

UNITED STATES NUCLEAR REGULATORY COMMISSION

REGION II 245 PEACHTREE CENTER AVENUE NE, SUITE 1200 ATLANTA, GEORGIA 30303-1257

July 28, 2016

Gary J. Laughlin, Chief Nuclear Officer and Head of Operations URENCO USA P.O. Box 1789 Eunice, NM 88231

SUBJECT: LOUISIANA ENERGY SERVICES, LLC, URENCO USA – NUCLEAR

REGULATORY COMMISSION INTEGRATED INSPECTION REPORT

70-3103/2016-003

Dear Mr. Laughlin:

This letter refers to the inspections conducted from April 1 through June 30, 2016, at the Louisiana Energy Services, LLC, URENCO USA facility located in Eunice, New Mexico. The purpose of the inspections was to determine whether licensed activities were conducted safely and in accordance with Nuclear Regulatory Commission (NRC) requirements. The enclosed report presents the results of these inspections. At the conclusion of these inspections, the results were discussed with you and members of your staff at exit meetings on June 30 and July 26, 2016.

During the inspections, the NRC staff examined activities conducted under your license, as they related to public health and safety, to confirm compliance with NRC rules and regulations and with the conditions of your license. The inspection covered the following areas: Radiation Protection, Environmental Protection, and Waste Management. Within these areas, the inspections consisted of examination of selected procedures and representative records, observations of activities, and interviews with personnel.

In accordance with Title 10 of the *Code of Federal Regulations* Section 2.390 of the NRC's "Rules of Practice and Procedure," a copy of this letter and enclosure will be made available electronically for public inspection in the NRC Public Document Room, or in the NRC's Agencywide Documents Access and Management System (ADAMS), accessible at http://www.nrc.gov/reading-rm/adams.html.

If you have any questions regarding this matter, please contact me at (404) 997-4629.

Sincerely,

/RA/

Marvin D. Sykes, Chief Projects Branch 1 Division of Fuel Facility Inspection

Docket No. 70-3103 License No. SNM-2010

Enclosure:

Inspection Report No. 70-3103/2016-003 w/Attachment: Supplementary Information

cc: (See page 3)

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cc: (See page 3)

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NAME	NMorgan	LPitts	NPeterka	GGoff	PStartz	DAnderson	LPitts
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E-MAIL COPY	YES NO						

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cc: (Cont'd on page 4)

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U. S. NUCLEAR REGULATORY COMMISSION REGION II

Docket No: 70-3103

License: SNM-2010

Report No: 70-3103/2016-003

Licensee: Louisiana Energy Services, LLC

Facility: URENCO USA

Location: Eunice, NM

Inspection Dates: April 1 through June 30, 2016

Inspectors: D. Anderson, Fuel Facility Inspector (Paragraph A.1)

G. Goff, Fuel Facility Inspector (Paragraph A.2)
N. Morgan, Fuel Facility Inspector (Paragraph B.1)
N. Peterka, Fuel Facility Inspector (Paragraph B.2)
P. Startz, Fuel Facility Inspector (Paragraph A.3)

Approved: M. Sykes, Chief

Projects Branch 1

Division of Fuel Facility Inspection

EXECUTIVE SUMMARY

Louisiana Energy Services, LLC URENCO USA NRC Integrated Inspection Report 70-3103/2016-003 April 1 - June 30, 2016

Regional inspectors conducted announced inspections during normal shifts. The Nuclear Regulatory Commission (NRC) inspectors performed a selective examination of licensee activities by direct observation of safety-significant activities and equipment, tours of the facility, interviews and discussions with licensee personnel, and a review of facility records. No findings of significance were identified.

