

Accuracy

Performance

Accountability



The Nuclear Materials Management and Safeguards System (NMMSS)

NMMSS

2014

Annual Users Training Meeting

May 12-15, 2014

Denver, Colorado

Preview of DOE and NRC NMMSS Training Courses

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DOE and NRC Training



DOE and NRC Training Courses

Scheduled Training

- Three standard courses
 - NRC NMMSS I (with reconciliation module) - 2.5 days
 - DOE NMMSS I - 3.5 days
 - DOE NMMSS II - 2.5 days
- Usually held at DOE-HQ in Germantown, MD
- Available on-site at user facilities
- DOE courses accredited by DOE National Training Center (NTC)

DOE and NRC Training Courses

Site-Specific Training

- Options for course content
 - Regular NMMSS class tailored to your facility
 - Customized training on specific topics of interest
- Requesting On-Site Training
 - Send request to NMMSS
 - Identify type of training and topic areas
 - Desired dates and expected number of personnel
 - Approved by DOE/NRC federal managers
 - For DOE courses, personnel from other sites invited



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DOE and NRC Training Courses

NMMSS Website

- Reference Materials
 - Who to contact with questions
 - Forms and reporting guides
 - Tables of data entry codes
 - Past presentations

DOE and NRC Training Courses

- Advantages
 - Scheduled Training
 - Comprehensive
 - Well-honed lesson plans
 - Opportunity to interact with and learn from other users
 - Site-Specific Training
 - Tailored to your facility's operation
 - No extraneous material
 - On-line Resources/References
 - Available 24/7
 - Quickly find accurate information

Course Overviews

- **NRC NMMSS I and DOE NMMSS I**
 - Intended for new users
 - Develop an understanding of NMMSS system
 - How to prepare and submit basic data forms
- **NMMSS II - DOE**
 - Intended for experienced users
 - Advanced topics for DOE facilities
 - Data submissions requiring more in-depth knowledge



NRC NMMSS I

NRC NMMSS I

- Designed for individuals with limited experience in nuclear materials reporting
- Based on NRC reporting requirements
 - NUREG/BR-0006, Rev. 7: *Instructions for Completing Nuclear Material Transaction Reports*
 - NUREG/BR-0007, Rev. 6: *Instructions for the Preparation and Distribution of Material Status Reports*
- Topics covered in NRC NMMSS I course
 - Reporting of material transactions
 - Inventory reconciliation for NRC facilities
 - Foreign Obligations reporting
 - Completion and submission of data forms
 - Available NMMSS reports and guidance

DOE and NRC Training Courses

- NRC NMMSS I classes held during past 12 months:
 - Three classes at DOE-HQ in Germantown, MD;
One hosted by Duke Energy
 - Attended by 35 students
 - Broad representation of users
 - **Nuclear utilities:** APS, Cooper Nuclear, Dominion, Duke Energy, PSEG Nuclear, Southern Nuclear, TVA, V.C. Summer
 - **Fuel cycle facilities:** B&W, GE, DAHER-TLI, URENCO
 - **Gov & Contractors:** NRC, NMMSS Staff

DOE and NRC Training Courses

DOE NMMSS I

- DOE National Training Center (NTC) course
 - MCA-112, *Nuclear Material Management and Safeguards System I (NMMSS I)*
 - Part of Nuclear Material Control and Accountability (NMC&A) training intended for DOE federal and contractor personnel with responsibility for nuclear material
- Designed for DOE federal and contractor personnel with fewer than two years experience in the preparation and distribution of nuclear material reports.
- Based on DOE reporting requirements
 - DOE O 474.2, Change 2, 11-19-2012: *Nuclear Material Control and Accountability*
 - *NMMSS Users Guide-Rev. 2.0*, April, 2013
- Satisfactory test score required for credit

DOE and NRC Training Courses

- DOE NMMSS I Objectives
 - Understand governing federal requirements
 - Understand NMMSS and nuclear material accounting and reporting procedures
 - Documentation and reporting
 - Nuclear material transactions and inventories
 - Adjustments to inventories
 - Programmatic transfers within facilities
 - Onsite gains and losses
 - Changes in financial responsibility
 - Reconciliation between NMMSS and a facility's records.
 - Use of NMMSS report products

DOE and NRC Training Courses

DOE NMMSS II

- National Training Center (NTC) course
 - MCA-212, *Nuclear Material Management and Safeguards System II (NMMSS II)*
- Designed for experienced DOE federal and contractor personnel who interact with NMMSS
- Workshop format addressing advanced NMMSS topics
- Based on DOE reporting requirements
 - DOE O 474.2, Change 2, 11-19-2012: *Nuclear Material Control and Accountability*
 - *NMMSS Users Guide-Rev. 2.0*, April, 2013
- DOE NMMSS I (MCA-112) is a prerequisite

