



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
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March 13, 2017

MEMORANDUM TO: John B. Giessner, Director  
Division of Nuclear Materials Safety

FROM: James L. Lynch */RA/*  
State Agreements Officer  
Division of Nuclear Materials Safety

SUBJECT: 2017 MINI-IMPEP SELF ASSESSMENT

The purpose of this self-assessment was to evaluate the status of the Division's licensing, inspection, incident and allegation response, and training programs, in preparation for the next Region III Integrated Materials Performance Evaluation Program (IMPEP) review.

The IMPEP review is scheduled for July 17-21, 2017, extended by one year in light of favorable past review findings.

The self-assessment was performed by the Regional State Agreements Officer, Jim Lynch, Health Physicists, Jenni Bishop and Ryan Craffey, and Reactor Engineer, Matt Learn.

Overall, the team confirmed that the Division is on course for fully satisfactory findings during the next IMPEP review. The team made two suggestions to the Materials Branches to enhance the program. These suggestions were discussed with and accepted by the respective Branch Chiefs.

The self-assessment results were discussed with you on March 9, 2017. The self-assessment report summarizing the results of the review and the self-assessment plan developed for the review are attached.

Any questions concerning this self-assessment may be directed to any of the team members.

Enclosures:

1. 2017 Mini-IMPEP self-assessment report
2. 2017 Mini-IMPEP self-assessment plan

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Memo to John Giessner from James Lynch dated March 13, 2017

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## **2017 Mini-IMPEP Self-Assessment Report**

### **Scope and Summary**

The Division of Nuclear Materials Safety (the Division) conducted a self-assessment from January 25 through March 10, 2017, to evaluate the status of the Division's licensing, inspection, incident and allegation response, and training programs. The assessment included a review of documentation associated with 16 inspections, 16 licensing actions, 10 incident responses and 6 allegation responses completed by the Division's technical staff between September 2012 and March 2017.

The self-assessment focused on the quality and timeliness of the technical work. Inspection findings had a sound regulatory basis and resulted in appropriate regulatory actions. Licensing actions were reviewed in accordance with the applicable guidance documents in effect at the time of the action. Both licensing and inspection activities were accomplished in a timely manner and sensitive documents were appropriately categorized and marked when necessary. Technical issues were identified and correctly dispositioned. Incident and allegation responses were thorough, comprehensive and timely. Staff training was up-to-date and received appropriate management support.

As a result of the review, the team made two suggestions to the Division for improvement of the materials program:

1. The team suggests that the Division consider the updating of the NMED records to ensure that all records are "complete" as defined by the NRC contractor.
2. The team suggests that refresher training logs for each employee be maintained by supervisors to prove that the required number of hours is met.

Overall, the team confirmed that the Division is on course for fully satisfactory findings during the next Integrated Materials Performance Evaluation Program (IMPEP) review. The suggestions noted above were made to enhance the materials program.

### **Inspection**

The Division performed approximately 670 priority 1, 2, or 3 routine inspections, and 90 initial inspections during the review period. Less than one percent of these inspections were conducted overdue. One priority 2 routine inspection and five initial inspections were conducted overdue. Four of the overdue initial inspections were attributed a past practice of considering only the month that inspections were due (but not the date), a legacy of limitations in the original LTS. These inspections were completed no later than 19 days past the actual due date. The Division no longer tracks inspection due dates solely by month. A review of OMI data indicated that only three of the inspection findings were communicated to the licensees beyond the Division's goal of 30 days after the inspection exit. None of these late findings were from the abovementioned overdue inspections.

The team evaluated the inspection reports and enforcement documentation for 16 materials inspections conducted during the review period. The casework reviewed included inspections conducted by 14 inspectors and covered medical, industrial, commercial, research, and military licenses. Based on the evaluation of casework, the team determined that inspections covered all aspects of the licensees' radiation safety and security programs. The team noted that the

inspections covered the 10 CFR Part 37 and National Source Tracking System requirements when appropriate. The team found that inspection reports were complete and of high quality with sufficient documentation to demonstrate that the licensees' performances with respect to health, safety, and security were acceptable. Inspection report documentation supported violations and other findings.

DNMS performed at least one supervisory accompaniment per fiscal year for each of the 16 inspectors who worked for the Materials Inspection Branch at some point during the review period.

The team also evaluated the Division's reciprocity program. The team determined that the Division met or exceeded the requirements in Inspection Manual Chapter (IMC) 1220, "Processing of NRC Form 241 and Inspection of Agreement State Licensees Operating Under 10 CFR 150.20," to inspect 20 percent of candidate licensees operating under reciprocity annually.