Radiological Controls

- The Radiation Protection program was implemented in accordance with the license and NRC regulatory requirements. (Paragraph A.1)
- The Environmental Protection program was implemented in accordance with the license and NRC regulatory requirements. (Paragraph A.2)
- The Radioactive Waste program was implemented in accordance with the license and NRC regulatory requirements. (Paragraph A.3)

Other Areas

- Event Notification (EN) 51593 was closed after NRC review of the licensee's Root Cause Evaluation and inspection of the Uranium Byproduct Cylinder Pad Crane. No findings of significance were identified. (Paragraph B.1)
- Two unresolved items were opened to evaluate EN 51776 and the licensee's implementation of items relied on for safety 14a and 14b. (Paragraph B.2)

Attachment

Key Points of Contact List of Items Opened, Closed, and Discussed Inspection Procedures Used Documents Reviewed

REPORT DETAILS

Summary of Plant Status

The URENCO, USA facility (UUSA) enriches uranium hexafluoride (UF₆) using a gas centrifuge technology. During the inspection period, the licensee conducted routine plant operation of the operating cascades.

A. Radiological Controls

1. Radiation Protection (Inspection Procedure (IP) 88030)

a. Inspection Scope and Observations

The inspectors reviewed two audits and one self-assessment and noted that the findings were characterized as minor, entered into the licensee's corrective action program (CAP), and corrective actions were being actively addressed. These audits and assessment were conducted in accordance with Chapter 11, Section 11.5, Audits and Assessments, of the Safety Analysis Report (SAR), and confirmed that the program performance was being reviewed, at least annually, to comply with Title 10 of the *Code of Federal Regulations* (10 CFR) Section 20.1101.

The inspectors reviewed organization charts and interviewed licensee staff to determine that the radiation protection (RP) function's responsibilities and independence from operations were maintained in accordance with Chapter 2, Section 2.2, Key Management Positions, of the SAR. Inspectors also noted that changes to the RP program were consistent with regulations and license requirements. Inspectors were informed of several personnel changes within the program. The inspectors subsequently reviewed the position description qualifications versus the individual qualifications for the radiation protection manger and three RP technicians.

The inspectors reviewed a selection of RP procedures to determine that changes in the procedures made since the last inspection were in accordance with Chapter 11, Section 11.4.4, Changes to Procedures, of the SAR. The inspectors reviewed RP program-related corrective actions issued since the last inspection and noted no issues with regards to licensee response actions.

During tours of radiologically controlled areas, the inspectors verified that workers complied with RP procedural requirements contained in Radiological Work Permits (RWPs). The inspectors found that the RWPs contained appropriate instructions and radiological protective measures. Inspectors observed workers and visitors signing into applicable RWPs, as per licensee procedure, RP-3-2000-01, Radiation Work Permits, Revision (Rev.) 9. The inspectors observed plant employees as they performed exit monitoring at the controlled area exit.

The inspectors observed and reviewed the daily operational response check records of several rate meters/scalers and personnel contamination monitors. Inspectors reviewed calibration records to verify that RP instruments and equipment were maintained in accordance with license requirements and procedures.

The inspectors toured the Cylinder Receipt and Dispatch Building, the Separations Building Module (SBM) 1001, and the Uranium Byproduct Cylinder (UBC) Pad, to verify that radiological signs and postings accurately reflected radiological conditions within the posted areas. Areas were posted in accordance with 10 CFR Part 20. The inspectors verified that the Notice to Employees, NRC Form 3, was posted in a high traffic area in accordance with 10 CFR 19.11.

The inspectors toured the controlled area with a RP technician and observed that personnel were following acceptable radiological protection and contamination control practices. The inspectors reviewed licensee contamination control procedures and records and noted that surveys adequately evaluated the magnitude and extent of radiation levels in accordance with 10 CFR 20.1501.

The inspectors reviewed Radiation Safety Committee meeting minutes and recognized that the meetings were in compliance with the license requirements. In addition, the inspectors examined as low as reasonably achievable (ALARA) program records and noted that the ALARA concept was being implemented.

b. Conclusion

No findings of significance were identified.

2. <u>Effluent Control and Environmental Protection (IP 88045)</u>

a. <u>Inspection Scope and Observations</u>

There were no program changes or procedural revisions since the last inspection. Inspectors were informed of one personnel change within the program. The inspectors subsequently reviewed the position description qualifications versus the individual's qualifications.

The inspectors reviewed the 2015 semi-annual effluent reports and verified that the licensee was in compliance with the submission requirements of 10 CFR 70.59. Within these two reports, the inspectors reviewed records of airborne and liquid effluents for uranium-234, -235, and -238, and noted that all effluent concentrations were below the 10 CFR 20 Appendix B Table 2 restriction levels.

