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

April 29, 2011

Mr. Robert Van Namen
Senior Vice President, Uranium Enrichment
United States Enrichment Corporation
6903 Rockledge Drive
Bethesda, MD 20817

SUBJECT: NUCLEAR REGULATORY COMMISSION INSPECTION REPORT NO. 70-7002/2011-002

Dear Mr. Van Namen:

This letter refers to the inspection conducted during the period from January 1 through March 31, 2011, at the United States Enrichment Corporation, Portsmouth Gaseous Diffusion Plant in Piketon, OH. The purpose of the inspection was to determine whether activities authorized under the certificate were conducted safely and in accordance with NRC requirements. At the conclusion of the inspection, the findings were discussed with members of your staff.

The inspection consisted of an examination of activities as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of the certificate and Safety Analysis Report. Areas examined during the inspection included radiation protection and emergency preparedness program areas. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of these inspections, no cited violations or deviations were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures 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 inspection, please contact us.

Sincerely,

/RA by J. Calle/

Joselito O. Calle, Chief
Fuel Facility Inspection Branch 2
Division of Fuel Facility Inspection

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

Enclosure: NRC Inspection Report No. 70-7002/2011-002

cc w/encl:
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General Manager
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Carol O'Claire
State Liaison Officer
Ohio Emergency Management Agency
Columbus, OH 43235-2206

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√ PUBLICLY AVAILABLE ☐ NON-PUBLICLY AVAILABLE ☐ SENSITIVE √ NON-SENSITIVE

ADAMS: √ Yes ACCESSION NUMBER: ML111190338 ☐ SUNSI REVIEW COMPLETE

OFFICE	RII:DFFI	RII:DFFI					
SIGNATURE	/RA via email/	/RA by DH/					
NAME	JFoster	DHartland					
DATE	4/21/2011	4/26/2011	5/ /2011	5/ /2011	5/ /2011	5/ /2011	5/ /2011
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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Letter to Robert Van Namen from Joselito O. Calle dated April 29, 2011

Subject: NUCLEAR REGULATORY COMMISSION INSPECTION REPORT NO. 70-7002/2011-002

Distribution w/encl:
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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.:	70-7002
Certificate No.:	GDP-2
Report No.:	70-7002/2011-002
Certificate Holder:	United States Enrichment Corporation
Facility:	Portsmouth Gaseous Diffusion Plant
Location:	Piketon, OH
Dates:	March 7 through 11, 2011
Inspectors:	J. Foster, Fuel Facility Inspector
Approved by:	J. Calle, Chief Fuel Facility Inspection Branch 2 Division of Fuel Facility Inspection

Enclosure

EXECUTIVE SUMMARY

United States Enrichment Corp., Portsmouth Gaseous Diffusion Plant
NRC Inspection Report 70-7002/2011-002

This inspection included activities conducted by a region-based inspector in the areas of radiation protection and emergency preparedness.

Radiation Protection

- The areas inspected in the radiation protection program were in compliance with 10 CFR 20 and the certificate. No findings of significance were identified. (Paragraph 2.a)

Emergency Preparedness

- The areas inspected in the emergency preparedness program were in compliance with the Emergency Plan. No findings of significance were identified. (Paragraph 3.a)

Attachment
Partial List of Persons Contacted
Inspection Procedures Used
List of Items Opened, Closed, and Discussed
List of Documents Reviewed

REPORT DETAILS

1. Summary of Plant Status

Since the September 30, 2010, de-lease of the process buildings and autoclave facilities, the NRC continues to have regulatory oversight over limited operations involving special nuclear material. Those include activities in the X-700 and X-705 Decontamination Facilities, X-710 Technical Services Building and Laboratory, XT-847 Waste Handling Facility, and the X-745 Cylinder Yards. Routine operations were conducted in those facilities during the inspection period.

2. Radiological Controls

a. Radiological Protection (Inspection Procedure (IP) 88030)

(1) Inspection Scope and Observations

The inspector discussed changes in the radiation protection program with certificate holder staff. The inspector verified that there had not been any significant changes in radiation protection management since the last inspection and reviewed the current organization chart to confirm that management accountable for the radiation protection staff were independent of those responsible for plant operations.

The inspector interviewed plant staff regarding corrective actions that were implemented in response to Event Notification (EN) 45752, potential release of contaminated materials off-site. The certificate holder conducted crew briefings to emphasize that all pipes were to be considered radioactively contaminated until surveyed and released by radiation protection technicians. The inspector also reviewed enhancements made to radiation protection procedures and verified that they were consistent with the release limits given in Table 5.3-2 of the Safety Analysis Report and increased accountability of the staff responsible for off-site release of items.

