

INSPECTION REPORT

1. LICENSEE OR CERTIFICATE HOLDER/LOCATION INSPECTED: United States Enrichment Corporation 6903 Rockledge Road Bethesda, MD 20817		2. NRC/REGIONAL OFFICE: U.S. Nuclear Regulatory Commission Region II 61 Forsyth Street, Suite 23T85 Atlanta, GA 30303-8931	
REPORT NO: 2009-003			
3. DOCKET NUMBER: 70-7001	4. LICENSE OR CERTIFICATE NUMBER: GDP-1	5. DATE(S) OF INSPECTION: July 1 - September 30, 2009	

LICENSEE OR CERTIFICATE HOLDER:

The inspection was an examination of the activities conducted under your license or certificate as they relate to safety and/or safeguards and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license or certificate. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector. The inspection findings are as follows:

- 1. Based on the inspection findings, no violations were identified.
- 2. Previous violation(s) closed.
- 3. Reported events reviewed
- 4. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, and corrective action was or is being taken, and the remaining criteria in the NRC Enforcement Policy, to exercise discretion, were satisfied.
Two Non-Cited Violations were discussed involving the following requirements and Corrective Actions:

(See Part 3)

- 5. During this inspection, certain of your activities, as described below and/or attached, were in violation of NRC requirements and are being cited. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11.
(Violations and Corrective Actions)

(See Part 3)

LICENSEE OR CERTIFICATE HOLDER STATEMENT OF CORRECTIVE ACTIONS FOR ITEM 5, ABOVE

I hereby state that, within 30 days, the actions described by me to the inspector will be taken to correct the violation(s) identified. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201 (corrective steps already taken, corrective steps which will be taken, date when full compliance will be achieved). I understand that no further written response to the NRC will be required, unless specifically requested.

Title	Printed Name	Signature	Date
LICENSEE/CERTIFICATE HOLDER REPRESENTATIVE			
NRC INSPECTOR	Michael O. Miller	/RA/ J. Pelchat for	11/12/2009

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July 1 – September 30, 2009

6. INSPECTOR(S): Michael O. Miller, Mark Chitty, Robert Prince

7. INSPECTION PROCEDURES USED: 88100, 88101, 88025, 88035

EXECUTIVE SUMMARY

This report covers a three-month period of inspection by the resident inspectors. The inspectors performed a selective examination of licensee activities which was accomplished by direct observation of safety-significant activities and equipment, tours of the facility, interviews and discussions with Certificate Holder personnel, independent verification of safety system status and limiting conditions for operation, corrective actions, and a review of facility records. The NRC's program for overseeing the safe operation of uranium enrichment facilities is described in Manual Chapter 2600, "Fuel Cycle Facility Operational Safety and Safeguards Inspection Program," dated March 21, 2008.

Summary of Plant Status

- The certificate holder performed routine operations throughout the inspection period.

Plant Operations (88100)

a. Inspection Scope and Observations

- The inspectors observed routine operations in the cascade buildings and area control rooms, the feed vaporization facilities, product and tails withdrawal facilities, and the central control facility. The operations staff was alert and generally knowledgeable of the current status of equipment associated with their assigned facilities.
- The inspectors found that an assessment and tracking report (ATR), ATRC-09-2013, had been entered anonymously into the certificate holder's corrective action program on August 15. ATRC-09-2013 indicated that two quality control (QC) inspectors worked 36 hours continuously. The activity stated to be in progress was a UF₆ liquid handling crane rail inspection at building C-315.

When describing the issue, the anonymous identifier stated that QC inspectors are not governed by TSR hours-of-work limitation but are responsible for their fitness-for-duty and that a person would question fitness-for-duty after working such lengthy hours.

The inspectors followed up and conducted interviews with system engineers and nuclear safety and quality control personnel. The inspectors confirmed that two QC inspectors worked 36 consecutive hours, from 0700 on August 14 to 1900 on August 15 performing the non-destructive acceptance inspections and tests on a safety related crane.

EXECUTIVE SUMMARY (Continued)

The inspectors interviewed USEC-PGDP management. The inspectors were informed by USEC-PGDP management that they did not consider QC inspectors as being under TSR hours of work limitations so no violation of the TSR occurred and no violation of plant procedures occurred. USEC-PGDP management also considered that both QC inspectors involved were alert, attentive, performed peer checks on one another's work, and were fit for duty during the 36 consecutive hours they supported the repair effort.

ATRC-09-2013 was closed on August 20 with no corrective action taken by USEC-PGDP.

