



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
245 PEACHTREE CENTER AVENUE NE, SUITE 1200  
ATLANTA, GEORGIA 30303-1257

April 26, 2013

Gary J. Laughlin, Chief Nuclear Officer  
and Head of Technical Services  
Louisiana Energy Services  
National Enrichment Facility, L.L.C.  
P.O. Box 1789  
Eunice, NM 88231

**SUBJECT: LOUISIANA ENERGY SERVICES, URENCO USA FACILITY - NUCLEAR  
REGULATORY COMMISSION INTEGRATED INSPECTION REPORT  
NUMBER 70-3103/2013-002**

Dear Mr. Laughlin:

This refers to the inspections conducted from January 1 through March 31, 2013, at the Louisiana Energy Services (LES), URENCO USA facility located in Eunice, New Mexico. The purpose of the inspections was to determine whether activities authorized under the license were conducted safely and in accordance with Nuclear Regulatory Commission (NRC) requirements. The enclosed report presents the results of these inspections. The findings were discussed with members of your staff at exit meetings held on January 31, 2013, February 7, 2013, and March 21, 2013, for this integrated inspection report.

During the inspections, the NRC staff examined activities conducted under your license as they related to public health and safety and to confirm compliance with the Commission's rules and regulations, and with the conditions of your license. Areas examined during the inspections are identified in the enclosed report. Within these areas, the inspections consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel.

The inspections covered the following areas; Operational Safety, Facility Support, Radiological Controls, Construction and Other Areas. No items of significance were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

G. Laughlin

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Should you have any questions concerning these inspections, please contact us.

Sincerely,

***/RA/ J. Diaz Velez for***

Lisa V. Castelli, Acting Chief  
Fuel Facility Inspection Branch 2  
Division of Fuel Facility Inspection

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

Enclosure:  
Inspection Report No. 70-3103/2013-002  
w/Attachment: Supplementary Information

cc w/encl: (See page 3)

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cc w/encl:

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U. S. NUCLEAR REGULATORY COMMISSION  
REGION II

Docket No.: 70-3103

License: SNM-2010

Report No.: 70-3103/2013-002

Licensee: Louisiana Energy Services, L.L.C. (LES)

Facility: URENCO USA, National Enrichment Facility (NEF)

Location: Eunice, NM 88231

Inspection Dates: January 1 through March 31, 2013

Inspectors: S. Alexander, Construction Inspector, Division of Construction Inspection (DCI) (Paragraph D.1)  
M. Crespo, Senior Fuel Facility Inspector, Division of Fuel Facility Inspection (DFFI) (Paragraph B.1 and B.2)  
B. Davis, Senior Construction Inspector, DCI (Paragraph E.1)  
S. Mendez, Fuel Facility Inspector, DFFI (Paragraph A.1, A.2 and C.1)  
L. Pitts, Senior Fuel Facility Inspector, DFFI (Paragraph A.2)  
C. Oelstrom, Construction Inspector, DCI (Paragraph D.1)  
J. Seat, Construction Inspector, DCI (Paragraph E.1)  
P. Startz, Fuel Facility Inspector, DFFI (Paragraph B.3 and E.2)  
J. Vasquez, Construction Inspector, DCI (Paragraph D.1)

Approved: L. Castelli, Acting Chief  
Fuel Facility Inspection Branch 2  
Division of Fuel Facility Inspection

Enclosure

## **EXECUTIVE SUMMARY**

Louisiana Energy Services (LES) URENCO USA (UUSA)  
NRC Integrated Inspection Report 70-3103/2013-002  
January 1 - March 31, 2013

Inspections were conducted by regional inspectors during normal shifts in the areas of safety operations, radiological controls, facility support, construction, and other areas. The inspectors performed a selective examination of licensee activities that were accomplished 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.

### **Safety Operations**

- The Items Relied on for Safety (IROFS) reviewed were properly implemented and maintained in order to perform their intended safety function. (Paragraph A.1)
- The inspectors determined that IROFS C23 was properly implemented for Cascades 3.7, 3.8 and 3.9 in order to perform its intended safety function. (Paragraph A.2)

### **Radiological Controls**

- Radioactive waste activities were performed in accordance with regulatory requirements and procedures. (Paragraph B.1)
- Shipments of radioactive materials were adequately prepared and safely received and shipped. Certificates of compliance were maintained current. Shipping records were properly completed and maintained in accordance with applicable regulations. (Paragraph B.2)
- The Environmental Protection program was implemented in accordance with the license application and regulatory requirements. (Paragraph B.3)

### **Facility Support**

- The Maintenance and Surveillance programs were implemented in accordance with the license application and regulatory requirements. (Paragraph C.1)

