

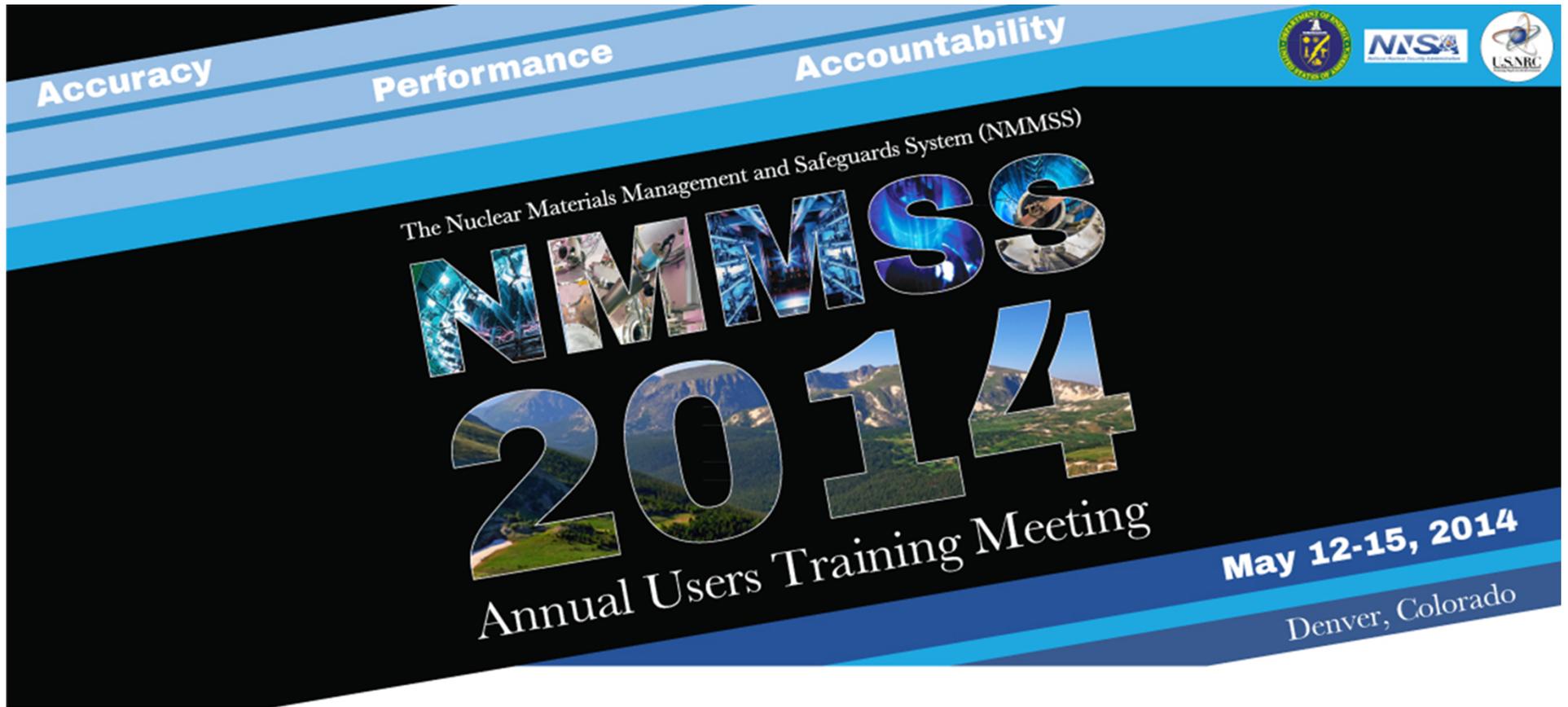
Accuracy Performance Accountability

The Nuclear Materials Management and Safeguards System (NMMSS)

NMMSS
2014

Annual Users Training Meeting

May 12-15, 2014
Denver, Colorado

The banner features a blue and black color scheme. At the top, three light blue diagonal bands contain the words 'Accuracy', 'Performance', and 'Accountability'. Below these, the text 'The Nuclear Materials Management and Safeguards System (NMMSS)' is written in white. The main title 'NMMSS 2014' is rendered in large, 3D-style letters filled with images of nuclear reactors and landscapes. Below the title, 'Annual Users Training Meeting' is written in white. At the bottom right, the dates 'May 12-15, 2014' and location 'Denver, Colorado' are displayed in white on a dark blue background. Logos for the Department of Energy, NNSA, and USARC are in the top right corner.

NMMSS Experience and Lessons Learned Associated with Transit Matching

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IAEA Reporting and Transit Matching

- IAEA data processing
 - Each Inventory Change Report is loaded into the database
 - The IAEA's system attempts to match shipper/receiver data
 - Unmatched data is manually reviewed
 - The IAEA provides the US with a listing of unmatched data
- Transit Matching
 - Performed on inventory changes which indicate increases, decreases or adjustments to nuclear material balances

Transit Matching Impact

- Open items are reviewed and reported
- Resolution is critical to satisfying US obligations
- Status reports are issued by the IAEA, sent to the US Mission, forwarded to the US government

Quarterly Reports

- How is the US measured?
 - Quarterly Reports
 - Import Communication
 - Shipments reported by other member countries – unable to match to US receipt
 - Receipts reported by the US – unable to match foreign shipment

