



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET, SW, SUITE 23T85  
ATLANTA, GEORGIA 30303-8931

August 3, 2006

Mr. Russell B. Starkey, Jr.  
Vice President - Operations  
United States Enrichment Corporation  
Two Democracy Center  
6903 Rockledge Drive  
Bethesda, MD 20817

SUBJECT: NRC INSPECTION REPORT NO. 70-7002/2006-004

Dear Mr. Starkey:

This refers to the inspection conducted from July 17-20, 2006, at the Portsmouth Gaseous Diffusion Plant. The purpose of the inspection was to determine whether activities authorized by the certificate were conducted safely and in accordance with NRC requirements. At the conclusion of the inspection on July 20, 2006, the NRC inspector discussed the findings with members of your staff.

As a result of the inspection, the enclosed NRC Form 591FF, Safety Inspection Report, Parts 1 and 3, are being issued. The enclosed forms indicate that no violations were identified during the inspection period.

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>.

Should you have any questions concerning this letter, please contact us.

Sincerely,

*/RA/*

Jay L. Henson, Chief  
Fuel Facility Inspection Branch 2  
Division of Fuel Facility Inspection

Docket No. 70-7002  
Certificate No. GDP-2

Enclosure: NRC Form 591FF Parts 1 and 3

cc w/encl: (See page 2)

R. B. Starkey, Jr.

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cc w/encl:

- S. Penrod, Paducah General Manager
- S. R. Cowne, Paducah Regulatory Affairs Manager
- W. Jordan, Portsmouth General Manager
- G. Workman, Portsmouth Regulatory Affairs Manager
- S. A. Toelle, Director, Nuclear Regulatory Affairs, USEC
- R. M. DeVault, Regulatory Oversight Manager, DOE

Distribution w/encl:

- D. Martin, NMSS
- M. Raddatz, NMSS
- J. Henson, RII
- D. Hartland, RII
- PUBLIC

PUBLICLY AVAILABLE     
  NON-PUBLICLY AVAILABLE     
  SENSITIVE     
  NON-SENSITIVE

ADAMS:  Yes      ACCESSION NUMBER: \_\_\_\_\_

OFFICE	RII:DFFI	RII:DFFI					
SIGNATURE	/RA/	/RA/					
NAME	OLopez	DHartland					
DATE	07/26/2006	August 4, 2006	August 4, 2006	August 4, 2006	August 4, 2006	August 4, 2006	August 4, 2006
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

**SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION**

1. LICENSEE/LOCATION INSPECTED: United States Enrichment Corporation 6903 Rockledge Drive Bethesda, MD 20817		2. NRC/REGIONAL OFFICE U.S. Nuclear Regulatory Commission Region II, Division of Fuel Facilities Inspection 61 Forsyth Street, Suite 23T85 Atlanta, GA 30303	
INSPECTION REPORT(S) 70-7002/2006-004			
3. DOCKET NUMBER(S): 70-7002	4. LICENSEE NUMBER(S): GDP-2	5. DATE(S) OF INSPECTION: 07/17-20/2006	

**LICENSEE:**

The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license. 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. 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, NUREG-1600, to exercise discretion, were satisfied.  
\_\_\_\_\_ Non-Cited Violation(s) was/were discussed involving the following requirement(s) and Corrective Action(s):
- 4. 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's Statement of Corrective Actions for Item 4, above.

I hereby state that, within 30 days, the actions described by me to the inspector will be taken to correct the violations 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 NRC will be required, unless specifically requested.

Title	Printed Name	Signature	Date
LICENSEE'S REPRESENTATIVE			
NRC INSPECTOR	Omar R. López		

(11-2005)

10 CFR 2.201

**SAFETY INSPECTION REPORT  
AND COMPLIANCE INSPECTION**

1. LICENSEE

**United States Enrichment Corporation  
6903 Rockledge Drive  
Bethesda, MD 20817**

2. NRC/REGIONAL OFFICE

**U.S. Nuclear Regulatory Commission  
Region II, Division of Fuel Facilities Inspection  
61 Forsyth Street, Suite 23T85  
Atlanta, GA 30303**

REPORT NUMBER(S): **70-7002/2006-004**

3. DOCKET NUMBER(S):

**70-7002**

4. LICENSE NUMBER(S):

**GDP-02**

5. DATE(S) OF INSPECTION:

**07/17-20/2006**6. INSPECTOR(S): **Omar R. López**

7. INSPECTION PROCEDURES USED: 88055, 88056-88066

**SUPPLEMENTAL INSPECTION INFORMATION**

**Executive Summary**

The Portsmouth Gaseous Diffusion Plant had previously discontinued uranium hexafluoride (UF<sub>6</sub>) enrichment and is presently processing UF<sub>6</sub> to remove impurities like technetium-99, and conducting other cleanup processes as part of cold standby efforts. During the period of the inspection, routine cleanup operations were conducted without incident.