The inspector reviewed recent Radiation Protection Committee Meeting minutes and verified that the meetings were held quarterly and contained the appropriate membership and structure as specified by Section 5.3.1.2 of the Safety Analysis Report. The meeting minutes reflected the establishment of as low as reasonably achievable (ALARA) goals to minimize dose rate, the analysis of trends in air sampling data and bioassay data, and the review of baseline effluent quantities for the environmental department. The meeting minutes documented that the certificate holder met the ALARA goals established for 2010 and found no trend in the air sampling data or bioassay data.

The inspector reviewed the external dose results for the facility documented in the external dosimetry history detail report and also reviewed a listing of the ten highest external dose results for the plant in 2010. The highest external dose report was 0.065 rem/year. The inspector observed that eighty percent of the site maintained an external dose less than 0.010 rem/year.

The inspector reviewed bioassay records used in the calculation of internal dose from the radiological intake of Class D material. The worker with the greatest internal dose from Class D material had two positive bioassay results in 2010. Both were 0.001 rem or below. The inspector also reviewed documentation for an internal dose calculation for Class Y material using air sampling data. The investigation reviewed resulted in the highest internal dose in 2010, 0.003 rem. The inspectors verified that all worker doses were less than the 5 rem/year requirement in 10 CFR 20.1201, as the highest external doses and the highest internal doses were orders of magnitude less than the regulatory limit.

The inspector reviewed records for declared pregnant workers for 2010 and noted that affected individuals were restricted from the contaminated areas due to the declarations. The inspector reviewed the applicable procedure that implemented the program requirements and determined that it was consistent with the regulations. The inspector also reviewed the records for high school aged minors who participated in tours of the facility in November 2010 and noted that the no dose was received.

The inspector observed staff conduct a respirator fit test and determined that the fit test was in compliance of 10 CFR 20.1703. The inspector discussed the training program with the individual undergoing respirator fit testing and verified that instruction had been provided regarding the required checks of the respirator prior to each use. The inspector reviewed applicable training materials and verified that they covered key topics such as instructions to leave the area when under distress.

The inspector interviewed the respiratory protection staff on the types of respirators used at the facility in relation to the hazards present. The staff member was knowledgeable of the various types of respirators and cartridges available. The staff member demonstrated how the training database tracked individual's training and respirator fit qualification. The inspector verified that the respirators used at the plant were National Institute for Occupational Safety and Health certified and that the respiratory fit test equipment was routinely calibrated. The inspector reviewed the most recent respiratory protection program self assessment and noted that a thorough review of the program was performed.

The inspector toured the instrument calibration laboratory in the X-700 building. The inspector interviewed the instrument calibration staff on the control and maintenance of the instruments. The inspector observed a technician perform a routine calibration on a Ludlum Model 12 Count Ratemeter and determined that the activity was performed in accordance with the approved procedure.

The inspector accompanied a radiation technician for the collection and replacement of air sample filters in the X-705 building. The inspector determined that the technician was following approved procedures and that the equipment was calibrated and functioning properly. The inspector reviewed trends in the air sampling results for X-705 and X-710 buildings in the monthly radiation protection health reports and determined that the levels were relatively stable.

The inspector performed plant walk downs in the X-705 and X-700 buildings. The inspector verified that the areas were posted and labeled in accordance with 10 CFR 20.1902. The inspector observed an area in the X-700 building which was utilized for the calibration of Criticality Accident Alarm System (CAAS) equipment. The inspector

noted that the area was posted appropriately as a high radiation area when in use and verified the proper operation of the locked entryway and audible alarm. The inspector determined that the area was maintained in accordance with 10 CFR 20.1601.

During a plant walk down of the X-705 and X-700 buildings, the inspector examined radiation protection equipment, including a CAAS monitor, personal contamination monitors (PCM-2), and hand held detectors and determined that they were within calibration due dates. The inspector observed a routine, daily survey of a lunch room in the X-700 building and noted that the radiation technician's technique was consistent with the guidance in approved procedures.

The inspector verified that the NRC Form 3, Notice to Employees, was posted in three places, including the front portal where most employees entered the plant as required by 10 CFR 19.11. The inspector reviewed a sample of radiation protection problem reports in the facility's corrective action program and determined that the certificate holder was effectively identifying and resolving issues.

(2) Conclusions

The radiation protection program was in compliance with 10 CFR 20 and the certificate. No findings of significance were identified.

