

September 29, 2006

MEMORANDUM TO: Leonard D. Wert, Director  
Division of Nuclear Materials Safety, Region IV

FROM: Charles L. Miller, Director  
Division of Industrial and **/RA PHolahan for CM/**  
Medical Nuclear Safety  
Office of Nuclear Material Safety  
and Safeguards

SUBJECT: INTEGRATED MATERIALS PERFORMANCE EVALUATION  
PROGRAM MID-CYCLE REVIEW

A mid-cycle review of Region IV's performance, as measured by Integrated Materials Performance Evaluation Program (IMPEP) performance indicators, was conducted in September 2006, by the Office of Nuclear Material Safety and Safeguards (NMSS). The mid-cycle review was performed in accordance with NMSS Policy and Procedures (P&P) 1-70, "Periodic Meetings with Regions Between IMPEP Reviews." The review culminated on September 7, 2006, with an exit meeting held at the Region IV office (see list of attendees in the review results). This review also included a review of your previous full IMPEP, self assessments, monthly/quarterly material statistical reports, and operating plans during this period, followed by interviews with your staff as identified in the enclosed review results. The review found Region IV's performance satisfactory in all common and non-common indicators reviewed. In addition, the review identified your quarterly Quality Assurance and Quality Check assessments, your annual Mini-IMPEP self assessments, and resolution of recommendations from those checks and self-assessments, as program strengths.

Thank you and your staff for the support given during this review. The next IMPEP related review for Region IV will be the full IMPEP team review, which should be conducted on schedule in 2008.

Enclosure: 2006 Region IV Mid-Cycle  
Review Results

cc: C. Cain, RIV  
D.B. Spitzberg, RIV  
V. Campbell, RIV  
J. Whitten, RIV

CONTACT: William R. Ward  
(301) 415-7038

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## **2006 Region IV IMPEP Mid-Cycle Review Results**

### **Material Reviewed:**

1. Final IMPEP Report - 2004 (cover memo dated July 26, 2004)
2. RIV Response to draft 2004 IMPEP Report (May 12, 2004)
3. RIV DNMS Significant Accomplishments [every quarter (Q) from Q4 fiscal year (FY) 04 to Q3FY06)
4. RIV DNMS weekly reports (established in 2006)
5. Annual Evaluation of the Decommissioning Financial Assurance Instrument Security Program and Inventory (March 28, 006)
6. FY05 Quality Control Check of the Nuclear Materials Licensing Program (February 16, 2006)
7. Quality Review of Selected Inspection Reports (February 1, 2006)
8. Region (R) IV Operating Plans for FY 2004, 2005, and 2006
9. RIV DNMS Operating Plan Performance Metrics for FY 2005 and 2006
10. NMSS/IMNS Operating Plans for FY 2004, 2005, and 2006
11. DNMS Self-Assessment Program and Report for FY 2005 and 2006
12. FY 2004 Self-Assessment of the Nuclear Waste Safety Arena Operating Plan Metrics
13. RIV Fuel Cycle & Decommissioning Branch Summary Activities Report 3QFY06
14. RIV Monthly Quality Control License Checklist
15. Checklist for determining when significant licensing action has taken place that may require an additional onsite inspection
16. Acceptance Review Memorandum
17. RIV DNMS Organizational Chart
18. RIV Inspection and Licensing Cases (various)

### **Personnel Contacted:**

- Leonard D. Wert Jr., Director, Division of Nuclear Materials Safety (DNMS)
- Charles L. Cain, Senior Materials Analyst, DNMS
- D. Blair Spitzberg, Chief, Fuel Cycle/Decommissioning Branch
- Jack E. Whitten, Chief, Nuclear Materials Licensing Branch
- Robert A. Brown, Health Physicist (Acting Materials Inspection Branch Chief on the day of the visit)
- Roberto J. Torres, License Reviewer
- Colleen A. Murnahan, Licensing Assistant
- Anthony D. Gaines, Inspector

### **Status of Items Identified In Last IMPEP:**

The last IMPEP at the Region was conducted March 22-25, 2004. RIV's Uranium Recovery Inspection Program was reviewed at NRC Headquarters during the period of March 29 - April 8, 2004. The review team, which conducted the IMPEP, made one recommendation and noted two good practices. The recommendation related to the need to provide guidelines to the Regions for revising inspection frequencies, which had previously been extended for good performance. On May 11, 2004, the Division of Industrial and Medical Nuclear Safety issued a memorandum that provided the required guidance to the Regions. Therefore, this recommendation is considered closed.