The inspectors also witnessed the bi-weekly filter change-outs of the continuous air monitors performed in accordance with licensee procedure, EN-3-1000-40, Continuous Air Sampling, Rev. 0. Based on the airborne concentration data, inspectors also noted that the airborne dose to the hypothetical individual member of the public likely to receive the highest dose from facility operations satisfied the 10 CFR 20.1102(d) requirements (ALARA).

The inspectors observed the quarterly change-outs of the perimeter thermoluminescent dosimetry, which was conducted in accordance with licensee procedure, EN-2-1000-02, Attachment 1, REMP Sampling and Analysis Parameters, Rev. 1. The inspectors determined that the total annual public dose was less than the limit established in 10 CFR 20.1301(a)(1).

The inspectors also walked down the Gaseous Effluent Ventilation System in SBM 1001, 1003, and 1005, and 1100. Inspectors observed the configuration and flow of effluent through ductwork, filter banks, and monitoring equipment for alpha radiation and hydrofluoric acid (HF). All equipment was found to be in proper operation. The inspectors noted that alpha and HF monitors were calibrated and maintained in accordance with 10 CFR 20.1501, and licensee procedures EN-3-1000-36, Alpha Monitor (ABPM 201 S) Calibration and Maintenance, Rev. 1, and EN-3-100-37, MacGiver HF-2 Monitor Maintenance & Calibration, Rev. 2.

Inspectors noted that there were no process-related liquid effluent discharges offsite. Inspectors also recognized that all rain water run-off and groundwater was sampled in wells or from the onsite retention ponds in accordance with licensee procedure EN-3-1000-38, Environmental Water Sampling, Rev. 2 and the New Mexico Environmental Department's discharge permit, DP-1481. The inspectors reviewed the concentrations of liquid releases discharged to the sanitary sewer, as per 10 CFR 20.2003.

Inspectors walked down sampling points for soil, sediment, and vegetation. Inspectors reviewed sampling results for soil, sediment, and vegetation, and noted that the sampling points and samples were in compliance with licensee procedure, EN-3-1000-39, Vegetation, Soil, and Basin Sediment Sampling, Rev. 0.

The inspectors reviewed two recent self-assessments and one external audit and noted that the findings were characterized as minor, entered into the licensee's CAP, and corrective actions were being actively addressed. These assessments and audit were conducted in accordance with Chapter 11, Section 11.5, Audits and Assessments, of the SAR.

The inspectors examined certificates of accreditation and found that the laboratories used by the licensee to perform isotopic analysis uranium of environmental samples were properly accredited.

b. Conclusion

No findings of significance were identified.

3. Radioactive Waste Processing, Handling, Storage, and Transportation (IP 88035)

a. Inspection Scope and Observations

The inspectors reviewed a selection of operating procedures and observed performance of tasks related to the storage of radioactive materials generated and stored in various locations of the facility, as per requirements described in paragraph 12.8 of the SAR and various operating procedures described below. The inspectors assessed the following areas in detail: Small Component Decontamination Train, Multi-Functional Decontamination Train, Solid Waste Storage facility, Liquid Effluent Collection and Transfer System (LECTS). Licensee procedures reviewed included RW-3-4000-01, Startup, Shutdown and Operation of the Small Component Decom Train; RW-3-4000-01, Startup, Operation and Shutdown of the Multi-Functional Decon Train; RW-3-2000-05, Small Component Decon Train Uranium Waste Mass Bookkeeping; RW-3-2000-03, LECTS Bulk Storage Tank Operations; RW-3-1000-09, Radioactive Waste Container Setup, Handling and Disposition; and RW-3-1000-16, Array Storage of Radioactive

Waste. The inspectors observed storage arrays of dry and liquid wastes, produced from production and laboratory operations, located in various areas of the facility to determine compliance with licensee procedure RW-3-1000-09 and local postings. The inspectors also reviewed waste storage logs, radioactive waste classification, and labeling to verify compliance with applicable procedures.