### **Construction**

- The licensee and primary contractors adequately implemented the requirements of the Quality Assurance Plan Description and Nuclear Regulatory Commission requirements. Quality Level (QL)-1 backfill placement and testing was consistent with the acceptance criteria identified for IROFS 27e. (Paragraph D.1)

**Other Areas**

- The following previously identified issues were closed: (Paragraph E.1)
  - Violation (VIO) 70-3103/2012-007-001: Failure to Identify and Correct Conditions Adverse to Quality with Certified Material Test Report
  - VIO 70-3103/2012-007-002: Failure to Identify and Correct Conditions Adverse to Quality with Installation of Roof Beams in CRDB
  - VIO 70-3103/2012-007-003: Failure to Follow Procedures
  - Unresolved Item (URI) 70-3103/2011-002-002: As-Built Configuration Control
  
- The facility's design and material condition, programmatic activities, operating procedures, and radiological and environmental monitoring programs fulfilled the requirements of the Decommissioning Planning Rule in 10 Code of Federal Regulations (CFR) Part 20.  
(Paragraph E.2)

**Attachment**

Key Points of Contact  
List of Items Closed and Discussed  
Inspection Procedures Used  
Documents Reviewed (Parital)

## REPORT DETAILS

### Summary of Plant Status

During the inspection period, the licensee conducted routine plant operation of the operating Cascades. The licensee initiated operation of three Cascades during the period after being granted authorization. Construction and testing in some areas of Separation Building Module (SBM) 1003, 1005 and other applicable process areas continued in preparation for future operation of additional cascades and equipment.

#### A. Safety Operations

##### 1. Safety Operation (Inspection Procedure (IP) 88020) Core Inspection

###### a. Inspection Scope and Observations

The inspectors interviewed staff and reviewed records associated with the Cylinder Autoclave, the Product Liquid Sampling and the Feed and Receiving Stations. The inspectors determined that the items relied on for safety (IROFS) reviewed were adequately implemented and properly communicated as described in the Integrated Safety Analysis (ISA).

The inspectors confirmed that the active and passive engineered controls reviewed were present and capable of performing their intended safety functions. To complete this confirmation, the inspectors evaluated and verified the physical presence of the passive and active engineered safety controls to determine their capability and operability, and verified that potential accident scenarios were covered.

The inspectors determined that licensee administrative controls were implemented and communicated. The inspectors reviewed three administrative controls' IROFS and determined that the required actions as identified in the ISA had been correctly transcribed into written operating procedures. The inspector evaluated the procedures' contents with respect to operating limits and operator responses for upset conditions and verified that limits needed to assure safety were adequately described in the procedures. Also the inspectors reviewed training record for two operators and determined that the operators were adequately trained to perform the administrative controls in their work areas.

The inspectors interviewed five operators and two technicians and determined that operators and technicians were adequately implementing the required safety controls. The inspectors observed operators and technicians' and determined that they were adhering to applicable safety procedures. The inspectors reviewed the postings and operator aids applicable to the tasks being observed and determined that these postings and operator aids were current, reflected safety controls, and were followed by the operators.

Through interviews and document reviews, the inspectors verified that the licensee conducted preventive maintenance, calibration, and periodic surveillance as required by the ISA for the IROFS reviewed.



The inspectors reviewed the licensee Corrective Action Program (CAP) entries for the past six months and determined that deviations from procedures and unforeseen process changes affecting nuclear criticality, chemical, radiological, or fire safety were documented and investigated promptly. Also, the inspector evaluated the corrective actions associated with CAP entries 2011-3981 and 3587 and determined that the completed corrective actions were adequate.

b. Conclusion

No findings of significance were identified.

2. Plant Operations (IP 88020). Verification that the systems structures and components designed to support operation of Cascades 3.7, 3.8 and 3.9 met license requirements prior to initiation of feed

a. Inspection Scope and Observations

The inspectors reviewed records associated with the IROFS C23 for the verification of Cascades 3.7, 3.8 and 3.9. The inspectors determined that the design features for IROFS C23 for the TC 21 centrifuges were adequate to minimize releases and they were being adequately implemented and properly communicated as described in the ISA.

The inspectors also reviewed records associated with the IROFS C23 for the verification of Cascades 1.1 to 1.7. The inspectors determined that the design features for IROFS C23 for the TC 12 centrifuges were adequate to minimize releases and they were being adequately implemented and properly communicated as described in the ISA.