Enclosure

## **2006 Region IV IMPEP Mid-Cycle Review Results**

### **Status of Items Identified In Self-Assessments:**

DNMS' Self Assessment Program includes special self-assessments of various program areas within the division and provides a comprehensive written report of the results. The areas audited include: Technical Staffing and Training, Quality of Materials Inspections, Quality of Materials Licensing, Quality of Financial Assurance, and Response to Incidents and Allegations. The division also conducts independent audits of Operating Plan metrics at least bi-annually.

There were no outstanding items from self-assessments.

### **Common Performance Indicators:**

#### **Status of Materials Inspection Program Satisfactory**

Operating Plan Metrics (shows quarterly statistics) indicate no overdue core inspections in FY04 and FY05 and only two overdue in FY06, out of an average of about 150 inspections per year (>99% success rate). One of the two overdue inspections was rescheduled several times in order to accommodate inspector's and licensee's schedules, resulting in it being overdue. The second overdue inspection was delayed intentionally to allow coordination of the scheduled inspection, with the inspection of the Increased Controls Orders. Inspection report and **Form 591M** completions showed similar success rates. In FY04, 186 of 188 (99%) reports were submitted within the required time (30 days or 45 days). In FY05, 225 of 241 (93%) and FY06, 73 of 73 (100%) were submitted on time.

The success can be attributed to the high quality of inspection planning. RIV is very organized in their approach to scheduling. They start with License Tracking System (LTS) reports and identify the inspections due during the quarter. These are then assigned based on geographical areas and inspector schedules. Weekly meetings ensure that inspections will be performed as scheduled or shifted between inspectors to ensure that they were timely. When inspections are completed, inspectors promptly turn over their inspection planners so that the scheduler can keep LTS current. Additionally, the inspection and licensing branches have coordinated on the use of a checklist to ensure that changes to inspection frequencies, as a result of licensing actions, are promptly identified and resolved.

Regarding Decommissioning Branch inspections, there are no metrics concerning inspection due dates because the actions of the licensees in this area, such as an Independent Spent Fuel Storage Installation (ISFSI), often control when and where an inspection will be necessary. In FY04, and FY05, the Decommissioning Branch issued all (100%) inspection reports within the required time. Through three quarters in FY06, one report has been issued late. With 27 reports issued, this results in a completion rate of 96%, well above the metric for inspection report issuance.

Notable Inspection Branch efforts during the period included the commencement of the security inspections upon reaching the six month implementation date of security Orders for the Manufacturers and Distributors, Panoramic Irradiations and the Increased Controls Orders recipients. The Inspection Branch also performed inspections of designated Nuclear Materials Management and Safeguards System (NMMSS) licensees in both NRC and Agreement States.

## **2006 Region IV IMPEP Mid-Cycle Review Results**

Notable Decommission Branch effort includes supporting the Las Vegas field office and the oversight of DOE and Yucca Mountain and the special inspection of Humboldt Bay after the discovery of missing spent fuel fragments.

RIV was provided access to the General License Tracking System (GLTS) at about the time of the last IMPEP and has trained users on the system. This direct access has reduced the number of questions asked of the GL program staff at headquarters and allowed the Inspection Branch staff greater flexibility in the review of General Licensees. The Branch also performs core reciprocity inspections.

