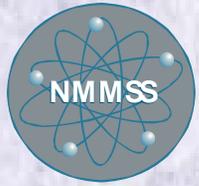


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Unified Reporting Instructions for NMMSS

Garland Proco

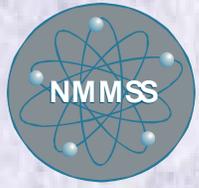
May 24, 2005



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Task Team Established

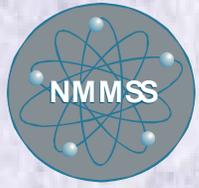
- Task team established in March 2005 reporting to Peter Dessaules
- Team composition:
 - Garland Proco, team leader
 - Brian Horn, NRC
 - Debarah Smith, SO-10.1
 - NAC members: Dan Collier, Ron Bonifay and Tina Barnett
 - Obed Cramer of DOE/SR



Purpose of Task

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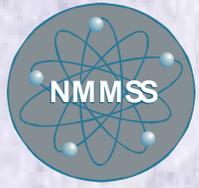
- Propose reductions in NMMSS reporting requirements consistent with today's program needs
- Propose changes to achieve similarity to NRC instructions recognizing that some DOE/NNSA activities are uniquely different from those of the NRC



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Scope of Task

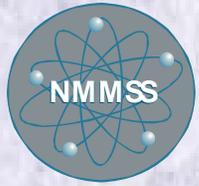
- Reporting done by DOE/NNSA facilities that possess nuclear material
- Reporting done by NRC and Agreement State licensees that possess DOE-owned nuclear material



Process Steps

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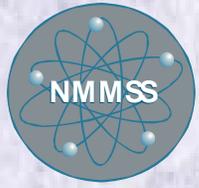
- Review current instructions, DOE vs. NRC, and identify differences
 - Prepare justification for any changes to and deletions of existing requirements
 - Prepare justification for retention of any requirements that exceed NRC coverage
 - Identify differences that require further study
- Process changes through SO-10.1



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Schedule

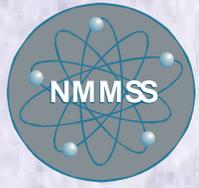
- Task team provides its recommendations to SO-20.3 by September 2005
- SO-20.3 issues draft recommendations for program review by December 2005
- The comment period will last until September 2006
- Final recommendations will be developed by January 2007
- Implementation by April 2008



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Team Results

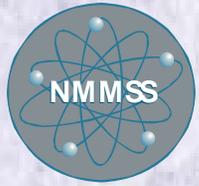
- The team has identified a number of areas for reduction, elimination or further study. The slides that follow identify the more significant areas and the present thinking of the team. It is likely that –
 - More areas will be identified for action
 - Some of the areas identified here will be modified by feedback provided by user or facility representatives
- Feedback from this audience is requested



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Reportable Materials, DOE vs NRC

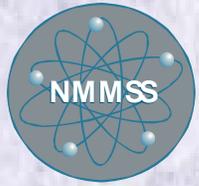
- These materials are reported by DOE but not by NRC:
 - Am-241
 - Am-243
 - Berkelium
 - Californium
 - Curium
 - Deuterium
 - Enriched Lithium
 - Np-237
 - Pu-242
 - Tritium



Reportable Materials, DOE vs NRC (cont'd)

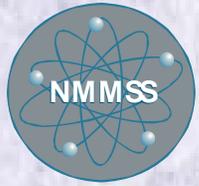
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- Team recommendation:
 - The following materials should be discontinued from NMMSS reporting because they are not of a materials management or safeguards interest
 - Berkelium
 - Californium
 - Curium
 - The remaining of the ten material types should be reviewed further to determine whether retention is justified and the results developed for the next general revision of the NMMSS instructions



MT Codes for Inventory Reporting

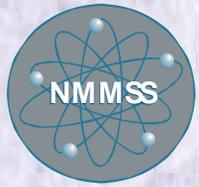
- Codes for identifying the types of material for inventory reporting are numerous because of the desire to show assay ranges for six types of material; these materials have multiple assay ranges:
 - Depleted U: 8
 - Enriched U: 19
 - Pu-242: 2
 - Plutonium: 7
 - Lithium: 3
 - U-233: 4
- The NRC requires multiple codes only for enriched uranium where there are four codes



MT Codes for Inventory Reporting (cont'd)

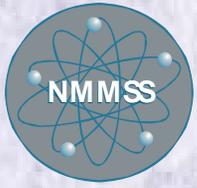
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- Team recommendation:
 - Adopt the NRC assay range design for enriched uranium
 - Discontinue assay range reporting for other materials; weight percent will be considered for the six materials



NOLs, Measured Discards and Accidental Losses, 4 Character Codes

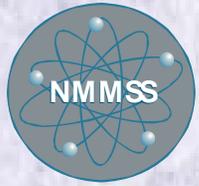
- The following codes may be used currently but the NRC does not permit use of I or R:
 - A – Discharges to the Atmosphere
 - G – Discharges to ground water or stream
 - H – Waste holding
 - I – Discharge to runoff
 - L – Recoverable waste in pond, tank, lagoon
 - R – Consumed in use
- Team recommendation:
 - Adopt the NRC code usage