The inspectors confirmed that the passive engineered controls that were reviewed were present and capable of performing their intended safety function. The inspectors interviewed operators and technicians and determined that they were adequately implementing the required safety controls. The inspectors reviewed the operator aids and procedures applicable to the operational validation of IROFS C23 and determined that operator aids were current, reflected the safety controls, and were followed by the operators and technicians. The inspectors also observed the operators and technicians performing the validation and determined that they were adhering to applicable safety procedures.

Through interviews and document reviews, the inspectors verified that the licensee conducted calibration and surveillance activities as required by the ISA Summary and the commercial grade dedication (CGD) process for IROFS C23. The inspectors also reviewed the CGD package for each cascade to verify compliance with applicable procedures and license requirements.

b. Conclusion

No findings of significance were identified.

B. Radiological Controls

1. Radioactive Waste Management (IP 88035)

a. Inspection Scope and Observations

The inspectors performed walk-downs of selected radioactive material storage areas, specifically the Radiological Waste Storage Area, Cylinder Receipt and Dispatch Building (CRDB), the Pond, and the Uranium Byproduct Cylinder (UBC) pad. The storage areas had adequate postings to ensure that the proper material was being stored in the area and the material was safely stored in accordance with the Nuclear Criticality Safety (NCS) requirements. The containers were properly labeled to reflect their contents and were in good physical condition.

The inspectors interviewed licensee staff on the generation and collection of radioactive waste. The inspectors discussed the non-destructive assay process, the detection of special nuclear material in a bulk waste container, with licensee staff. The inspectors determined that the collection and detection of the waste was adequate.

The inspectors reviewed the 2012 radioactive waste management audit, number 2012-A-07-003, performed by the licensee and determined that it was in compliance with the license requirements. The inspectors verified that the findings from the audit were entered into the licensee corrective action program for resolution.

b. Conclusion

No findings of significance were identified.

2. Transportation of Radioactive Material (IP 86740)

a. Inspection Scope and Observations

The inspectors evaluated whether the licensee had established and maintained an effective program to ensure radiological and nuclear safety in the receipt, packaging and delivery to a carrier of licensed radioactive materials. The inspectors also evaluated whether transportation activities were conducted in compliance with the applicable NRC (10 CFR Parts 20 and 71) and Department of Transportation (DOT) (49 CFR Parts 171-178) regulations.

The inspection consisted of a review of documentation, interviews and discussions with responsible personnel, and field observations. The inspectors reviewed plant procedures for the preparation of packages to be used for the initial shipment of full product cylinders. The inspectors reviewed the documentation involving the shipment of product material and determined that the licensee had ensured that appropriate documentation accompanied the package being shipped. The inspectors also verified that the required information on the packaging and shipping orders including the transportation index, package activity, labeling, and placards was in compliance with the requirements.

The inspectors observed the storage of the product cylinders containing enriched uranium hexafluoride (UF<sub>6</sub>) and determined they were stored safely. The inspectors performed walk downs of the storage area for the UX-30 overpacks, 48Y UF<sub>6</sub> feed cylinders, and 30B UF<sub>6</sub> product cylinders with licensee personnel and found them to be in good condition.

The licensee was receiving 48Y UF<sub>6</sub> feed cylinders containing natural uranium. These cylinders were stored on the UBC storage pad before being introduced into the process. The inspectors toured the UBC storage pad and noted that UF<sub>6</sub> cylinders were stored in the proper configuration. Based on observations and discussions with licensee personnel, the inspectors determined that cylinder handling equipment was adequately maintained.

The inspectors reviewed the licensee's procedures for handling and maintenance of UX-30 overpacks. The inspectors determined that the procedures reflected the Safety Analysis Report (SAR) for the packages. The inspectors also reviewed the prior-to-use inspections and annual inspections and determined that they were in accordance with the UX-30 Consolidated SAR.

The inspectors reviewed plant procedures for recordkeeping and verified that a system was in place to maintain shipment records for three years after any shipment and found they were in accordance to 10 CFR 71.91(a).

Through a review of procedures and discussions with licensee personnel, the inspectors determined that the roles and responsibilities of plant personnel and organizations responsible for the transportation of radioactive materials were adequately delineated. Training and qualifications records for personnel responsible for the preparation and shipment of radioactive material were current.

The inspectors also reviewed the licensee's Quality Assurance (QA) program for the transportation of radioactive materials, specifically audit 2012-A-07-003, and determined that the licensee was in compliance with 10 CFR Part 71 Subpart H. The licensee also maintained documentation for foreign approved packaging that demonstrated that the packages were revalidated by DOT.