The reviewer has one comment but no recommendations. During a comparison of the Division of Industrial and Medical Nuclear Safety (IMNS), with the DNMS Operating Plan Performance Metrics, the reviewer noticed several differences and difficulty in estimating the expected number of inspections. According to figures provided by RIV to IMNS, for the IMNS Operating Plan, in FY04, 150 inspections were estimated and 177 performed. In FY05, 169 inspections were estimated and 241 performed through July 2005. In FY06, 215 inspections were estimated with 114 performed through September 6, 2006. The large swings in estimates versus actual performance is partially attributed to the expectation versus reality of the number of NMMSS and security inspections. Also, to a lesser extent, the Decommission Branch has less control over the date when it can perform certain expected inspections. However, these estimates are likely used in budget planning and gaining greater control over them may help in that area.

Looking in detail at the DNMS Metrics and IMNS Operating Plan, several discrepancies were noted. In FY05, the IMNS 4<sup>th</sup> Quarter Operating Plan states that 48 of 51 inspection reports were timely in the 1<sup>st</sup> quarter. However, the DNMS Metrics through FY05 indicate that 53 of 53 inspection reports were timely in the 1<sup>st</sup> quarter. Likewise with the 3<sup>rd</sup> quarter, IMNS reports 81 of 82 and DNMS reports 102 of 102. While a higher number for the report for DNMS can be explained by the Region having a more complete picture, with a more recently reported number; the disappearance of late inspection reports is not understood. In FY06, the DNMS Metrics show on-time reports/total reports of 8/8, 43/45 and 92/94 through the first three quarters. The IMNS Operating Plan shows 8/8, 11/11, 47/47 and 7/7 through July 2006. Again, the higher numbers for the DNMS Metrics can be explained, but the differences are much larger. As discussed later, there are additional differences between the reported metrics.

### **Technical Quality of Inspections**

#### **Satisfactory**

The RIV Self Assessment Program includes special self-assessments of the Quality of Materials Inspections with a written report. The self-assessment consists primarily of one inspection branch cross-checking the other branch's inspection reports on a regular basis. Findings and follow-up are handled in an informal manner and not documented. However, many follow-ups are handled by e-mails, so a record is recoverable. None of the findings in the self assessments reviewed for this mid-cycle reached were of a significance which would require a higher level of follow-up. A review of the self-assessments indicate that the technical quality of inspections is adequate. This was confirmed by the review of several materials inspection reports and by interviews with the Nuclear Materials Inspection Branch Chief and the

## **2006 Region IV IMPEP Mid-Cycle Review Results**

Decommissioning Branch Chief. The Materials Inspection Branch also holds a weekly inspection meeting to discuss recent inspection findings and upcoming inspections. These meetings include staff from licensing branch and enforcement as well as divisional and regional management.

### **Status of Materials Licensing Program Satisfactory**

RIV has 565 active licenses at this time. The Licensing Branch has a formal process to ensure timely review of all new license applications. This includes a weekly meeting with all license reviewers to ensure prompt assignment of licensing cases and performance of acceptance reviews. The process from receipt of a licensing application (new, renewal or amendment) through assignment to a reviewer, review and final disposition was found to be consistent, well-understood by licensing staff, and routinely followed. License reviewers indicated that the prompt and proper acceptance review of new applications helped to minimize problems later in the process. IMNS Operating Plans and DNMS Operating Plan Metrics for FY04, FY05, and FY06 indicate that all new license applications and amendments are being completed within the required 90 days, at least 98% of the time, well above the metric of 90% (metric was 85% prior to FY06). Renewal applications are being completed within the required 180 days 100% of the time. And, all other applications required to be completed within 365 or 730 days (100% metric requirement) were completed on-time, with one exception.