DNMS performs semi-annual reviews of inspection entry data in WBL for all licensees to help ensure that all routine and initial inspections are appropriately scheduled and characterized. These reviews have identified discrepancies which could have resulted in several overdue inspections if left uncorrected. Region III allegations and enforcement specialists perform quarterly reviews of all Severity Level IV violations issued by DNMS to help ensure that all such violations are well-founded and properly documented.

## **Licensing**

The team examined licensing casework for 16 specific licenses completed by 12 license reviewers. Licensing actions were reviewed for completeness, consistency, proper radioisotopes and quantities, adherence to good health physics practices, financial assurance, appropriateness of the license conditions, and overall technical quality. The ADAMS files were also reviewed for timeliness, use of appropriate deficiency letters and cover letters, reference to appropriate regulations, supporting documentation, consideration of enforcement history, pre-licensing visits, and proper signatures. The files were checked for easy access of necessary documents and supporting data.

The licensing casework was selected to provide a representative sample of licensing actions that were completed during the review period. The cross-section sampling included one new license, four amendments, four renewals, one notification and six terminations during the review period. The casework covered a wide variety of license types, including medical, industrial, research and development. The licenses reviewed included all of the license reviewers during the time period.

Overall, the team found that the licensing actions were thorough, complete, consistent, and of high quality with health and safety issues properly addressed. The team found minor issues with one of the licenses reviewed. It had several typographical and formatting errors which will require a corrected copy to be issued. License tie-down conditions were stated clearly. Pre-licensing site visits were conducted as required by current NRC policy. Financial assurance was adequate for those licenses requiring it. Sensitive Unclassified Non-Safeguards Information (SUNSI) markings were appropriately used in accordance with current NRC policy. The licensee's compliance history was taken into account when reviewing renewal applications.

The review of termination actions revealed well documented actions, showing appropriate transfer records or appropriate disposal methods and records, confirmatory surveys, and survey records. The Division uses a decommissioning checklist to ensure that all decommissioning licensing actions are performed in accordance with NUREG-1757. The Division performs a self-assessment of a sample of decommissioning licensing actions on a yearly basis to ensure the decommissioning process is appropriately followed and documented.

DNMS also performs semi-annual reviews of a sample of licenses issued during that time period, including a 100% review of all new licenses issued. These reviews have helped identify discrepancies and issues with the licenses, and allowed for those issues to be corrected in a timely manner.

### **Incidents and Allegations**

As part of the self-assessment, the team reviewed 10 events listed in NMED to evaluate the Division's performance on following up on events and the follow-up documentation in NMED. The team found that the Division's responses to incidents were complete and comprehensive. Initial responses were prompt and well-coordinated, and the level of effort was commensurate with the health and safety significance of the incident. The Division dispatched inspectors for onsite evaluations in a majority of the cases reviewed and took suitable enforcement and followup actions.

Of approximately 120 reportable events in NMED, approximately 40 were not identified as "complete" which indicates that some event-related information is missing from the narrative. The NMED contractor labeled 25 of the 40 events as "Information Request Pending" which indicates that the Region was asked for additional information to complete the record. Of the remaining 15 events, 10 were still under review by the Division, and 5 were not labeled, despite missing some event-related information. It is fair to say that the contractor (at NRC's insistence) often requests information that is not particularly relevant to the incident, in order to have complete records. For example, the source serial number for a damaged gauge incident. Nonetheless, the team believes that the IMPEP team will consider a recommendation to update the NMED records to include all requested information.

The team determined that the Division's performance should meet the "satisfactory" level for an IMPEP review; however, the team did note the following issue that could be improved to enhance overall performance:

- As stated above, the Division should consider the updating of the NMED records to ensure that all records are "complete" as defined by the NRC contractor.

In evaluating the effectiveness of the Division's response to allegations, the team evaluated the casework for 6 allegations of the 41 received during the review period. The team concluded that the Division, in conjunction with Enforcement and Investigation Coordination Service (EICS), consistently took prompt and appropriate action in response to concerns raised. The team noted that the Division thoroughly documented its follow-up activities and retained all necessary documentation to appropriately close the allegations. The Division notified the allegers of the conclusion of its evaluation of the stated concerns. The team determined that the Division adequately protected the identity of allegers.

The NRC performs a self-assessment of the allegation program on an annual basis. The assessors of the program alternate yearly between Region III and HQ.