The inspectors audited locations used to store enriched uranium waste containers in order to assess the accuracy of the licensee's accounting forms RW-3-1-09-F-3 and assessed the accuracy of quarterly physical inventory activities per RW-3-1000-09. The inspectors evaluated waste containers for adequate labeling and assessed the material condition of the containers.

The inspectors evaluated the licensee's established procedures and quality assurance program for compliance with the requirements of 10 CFR Part 20 and 10 CFR Part 61, as applicable to low-level radioactive waste form, classification, and stabilization of waste material in process or storage at the facility. Inspectors noted that the licensee anticipates their first-ever waste shipment to occur in the fall of 2016.

The inspectors reviewed the quality assurance program for radioactive waste management including the most recent radioactive waste operations internal audit report, 2015-1A-04-004, Facilities Management Radiological Protection Recycling, as per Chapter 11, Section 11.5.2, Audits and Assessments, of the SAR and licensee procedure CA-3-1000-09, Assessment Program. The audit findings were characterized as minor, entered into the licensee's CAP, and corrective actions were being actively addressed.

The inspectors reviewed the licensee's compaction of non-special nuclear material dry bulk radioactive wastes for compliance with licensee procedure RW-3-1000-17, Operation of the Drum Compactor. The inspectors noted that the licensee had never made any offsite shipments of this radioactive waste and continues to accumulate the waste packaged in drums.

A sample of operator training records were reviewed to determine if their training was up-to-date with current training requirements in accordance with Chapter 11, Section 4.5, "Training Commitments," of the SAR.

b. Conclusion

No findings of significance were identified.

B. Other Areas

1. Follow-up on Previously Identified Issues

(Closed) Event Notification (EN) 51593

On December 8, 2015, a 24-hour report was made to the NRC in accordance with 10 CFR 70.50(b)(2) for an inoperable sole IROFS 27e associated with the UBC Pad crane. It was discovered that the UBC Pad crane has been in operation without shear bars, which are designed to resist seismic loads, since delivery. The missing quality level 1 shear bars are welded under the end trucks, which straddle the crane tracks,

intended to prevent the lateral movement of the crane end-trucks during a seismic event. The IROFS was designed to mitigate the consequences of an UF₆ release to meet 10 CFR 70.61 performance requirements. The item relied on for safety (IROFS) was inoperable since the crane went into operation in March 2015. During the time period in which the crane went into operation and discovery of the inoperability, no design basis accidents occurred, thus there were no actual consequences. The crane was moved to a safe position in order to perform repairs (away from licensed material) and locked in place, thereby, removing applicability of the IROFS. The licensee entered the condition into their CAP and conducted a root cause evaluation and extent of condition.

The inspectors reviewed the licensee's corrective action. The root cause was determined to be that there is no procedural requirement to verify the existence of components that make up passive engineered IROFS. As a result, the licensee made procedural changes that requires identification of passive engineered IROFS, verification of the existence of all parts supporting the function of a passive engineered IROFS, and inspection of passive engineered IROFS components. The extent of condition review did not provide any evidence that the missing of the shear bars extends beyond the asfound condition. The inspectors reviewed modifications made to the UBC Pad crane. The inspectors determined that the licensee's corrective actions were adequate.

Also, the licensee evaluated other design features, which may have been capable of performing the safety function of the seismic restraint shear bars. Four wheels from the end-trucks were procured and analyzed. And it was determined that the wheels would have resisted the seismic forces expected in a design basis event. As a result, the licensee concluded that the 10 CFR 70.61 performance requirements were met at all times, and therefore, retracted EN 51593. This item is closed.

2. Event Follow-up (IP 88075)

<u>Licensee Event Report (LER) 2016-001 – EN 51776: Failure to Implement IROFS 14a</u> and 14b

The licensee identified a violation of 10 CFR 70.61(b) for failure to adequately implement controls to limit the occurrence of a high consequence event (criticality) to "highly unlikely." The licensee reported this issue to the Nuclear Regulatory Commission (NRC), as EN 51776, per 10 CFR 70(a)(4), Appendix A, and later reclassified as a 24-hour report per 10 CFR 70(b)(2), Appendix A reporting criteria. Specifically, the licensee reported a failure to limit the likelihood of an inadvertent criticality to "highly unlikely" in the Cylinder Receipt and Dispatch Building (CRDB), when operators failed to adequately implement actions per procedure, which resulted in a degraded sole administrative control for criticality safety.