RIV reviewers recently commenced using a modified Acceptance Review Memorandum partly based on Regulatory Issue Summary (RIS) 2005-31. This memo documents the licensing action acceptance review with ten days of receipt and ensures that the action receives the appropriate attention with respect to security issues. Specifically, it identifies if the application requires Sensitive Unclassified Non-Safeguards Information (SUNSI) handling in accordance with RIS 2005-31, and ensures that the appropriate IMNS personnel are notified for security orders issuance. This reviewer would like to highlight this memo and process as a good response to ensure that the new security requirements are met. Also, as discussed in the inspection section previously, the licensing branch uses a yellow checklist sheet to notify the inspection branch when a licensing action has taken place which may result in a change to inspection requirements. This is also a noteworthy step in the review process.

As noted with the estimated number of inspections, the estimated number of licensing cases is inconsistent with actual receipts. In FY04, the IMNS Operating Plan shows an estimate of 540 cases with receipts of 313. For FY05, 609 estimated and 326 received. For FY06, 485 estimated and 333 received through August 31, 2006. The estimates have been consistently high and actual receipts almost constant in the low 300s. RIV does not have any States expressing an intent to become an Agreement State, so the number of licensing action receipts should not change for that reason. RIV does expect an increase in the number licensing actions, both amendments and new licenses, as a result of the Energy Policy Act of 2005; however, this should not be a large increase.



## **2006 Region IV IMPEP Mid-Cycle Review Results**

### **Technical Quality of Licensing Actions Satisfactory**

The RIV Self Assessment Program includes special self-assessments of the Quality of Materials Licensing with a written report. The Materials Licensing Branch also conducts financial assurance program audits to ensure that the program is being conducted in accordance with guidance and that financial assurance instruments are accounted for. On a quarterly basis, a review is conducted of licensing activities, ADAMS entries and LTS inputs. The Licensing Branch performs Quality Assurance and Quality Control checks of its licensing actions (casework) on a routine basis. A review of these self-assessments indicate that the technical quality of licensing actions is adequate. This was confirmed by the review of several materials licensing actions and by interviews with the Nuclear Materials Licensing Branch Chief and a senior reviewer.

### **Technical Staffing and Training Satisfactory**

The Licensing Branch has four certified license reviewers and one licensing assistant. One reviewer is in a permanent work-at-home status away from the Regional office. There are no license reviewers in training. The Branch is fully staffed with experienced reviewers who are up-to-date on required refresher training.

The Inspection Branch has nine certified inspectors, with one on rotation to Headquarters. There are no inspectors in training. The Branch is fully staffed with experienced inspectors who are up-to-date on required refresher training. Branch or Division supervision is current with inspector accompaniments. At the time of the visit to the Region, the Branch Chief was performing an accompaniment; therefore discussions were held with the acting Branch Chief.

The Decommissioning Branch has six certified inspectors. One inspector is in a permanent work-at-home status away from the Regional office. There are no inspectors in training. The Branch is fully staffed with experienced inspectors who are up-to-date on required refresher training. The Branch also has a Senior Resident Inspector stationed at the Las Vegas Office in support of the DOE/Yucca Mountain oversight. Branch or Division supervision is current with inspector accompaniments.

The FY04, FY05 and FY06 Operating Plans and Metrics reports indicate that training is adequate. All branches hold regular meetings which include training as required. The lack of recurring issues, being identified in the various self-assessments, demonstrates effective resolution of identified issues by using this training forum.

### **Response to Incidents and Allegations Satisfactory**

FY04, FY05, FY06 Operating Plan and Metrics and the self assessments indicate that responses to incidents and handling of allegations are adequate.

## **2006 Region IV IMPEP Mid-Cycle Review Results**

### **Maintenance of the Nuclear Materials Events Database (NMED)**

#### **Satisfactory**

A review of NMED reports indicates satisfactory updating of the database.

#### **Non-common Performance Indicators:**

### **Operating Plan Performance**

#### **Satisfactory**

Review of the FY04, FY05 and FY06 Operating Plans and Metrics indicate a satisfactory operating plan performance. The Operating Plans are focused on the five performance goals from the NRC Strategic Plan (safety, security, openness, effectiveness, and management).