The inspectors reviewed two 10 CFR 71.95 reports the licensee made in 2012. The first report, dated June 21, 2012, resulted from failing to remove valve covers of the product cylinders shipped to the customer, as required by the certificate of compliance for the UX-30 overpack. As part of the corrective actions, the procedure LO-3-2000-04, Revision (Rev.) 12, "Container Handling During Initial Plant Start-Up," was modified to specifically include this step. The second report, dated July 20, 2012, resulted from failing to insert the plug bolts in the lid lifting lugs for product cylinders to the customer, as required by the certificate of compliance for the UX-30 overpack. To address this issue, the inspection checklist for UX-30 overpacks was modified to include this verification. No issues were noted with the licensee's corrective actions on these reports.

b. Conclusion

No findings of significance were identified.

3. Effluent Control and Environmental Protection (IP 88045)

a. Inspection Scope and Observations

The inspectors reviewed program changes and procedures revised since the last inspection and verified that the program and procedures were in accordance with license requirements. The inspectors reviewed self-assessments and audits and verified that identified corrective actions were adequately implemented.

The inspectors reviewed license requirements and determined that the quality control of laboratory measurements was implemented in accordance with the license application.

The inspectors reviewed the semi-annual effluent reports for 2012, and determined that the licensee was in compliance with 10 CFR 70.59. The inspectors reviewed records of airborne effluents, observed operational equipment and activities, and determined that the licensee was in compliance with the license, approved procedures, and policies. The inspectors reviewed records of liquid wastes currently being stored in laboratory facilities and verified compliance with license application, approved procedures, and material condition. The inspectors verified that gaseous effluent monitors were calibrated and functional checks were performed in accordance with procedural requirements.

The inspectors reviewed the public dose assessment and determined that the total dose to the individual likely to receive the highest dose from the licensed operation did not exceed the regulatory limit in 2012. The inspectors reviewed the airborne portion of the public dose assessment and verified the results were in compliance with the As Low As Reasonably Achievable (ALARA) constraint required by 10 CFR 20.1101(d).

The inspectors reviewed environmental monitoring stations including stationary air samplers, stack sampling systems, and sub-surface sampling wells, and determined that the sampling points were in compliance with the license requirements. Also, the inspectors reviewed the sampling results for soil, vegetation, surface water, ambient air, external radiation and determined that the sampling points were in compliance with the license requirements.

b. Conclusion

No findings of significance were identified.

C. Facility Support

1. Maintenance and Surveillance (IP 88025)

a. Scope and Observations

The inspectors interviewed seven managers, supervisors, and maintenance personnel to evaluate maintenance and surveillance program activities. The inspectors verified that IROFS and other safety controls were adequate and were maintained available and reliable to perform their safety function when needed.

The inspectors verified that the licensee's work control program had provisions to ensure the adequate pre-job planning and preparation of work packages to support maintenance and surveillance activities. The inspectors reviewed maintenance and surveillance work packages for accuracy and to ensure that test packages challenged and verified operability of IROFS and safety controls.

The inspectors observed maintenance work activities that were performed during the outage primarily at the Centrifuge Assembly Building (CAB) and SBM 1001 and determined that work activities were conducted in accordance with license requirements and approved procedures. The inspectors noted that effective corrective actions were taken when a safety control failed or was degraded. The inspectors verified that post-maintenance testing and calibrations as specified by the licensee requirements were adequately performed prior to restoring equipment to operational status. Completed work packages were adequately reviewed prior to returning equipment to service.

The inspectors reviewed the licensee's problem identification and resolution program to verify that performance issues relating to the maintenance and surveillance of IROFS and safety controls were entered into the CAP and evaluated the adequacy of corrective actions taken.

b. Conclusion

No findings of significance were identified.

D. Construction

1. Geotechnical/Foundation Activities (IP 88131)

a. Scope and Observations

The inspectors performed a field inspection of the Quality Level (QL)-1 backfill activities for the UF<sub>6</sub> area of the SBM 1005 building to verify backfill activities were performed in accordance with, the Quality Assurance Plan Description (QAPD), NRC requirements, engineering specifications, procedures, and industry codes. The inspectors observed ongoing structural backfill placement, soil testing, and inspection activities to verify that the appropriate equipment, sampling, and testing methods used for backfill placement were in conformance with approved design specifications and technical procedures. In addition, the inspectors reviewed the audit and surveillance procedures for Louisiana Energy Services (LES) URENCO USA (UUSA) and their main contractor, Baker Concrete, Inc., to determine whether audit programs were established in accordance with project requirements.

Specifically, the inspectors reviewed LES UUSA engineering specifications to determine if acceptance requirements were adequately translated into construction and testing procedures used for the structural backfill. The inspectors reviewed several construction and testing procedures to verify that the appropriate sampling and testing methods were implemented in accordance with specifications and industry standards. The inspectors evaluated the storage conditions of the borrow soil source material and reviewed the respective test reports for conformance with project specifications.

