

SUBJECT:	Fermilab Assessment Manual	NUMBER:	3902
RESPONSIBILITY:	Quality Assurance Manager	REVISION:	000 B2
APPROVED BY:	Head, Office of Quality and Best Practices	EFFECTIVE:	

FERMILAB INDEPENDENT ASSESSMENT REPORT

Fermilab Independent Assessment Report	
Assessment Number & Title:	10-IA-QA-002 Nuclear Materials Management
Version:	002
Date(s) of Assessment:	01/11/2010-01/27/2010
Performing Organization:	OQBP
Assessed Organization(s):	ES&H Radiation Protection Group/Nuclear Material Management
Report content	
<p>This report contains the following sections:</p> <ul style="list-style-type: none"> • Assessment activities & scope • Scope limitations • Activities assessed with brief description of routine tasks • Description of the implementation & effectiveness of practices assessed • Conclusions • Findings, observations, & recommendations 	
Assessment activities & scope:	
<p>Implementation & effectiveness of controls for Nuclear Material (NM) management activities were examined via interview and document review. Nuclear Material management activities were considered from receipt of an internal or external transfer request by the Nuclear Material Representative (NMR), update and generation of all of the relevant documents, records, and reports as well as all of the program management activities involved. Nuclear Material activities that are performed within the ES&H Section, Radiation Protection Group, to comply with Fermilab's Integrated Quality Assurance (IQA) were observed and a flowchart of these activities was completed ("File 01").</p>	
Scope limitations:	
<p>Activities involving the preparation and approval of internal and external transfer requisitions inside or outside of Fermilab were not considered within the scope of this assessment because these activities are completed before NMM processing begins.</p>	
Activities assessed with brief description of routine tasks:	
<ul style="list-style-type: none"> • <u>Request received from originating organization</u> • <u>Approvals are verified.</u> • <u>Initiate paper work required for onsite transfer of NM</u> • <u>Update on site logs</u> • <u>Determine whether it is an internal or external transfer</u> <ul style="list-style-type: none"> ○ <u>For external transfer</u> <ul style="list-style-type: none"> ▪ <u>Generate approval notification</u> ▪ <u>Complete RP form NRC/DOE 741</u> 	

SUBJECT:	Fermilab Assessment Manual	NUMBER:	3902
RESPONSIBILITY:	Quality Assurance Manager	REVISION:	000 B2
APPROVED BY:	Head, Office of Quality and Best Practices	EFFECTIVE:	

- Create a transaction file
 - For internal transfer
 - Complete RP form #57
- Adjust the NM inventory database
- Using NM inventory database generate the DOE reports :
 - Update nuclear materials inventory database when transaction or transfer occurs and in preparation of nuclear materials physical inventory. Create list sorted by FNAL number and by location.
 - Nuclear Material Balance Reports,
 - Annual Nuclear Materials Inventory Assessment Report(NMIA),
 - Nuclear Materials Physical Inventory and NM Physical inventory report for CYXXX,
 - Nuclear Material Allotment Forecast Report,
 - Site Nuclear Materials Management Plan (NMMP) for CYXXX,
 - Forecast of Nuclear Materials Requirements Report for FYXXXX,
 - Review of Inventory Adjustments Report for FYXXXX,
 - Site Nuclear Material-Specific Management Plan (As Required),
 - Nuclear Materials Program Biennial Self Assessment
- Update and monitoring of the Program Management activities:
 - NM activity totals by Facility Cross-Referenced to DOE STD 1027-92. (Check Expiration Dates on Special Form Certificate and update as needed).
 - FYXXXX Safeguards & Security Self Assessment,
 - Revise Fermilab Nuclear Materials Control & Accountability (NMC&A) Program Document (FNAL NMC&A-2),
 - Revise Safeguards Management Software (SAMS) Data Entry Procedure (FNAL NMC&A-5),
 - Revise NMC&A Training Approval Program (TAP) Self-evaluation Matrix (FNAL NMC&A-4),
 - Revise NMC&A Training Needs Assessment and Task Analysis (FNAL NMC&A-3),
 - Revise Fermilab NMC&A Implementation Plan (FNAL NMC&A-1)
 - Revise NMIA Site-Specific Instructions for Tables Procedure (NMC&A-6)

Description of implementation & effectiveness of practices assessed:

Assessments:

Formal annual and biennial assessments are performed by management and the internal independent groups. Cover pages for three of these reports are included as The Annual Nuclear materials Inventory Assessment Report (NMIA) (“File 02”), the FY2008 Safeguards & Security Self Assessment (“File 03”) and “NMC&A Program Tabletop Self-Assessment Report dated January 4, 2008(“File 4”) as evidence of these assessments.

Documents & Records:

Evidence of compliance to IQA document and record controls was observed. Program documents are generated and maintained with revisions tracked in DocDB, as seen in attachments “File 05” and “File 06”. These documents show release dates, revision numbers, dates, and revision histories that are used for document control. The NMM Team was not aware of required records management practices as defined in Fermilab Records Management Program and therefore practices of records retention and disposal based on this policy was not present.

