

### 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: 2010-001			
3. DOCKET NUMBER: 70-7001	4. LICENSE OR CERTIFICATE NUMBER: GDP-1	5. DATE(S) OF INSPECTION: January 1 – March 31, 2010	

**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.  
Non-Cited Violation(s) was/were discussed involving the following requirement(s) and Corrective Action(s):
  
- 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)

**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	M. Miller	J. Pelchat for	4/23/10

### 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:

2010-001

3. DOCKET NUMBER:

70-7001

4. LICENSE OR CERTIFICATE HOLDER NUMBER:

GDP-1

5. DATE(S) OF INSPECTION:

January 1 – March 31, 2010

6. INSPECTOR(S): Michael O. Miller, Mark Chitty, John Pelchat, Robert Prince, Leonard Pitts

7. INSPECTION PROCEDURES USED: 88100, 88102, 88103, 88105

#### EXECUTIVE SUMMARY

This report covers a three-month period of inspection by resident inspectors and announced inspections by regional inspectors and resident inspectors. Inspectors performed a selective examination which was accomplished by direct observation of safety significant activities and equipment, tours of the facility, interviews and discussions with certificate 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.

The inspectors identified no violations of NRC requirements during this inspection period.

#### Summary of Plant Status

- The certificate holder performed routine operations throughout the inspection period. Plant load was maintained at high power and assay was according to the production schedule.

#### 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. While conducting plant tours, the inspectors noted an improvement in housekeeping and in the condition of stanchions, ropes, and the readability of posted radiological signs.

## EXECUTIVE SUMMARY (Continued)

- Inspectors observed seismic monitoring instrumentation operability tests performed by the certificate holder. Instrument and controls maintenance Procedure, CP4-GP-IM6186, "Maintenance of Seismic Switch Alarm Systems," Revision 3, was used during the week of March 15, 2010, to conduct these tests. The inspectors verified that the measuring and test equipment (M&TE) was within current calibration dates. The work crew had current copies of the procedure in hand and demonstrated strict procedural compliance. Procedural steps that were performed in the area control room (ACR) were appropriately coordinated with ACR personnel. The inspector noted that procedure place-keeping and self-verification of equipment manipulation were used. The crew demonstrated a questioning attitude regarding the "acceptable as left" value of 0.025 g provided in the procedure and on the check sheet. As found values were found to be conservative, and the crew was hesitant to change the readings to read exactly 0.025 g. The responsible engineer provided feedback that the as found readings were acceptable and met the intent of the procedure. No further actions were required.
- The inspectors determined that all required notices to workers were appropriately and conspicuously posted in accordance with 10 CFR 19.11. The inspectors confirmed that the certificate holder met the requirement to conspicuously post copies of NRC Form-3, "Notice to Employees," in sufficient quantities and locations to permit workers engaged in licensed activities to observe them on the way to or from any activity location to which the document is applicable. The inspectors walked down the postings at Posts 1, 15, and 48 (normal personnel accesses/egresses), Post 29 (Building -720 loading dock), and Post 229 (outside fenced area next to parking lot).
- The inspectors performed a detailed walkdown of the accessible portion of the fire protection system to verify operability. The inspector compared lineup procedures with plant drawings and the as-built configuration. The inspectors verified that valves in the system were installed correctly and did not exhibit gross packing leakage, bent stems, missing handwheels, or improper labeling. The inspectors confirmed no prohibited ignition sources or flammable materials were present in the vicinity of the fire protection system without proper authorization. The inspectors found that the major system components were properly labeled, lubricated and cooled and that no leakage existed. The inspectors confirmed system performance was not degraded by ancillary equipment (i.e., scaffolding, ladders, tape, electrical cords, portable air samplers, etc.). The inspectors saw that instrumentation was properly installed, currently calibrated and functioning and that significant process parameter values were consistent with normal expected values. The inspectors verified that valves in the flow path were in the correct positions, as required by procedure, by either flow indication, visual observation, or remote position indication; that power, if required, was available to the valve; and that local and remote position indications were functional and indicated the same values. The inspectors verified that support systems essential to system actuation or performance was operational.

### b. Conclusions

No violations of significance were identified.

**Configuration Control (88101)**

a. Inspection Scope and Observations

- The inspectors reviewed the adequacy and implementation of RAC 10C002, "Modification for 12B Cylinder Use at PGDP." The inspectors reviewed the equivalency evaluation and related documents and drawings. The inspectors interviewed engineering personnel responsible for the design changes and operations personnel potentially affected by the changes. The inspectors evaluated the change against 10 CFR 76.68 requirements. The inspectors determined that the change did not introduce an un-reviewed system interaction or a reduction in safety margins. The inspectors evaluated the design, review, and implementation process against plant procedure CP3-EG-EG1090, "System Equivalency Design Process," and determined that the change was performed in compliance with the plant's procedure. The inspectors reviewed a sampling of the work packages, post implementation testing, and procedures associated with the change. The certificate holder successfully fed UF<sub>6</sub> from 12B cylinders and refilled 12B cylinders with UF<sub>6</sub> using the modification. The inspectors determined that the procedures, modifications, operational readiness review, and training were adequate for implementing this modification.

b. Conclusions

No violations of significance were identified.