On the afternoon of March 7, 2016, UUSA recycling operators moved five drums of uranic material that had been generated while cleaning up a spill in the LECTS into an IROFS 14b controlled array, located in the Decontamination Workshop. At the time of transfer, the licensee conservatively assumed that the uranic material was enriched. This sole, enhanced, administrative IROFS required initial and independent operator verification to ensure a subcritical geometry existed prior to introducing any new material to the array. The operators moving the five new drums did ensure the array geometry was subcritical prior to introducing new material to the array. However, the operators

failed to establish a radioactive waste storage array log, as required by the appropriate procedure, which results in an incomplete implementation of the independent verification of the enhanced administrative IROFS.

The safety function of IROFS 14b was to administratively restrict proximity of vessels in non-designed locations containing enriched uranic material to ensure subcritical configuration. The licensee applied IROFS 14b to generated waste within the LECTS room, Decontamination Workshop, and the Solid Waste Collection room. IROFS 14b is implemented by verifying, prior to moving a waste container containing enriched uranic material within 180 cm of the associated storage array, that the approved storage array is acceptable for storing the additional waste and no component containing enriched uranic material is in movement in the designated area. Completion of licensee procedure RW-3-1000-16 satisfies the requirements of the integrated safety analysis summary for IROFS14b, which requires initial and independent operator verification to ensure a subcritical geometry exists prior to adding any new material to the array and log keeping of new additions to the array.

The operators moving the drums did not complete the above-mentioned procedure to demonstrate that the initial or an independent verification had been completed. Instead, area supervision and the operators were using licensee procedure RW-3-1000-09 which is used for routine cleanup in the area, but is not for use for waste generated in the LECTS room. RW-3-1000-09 has guidance on when to enter RW-3-1000-16, but reference use only. The supervisor and operators were under the impression that the waste could be moved and stored routinely without entering IROFS 14b. Prior to moving the drums, the recycle supervisor and operators contacted nuclear criticality safety (NCS) Engineering for approval. Although the NCS staff verbally approved, the drums were added to the array prior to the posting of the updated signage authorizing the storage of the additional drums.

Shortly after the drums were placed in the array, a Deputy Shift Manager noticed that the actual room loading differed from the posted signage and immediately stopped the activities and escorted the operators out of the area. While exiting, NCS staff arrived with a revised posting that authorized the addition of the new waste drums to the array. Therefore, operations management and criticality safety confirmed that the storage array had remained in a safe geometry configuration.

At the close of the inspection period, NRC management and staff had not completed the final assessment of the safety significance of the licensee-identified violation. Therefore, an unresolved item (URI) was opened to complete the assessment of the safety significance for the licensee-identified violation (URI 70-3103/2016-003-01, Evaluation for EN 51776).

As a result of conducting the root cause evaluation for EN 51776, the licensee discovered that an additional IROFS was not properly implemented. IROFS 14a required the use of designated transfer frame (cart) to transport generated waste within the CRDB to the IROFS 14b array. On March 7, 2016, this did not occur, and the five waste containers were carried one at a time by hand. However, the licensee has an analysis which bounds hand carrying any container less than 18 liters in the facility, and therefore, the NRC staff opened an URI to review the technical basis behind the calculation (URI 70-3103/2016-003-02, Evaluation of IROFS 14a Bounding Analysis).

C. <u>Exit Meeting</u>

The inspection scope and results were presented to members of the licensee's staff at various meetings throughout the inspection period and were summarized on June 30 and July 26, 2016, to S. Thyne and staff. No dissenting comments were received from the licensee. Proprietary information was discussed, but not included in the report.