SUBJECT:	Fermilab Assessment Manual	NUMBER:	3902
RESPONSIBILITY:	Quality Assurance Manager	REVISION:	000 B2
APPROVED BY:	Head, Office of Quality and Best Practices	EFFECTIVE:	

Quality Improvement:

The NMM team exerts a consistent and conscious effort to implement quality driven processes and improve the current processes and their efficiency and effectiveness. Two examples of these efforts are; NM inventories being cross checked and signed by ES&H Radiation Protection group leader (“File 07”) and use of peer review and feedback by the NM Representative (NMR) to continuously improve her work and minimize error rate and execution time. These activities are done on a regular basis with database managers and users of other sections. Regular peer reviews are also held with the NM Representative and the NMR alternates to improve on database information formats (“File 08”).

Training & Qualification:

Training and qualification requirements as defined by ITNA questionnaires were met for the NM representative and Alternate Representative (“File 09”). A job description for NM Representative is attached as “File 10”. In addition, records and requirements for external training were up to date and well documented (“File 11”) and a well documented approach to on-the-job training was observed (“File 12”).

Work Processes:

There are documented policies and procedures defining the Nuclear Material Management Team work activities. Specific work processes are clearly defined (“File 13”). These work processes are conducted according to the flow diagram included as attachment (“File 1”).

A back up/ alternate person is well-trained and her permission to access Nuclear Material databases and systems are enabled. Since access to the DOE databases is controlled through the primary NMR account, a sealed envelope which is secured and contains the primary NMR password so that login to the database is available to the NMR Alternate.

Conclusions:

Nuclear Material Management Team operations function well due to exceptionally well-documented procedures and processes, high performance of quality driven activities, regular assessments, intense and up-to-date training programs, and the experience and diligence of the NMR. The ES&H Radiation Protection Group can improve their record management and disposal practices by receiving training and implementing the Fermilab records management policies and procedures.

Findings:

The Integrated Quality Assurance manual (IQA), Chapter 4 “Document & Records” , section 4.4, “Records Management” states that “ Fermilab’s policies and procedures for a centralized records management system are maintained by Records Management and are described in more detail in the Records Management Policy and Procedures”. The requirement for records stated in Records Management and Policies and Procedures document are not being followed by ES&H Radiation Protection Group.

Observations:

1. There were two observations of documentation without revision control.
2. There were two observations of forms which were signed but the names were not printed. Since this makes it unclear if the documents are signed by an authorized person, it was suggested to have the name printed under the signature.

SUBJECT:	Fermilab Assessment Manual	NUMBER:	3902
RESPONSIBILITY:	Quality Assurance Manager	REVISION:	000 B2
APPROVED BY:	Head, Office of Quality and Best Practices	EFFECTIVE:	

Recommendations:

1. Radiation Protection Group should consider reviewing all documentation with missing revision data and whenever possible, adding the revision information.
2. The printed names should be added to the forms under the signature to confirm that only the authorized persons have approved.

Titles and Names of Person Interviewed:

NMR Kathy Graden
NMR Alternate Susan McGimpsey

Documents Reviewed:

File 1 Nuclear Material Management Process Flow
File 2 The Annual Nuclear materials Inventory Assessment Report (NMIA)
File 3 FY2008 Safeguards and Security Self
File 4 10 NMC&A Program Tabletop Self-Assessment Report January 4,2008
File 5 Fermilab Nuclear Materials Control &Accountability, Implementation Plan (FNAL NMC&A-1)
File 6 Fermilab Nuclear Materials Control &Accountability, Program Document (FNAL NMC&A-2)
File 7 Fermilab MBRS(Material Balance Report) Sept 2009
File 8 Peer Review Database Improvements
File 9 Assessment Individual Training History for NMR
File 10 WDRS Job Description
File 11 Nuclear Material Training Record
File 12 Nuclear Material Control and Accountability Program on the Job Training Validation
File 13 Fermilab Nuclear Materials Program Reports and Tasks

Fermilab Radiological Control Organizational Chart
Fermilab Radiological Work Permit
Management of Nuclear Materials, DOE O 410.2
U.S. Department of Energy, Order 470.4A, Safeguards and Security Program
U.S. Department of Energy, Office of Science, Safeguards and Security Survey of Fermi National Accelerator Lab March, 2009
FESHM 4010 - FESHM 4010 ES&H Training

Standards, Regulations, and Other Program Requirements Applied:

The specific criteria applied to this assessment were:
Fermilab Integrated Quality Assurance (IQA), Document 1001
Chapter 2 - Training & Qualification
Chapter 3 - Quality Improvement
Chapter 4 - Documents & Records
Chapter 5 - Work Processes
Chapter 9 - Assessments
Fermilab Records Management Program

