primarily evaluate two conditions: whether a weight percent is required to be reported and whether it falls within the computed range. Weight Percent Isotope is required for the following materials: Depleted Uranium (MT 10), Enriched Uranium (MT 20), Plutonium-242 (MT 40), Plutonium (MT 50), Enriched Lithium (MT 60), Uranium-233 (MT 70), Plutonium-238 (MT 83), and Uranium in Cascades (MT 89). Except for MT 50 and MT 70, a secondary edit check flags data where the reported weight percent isotope does not fall within $\pm 10\%$ of the computed percentage: $(\text{isotope weight}/\text{element weight}) * 100\%$. This helpful edit check primarily serves to identify potential typographical errors but may also occur when items of varying isotopic ranges are grouped together on one line and the weight percent of the discrete items are averaged. In the second scenario, facilities can avoid this flag by breaking out the material onto multiple lines of a transaction, so that only like items are grouped together.

Total Gross Weight should only be reported on transactions with action code A. Transactions are flagged when either the total gross weight is missing from an action code A or when it is reported on a transaction with any other action code.

Project Number edit checks also primarily evaluate two conditions: whether a project number is required to be reported and the validity of the reported project number. A project number must be reported with owner code G, and vice versa. Subsequently, if a project number is required to be reported, it must be valid. Project numbers are often flagged by NMSS during the conversion season. As we begin the 2026 project number conversion process, the reporting community should take care when using project numbers that are being created or deactivated. Finally, on a related note, the most common scenario for **Element Weight** to be flagged is when the amount of project material shipped is greater than the amount of material on the facility's inventory. Facilities can avoid this by requesting an A-200 project balance report on a recurring basis to stay apprised of their project balances.

Some fields can cause a cascade of edit checks because the validity of the data is dependent on several other data points across both header and detail sections. **Back Reference** and **To/ForAccount** are such fields. Since the conditions in which data may be flagged are so numerous, NMSS reporters should review the guidance documents when completing these fields. Back reference guidance can be found in section 4 of NUREG/BR-0006. Guidance regarding To/For Account (and the field that sometimes-accompanies them, Nature of Transaction) is found in sections 4 and 5 and Appendix C of the NMSS Users Guide.

The remaining commonly flagged fields are comparatively straightforward and are often caused by simple keystroke errors. **Composition Codes** must be valid. **License Numbers** must be valid and current. Lastly, all **Duplicate** transactions are flagged in NMSS.

Before submitting data to NMSS, double-check these frequently flagged fields. Some flags can be identified with the SAMS software. Lastly, remember that if you ever have a reporting question, you can contact a NMSS analyst for help and we will be glad to assist.

DOE/NRC FORM 741
 REGULATORY DATA COLLECTION FORM
 AUTHORIZED BY 10 CFR 83.46, 86, 91.73,
 92.74, 96.102
 Public Laws 85-703, 94-431, 95-61

U.S. DEPARTMENT OF ENERGY
 U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0063
 Comments on this form may be directed to the Regulatory Information Branch, U.S. Nuclear Regulatory Commission, Washington, DC 20545. For more information, please contact the Regulatory Information Branch, U.S. Nuclear Regulatory Commission, Washington, DC 20545. The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays the collection's currently valid OMB control number.

NUCLEAR MATERIAL TRANSACTION REPORT

1. GENERAL INFORMATION
 2. MATERIAL TYPE AND DESCRIPTION
 3. MISCELLANEOUS
 4. SHIPPER'S DATA
 5. RECEIVER'S DATA

WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECTS. 18 U.S.C. SECTION 1001 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR

 **2025**
 NMSS
 Reporting
 Training Course
 Schedule



NMSS is presenting the course *Fundamentals of MC&A Reporting for DOE and NRC Nuclear Operators* in virtual and in-person formats. The course is based on DOE and NRC material control and accountability (MC&A) requirements and applicable international safeguards agreements and nonproliferation treaties. The table below shows the remaining schedule of training offerings for 2025. These three-day training courses focus on the fundamentals of reporting MC&A data to NMSS by U.S. nuclear operators.

Dates	Training Format		Location	
August 19-21, 2025		Virtual		Zoom
October 21-23, 2025		In Person	Albuquerque, NM	
December 9-11, 2025		Virtual		Zoom

To register for one of the above courses, please send an email request to nmss@nnsa.doe.gov with copy to the lead instructor, Mitch Hembree, at mitch.hembree@nnsa.doe.gov. In the email, please provide your name, corporate affiliation, facility, corresponding RIS in NMSS, and telephone and email contact information. Please also include your preferred class date as well as an alternative date in case the preferred date is unavailable.

NMSS Reporting Forms and Software

The **NMSS fillable forms package** enables DOE/NNSA sites and NRC licensees to enter data into electronic forms and output data in XML format. **Fillable PDFs** are available at the NRC website from the URLs provided below. The OMB approved an extension to the expiration date for these forms to September 30, 2027.