3. Facility Support

a. Emergency Preparedness (Inspection Procedure (IP) 88050)

(1) Inspection Scope and Observations

The emergency preparedness program was a shared program between Portsmouth Gaseous Diffusion Plant (PORTS) and Lead Cascade staff. The inspector interviewed staff from each site and determined that the relationship and interaction between PORTS and Lead Cascade staff emergency preparedness staff was effective. The inspector determined that there were no significant changes in the Emergency Plan since the last inspection.

The inspector reviewed training records for randomly selected individuals qualified to respond as cadre to the Emergency Operation Center. The requirements were located in training development administrative guides as required by the Emergency Plan. The training of the individuals reviewed met the requirements as described by the guides for the specific positions for which they were qualified. The inspector also verified that the individuals had maintained their general employee training as required by the Emergency Plan.

The inspector reviewed the materials used in the training seminar offered to off-site agencies. The inspector determined that the training seminar included the topics required by the Emergency Plan. The training was offered to the off-site agencies once a year, a greater frequency than that required by the Emergency Plan. The inspector verified that the off-site agencies were invited for a drill in 2010 and that the contact telephone listing was kept up to date.

The inspector reviewed the written agreements held between the licensee and off-site agencies. The inspector verified that a written agreement existed for each off-site agency required by the Emergency Plan and was updated at the frequency mandated. The inspector interviewed several contact points for off-site agencies that had entered into an agreement for emergency response. The inspector interviewed contacts from the Stockdale Volunteer Fire Department, Pike Community Hospital, and Pike County Emergency Management Agency. Each interviewee indicated that their organization maintained a positive relationship with the licensee and gave examples of good communication.

The interviewees stated that their organization had participated in emergency drills in the past and felt that the drills were meaningful and allowed the participants to test their skills. The interviewees stated that they were familiar with their expected roles, felt that the training provided by the site was worthwhile, and that they believed those in their organization understood the radiological and chemical hazards present at the site.

The inspector reviewed the Tier II report, compiled for the Community Right to Know Act, and determined that it had been adequately completed. The Tier II report was compiled for the entire reservation including PORTS and Lead Cascade.

The inspector reviewed the pre-fire plans for the X-3001 and X-705 buildings. The inspector determined that the packets had been reviewed and updated annually as required by Section 5.4.1.3 of the Safety Analysis Report.

The inspector reviewed emergency drill scenarios and evaluations conducted since the last emergency preparedness inspection. The inspector determined that the degree of challenge of these drill scenarios was adequate. The inspector determined that the types and frequencies of these drills were consistent with the Emergency Plan.

The inspector observed a debrief meeting of the controllers and individuals responsible for observing and evaluating a drill prior to drill implementation. The inspector noted that the controllers were adequately briefed on the scenario and were given drill objectives. The inspector noted that a program was in place to keep drill scenarios confidential and that the players did not have information regarding the scenario prior to drill implementation.

The inspector observed the initial response of the emergency responders at the drill scene and determined it was appropriate. The inspector observed the incident command post and noted that it was established at a safe distance from the simulated hazards. The inspector observed that the Incident Commander maintained command and control of the field team including environmental monitoring by Health Physics staff.

The inspector observed the Emergency Operation Center after it was activated. The inspector determined that it was fully staffed and was operated as described in the Emergency Plan. The inspector observed that the Crisis Manager maintained command and control and communicated effectively with the Incident Commander at the scene. The Crisis Manager remained organized throughout the emergency drill and periodically provided updates to the members of the Emergency Operation Center. The inspector determined that the Crisis Manager and Incident Commander followed the appropriate procedural requirements for emergency classification and establishing protective actions.

The inspector determined that the degree of challenge of the drill scenario was adequate and tested key elements of the Emergency Plan. As the scene of the drill was located in the Lead Cascade facility, the scenario successfully tested the control of classified information.

The inspector observed the critique held after the emergency drill and determined that the licensee's assessment was adequate. The inspector noted that the critique was consistent with procedural requirements. The inspector also noted that the drill scenario, information packet, and controller actions were also consistent with procedures.

The inspector reviewed several examples of emergency equipment that were maintained on-site by the emergency response organization. The inspector reviewed the equipment located on the emergency response vehicle and on the mobile communications vehicle and verified that the equipment was being maintained with checklists provided in approved procedures.

The inspector also observed a member of the on-site fire department conduct a daily check of an ambulance and noted the check was conducted in accordance with the applicable procedure. The inspector observed the use and operability of the equipment located in the Emergency Operations Center during the drill. The inspector noted that the majority of the equipment operated properly with the exception of one modem. In the case of the modem failure, the modem was promptly replaced and was operational before the end of the drill.

The inspector reviewed the latest assessment performed of the emergency preparedness program and issues related to emergency preparedness entered the licensee's corrective action program since the last inspection. No findings of significance were identified.