The inspectors also reviewed the Baker QA program, including the process for identification, documentation, evaluation, and disposition of conditions adverse to quality and defects, to verify that the program met the requirements of the QAPD and NRC regulations. The inspectors reviewed the audit and surveillance procedures to determine whether audit programs were established and implemented in accordance with NRC regulations and the requirements of the QAPD.

In addition, the inspectors reviewed Baker's procedure for CGD of items for safety related applications, to ensure the process for determining critical characteristics met the requirements of the QAPD and NRC regulations. The inspectors reviewed the CGD plans for the soil and concrete backfill materials to verify the critical characteristics identified in the plans met the requirements of the procedure and were reviewed by engineering.

A sample of training and qualification records was reviewed. The inspectors evaluated certifications of testing personnel to verify that the certifications were issued by a national recognized agency and that quality control personnel met the required experience criteria. The inspectors interviewed personnel to verify that the appropriate engineering direction was available onsite to monitor geotechnical construction activities.

b. Conclusion

No findings of significance were identified.

E. Other Areas

1. Review of Previously Identified Issues

a. Quality Assurance: Problem Identification, Resolution, and Corrective Action (PIRCA) (IP 88110)

1. (Closed) Violation (VIO) 70-3103/2012-007-001: Failure to Identify and Correct Conditions Adverse to Quality with Certified Material Test Report

This violation was documented in Inspection Report (IR) 70-3103/2012-007, dated December 21, 2012. The violation was associated with a failure to promptly identify and correct errors documented in a Certified Material Test Report (CMTR) used for material acceptance in CGD plan D-2009-001. The licensee provided a response to the violation in a letter dated January 3, 2013, and supplemental response dated January 25, 2013. The inspectors reviewed the licensee's corrective actions, documented in condition report (CR) 2012-3473, that were initiated to address the violation. The inspectors observed that the licensee corrected the CMTR with the correct material size and specifications and completed a review of all other CMTRs used in CGDP D-2009-001. Based on the review of documents and discussions with licensee personnel, the inspectors determined that the corrective actions were adequately implemented to address the violation. VIO 2012-007-001 was closed.

2. (Closed) VIO 70-3103/2012-007-002: Failure to Identify and Correct Conditions Adverse to Quality with Installation of Roof Beams in CRDB

This violation was documented in IR 70-3103/2012-007, dated December 21, 2012. The violation was associated with the failure to promptly identify and correct nonconforming as-built installation for structural steel components. Specifically, the inspectors identified a structural bolted connection that did not contain the proper diameter bolt as required by the design drawings. The licensee provided a response to the violation in a letter dated January 3, 2013, and supplemental response dated January 25, 2013. The inspectors reviewed the licensee's corrective actions documented in CR-2012-3575 that were initiated to address the violation. The inspectors observed that the licensee replaced the bolts in the structural connection with bolts of the correct diameter and completed an extent of condition to ensure no other bolted connections contained inadequate bolting. The inspectors also reviewed nonconformance report 2012-3575, CR 2012-1217, work package 1100-CIVIL-823-173, and work package 1100-CIVIL-823-174. Based on the review of documents and discussions with licensee personnel, the inspectors determined that the corrective actions were adequately implemented to address the violation. VIO-2012-007-002 was closed.

3. (Closed) VIO 70-3103/2012-007-003: Failure to Follow Procedure

This violation was documented in IR 70-3103/2012-007, dated December 21, 2012. The violation was associated with two examples of a failure to dedicate commercial grade items in accordance with project procedures.

Specifically, this violation documented: (1) a failure to document bolt hole size and location for CRDB structural components as a critical characteristic for acceptance in CGDP D-2010-018, as required by procedure EG-3-2100-05, Rev. 16; and (2) a failure to verify critical characteristics for 56 components listed in CGDP D-2010-018 as required by procedure EG-3-2100-05, Rev. 16. The licensee provided a response to the violation in a letter dated January 3, 2013, and supplemental response dated January 25, 2013.

For example 1 of this violation, the inspectors reviewed CR 2012-3526, interviewed personnel, and reviewed specification LES-S-S-00002, Rev. 5. The corrective actions taken by the licensee included revising specification LES-S-S-00002 to state that bolt hole size and location was not a critical characteristic for acceptance. The licensee's corrective actions also included documentation in the CGDPs to reflect why bolt hole size and location were not considered to be a critical characteristic for acceptance. The inspectors verified the corrective actions, taken by the licensee, adequately removed bolt hole size and location as a critical characteristic for acceptance from the commercial grade dedication plans and project specification.