Technical Safety Requirement (TSR) 3.2.2.b states in part that procedures shall limit the working hours of staff who perform safety functions. USEC human resources procedure CP2-HR-LR1030, "Limitations on Hours of Work for TSR Personnel," Revision 3, Appendix A, defines personnel who perform a safety function as individuals who perform operation or maintenance of TSR related systems, structures, or components.

TSR 3.2.2.b states that facility staff that perform safety functions should not be permitted to work: 1) more than 16 straight hours, 2) more than 16 hours in any 24-hour period, and 3) nor more than 24 hours in any 48 hour period all excluding shift turnover time. Appendix A also specifies hours of work limitations as: 1) no more than 16 consecutive hours, 2) no more than 16 hours in any 24-hour period, and 3) no more than 24 hours in any 48-hour period.

The inspectors concluded that since the QC inspectors performed work sequences (visual inspections and magnetic particle tests) in maintenance work package, work order task "R 0913279-01" on a TSR related system (TSR 2.3.4.20, Cylinder Handling – Approved Cranes for Liquid), they performed safety functions, the TSR work hour limits applied, the TSR and Appendix A work hour limits applied to these two QC inspectors, and the work hour limits of both TSR and Appendix A were exceeded.

The failure to adequately limit overtime of individuals performing safety functions was identified as an Unresolved Issue (URI 07007001/2009-003-01).

b. Conclusions

One NRC identified unresolved issue was identified.

Configuration Control (88101)

a. Inspection Scope and Observations

- The inspectors reviewed the adequacy and implementation of system equivalency evaluation SE-ZB1580-01, "Reliability Improvements for PGLD Control Circuit Module." The inspectors reviewed the equivalency evaluation, related documents and drawings, a sampling of the work packages, post implementation testing, and interviewed staff members responsible for implementing the change. The inspectors determined that the equivalency did not involve un-reviewed safety questions and that the changes to the circuit control module design-change documents were performed in accordance with CP3-EG-EG1090, "System Equivalency Design Process."

b. Conclusions

No violations of significance were identified.

EXECUTIVE SUMMARY (Continued)

Radioactive Waste Management (88035)

Management Controls for Waste Classification, Shipping, and Burial (R2.01), Quality Assurance (R2.02), Waste Classification (R2.03), Waste Form and Characterization (R2.04), Disposal Site License Conditions (R2.07), Management Controls and Surveys for Solid Waste Storage (R2.08), Radioactive Solid Waste (R2.09), and Adequacy of Storage Areas (R2.11)

a. Inspection Scope and Observations

Observation of the major radioactive waste storage and handling areas indicated that entrances to storage locations were properly posted, containers were labeled, and storage areas were posted in accordance with approved procedures and regulatory requirements. The physical condition of storage containers was acceptable. Discussions with personnel responsible for the handling and storage of radioactive materials, and preparation of these materials for shipment and disposal, indicated that personnel were knowledgeable of the requirements associated with the storage and control of radioactive waste material and routine inspection requirements for storage locations. The inspectors noted a reduction in the amount of radioactive waste material in various storage locations since the last inspection performed in April 2008. The inspectors also noted enhancements in the physical condition of radioactive material storage locations.

Selected radioactive waste shipment manifests were reviewed for completeness and accuracy. Manifests correctly reflected the classification, quantity, and labeling requirements for the respective shipment. Discussions with personnel responsible for certifying that shipments are prepared in accordance with DOT regulatory requirements revealed that those people were knowledgeable of their duties and associated regulatory requirements.

No significant organizational changes or personnel changes associated with the radioactive waste management or radioactive material transportation programs had been made since the last inspection. Procedures adequately described the responsibilities and roles of personnel and organizations with radioactive waste management program responsibilities.

Records associated with the generation and tracking of radioactive waste materials were reviewed. Based on interviews with responsible personnel, the inspectors found that personnel were knowledgeable of program requirements for tracking radioactive waste material. The inspectors observed radioactive waste storage areas in selected plant locations and determined that waste containers were properly labeled and maintained in accordance with procedural requirements. Containers with fissile-controlled quantities of material were properly identified and stored in accordance with nuclear criticality safety control measures.

The inspectors reviewed operating procedures and equipment operability records for the radioactive waste assay system and found that equipment was adequately maintained. The inspectors interviewed personnel regarding equipment operation and maintenance and found that personnel were knowledgeable of equipment operating procedures and acceptance criteria.

b. Conclusions

No items of safety significance were identified.