SUPPLEMENTARY INFORMATION

1. KEY POINTS OF CONTACT

<u>Name</u> <u>Title</u>

R. Albright Radiation Protection Manager

A. Anya Senior Radiation Protection Technician

J. Laughlin Chief Nuclear Officer and Head of Operations

M. McGovern Chemistry Services Manager

R. Medina Licensing Engineer II
J. Rickman Licensing Specialist

B. Saucedo Staff Chemistry & Environmental Specialist

G. Schnell Recycling Manager

C. Slama Licensing Project Manager

W. Terry Environmental Analysis Supervisor

S. Thyne Licensing Manager

2. <u>LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED</u>

Opened

70-3103/2016-003-01 URI Evaluation for EN 51776 (Paragraph B.2)

70-3103/2016-003-02 URI Evaluation of IROFS 14a Bounding Analysis (Paragraph

B.2)

Closed

70-3103/2016-001-0 LER EN 51593: Inoperable sole IROFS associated with the

UBC crane (Paragraph B.1)

3. <u>INSPECTION PROCEDURE USED</u>

88030 Radiation Protection

Radioactive Waste Processing, Handling, Storage, and Transportation

88045 Effluent Control and Environmental Protection

88075 Event Follow-up

4. <u>DOCUMENTS REVIEWED</u>

Records:

2015-A-07-007, Report for the URENCO USA Audit of Radiation Protection Program, Dated August 21, 2015

2015-A-09-009, Report for the URENCO USA Radioactive Waste Management Audit, Dated October 21, 2015

SA-2015-002, 2015 Radiation Protection Assessment, dated December 30, 2015

RP-3-2000-12-F-1, Source Inventory Log, dated April 12, 2016

RP-3-4000-05-F-1, Cleaning, Decontamination, and Maintenance of Respirators (SCBA Inspection/Recovery), dated June 2, 2016

Radiological Survey Record 14-2092 of UBC Pad

2016-A-05-018, Report for the URENCO USA Environmental Compliance Audit, Dated June 24, 2016

Analytical results for monitoring wells, vegetation, soil, wastewater, and Pond 2 samples Calibration/Maintenance Records for Alpha Radiation and HF Monitors

Filter Change-Outs for Alpha Monitors

i-Matic Alpha & Beta results from 1st Quarter 2016 EN Filters & alpha filters, dated April 6-7, 2016

LES-15-00137, NRC Semi-Annual Radiological Effluent Release Report for January 1 – June 30, 2015

LES-16-00030-NRC Semi-annual Radiological Effluent Release Report for July 1, 2015 thru December 31, 2015

SA-2015-025, Environmental Compliance 2015 Self-Assessment Report, dated July 2015

SA-2016-004, Environmental Compliance 2016 Self-Assessment Report, dated June 2016

SBM-1001, 1003, 1005, 1100, Fume Hood & Regular Exhaust, 1300 Gross Alpha & Beta

Training records for four (4) technicians

EG-3-3200-01-F-1, Nuclear Criticality Safety Evaluation, NCSE of the safe by design slab tanks, NCSE-CSE-032, Rev 1

Drawing LES-1100-P-PID-681-001-03-02, Rev 2, P&ID Cylinder Receipt & Dispatch Building Liquid Effluent and Treatment System

Procedures:

AD-3-1000-10, Change Management Process, Rev. 10, dated October 12, 2015

RP-2-1000-01, Radiation Protection Program, Rev. 7, dated May 26, 2016

RP-2-1000-02, ALARA Program, Rev. 5, dated October 15, 2012

RP-2-4000-01, Respiratory Protection Program, Rev. 3, dated November 21, 2013

RP-3-2000-01, Radiation Work Permits, Rev. 9, dated June 1, 2012

RP-3-2000-02, Radiological Postings and Access Controls, Rev. 10, dated April 23, 2013

RP-3-2000-04, Radiation and Contamination Surveys, Rev. 9, dated December 2, 2015

RP-3-2000-06, Airborne Radioactivity Monitoring, Rev. 6, dated April 10, 2012

RP-3-2000-07, Personnel Contamination Events, Rev. 8, dated June 8, 2016

RP-3-2000-12, Radioactive Source Control, Rev. 5, dated October 28, 2013

RP-3-3000-05, Area TLD Monitoring, Rev. 3, dated October 10, 2013

RP-3-3000-11, Radiological Dose Reports, Rev. 4, dated July 8, 2013

TQ-3-0100-13, Training and Qualification Guidelines, Rev. 5, dated November 4, 2015