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Inventory Difference Explanation Data

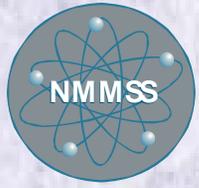
- Currently inventory differences on SNM require explanation data: the NRC has no similar requirement
- Team recommendation: Remove the requirement



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INMITS

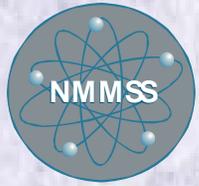
- The International Nuclear Material Tracking System (INMITS) was established in the late 1970s as a NMMSS subsystem; reporting procedures were maintained by the OR DOE office based on DOE-HQ design
- The INMITS was established primarily to cover nuclear material exports by the US government to foreign governments; shipper's export declaration numbers were used in lieu of export licenses in some cases
- The INMITS procedures provide a mechanism for tracking retransfers of exported material by processing retransfer data submitted by foreign entities to the US government



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INMTS (cont'd)

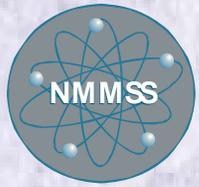
- Team recommendations:
 - Determine from NA-24 what elements of INMTS are still required
 - Incorporate the necessary elements of INMTS into the NMMSS instructions



Transfers of Source Material

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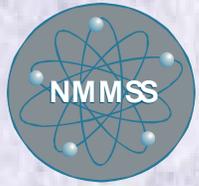
- Currently
 - The DOE instructions require the transfer of normal uranium, depleted uranium and thorium in the amount of one kilogram or more to be reported on a 741
 - The NRC requirement pertains only to transfers affected by the US/IAEA agreement or if required for obligations accounting
- Team recommendation: Adopt the NRC procedure



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Submission Dates on Transaction Reporting

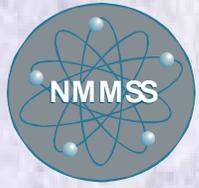
- Transactions related to closure
 - Monthly closure: submission of transactions related to closure must be submitted within 8 working days following the end of the inventory month
 - The NRC requirement for submitting such NM change data is the same time as inventory reporting which, for most licensees, is within 60 days of the inventory date
- Transaction reporting a receipt from a foreign shipper
 - Within 3 days of receipt
 - The NRC requirement is within 10 days of receipt
- Team recommendations:
 - Retain the 8th workday deadline
 - Adopt the NRC requirement to report a foreign receipt within 10 days of receipt



Distribution of 741s

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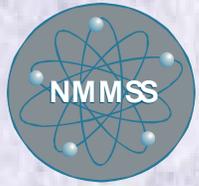
- Primary distribution
 - Distribute to the other party, to NMMSS and to the field element if desired
 - NRC requires distribution to the other party and to NMMSS
- Secondary distribution
 - Copies to OR and SR required on loan/lease transfers
 - Detailed distribution instructions for NMMSS on transactions involving foreign entities



Distribution of 741s

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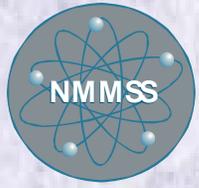
- Team recommendations
 - Discontinue distribution to OR and SR on loan/lease transfers
 - Delete secondary distribution instructions on foreign transfers since the instructions pertain to NMMSS staff only and detailed internal procedures cover 741 distribution



Variable Tails Assay Option Code

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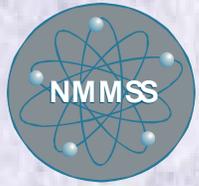
- Currently this data is not captured by the NMMSS and reporting of it by USEC is not required by the NRC
- Team recommendation: Discontinue the requirement in the DOE instructions



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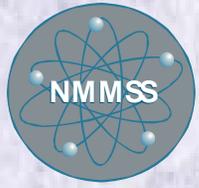
Project Numbers

- Too many transaction errors are created under the existing project number structure
- Project number design will be reviewed for simplification
- Team recommendation: The new structure should be developed for the next general revision of NMMSS instructions



Nature of Transaction (TI) Code

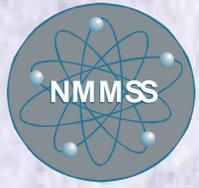
- There are 9 TI codes
 - A – Initiates loan/lease
 - B – Transfers loan/lease
 - C – Transfer of leased/loaned material with no change in loan/lease responsibility
 - D – Return of leased/loaned material to DOE/NNSA for credit
 - E – Sale for DOE/NNSA
 - F – Pursuant to an enriching service agreement
 - G – Sale to DOE/NNSA
 - R – Transfer from Government to private inventory other than by sale or enriching service
 - S – Transfer from private to Government inventory other than by sale or enriching service agreement
- A plan is in the works to eliminate these codes and have a code that says “change in ownership.”
- Team recommendation: The change should be incorporated in the next general revision of NMMSS reporting instructions