DOE and NRC Training Courses

- **NMMSS II Objectives**
 - Facility data-reporting issues, such as
 - Normal Operational Losses/Measured Discards and Accidental Losses (NOL/MD/AL)
 - Dept. of Defense (DOD) and Mutual Defense (91C) transfers
 - Calculating applicability of weight percent ranges
 - Inventory differences
 - Financial implications associated with NMMSS data
 - Audit implications of data supplied to the system
 - DOE reporting requirements
 - The annual reconciliation process
 - Fiscal year project number conversion and monitoring

DOE and NRC Training Courses

- DOE classes held during past 12 months
 - DOE NMMSS I
 - Hosted February 2014 by Sandia National Laboratories (SNL) at the NTC in Albuquerque, NM
 - 12 students from Los Alamos National Laboratory (LANL), New Brunswick Laboratory, SNL, Bechtel Marine, Pantex, and NNSA
 - DOE NMMSS II
 - Hosted June 2013 by Idaho National Laboratory (INL)
 - 13 students from Oak Ridge National Laboratory, INL, LANL, SNL, BWXT, and DOE-EM

NMMSS Training 2014 Schedule

Date	Course	Location
June 10-12, 2014	DOE – NMMSS II	Germantown, MD
July 15-17, 2014	NRC – NMMSS I *	Germantown, MD
September 9-12, 2014	DOE – NMMSS I	Germantown, MD
December 2-4, 2014	NRC – NMMSS I *	Germantown, MD

* The NRC NMMSS I Training includes a module on reconciliation

Training Point of Contact: John Ballard, 301-903-0092, john.ballard@nnsa.doe.gov

NMMSS Training 2015 Schedule

Date	Course	Location
February 10-13, 2015	DOE – NMMSS I	Germantown, MD
March 24-26, 2015	NRC – NMMSS I *	Germantown, MD
June 9-11, 2015	DOE – NMMSS II	Germantown, MD
July 14-16, 2015	NRC – NMMSS I *	Germantown, MD
September 8-11, 2015	DOE – NMMSS I	Germantown, MD
November 3-5, 2015	NRC – NMMSS I *	Germantown, MD

* The NRC NMMSS I Training includes a module on reconciliation

Training Point of Contact: John Ballard, 301-903-0092, john.ballard@nnsa.doe.gov

DOE and NRC Training

- **NRC NMMSS I Class**

- Transaction Exercises

- Shipments/Receipts
- Imports/Exports
- Onsite gains and losses
 - Rounding, production, decay, blending
- Corrections
- Foreign obligations

DOE and NRC Training

- **NRC NMMSS I Class, continued**
 - Inventory Exercise
 - Physical inventory listing for reporting period

 - Material Balance Exercise
 - All gains and losses for reporting period
 - Foreign obligations

 - Reconciliation Module
 - Preparation of material status reports

DOE and NRC Training

■ DOE NMMSS I Class

- Transaction Exercises
 - Shipments/Receipts
 - Tables for owner code changes
 - Imports/Exports
 - One party transactions
 - Rounding, production, decay, blending
 - Corrections
 - Foreign obligations
- Inventory Exercise
- Reconciliation Exercise

DOE and NRC Training

- **DOE NMMSS II Workshop**
 - Transaction Exercises
 - Shipments/Receipts
 - In transit rule
 - Tables for owner code changes
 - Imports/Exports
 - Dept. of Defense (DOD) transfers
 - “Q” Reporting Identification Symbols
 - One party transactions
 - Rounding, production, decay, blending
 - Inventory exercise

DOE and NRC Training

- **DOE NMMSS II Workshop (Continued)**
 - Reconciliation Exercise
 - Students provided with transactions, inventories, and NMMSS reports for the reporting period
 - NMMSS reports are not balanced
 - Students use reports, transactions, and inventory to reconcile
 - » Missing transactions
 - » Transactions in error
 - Students provided with reconciled NMMSS reports
 - Annual project number conversion
 - Project numbers reviewed
 - Retain, delete, or add new

DOE and NRC Training

- Optional afternoon activities on last day of class
 - SAMs demonstrated by instructor
 - Hands on by students
 - Students individually view/discuss NMMSS reports for your site
 - More examples

Registration

- Contact John Ballard to reserve spot in classes
 - John Ballard, 301-903-0092,
 - john.ballard@nnsa.doe.gov
- Also register with the NTC for DOE NMMSS classes

Ideas for Future Workshops or Training Sessions

- Possible Future Workshops or Training Sessions
 - Foreign Obligations
 - Reporting for IAEA Selected Facilities
 - SAMS/Fillable Forms
 - Tailored courses/workshops for fuel cycle facilities or Reactors
- Feedback/Interest?