## **Training**

The team confirmed that the Division maintained a documented training and qualification program as outlined in IMC 1248, "Formal Qualifications Program for Federal and State Material and Environmental Management Programs." Materials license reviewer, materials inspector, and decommissioning inspector qualification journals were updated from IMC 1246 to IMC 1248. Staff members maintain individual qualification cards as outlined in their qualification journals and were aware of training needed to achieve or maintain qualification. Supervisors were aware of the training needs for each of their staff members. IMC 1248 requires 24 hours of refresher training in a two-year period for each inspector and reviewer. The Branch Chiefs were confident that all of their staff members received at least the required number of refresher training hours, but had not developed a recording system to prove that point.

- The team suggests that refresher training logs for each employee be maintained by supervisors to prove that the required number of hours is met.

## **Mini-IMPEP Self-Assessment Plan**

This self-assessment plan outlines a strategy for conducting a self-assessment on materials licensing, inspection, incident response, and allegation response activities. It provides a detailed description of how the assessment will be conducted and the specific assessment areas that will be covered.

Self-Assessment Start Date: January 25, 2017  
Self-Assessment Completion Date: March 10, 2017

Assessors: Jim Lynch  
Jenni Bishop  
Matt Learn  
Ryan Craffey

### **Assessment Objective**

In preparation for the July 2017 IMPEP review of the Region III materials program, the assessors will:

- Evaluate if materials licensing actions were completed without significant technical or regulatory deficiencies and were completed in accordance with NRC guidance;
- Evaluate if inspection findings were dispositioned without significant technical or regulatory deficiencies and were documented in accordance with NRC guidance;
- Evaluate if incident and allegation response activities were conducted in accordance with NRC guidance; and
- Evaluate if DNMS technical personnel have required training and refresher training to meet qualification requirements.

### **Scope of Review**

The assessment period is between September 2012 (the last Region III IMPEP review) and the present.

The licensing assessment will include a review of documentation associated with approximately 10 licensing actions. The audit of licensing documentation will include the review of new license applications, amendments, renewals, terminations, financial assurance, and notifications.

The inspection assessment will include a review of documentation associated with approximately 10 materials inspections and 3 decommissioning inspections. The audit of inspection documentation will include Form 591Ms, narrative inspection reports, transmittal letters, and Notices of Violation.

The assessment of incident and allegation response actions will include a review of documentation associated with incident and allegation response performed during the period.

The audit will include a review of response reports and Nuclear Material Events Database (NMED) notifications.

The assessment of training will include a review of documentation of staff training histories.

### **Schedule**

January 25	Gather references and document self-assessment plan
January 25	Begin review of inspection, licensing, incident response, allegation response, and training documentation
February 13	Begin documentation of findings of the self-assessment
February 20	Provide draft documentation with findings and recommendations for corrective actions to Branch Chiefs
March 6	Provide draft documentation with findings and recommendations for corrective actions to Division Director or Deputy
March 10	Final self-assessment documentation

### **Interviews to be Conducted**

Assessment findings will be discussed with the individual inspector or license reviewer responsible for the action under review to ensure there is a common understanding of the facts that support the finding.

### **Applicable Standards**

Regional Procedure RP-4.8, "Monitoring and Assessing Program Performance"

Manual Chapter 2800, "Materials Inspection Program"

Manual Chapter 1248, "Formal Qualifications Program for Federal and State Material and Environmental Management Programs"

Temporary Instruction TI2800/039, "Verification of Licensee Responses to NRC Requirement for Inventories of Materials Tracked in the National Source Tracking System Pursuant to Title 10, Code of Federal Regulations, Part 20.2207"

Management Directive 3.4, "Release of Information to the Public"

Management Directive 5.6, "Integrated Materials Performance Evaluation Program (IMPEP)"

Management Directive 8.10, "NRC Assessment Program for a Medical Event or an Incident Occurring at a Medical Facility"

Management Directive 12.6, "NRC Sensitive Unclassified Information Security Program"

NUREG-1556, "Consolidated Guidance About Materials Licenses"

NUREG-1757, "Consolidated Decommissioning Guidance," Volume 1, "Decommissioning Process for Materials Licensees"

Checklist to Provide a Basis for Confidence That Radioactive Material Will be Used as Specified on a License" (2008 Pre-Licensing Checklist)

"Checklist for Risk-Significant Radioactive Materials (RSRM)" (2008 RSRM Checklist).