For example 2 of this violation, the inspectors reviewed CR 2012-3584, nonconformance report (NCR) 2012-3083, and interviewed personnel. The corrective actions initiated by the licensee included evaluations of existing data and conducting critical characteristic verification inspections for a sample of the 56 components associated with NCR 2012-3083. Based on their review of the licensee corrective actions, the inspectors determined that the licensee adequately verified the critical characteristics for the 56 components in question, in accordance with the CGDPs. VIO-2012-007-003 was closed.

#### 4. (Closed) Unresolved Item (URI) 70-3103/2011-002-002: As-built Configuration Control

The inspectors reviewed the licensee's corrective action plan documented in CR 2011-1603. CR 2011-1603 was initiated to address the NRC's concerns of the licensee's program for maintaining as-built drawings as documented in URI 70-3103/2011-002-002. The URI was opened because the inspectors identified discrepancies as to whether as-built drawings were required. The inspectors reviewed American Society of Mechanical Engineers (ASME) – Nuclear Quality Assurance (NQA) Level 1 of 1994 and the QAPD for requirements of when drawings are to be revised to reflect as-built drawings. Based on the review of documents and discussions with licensee personnel, the inspectors determined that the requirements were adequately implemented. URI 2011-002-002 was closed.

#### 2. Special Topics

##### a. Temporary Instruction (TI) 2600/017, Review of the Implementation of the Decommissioning Planning Rule (DPR)

Inspectors assessed the facility's design and material condition, programmatic activities, operating procedures, and radiological/environmental monitoring programs to determine if management practices fulfilled the requirements of the DPR in 10 CFR Part 20.

Inspectors performed a physical inspection of most areas of the entire facility including all land within the fence line, external cylinder storage pads, storm water runoff impoundments, interior production areas, process ventilation filtration system, and the planned wastewater treatment/solidification process area. Samples of operating procedures, periodic sampling plans, laboratory sample analysis, and data collection were reviewed for adequacy. It was determined that the facility was designed, constructed, managed, and operated in a manner that the licensee meets the requirements of the DPR in 10 CFR Part 20. The NRC headquarters staff may perform additional evaluation of the financial assurance documentation to determine compliance as required by 10 CFR 70.25, 72.30.

#### F. Exit Meeting

The inspection scope and results were presented to senior licensee representatives and staff on January 3, 2013, February 27, 2013, and March 21, 2013, and summarized on April, 8, 2013, to Chuck Slama and Melinda Conley. Proprietary information was discussed but not included in the report.



## **SUPPLEMENTARY INFORMATION**

### **1. KEY POINTS OF CONTACT**

<u>Name</u>	<u>Title</u>
M. Boden	Mechanical Maintenance
M. Conley	Licensing Engineer
C. Fuhlage	Design Engineer
D. Greenwood	Operations Manager
B. Hanson	Deputy Shift Manager
T. Hendrix	CRDB Construction Engineer
T. Knowles	Licensing and Performance Assessment Manager
R. Kohrt	Plant Engineer Manager
J. Laughlin	Chief Nuclear Officer
P. Law	Maintenance Manger
L. Lorati	Commercial Grade Dedication Lead
P. McCasland	Licensing Specialist
J. Muth	Quality Assurance Manager
R. Olivias	CRDB Construction Engineer
R. Page	Director of Engineering
C. Pantoya	PCES Maintenance Supervisor
S. Scott	Project Engineering
C. Slama	Licensing Engineer/Senior Operator
S. Thyne	Training Manager
W. Warren	Baker Concrete Quality Assurance Supervisor
B. Wood	Maintenance Support Supervisor

### **2. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

#### Closed

70-3103/2012-007-001	VIO	Failure to Identify and Correct Conditions Adverse to Quality with Installation of Roof Beams in CRDB (Paragraph E.1.a)
70-3103/2012-007-002	VIO	Failure to Identify and Correct Conditions Adverse to Quality with Certified Material Test Report (Paragraph E.1.b)
70-3103/2012-007-003	VIO	Failure to Follow Procedures (Paragraph E.1.c)
70-3103/2011-002-002	URI	As-built Configuration Control (Paragraph E.1.d)

### 3. INSPECTION PROCEDURES USED

IP 86740	Transportation of Radioactive Material
IP 88020	Operational Safety
IP 88025	Maintenance and Surveillance
IP 88035	Radioactive Waste Management
IP 88045	Effluent Control and Environmental Protection
IP 88107	Quality Assurance: Design and Document Control
IP 88108	Quality Assurance: Control of Materials, Equipment, and Services
IP 88110	Quality Assurance: Problem Identification, Resolution, and Corrective Action (PIRCA)
IP 88111	10 CFR Part 21, Inspection-Facility Construction
IP 88131	Geotechnical/Foundation Activities
IP 88132	Structural Concrete Activities
IP 88133	Structural Steel and Supports Activities
TI 2600/017	Review of the Implementation of the Decommissioning Planning Rule