EXECUTIVE SUMMARY (Continued)

Maintenance & Surveillance of Safety Controls (IP 88025)

Maintenance Implementation (F1.01), Surveillance and Calibration Testing Implementation (F1.02), Maintenance Problem Identification and Resolution (F1.03)

a. Inspection Scope and Observations

The inspectors observed selected maintenance activities in the field and noted that maintenance and surveillance activities were completed in accordance with approved work documents. The inspectors determined that workers were knowledgeable of the requirements contained in work packages and observed strict procedural compliance on the part of individuals performing maintenance activities in the field. Individuals demonstrated effective communication and self-verification techniques in the field to minimize human performance related errors. The inspectors noted that acceptance criteria, where appropriate, were provided in work packages. The inspectors reviewed completed work package documents for accuracy and completeness.

The inspectors reviewed procedures associated with the preventive maintenance, surveillance testing, and work control programs. Based upon a review of these procedures and interviews with responsible personnel, the inspectors found that these programs were adequately implemented and that personnel were knowledgeable of their responsibilities and program requirements.

The inspectors reviewed the licensee's program for tracking and trending maintenance activities and for maintaining equipment and component reliability. Based on a review of associated documentation and discussions with responsible personnel, the inspectors noted that the licensee's program incorporated various performance indicators to track system health. Licensee personnel described the processes detailing how the various maintenance indicators are tracked and utilized to ensure the availability of equipment important to maintaining safe plant operations. The inspectors determined that personnel were knowledgeable of their responsibilities and of the importance of monitoring the performance of plant equipment and components that are important to plant safety.

b. Conclusions

No issues of safety significance were identified.

Exit Meeting Summary

- The inspection scope and results were summarized on September 28, 2009, with Steve Penrod and members of his staff in attendance. The inspectors asked the certificate holder or certificate holder staff whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

EXECUTIVE SUMMARY (Continued)

Key Points of Contact

<u>Name</u>	<u>Title</u>
Keith Ahern	Production Support Manager
David Clayton	Training Manager
Sherrill Gunn	Operations Manager
Robert Helme	Engineering Manager
Jim Lewis	Plant Manager
Steve Penrod	General Manager
Vernon Shanks	Regulatory Affairs Manager
Diane Snow	Environmental, Safety and Health Manager
April Tilford	Emergency Management
Craig Willett	Maintenance Manager

List of Items Opened, Closed, and Discussed

Opened

07007001/2009-003-01	URI	QC Inspectors Exceeded TSR Hours of Work Limits By Working 36 Continuous Hours On August 17, two quality control inspectors worked 36 consecutive hours performing visual and magnetic particle testing inspections on a UF ₆ liquid handling crane at the C-315 building following weld repairs that had been performed on the crane's structural components. TSR 3.2.2 states in part that staff who perform safety functions should not be permitted to work more than 24 hours in any 48-hour period. USEC CAP item: ATRC-09-2013.
EN 45302	LER	EN 45302: Failure of the C-360 #4 Autoclave Relief System On August 26, operators were performing an autoclave startup checklist when they recorded an abnormal pressure between the rupture disk and relief valve that comprise the pressure relief path for the autoclave shell. Steam had not yet been admitted to the autoclave, and the pressure inside the autoclave was 0 psig. The procedure was stopped, and the autoclave was declared inoperable. USEC CAP item: ATRC-09-2084 and PAD-09-12.

Opened & Closed

EN 45365	LER	EN 45365: PGLD Head Rendered Inoperable - RETRACTED On September 19, plant personnel in the tails withdrawal facility discovered that a High Voltage PGLD head, YE-10-2-6, had been rendered inoperable during asbestos abatement activities. This PGLD system contains detectors that cover the C-315 UF ₆ condensers, accumulators, and piping heated housing. USEC CAP item: ATRC-09-2284. Plant personnel subsequently determined that another PGLD head was located within 10 feet of the affected head and provided overlapping coverage for the damaged head. The inspectors reviewed the certificate holder's assessment and had no further questions.
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EXECUTIVE SUMMARY (Continued)

Closed

EN 44819

LER

EN 44819: PGLD System Inoperable in C-310 Due To Electrical Fault
On January 30, power was lost to the Process Gas Leak Detection (PGLD) system in the product withdrawal facility (C-310) due to an electrical fault. The loss of power rendered the C-310 PGLD system inoperable. Once the source of the fault was identified, power was restored and the C-310 the High Voltage PGLD system was tested satisfactorily.

PGDP CAP items: ATRC-09-0201, ER-09-01

The certificate holder determined electrical power was lost due to a failure of the pilot wire trip function to trip a transformer secondary breaker in response to a large electrical transient caused by a major ice storm. The certificate holder determined to postpone testing necessary to confirm the failure of the pilot wire trip until the plant's summer low power period.

On August 19, 2009, plant personnel tested the operation of the pilot wire trip. The test was satisfactory.