



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

April 21, 2015

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

SUBJECT: LOUISIANA ENERGY SERVICES, URENCO USA FACILITY – NUCLEAR
REGULATORY COMMISSION INTEGRATED INSPECTION REPORT NUMBER
70-3103/2015-002

Dear Mr. Laughlin:

This refers to the inspections conducted from January 1 through March 31, 2015, 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 U.S. Nuclear Regulatory Commission (NRC) requirements. The enclosed report presents the results of these inspections.

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 NRC 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.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 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 from the NRC's Agency-Wide Document Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

J. Laughlin

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

Sincerely,

/RA/ D. Hartland for

James A. Hickey, Chief
Projects Branch 1
Division of Fuel Facility Inspection

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

Enclosure:
Inspection Report No. 70-3103/2015-002
w/Attachment: Supplementary Information

cc: (See page 3)

J. Laughlin

2

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cc: (See page 3)

DISTRIBUTION:

T. Gody, RII
J. Hickey, RII
L. Pitts, RII
C. Read, RII
D. Seymour, RII
T. Liu, NMSS
M. Raddatz, NMSS
J. Downs, NMSS
PUBLIC

PUBLICLY AVAILABLE NON-PUBLICLY AVAILABLE SENSITIVE NON-SENSITIVE
ADAMS: Yes ACCESSION NUMBER: ML15111A280 SUNSI REVIEW COMPLETE FORM 665 ATTACHED

OFFICE	RII: DFFI	RII: DFFI	NMSS		RII:	RII:
SIGNATURE	/RA/	/RA/	/RA/			
NAME	LPitts	CRead	JDowns			
DATE	4/20 /2015	4/ 20 /2015	4/20/2015			
E-MAIL COPY	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

cc:

Ryan Flynn, Deputy Secretary
New Mexico Department of Environment
Office of the Secretary
1190 St. Francis Drive
P. O. Box 26110
Santa Fe, NM 87502-0157

Matt White, Mayor
City of Eunice
P.O. Box 147/1106 Ave J
Eunice, NM 88231

The Honorable Sam D. Cobb, Mayor
City of Hobbs
200 E. Broadway
Hobbs, NM 88240

Cheryl Chance, Mayor
City of Jal
P.O. Drawer 340
Jal, NM 88252

Commissioner Gregory H. Fulfer
Chairman
Lea County Board of County Commissioners
Lea County Courthouse
100 North Main, Suite 4
Lovington, NM 88260

Daniel F. Stenger, Counsel
Hogan and Hartson
555 13th Street, NW
Washington, DC 20004

Michael Ortiz, Chief
Radiation Controls Bureau
Field Operations Division
Environmental Department
Harold S. Runnels Building
1190 St. Francis Drive, Room S 2100
P.O. Box 26100
Santa Fe, NM 87502-0157

Gregory Smith, President and Chief Executive Officer
Louisiana Energy Services, L.L.C.
Electronic Mail Distribution

cc: (cont'd on page 4)

cc: (Cont'd)
Dave Sexton
President and Chief Executive
Officer
P.O. Box 1789
Eunice, NM 88231
Dave.Sexton@Urenco.com

Clint Williamson
Vice President of Community and
External Relations
P.O. Box 1789
Eunice, NM 88231
Clint.Williamson@urenco.com

Perry Robinson
Outside General Counsel
National Enrichment Facility
P.O. Box 1789
Eunice, NM 88231

Richard A. Ratliff, PE, LMP
Radiation Program Officer
Bureau of Radiation Control
Department of State Health Services
Division for Regulatory Services
1100 West 49th Street
Austin, TX 78756-3189

U. S. NUCLEAR REGULATORY COMMISSION
REGION II

Docket No: 70-3103

License: SNM-2010

Report No: 70-3103/2015-002

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, 2015

Inspectors: L. Pitts, Senior Fuel Facility Inspector, DFFI (Paragraphs A.1, A.2 and A.3)
M. Read, Fuel Facility Inspector, DFFI (Paragraphs A.1, A.2 and A.3)
J. Downs, Fire Protection Engineer, NMSS (Paragraph A.3)