### 4. DOCUMENTS REVIEWED (PARTIAL LIST)

#### Licensee (LES) Documents Reviewed

##### Procedures:

CH-3-4000-01, Alpha Monitor (ABPM 201 S) Operation, Rev. 6, dated March 27, 2012  
 CH-3-4000-02, Operation of the MacGiver HF-2 Monitor, Rev. 6, dated September 19, 2013  
 CH-3-5000-01, Alpha Monitor (ABPM 201 S) Calibration and Maintenance, Rev. 0, dated March 27, 2012  
 EG-3-2100-05, Commercial Grade Dedication Process, Rev. 13  
 FP-3-2000-02, Combustibles Control Inspection - UBC Pad, Rev. 2, dated June 5, 2012  
 FM-3-1000-02, Vegetation Control Proximate to UBC Storage Pad and Buildings Containing Uranic Material, Rev. 0, dated October 28, 2009  
 QA-3-2000-01, Approved Supplier List, Rev. 8  
 QA-3-2000-01, Quality Assurance Audit, Rev. 12  
 QA-3-2000-02, Commercial Grade Survey, Rev. 3  
 QA-3-2000-07, Quality Assurance Surveillance, Rev. 3

##### Event Reports(ER) and Written as a Result of the Inspection:

ER 2013-219, Documented Comments Identified by NRC during IP 88020 inspection, dated February 6, 2013  
 ER-2013-540, Documented Comments Identified by NRC during IP 88025 inspection, dated March 20, 2013  
 ER-2013-541, Documented Comments Identified by NRC during IP 88025 inspection, dated March 20, 2013  
 ER-2013-551, Documented Comments Identified by NRC during IP 88025 inspection, dated March 21, 2013  
 ER-2013-554, Documented Comments Identified by NRC during IP 88025 inspection, dated March 21, 2013  
 ER-2013-563, Documented Comments Identified by NRC during IP 88045 inspection, dated March 18, 2013

Condition Reports (CRs) and Event Reports (ERs) Reviewed:

2011-3981	2012-1346	2012-3526	2013-0112
2011-3505	2012-1894	2012-3575	2013-0154
2012-0230	2012-3099	2012-3584	2013-0175
2012-0641	2012-3405	2012-3587	2013-0094
2012-1217	2012-3473	2013-0105	2013-0165

Work Plans/Work Orders:

1005-CIVIL-811-001, Rev. 0, SBM 1005 UF<sub>6</sub> Area Sub Grade, Excavation and Backfill  
 1100-CIVIL-823-173, Bolt Inspection  
 1100-CIVIL-823-120, Replace Bolts per NCR-2012-3575  
 100008801, CRDB ALPHA MON MAINT (2MA2), [Process ventilation stack], Alpha/Beta  
 Monitor Monthly Energy Calibration per CH-3-4000-01.

Commercial Grade Dedication Packages:

D-2009-011, Structural Beams and Connectors for the CRDB Structure  
 D-2010-018, Steel for CRDB  
 D 2010-019, Turnbuckles, Clevises, and Pins  
 D-2010-027, CRDB Rooftop Steel

Audit and Surveillance Reports:

2012-A-06-009, Quality Assurance Audit Report of Baker Concrete Construction – Eunice, NM, Rev. 0  
 2013-S-01-001, Surveillance is to review the effectiveness of Baker Concrete Construction, Inc. (BCCI) Document Control and procedural implementation of BCCI NQAP NEF-6.01 Rev.1, dated January 17, 2013  
 2013-S-01-003, Surveillance is to review the effectiveness of Baker Concrete Construction, Inc. (BCCI) Approved Suppliers List (ASL) and procedural implementation of BCCI NQAP NEF-7.01 Rev.1, dated January 18, 2013  
 2013-S-01-004, Verify the effectiveness of the Baker Concrete Construction, Inc. (BCCI) Commercial Grade Dedication process at URENCO (USA), dated January 17, 2013  
 2013-S-01-012, Back Fill Activities in 1005 UF<sub>6</sub> Area, dated January 23, 2013  
 Environmental Protection Self Assessment Plan, SA-2012-0004, exit November 23, 2012  
 QA Environmental Compliance Audit, 2012-A-06-002, exit July 27, 2012  
 LES UUSA's 2013 Audit/Surveillance Plan of Baker  
 LES UUSA's 2013 Baker Audit and Surveillance Schedule (QA)  
 LES UUSA's 2013 Baker Surveillance Schedule (QC)