This was a routine, announced inspection that included observations and evaluation of the chemical and fire safety programs. The inspection involved observations of work activities, reviews of selected records, and interviews with plant personnel. The inspection identified the following aspects of the certificatee programs as outlined below:

**Fire Safety**

- There had been no changes in management or support personnel and no significant issues since the last inspection.
- Fire safety and protection systems were implemented and properly maintained.
- The process areas, equipment, material storage areas, and the pump houses were operated in accordance with fire safety requirements. Fire hazards were minimized by appropriate housekeeping.
- The inspector observed adequate implementation of the hot work program.
- Emergency packets and building surveys for buildings X-344, X-705, X-330, X-342 were maintained up to date.
- The inspector reviewed corrective actions taken by the certificatee in response to VIO 70-7002/2005-02-01, failure to document material deficiencies in accordance with procedures. The inspector determined that the corrective actions were adequate to prevent reoccurrence of the issue.

**Executive Summary (continued)****Temporary Instruction 2600/012**

The following information notices (IN) were reviewed as part of Temporary Instruction (TI) 2600/012:

- IN-02-024, "Potential Problems with Heat Collectors on Fire Protection Sprinklers."

The inspector noted that heat collectors were part of the fire protection system. However, the specifics of the IN did not apply to the certificatee because the heat collectors were installed over sprinkler heads that were in addition to the heads required by the code.

- IN-99-028-S1, "Recall of Star Brand Fire Protection Sprinkler Heads."

The conditions identified in the IN were not applicable to the certificatee because the certificatee did not have any heads meeting the criteria referenced in the information notice.

- IN-00-007, "National Institute of Occupational Safety and Health Respirator User Notice: Special Precautions for Using Certain Self-Contained Breathing Apparatus Air Cylinders."

Based on interviews and observations, the inspector determined that the certificatee did not have any respirators that were specifically affected by the IN.

- IN-99-007, "Failed Fire Protection Deluge Valves and Potential Testing Deficiencies in Preaction Sprinkler Systems."

The inspectors verified that the deluge valves were installed to operate at line pressure consistent with the manufacturer's design specifications. The inspectors noted that certificatee procedures for maintenance and testing of fire protection deluge valves were in accordance with the manufacturer's recommendations.

- IN-90-070, "Pump Explosions Involving Ammonium Nitrate."

Based on interviews, observations, and documentation review, the inspector determined that the specifics of the IN did not apply to the certificatee.

**Executive Summary (continued)****Chemical Safety**

- Process safety information was maintained current for the existing plant configuration and was readily accessible to employees. The certificatee's program inventory of hazardous chemicals was adequate to control the chemical hazards.
- Procedures contained adequate safety and operational information.
- Plant operations were performed in accordance with approved procedures, and operators were knowledgeable of chemical hazards.
- The certificatee's management of change program adequately controlled changes in materials, procedures, and equipment.
- The certificatee adequately implemented technical safety requirements related to the preventive maintenance, calibration, and inspection of safety-related equipment.
- The certificatee's chemical safety training for plant personnel adequately covered safe work practices and chemical hazards.
- Audits and inspections were of sufficient depth and appropriately targeted, the results were documented and conveyed to management, and audit findings were resolved in a timely manner.
- The inspector reviewed corrective action taken by the certificatee in response to Event Report (ER) 42264, autoclave steam leak during heating operations. No safety problems were identified.
- The inspector reviewed inspection follow-up item (IFI) 2006-03-01, high radiation levels on recently modified Tc traps. The certificatee determined that the high radiation levels were primarily due to the increased processing rate. The inspector noted that the certificatee planned to add more shielding to the inlet pipes to the traps where the higher readings were noted. In addition, the certificatee noted an increase in radiation levels on the pigtailed. The certificatee intended to increase the inventory of new pigtailed to allow for more frequent replacement based on radiation levels. This IFI will remain open to track the certificatee's corrective actions.

**Items Opened, Closed, and Discussed**

<u>Item Number</u>	<u>Status</u>	<u>Description</u>
VIO 2005-002-001	Closed	Failure to document material deficiencies in accordance with procedures.
ER 42264	Closed	Safety system failure; autoclave steam leak during heating operations.
TI 2600/012	Closed	Institutionalizing concern regarding safety issues identified in selected past generic communications (fire safety-related).
IFI 2006-03-01	Discussed	High radiation levels on recently modified Tc traps.