For and To Accounts

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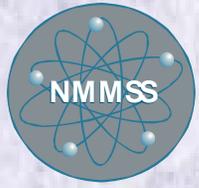
- This information on blocks 12 and 13 of the 741 identifies facilities in addition to the shipper and receiver that the transfer affects; there is no counterpart in NRC instructions
- The need for this information is under study
- Team recommendation: No action will be recommended until the need for the information has been determined



Type of Inventory Change

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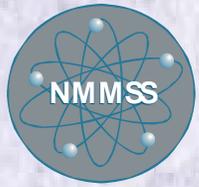
- There are 12 inventory change codes used on “other receipts” and 20 codes used on “other removals”; the NRC has many of the same but some are unique to DOE or NRC
- A study has been initiated to determine whether the number should be reduced, e.g., approved write-offs, rounding bias, etc.
- Team recommendation: Revised tables should be developed for the next general revision of NMMSS instructions



Composition/Facility Code

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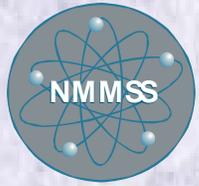
- The code table is outdated and will be revised to reflect current compositions or forms; the composition codes do not reflect current facility operations and needs of program managers
- Team recommendation: Revised code table should be developed for the next general revision of NMMSS instructions



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Defense Transfers

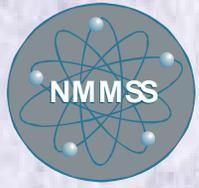
- Transaction and Material Balance reporting include special instructions for reporting on transfers to and from the Department of Defense
- Instructions also require mutual defense transfers involving the UK to be identified in 741 data
 - Transfer activities remain unchanged
 - Team recommendation: No change



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MBR Reporting

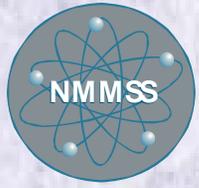
- Currently, the only DOE/NNSA facilities submitting MBRs to the NMMSS are IAEA selected facilities; other facilities receive a NMMSS generated MBR
- NRC licensee facilities, other than Category I facilities, submit an MBR once per year; Category I facilities report semiannually
- Team recommendation:
 - Official submission of DOE MBRs to NMMSS as of each September 30
 - Due date would be October 15



Radioactive Decay Reporting

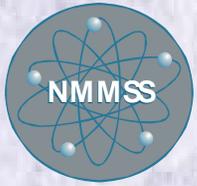
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- Reporting of decay is required quarterly; NRC requires that decay be reported for the period covered by the MBR
- Team recommendation: Report decay no less frequently than annually concurrent with MBR submission



Material Type Code Reporting on the MBR

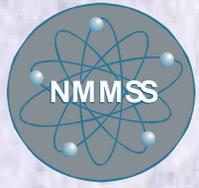
- Generic codes are used regardless of assay range, e.g., MT 20 for enriched uranium; NRC licensees use codes E1, E2, E3 and E4 when reporting enriched uranium by the four assay ranges
- Team recommendation: MBR reporting of enriched uranium will be for MT 20 only – no assay range breakdown



MBR Line 22, From Other Materials

MBR Line 71, Degradation to Other Materials

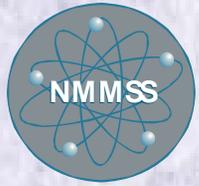
-
- Numeric codes are used except when reporting to the IAEA in which case alpha codes will be used; NRC requires IAEA type alpha codes
 - Team recommendation: Study the use of alpha codes and revise the code table as appropriate for the next general revision of NMMSS instructions



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Inventory Reporting of Source Material

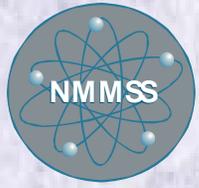
- Reporting is required for amounts of 1 kilogram or more: NRC requires an annual PIL from facilities under IAEA safeguards
- Team recommendation: Eliminate reporting of source material inventories except for facilities under IAEA safeguards



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Inventory Reporting Frequency

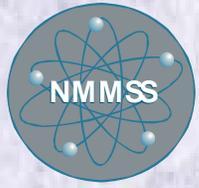
- At least quarterly submission is required; NRC requires semiannual reporting if a Category I facility, annually for other licensees required to submit an inventory report
- Due date no later than 15th calendar day following the end of the inventory period; NRC requirement is 30 days after the close of the period for Category I facilities and 60 days after closure for other licensees required to submit inventory data
- Team recommendation: Frequency to be determined but leaning toward annual reporting requirement; more frequent reporting is permissible; the due date would remain the same



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Inventory Profiles

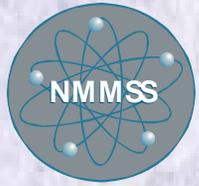
- Inventory profiles are required; profiles are not required by the NRC
- Team recommendation: Eliminate inventory profiles



Topics Covered Later

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- Tina Barnett will cover –
 - RIS restructuring
 - Periodic reconciliation changes



Forward Comments, Questions, Suggestions

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input to:

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