Other Documents:

LES-S-S-00002, Specification for CRDB Civil-Structural Requirements, Rev. 3  
 LES-S-S-00002, Specification for CRDB Civil-Structural Requirements, Rev. 4  
 LES-S-S-00002, Specification for CRDB Civil-Structural Requirements, Rev. 5  
 LES-S-S-02300, URENCO: Clearing, Grading, and Earthwork Material, Construction and Testing  
 Report: 20090720HIQLES, Evaluation of an Air Sampling Location in the 6" Stack & Calculation of Particle Transmission Efficiency of Sample Transport Line at National Enrichment Facility Eunice, New Mexico, Stack SBM 1001

Semi-Annual Radiological Effluent Release Report for January 1, 2012 through June 30, 2012

Semi-Annual Radiological Effluent Release Report for July 1, 2012 through December 31, 2012

### **Baker Documents Reviewed**

#### Procedures:

CI-NEF-13.01-1, Work Instructions for Material handling and Control, Rev.0

Evaluating and Reporting Defects and Nonconformances, Rev. 1

NQAP-NEF-2.01, Co-Worker Indoctrination and Training, Rev.1

NQAP NEF-2.03, Quality Assurance Project Document Procedure, Rev. 0

NQAP NEF-6.01, Controlling Documents, Rev. 2

NQAP NEF-7.01, Controlling Purchased Items and Services, Rev. 2 (Purchasing requirements, CGD requirements, ASL)

NQAP NEF-7.02, CGD of Items for Safety Related Applications, Rev. 2

NQAP-NEF-10.01, Performing Inspections, Rev.1

NQAP NEF-16.01, Requesting Corrective Actions, Rev. 0

NQAP NEF-17.01, Controlling Quality Assurance Records, Rev. 2

NQAP NEF-18.01, Performing Audits, Rev. 3

NQAP NEF-18.02, Performing Surveillances, Rev. 1

Quality Assurance Project Document for the National Enrichment Facility Project Lea County, New Mexico, Rev. 0

#### Audit Reports:

Supplier Audit Report S 12-05, Terracon Consultants, Inc., Rev. 0, dated October 22, 2012

Supplier Audit Report S 12-10, Terracon Consultants, Inc., Rev. 0, dated December 27, 2012

#### Commercial Grade Dedication Plans:

CGDP NEF-001, Commercial Grade Dedication Plan of Structural Fill, Rev. 1, dated December 13, 2012

CGDP NEF-003, Commercial Grade Dedication Plan of Ready Mix Concrete, Rev. 0, dated January 4, 2012

#### Test Reports:

Stock Pile Report No. UF<sub>6</sub>-SP-10255-01, Rev. 1

Stock Pile Report No. UF<sub>6</sub>-INS-10.01-3-0001

Field Density Test No. UF<sub>6</sub>-NEF-INS-10.01-1-0034, Rev.1

Field Density Test No. UF<sub>6</sub>-NEF-INS-10.01-1-0037, Rev.1

Field Density Test No. UF<sub>6</sub>-NEF-INS-10.01-1-0038, Rev.1

Field Density Test No. UF<sub>6</sub>-NEF-INS-10.01-1-0039, Rev. 2

Field Density Test No. UF<sub>6</sub>-NEF-INS-10.01-1-0040, Rev. 2

Field Density Test No. UF<sub>6</sub>-NEF-INS-10.01-1-0041, Rev. 2

NEF-SUB0013, Testing Results for Crusher Fines

NEF-SUB-0023, Mix Design Report

A-4121077L-0006 A, Compaction Characteristics of Soil Report

A-4121077L-0055 A, Compaction Characteristics of Soil Report

Miscellaneous:

Baker's Inspection of Concrete Mixing & Delivery Report No. UF<sub>6</sub>-NEF-INS-10.01-1-0038, dated January 24, 2013

Baker's Structural Fill Traveler Report No. UF<sub>6</sub>-NEF-INS-10.01-3-001, dated January 2, 2013

Baker Corrective Action Request NEF-CAR-009, CAR's not created for Audit findings, dated January 30, 2013

Baker's Terracon Surveillance Schedule, dated January 28, 2013

**Terracon Documents Reviewed**

Procedures:

QP 13-04, Soil Sample Receiving Procedure, Rev. 0

WP 02-18, Particle Size Analysis of Soils, Rev. 1

WP 01-04, Slump of Hydraulic Cement Concrete – ASTM C143, Rev. 0

WP02-11, Classification of Soils for Engineering Purposes, Rev.1

WP02-05, Laboratory, Rev. 0

WP01-02, Field Density Testing- Sand Cone Method, Rev. 1