Standard PDFs

- [DOE/NRC Form 740M, Concise Note](#)
- [DOE/NRC Form 741, Nuclear Material Transaction Report](#)
- [DOE/NRC Form 742, Material Balance Report](#)
- [DOE/NRC Form 742C, Physical Inventory Listing](#)

NMSS Fillable Forms

Version 5.0	5/8/25	https://nmssresources.com/
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Safeguards Management Software (SAMS)

SAMS is a facility-based version of the NMSS software maintained by DOE and NRC. SAMS enables users to input data and perform quality control edit checks for transactions, material balance reports, and inventories, and includes an updated Authority Reference File. Version 9.0.0.3 is available for download at:

<https://nmssresources.com/>

Please send a request to the NMSS mailbox (NMMSS@nnsa.doe.gov) to receive copies of any NMSS-related documents. Please include your name, organization, and reporting RIS.



Transaction/Inventory Due Dates for DOE Sites

Timely reporting within the following due dates facilitates NMSS monthly closing of process periods.

Reporting Month	Transaction Due	Inventory Due
July 2025	August 12	August 15
August 2025	September 12	September 16
September 2025	October 14	October 16
October 2025	November 12	November 17
November 2025	December 12	December 16
December 2025	January 12	January 15
January 2026	February 13	February 17
February 2026	March 13	March 16
March 2026	April 14	April 15
April 2026	May 14	May 15



2025 Observed Holidays

Labor Day	Monday, September 1, 2025
Columbus Day	Monday, October 13, 2025
Veterans' Day	Tuesday, November 11, 2025
Thanksgiving	Thursday, November 27, 2025
Christmas Day	Thursday, December 25, 2025
New Year's Day	Thursday, January 1, 2026

NMSS Points of Contact for Nuclear Material Reporting

Technical Support and Assistance

Name	Primary Function	Phone	Email Address
Elaine Beacom	Imports and exports	(301) 903-1328	Elaine.Beacom@nnsa.doe.gov
Robert (RL) Carbo	NRC licensees	(301) 903-0092	RL.Carbo@nnsa.doe.gov
Marcos Crabtree	DOE/NNSA sites	(301) 903-6240	Marcos.Crabtree@nnsa.doe.gov
Mitch Hembree*	Training, DOE/NNSA sites	(505) 845-4165	Mitch.Hembree@nnsa.doe.gov
Emily Himmelfarb	NRC licensees	(301) 903-4619	Emily.Himmelfarb@nnsa.doe.gov
Donna Hutchinson	Project numbers	(301) 903-2226	Donna.Hutchinson@nnsa.doe.gov
Eric Monares*	Nuclear cooperation communications	(505) 845-4170	Eric.Monares@nnsa.doe.gov
Brandon Olinger	MC&A data submittal	(301) 903-7970	Brandon.Olinger@nnsa.doe.gov
Genevieve Weaver	NRC licensees	(301) 903-6860	Genevieve.Weaver@nnsa.doe.gov
James Rubenstone	Issues/suggestions	(301) 515-9654	James.Rubenstone@nnsa.doe.gov

* Located at NMSS West, John A. Gordon NNSA Complex in Albuquerque, NM

Program Management and Federal Support Staff Points of Contact

Program Management Points of Contact	Federal Support Points of Contact
 <p>Department of Energy/NNSA Loida Begley Phone: (202) 586-1747 Email: Loida.Begley@nnsa.doe.gov</p>	 <p>Department of Energy/NNSA Alexandra Zeigler Phone: (301) 903-0236 Email: Alexandra.Zeigler@nnsa.doe.gov</p>
 <p>Nuclear Regulatory Commission Mirabelle Shoemaker Phone: (301) 415-7363 Email: Mirabelle.Shoemaker@nrc.gov</p>	 <p>Nuclear Regulatory Commission Santiago Aguilar Email: (301) 415-7918 Email: Santiago.Aguilar@nrc.gov</p>

	NMSS Email: NMSS@nnsa.doe.gov	NMSS Unclassified Fax: (301) 903-1998
	NMSS Website: https://www.energy.gov/nnsa/nuclear-materials-management-and-safeguards-system-nmss	



Mailing Addresses

Unclassified	Overnight Unclassified	Classified <i>(Inner and Outer Envelope)</i>
<p>Genevieve Weaver U.S. Department of Energy 1000 Independence Avenue, SW NA-ESH-12/Germantown Bldg. Washington, DC 20585-1290</p>	<p>Attn: Genevieve Weaver U.S. Department of Energy 19901 Germantown Road, NA-ESH-12 Germantown, MD 20874-1207</p>	<p>Attn: Marcos Crabtree, NA-ESH-12 U.S. Department of Energy P.O. Box A Germantown, MD 20875-0963</p>

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Please provide feedback or suggested topics of interest to:

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