EN-1-1000-01, Environmental Policy, dated December 10, 2013

EN-2-1000-01, Environmental Management Program, Rev. 6, dated March 31, 2016

EN-2-1000-02, Radiological Effluent Monitoring Program, Rev. 0, dated January 20, 2015

EN-3-1000-31, Alpha Monitor (ABPM 201 S) Operation, Rev. 1, dated May 4, 2015

EN-3-1000-35, Alpha Monitor ABPM 201S Operation, Rev. 2, dated July 16, 2015

EN-3-1000-36, Alpha Monitor (ABPM 201 S) Calibration, Rev. 1, 10/01/14

EN-3-1000-37, MacGiver HF-2 Monitor Maintenance & Calibration, Rev. 2, dated July 16, 2015

EN-3-1000-38, Environmental Water Sampling, Rev. 2, dated August 13, 2015

EN-3-1000-39, Vegetation, Soil, and Basin Sediment Sampling, Rev. 0, dated September 18, 2014

EN-3-1000-40, Continuous Air Sampling, Rev. 0, dated September 11, 2014

EN-3-1000-41, Untreated Waste and Sanitary System Sampling, Rev. 0, dated September 19, 2014

LS-3-1000-11, Environmental Review and Evaluation, Rev. 0, dated June 19, 2014

QA-3-2000-01, Quality Assurance Audit, Rev. 18, dated September 8, 2015

RW-3-2000-03, LECTS Bulk Storage Tank Operations, Rev. 2, dated October 6, 2015

RW-3-1000-09, Radioactive Waste Container Setup, Handling and Disposition, Rev. 13, Dated June 19, 2015

RW-3-1000-18, Bulking Enriched Waste, Rev. 1, dated February 26, 2016

RW-3-1000-17, Operation of the Drum Compactor, Rev. 0, dated July 1, 2015

RW-3-4000-01, Startup, Shutdown, and Operation of the SCDT, Rev. 3

RW-3-4000-02, Startup, Operation and Shutdown of the Multi-Functional Decontamination Train, Rev. 5

RW-3-1000-16, Array Storage of Radioactive Waste, Rev. 0

RW-3-2000-01, LECTS Slab Tank Operations, Rev. 5

RW-3-2000-04, LECTS Fill Station Operations, Rev. 0

RW-3-2000-05, Small Component Decon Train (SCDT) Uranium Waste Mass Bookkeeping, Rev. 8

CR-3-1000-02, Criticality Safety Limit, Rev. 6

Condition Reports Written as a Result of the Inspection:

EV 113446, EV 113461, EV 113467

Condition Reports Review:

EV 112360, EV 108383, EV 108856, EV 106904, EV 108274, EV 109858, EV 110818,

EV 111022, EV 110992, EV 108250, EV 106733, EV 109706, EV 112199, EV 112921,

EV 113429, EV 105020, EV 111022, EV 110732, EV 110276, EV 102811, EV 102713,

EV 113090

Other Documents:

Radiation Safety Meeting Minutes for October 21, 2015, December 1, 2015, and April 20, 2016

Radiation Protection Program Radiation Work Practices Qualification Guide Course 10: 0AHP2QC00101, Rev. 3

Candidate's resume and certificate of completion

DOELAP Accreditation of WIPP Lab

HR-2-3000-15-F-2, Internal Candidate Application Form, Rev. 0

LES-0000-C-CVL—002-01A-3, Site Plan Overall, dated March 4, 2015

Organization Chart

Position description for "Staff Chemistry and Environmental Specialist," dated November 20, 2014

NELAP Accreditation of Cardinal Labs

New Mexico Environment Department Discharge Permit, DP 1481 Semi-Annual Report, dated October 1, 2015 – March 31, 2016

NCS-CSA-006, Criticality Safety Analysis of the Product Vent Pump and Chemical Trap Set, Rev. 08, dated November 7, 2014

Root Cause Evaluation: Failure to Properly Implement IROFS 14b, EV 111058

<u>RWPs</u>

16-001, Rev. 2, 16-002, Rev. 5, 16-003, Rev. 0, 16-007, Rev. 0, 16-030, Rev. 0, 16-004, Rev. 0, 16-008, Rev. 0, 16-010, Rev. 4