Approved: J. Hickey, Chief
Projects Branch 1
Division of Fuel Facility Inspection

Enclosure

EXECUTIVE SUMMARY

Louisiana Energy Services, L.L.C., (LES), URENCO USA (UUSA)
NRC Integrated Inspection Report 70-3103/2015-002
January 1 - March 31, 2015

Inspections were conducted by regional inspectors during normal shifts in the area of safety operations. 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 inspectors determined that systems, structures, and components designed to support safe operation of Separations Building Module 1005 were properly constructed. (Paragraph A.1)
- The inspectors determined that item relied on for safety (IROFS) C23 was properly implemented for Cascades 5.1 through 5.4 in order to perform its intended safety function. (Paragraph A.2)
- The NRC staff determined that the systems, structures, and components designed to support safe operation of the Uranium Byproduct Cylinder Storage Pad Crane for non-enriched uranic material were constructed in accordance with the requirements of the license. (Paragraph A.3)

Attachment

Key Points of Contact

List of Items Closed and Discussed

Inspection Procedures Used

Documents Reviewed (Partial)

REPORT DETAILS

Summary of Plant Status

During the inspection period, the licensee conducted routine plant operation of the operating Cascades. Construction and testing in some areas of Separation Building Modules (SBMs) 1001, 1003, 1005, and other applicable process areas continued in preparation for future operation of additional cascades and equipment.

A. Safety Operations

1. Plant Operations (Inspection Procedure (IP) 88020) Verification that the systems structures and components designed to support operation of Cascades in Separations Building Module(SBM) 1005 met license requirements prior to allowing operation of cascades in SBM 1005.
 - a. Inspection Scope and Observations

The inspectors conducted an in-office and onsite review of revised licensing documents and procedures to ensure they were updated to adequately reflect the future operations of SBM 1005. The inspectors reviewed changes to the Integrated Safety Analysis (ISA) Summary and Safety Analysis Report (SAR). Appropriate changes were made to the ISA to update applicable accident sequences and IROFS to include SBM 1005. The inspectors verified that the associated revisions to the SAR reflected appropriate licensing, structure, system, and component updates. The following IROFS and their associated Boundary Documents (BDs) and Operations Requirements Manuals (ORMs) were reviewed by inspectors:

IROFS 16a	Administratively Limit Moderator Mass in Cylinder
IROFS C21	Flow Restriction for Vacuum Pumps Used for Sampling and/or Evacuation
IROFS 27e	Design Features of SBM and CRDB Structures
IROFS 30a	Limit Hydrocarbon Oil by Controlling Type Used
IROFS 30b	Limit Hydrocarbon Oil by Testing Prior to Adding to Pump
IROFS 30c	Limit Hydrocarbon Oil by Testing Prior to Operation
IROFS 35	Fire Rated Barriers
IROFS 36a	Limit Transient Combustible Loading in Uranic Areas
IROFS 38	Limit Cylinder Fill Mass to Ensure Cylinder Integrity Once Per Shift
IROFS 39a	Limit Exposure by Requiring Evacuation of Area on Seismic Event
IROFS 39b	Limit Exposure by Requiring Evacuation of Area on Fire Event
IROFS 39c	Limit Exposure by Requiring Evacuation of Area on Release Event
IROFS 39d	Limit Exposure by Requiring Evacuation of Area on CAB, SBM, and CRDB Severe Weather Event
IROFS 42	Limit Cylinder Mass by Weight Prior to Placement in Autoclave
IROFS 50b-e	Administratively Control Proximity of Vehicles by Use of Barriers

A large portion of this readiness review was conducted during the previous inspection period; the specific items inspected during the previous inspection period are described in Inspection Report 70-3103/2014-005.