Semi-Annual Reports

– Semi-Annual Statements

- Timeliness Report
- Statement of Transit Matching
 - Import Communication
- Listing of Shipments & Receipts
 - Foreign shipments reported by US – unable to match receipt
 - Domestic shipments reported by US – unable to match receipt
 - Domestic receipts reported by US – unable to match shipment
 - Foreign receipts reported by – unable to match to US shipment
- Transit Matching National Authority List
- Facility Listing

Semi-Annual Report 2014-03-31

- Import Communication
 - Shipments reported by other member countries – unable to match to US receipt
 - 55 open records
 - Receipts reported by the US – unable to match foreign shipment
 - 108 open records

Semi-Annual Report 2014-03-31

- Listing of Shipments & Receipts
 - Foreign shipments reported by US – unable to match receipt
 - 14 open records
 - Domestic shipments / receipts reported by US – unable to match
 - 137 open records
 - Foreign receipts reported by – unable to match to US shipment
 - 604 open records

Transit Matching Activities

- Review IAEA Reports
 - Look for new items / already resolved items
 - Look at newer activity first
 - Look at Plutonium, Enriched Uranium, Thorium, Depleted Uranium, Natural Uranium
 - Look at larger quantities of material first

Transit Matching Activities

- Review NMMSS
 - Look at TJ-23, TJ-45, IAEA Reports, search database
 - Batch name
 - Type of nuclear material
 - Country from / Country to
 - Date of shipment
- Support provided by NRC and DOE
- Report findings to IAEA

Semi-Annual Report 2014-03-31 Status

- Import Communication
 - Shipments reported by other member countries – unable to match to US receipt
 - 41 matched to NMMSS records
 - Receipts reported by the US – unable to match foreign shipment
 - 108 open records confirmed by NMMSS

Semi-Annual Report 2014-03-31 Status

- Listing of Shipments & Receipts
 - Foreign shipments reported by US – unable to match receipt
 - 14 open records confirmed by NMMSS
 - Domestic shipments / receipts reported by US – unable to match
 - 137 matched to NMMSS records
 - Foreign receipts reported by – unable to match to US shipment
 - 585 matched to NMMSS records

Transit Matching Summary

- Exports
 - Matched 599 of 618 (97%)
- Imports
 - Matched 149 of 163 (91%)
- Domestic
 - Matched 137 of 137 (100%)
- Total
 - Matched 885 of 918 (96%)

Unmatched Imports

Import Date	Report Date	S/R	Report / Line		IAEA Shipper RIS	Material Type	BatchID
20130516	20140201	S	602	31	CN-H	N	8935
20131114	20140201	S	611	17	CN-H	N	9097
20131115	20140201	S	611	18	CN-H	N	9098
20130516	20140201	S	124	102	CNFN	N	57523
20080327	20140201	S	524	30	CN-H	N	7809
20090422	20140201	S	539	29	CN-H	N	8011
20091118	20140201	S	550	26	CN-H	N	8109
20100414	20140201	S	555	16	CN-H	N	8186
20110818	20140201	S	576	19	CN-H	N	8402
20111220	20140201	S	581	22	CN-H	N	8503
20120524	20140201	S	586	23	CN-H	N	8587
20120724	20140201	S	588	25	CN-H	N	8635
20121128	20140201	S	596	40	CN-H	N	8758
20131001	20140201	S	880	11	WAMB	T	C23_C24_C25_C26

Unmatched Exports

Export Date	Report Date	S/R	Report / Line		IAEA Shipper RIS	Material Type	BatchID	IAEA Rcv
Australia								
20090123	20140201	R	530	12	U	P	N407	AS-C
United Kingdom								
20030901	20140201	R	2817	19	U	E	21039012	QCA5
20030901	20140201	R	2817	58	U	E	21039001	QCA5
20030901	20140201	R	2817	61	U	E	21039/04	QCA5
20030901	20140201	R	2817	64	U	E	21039/15	QCA5
20030901	20140201	R	2817	67	U	E	21039/07	QCA5
20030901	20140201	R	2817	70	U	E	21039/16	QCA5
20030901	20140201	R	2817	73	U	E	21039/19	QCA5
20030901	20140201	R	2817	76	U	E	21039/50	QCA5

Unmatched Exports

Export Date	Report Date	S/R	Report / Line	IAEA Shipper RIS		Material Type	BatchID	IAEA Receiver RIS
20130805	20140201	R	1772 58	U		N	C1K545	TW-D
20080626	20140201	R	1851 1499	U		N	88961	WUR1
20080626	20140201	R	1851 1515	U		N	89312	WUR1
20090218	20140201	R	1883 582	U		N	88916	WUR1
20090218	20140201	R	1883 584	U		N	88969	WUR1
20090218	20140201	R	1883 586	U		N	88990	WUR1
20090218	20140201	R	1883 588	U		N	89020	WUR1
20090608	20140201	R	1900 134	U		N	UNL 1212	WUR1
Other (Not Known)								
20080815	20140201	R	95 1	U		D	680/B324	WDKE
20070227	20140201	R	681 1	U		D	NL0074CA	WWWW

Known Issues

- Common matching issues
 - Shipper batch name differs from receiver batch name
 - Shipper sends a UF6 cylinder plus a sample bottle and the US receiver is two locations (lab and fuel facility)
 - Shipper batch name is a spent fuel container and receiver batch name is twenty fuel assemblies in the container
 - Shipper reports depleted uranium shipping container and US regulations do not require reporting

Transit Matching Path forward

- Continue to report in a timely and accurate manner
 - Transit Matching is highly visible
 - The impact of unmatched records goes well beyond the NMMSS Community
- Utilize Concise Note if unable to use Shipper's batchid
- Provide support in resolving any unmatched items