**Surveillance Observations (88102)**

a. Inspection Scope and Observations

- Inspectors reviewed the adequacy of the facility's surveillance testing, calibration, and inspection required by the technical safety requirements (TSRs), nuclear criticality safety evaluations/approvals (NCSE/As), and the material control and accountability program. Inspectors also reviewed the calibration of quality and nuclear criticality safety-augmented quality (Q and NCS-AQ) safety-related instrumentation not specifically controlled by TSRs. The inspectors evaluated the effectiveness of the facility's controls in identifying, resolving, and preventing problems by reviewing corrective action systems, root cause analysis, safety committees, and self-assessment in the area of surveillance.

b. Conclusions

No violations of significance were identified.

**Management Organization and Controls (88105)**

a. Inspection Scope and Observations

- During this period, the inspectors reviewed recent changes of key positions in the organizational structure in order to verify that the qualifications of those personnel conformed to certificate requirements. The inspectors determined that: (1) plant procedures were maintained, reviewed, and changed in accordance with certificate requirements, (2) plant operations review committee (PORC) meetings were focused on significant safety and regulatory issues and provided management with recommendations for continued safe plant operations, and (3) quality assurance audits of systems important to safety were independent and performed in accordance with approved procedures by qualified personnel at the specified frequencies. The inspectors reviewed facility staffing and overtime records, including prior management approval of all overtime. The inspectors verified: (1) the organizational independence of health physics and quality assurance from operations, (2) personnel were notified and trained on procedure changes in a timely manner, (3) procedure adherence policies were clear and appropriately disseminated, (4) alarm and abnormal response procedures were maintained in a controlled manner and were readily available.

b. Conclusions

No violations of significance were identified.

**Exit Meeting Summary**

- The inspection scope and results for the Integrated Inspection Report, 1<sup>st</sup> Quarter 2010, were summarized on April 8, 2010, with Steve Penrod and members of his staff. 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)

ATTACHMENT

**Key Points of Contact**

<u>Name</u>	<u>Title</u>
Keith Ahern	Production Support
Mike Boren	Regulatory Compliance and Nuclear Operations
David Clayton	Training Manager
Sherrill Gunn	Operations Manager
Robert Helme	Engineering Manager
Tony Hudson	Plant Shift Superintendent
Jim Lewis	Plant Manager
Joe Mize	Senior Quality Specialist
Steve Penrod	Vice President
Kevan Ragsdale	Security Shift Superintendent
Vernon Shanks	Regulatory Affairs Manager
Diane Snow	Manager, Environmental, Safety, and Health
Dave Stadler	Lead, Regulatory Engineer
April Tilford	Emergency Management
Craig Willett	Maintenance Manager

**List of Items Opened, Closed, and Discussed**

Opened

07007001/2010-001-00    LER    EN 45629: PROCESS GAS LEAK DETECTION SYSTEM INOPERABLE

On January 12, 2010, at 0850 hours, operators notified the Plant Shift Superintendent (PSS) that the C-333 B-Booster UF<sub>6</sub> Release Detection (PGLD) System was inoperable due to loss of power to the system. When this fact was discovered, some areas covered by this PGLD system were operating above atmospheric pressure. TSR 2.4.4.1 requires at least a minimum number of detector heads in the areas covered by this PGLD system are operable during steady state conditions when operating above atmospheric pressure. With the B-Booster PGLD system de-energized, none of the required heads were operable. The PSS declared this PGLD System inoperable and entered TSR LCO 2.4.4.1.D.1 and 2.4.4.1.E.1. A continuous smoke watch was put in place within one hour to comply. USEC-PGDP determined that power was interrupted during planned maintenance activities. USEC operations and maintenance staff failed to identify that the power supply to this PGLD system would be lost during the maintenance activity prior to approving job start. Power was restored and the system was tested and declared operable at 1542 hours. This was a 24-hour report required by 10 CFR 76.120(c) due to safety equipment failure.

USEC CAP item: ATRC-10-0092 and PAD-2010-001

EXECUTIVE SUMMARY (Continued)

07007001/2010-001-00

LER

EN 45800: SAFETY EQUIPMENT FAILURE - PROCESS GAS  
DETECTION SYSTEM FOUND INOPERABLE

On March 29, 2010, at 0808 hours, operators notified the Plant Shift Superintendent (PSS) that C-333 Unit 5 Cell 6 Process Gas Leak Detection System (PGLD) was found with the "ready" light not illuminated. The operators were performing the manual test firing required by TSR SR 2.4.4.1-1. This PGLD System contains detectors that cover Unit 5 cell 6 cell housing and Section 3 of the cell bypass piping. At the time the "ready" light was discovered not illuminated, these areas were operating above atmospheric pressure. The PSS declared the PGLD system inoperable, TSR LCO 2.4.4.1.A.1 and 2.4.4.1.C.1 were entered, and a continuous smoke watch was put in place within one hour, as required. The certificate-holder replaced the power supply module and the system, and satisfactorily tested the system. The PSS declared the system operable on March 29, 2010, at 1030 hours. TSR 2.4.4.1 requires that at least the minimum number of detector heads in the cell housing and in each defined section of the cell bypass is operable during steady state operations above atmospheric pressure. With the Unit 5 Cell 6 PGLD system inoperable, none of the required cell housing heads were operable. A PGLD head was manually actuated ("smoke tested"), and the system would not alarm. Engineering has determined that the system would not have been able to perform its intended safety function.  
USEC CAP item: ATRC-10-0806 and PAD-2010-03