There are discrepancies between the IMNS Operating Plan metrics and the DNMS Operating Plan Metrics. Details can be found in the licensing and inspection sections above. Some of the differences can be explained by the timing of the data reports. However, some numbers should not change as time goes forward, such as the number of inspection reports which were overdue. Also, the estimates in the IMNS Operating Plan for the number of inspections and licensing cases have been not been very close to actual numbers. The licensing case estimates in particular have been notably high the past three years.

### **Resource Utilization**

#### **Satisfactory**

Review of the operating plans and self assessments indicates that RIV effectively uses budgeted resources.

### **Technical Assistance Requests (TARs)**

#### **Satisfactory**

A review of the TARs listed in the IMNS Operating Plan indicates only a few TARs initiated by RIV the past three years. All TARs were closed. The review also indicated that the Region effectively uses the TAR system and personnel stated that they were satisfied with the TAR process.

#### **Division of Nuclear Materials Safety Strengths and Challenges:**

##### **Strengths**

RIV has a stable and experienced workforce dedicated to maintain safety and security for the licensed community and the public at large. At the same time, the Region recognizes the individual value of each of their employees and strives to encourage creativity and growth. RIV has used many tools to ensure that the NRC goals are met, such as the quality reviews of selected inspection reports, or the quality control checks of the licensing program, and the annual evaluation of the financial assurance program. They promptly follow-up on items identified in the reviews. DNMS has many of their management functions oriented around weekly meetings and reports to ensure that they remain focused on their goals. This includes



## **2006 Region IV IMPEP Mid-Cycle Review Results**

the weekly report from the Branch Chiefs and Agreement State Officers to the Regional Administrator which highlights personnel and division activities for the previous and next weeks. DNMS publishes a significant accomplishments listing every quarter to recognize and provide a record of staff efforts.

### **Challenges**

RIV has maintained a very competent staff in all three branches, and instituted many good processes to ensure excellence. Together, these two elements work to exceed the performance metrics in all categories. At the same time, RIV has supported a remote office in Las Vegas, special inspections for security orders, NMMSS, and Humboldt Bay and other initiatives such as Web Based Licensing. However, due to the smaller size, relative to the other Regions, two staff in permanent work-at-home status, and the lack of contract staff performing some aspects of the work, new initiatives have a greater impact on RIV than the other Regions. This is even greater if staff is on rotation. The challenge will be to continue to maintain their excellent staff and keep up their existing processes while continuing to incorporate changes such as the security reviews and inspections and possible future changes to the licensing process. Incorporation of future IT changes such as the Web-Based Licensing System, the National Source Tracking System, and eventual replacement of the Agency-wide Document Access and Management System may also cause some strain on the division. However, RIV has demonstrated that they can meet challenges such as these and continue meeting the performance metrics. RIV should have no difficulty completing their next IMPEP with no recommendations.

### **Exit Attendees**

Lenonard D. Wert, Director, Division of Nuclear Materials Safety

Charles L. Cain, Senior Materials Analyst, Division of Nuclear Materials Safety

William R. Ward, Mechanical Engineer, Division of Industrial and Medical Nuclear Safety

## **2006 Region IV IMPEP Mid-Cycle Review Results**

### **REGION IV INSPECTION AND LICENSE FILES REVIEWED**

Inspection File No. 1  
Inspection Report Number 040-08903/06-001

Inspection File No. 2  
Inspection Report Number 030-19324/06-001

License File No. 1  
Licensee: Standard Testing and Engineering Company License Number: 35-17054-01  
Date Issued: 10/20/04 (amendment 14)      Docket Number: 030-12123  
[Note: Cover letter listed new expiration date as 10/31/04, but license had correct expiration date of 10/31/14.]

License File No. 2  
Licensee: Voith Fabrics Shreveport, Inc.      License Number: 17-26958-01  
Date Issued: 5/26/05 (amendment 09)      Docket Number: 030-30773

License File No. 3  
Licensee: Department of Health and Human Services      License Number: 25-12303-01  
Date Issued: 6/7/06 (amendment 42)      Docket Number: 030-05167