(2) Conclusions

Areas reviewed in the emergency preparedness program were in compliance with the Emergency Plan. No findings of significance were identified.

4. Review of Previously Identified Items

a. (Closed) NCV 07007002/2010-04-01 and NCV 07007002/2010-04-02: These non-cited violations referenced the failure to ensure continuous health physics coverage in accordance with procedures and the failure to perform radiological surveys of tools and materials. These non-cited violations were erroneously identified in Inspection Report 70-7002/2010-004, dated October 15, 2010, as NCV 07007002/2010-01-01 and NCV 07007002/2010-01-02. These items remain closed.

b. (Closed) URI 07007002/2010-01-01 and URI 07007002/2010-01-02: These unresolved items referenced the failure to ensure continuous health physics coverage in accordance with procedures and the failure to perform radiological surveys of tools and materials. The basis for closure of these items is provided in Inspection Report 70-7002/2010-004, dated October 15, 2010, and NCV 07007002/2010-04-01 and NCV 07007002/2010-04-02 were documented as disposition. These items are closed.

c. (Closed) Event Notification (EN) 45752: This EN referred to a potential release of contaminated materials off-site. The basis for closure of this EN is provided in Inspection Report 70-7002/2010-004, dated October 15, 2010, and NCV 07007002/2010-04-01 and NCV 07007002/2010-04-02 were documented as disposition. These items are closed.

5. Exit Meeting

The inspection scope and results were presented to members of the certificate holder's staff on March 11, 2011. No dissenting comments were received from the certificate holder.

ATTACHMENT

1. PERSONS CONTACTED

Partial List of Certificate Holder Personnel Contacted

A. Stone, Nuclear Regulatory Affairs
T. Taulbee, Radiation Protection Manager
S. Skeens, Emergency Preparedness
J. Boyce, Emergency Preparedness
S. Howie, Health Physics- Industrial Hygiene
K. Williams, Respiratory Protection
T. Profit, Instrument Calibration
C. Dulin, Health Physics- Industrial Hygiene

The inspection included interaction between the inspector, certificate holder staff, and a representative from the Bureau of Radiation Protection in the Ohio Department of Health. The Department of Health representative participated in the entrance and pre-exit meetings. The interactions were consistent with the 'Protocol Agreement between the U.S. Nuclear Regulatory Commission and the State of Ohio, Bureau of Radiation Protection and the Ohio Emergency Management Agency.'

2. INSPECTION PROCEDURE USED

IP 88030	Radiological Protection
IP 88050	Emergency Preparedness

3. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Item Number	Status	Type/Description
07007002/2010-04-01	Closed	NCV - Failure to provide adequate health physics monitoring of a contractor while removing an abandoned pipeline.
07007002/2010-04-02	Closed	NCV – Failure to perform radiological survey of tools and materials.
07007002/2010-01-01	Closed	URI - Failure to provide adequate health physics monitoring of a contractor while removing an abandoned pipeline.

07007002/2010-01-02	Closed	URI - Failure to perform adequate survey to detect the presence of radioactive contamination on material associated with the fluorine pipeline neutralization and prevent its subsequent release to an unrestricted area.
EN 45752	Closed	EN – Potential release of contaminated material off-site

4. LIST OF DOCUMENTS REVIEWED

Contamination Control, XP2-HP-RP1030 Rev. 8
Conduct of Radiological Operations, UE2-HP-RP1030 Rev. 4
Emergency Vehicle Daily Inspection, XP4-SS-FS6278 Rev. 1
Radiological Surveys, XP2-HP-HO2032 Rev. 2
Reproductive Hazards, XP2-SH-IH1031
Calibration of Ludlum Model 12 with 43-5 Alpha Scintillation Probe, XP4-GP-RI6200 Rev. 3
Radiological Surveys, XP2-HP-HO2032 Rev. 2
Emergency Classification, XP2-EP-EP1050
Emergency Management Drill and Exercise Program, XP2-EP-EP5031 Rev 4
Maintenance of Emergency Facilities and Equipment, XP2-EP-EP5034 Rev. 7
Radiation Protection Health Report
Radiation Protection Committee Meeting Minutes
External Dosimetry History Detail
Dosimetry Investigation for BZ Sample Greater than 0.80 DAC-hours
Respirator Training Self Study Guide, RET 01.01.10 x02956 Rev. 6.
Respiratory Protection Program Self Assessment, XP-2010-S034
Emergency Management NS&Q Audit, XP-2011-A001
Training, Development, Administrative Guide for Emergency Management Training Program
Offsite Telephone Verification Checklist