During the onsite review, the inspectors conducted a field walkdown of SBM 1005 to verify the status of in-place construction related IROFS and the status of IROFS necessary for safe operation. The inspectors verified proper installation of fire penetrations and seals for IROFS 35. The inspectors verified control of transient combustibles per IROFS 36a. The inspectors verified that physical barriers were in place to control the proximity of vehicles to equipment per IROFS 50 b/c and IROFS 50 d/e. The inspectors reviewed the licensee's IROFS 27e related inspections (which credits the construction and design of SBM 1005 through a building inspection) and performed an independent inspection of SBM 1005. The inspectors verified that IROFS 27e was adequately implemented.

b. Conclusion

No violations of NRC requirements were identified.

2. Plant Operations (IP 88020) Verification that the systems structures and components designed to support operation of Cascades 5.1 through 5.4 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 5.1 through 5.4. The inspectors determined that the design features for IROFS C23 for the TC 21 centrifuges were adequate to minimize releases and 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 reviewed the procedure applicable to the operational validation of IROFS C23 and determined that the procedure was current, reflected the safety controls, and was followed by the operators and technicians.

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 violations of NRC requirements were identified.

3. Plant Operations (IP 88020) Verification that the systems structures and components designed to support operation of the Uranium Byproduct Cylinder Storage Pad Crane.

a. Inspection Scope and Observations

The inspectors verified that the Fire Hazard Analysis adequately bounded the Uranium Byproduct Cylinder (UBC) storage pad design and expansion. The inspectors verified that the licensee had adequately evaluated the effects of snow, ice, extreme wind and ponding loads on the UBC Gantry Crane to ensure a chemical release does not exceed the 10 CFR 70.61 performance requirements. The inspectors reviewed the licensee's

IROFS 27e documentation and related inspections for construction, design and integrity of the UBC Storage Pad Crane and performed an independent inspection. The inspectors verified that IROFS 27e was adequately implemented. The inspectors verified that the crane manufacturer “American Crane & Equipment Corp” was an approved quality level 1 supplier.

b. Conclusion

No violations of NRC requirements were identified.

B. Exit Meeting

No core inspections were conducted during this inspection period. The inspections conducted during this period consisted of three operational readiness reviews and formal exit meetings were not conducted for the operational readiness reviews. The results of these operational readiness reviews were communicated in the authorization letters associated with each operational readiness review.

SUPPLEMENTARY INFORMATION

1. KEY POINTS OF CONTACT

<u>Name</u>	<u>Title</u>
S. Cowne	Head of Compliance/Acting Chief Nuclear Officer
T. Knowles	Licensing and Performance Assessment Manager
R. Medina	Licensing Engineer
J. Muth	Recycling Manager
J. Rickman	Licensing Specialist
A. Riedy	ISA Engineer
C. Slama	Licensing Project Manager

2. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None

3. INSPECTION PROCEDURE USED

IP 88020 Operational Safety

4. DOCUMENTS REVIEWED (PARTIAL LIST)

Procedures:

NEF-BD-035, "Fire Rated Barriers," Revision (Rev.) 16

NEF-BD-215, "Administratively Ensure Subcritical Configuration by Preventing Additional Transfer of Enriched Uranic Material," Rev. 0

ORM 3600-26, "Maintaining Subcritical Configuration by Limiting Enriched Uranic Material Transfer," Rev. 0

ORM 3700-1, "Design Features to Ensure SBM, ICC, CRDB Superstructure or Shell and UBC Storage Pad Crane Structural Integrity," Rev. 6

ORM 3700-2, "Fire Rated Barriers," Rev. 7

CALC-C-00220, "Tornado Wind Load on UBC Gantry Crane" Rev. 0

CALC-C-00223, "Snow, Ice, Extreme Wind and Ponding Loads on the UBC Crane" Rev. 0

Work Package, "1400-CIVIL-824-001, UBC Pad – Firewall & Footings," Rev. 1