



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

August 31, 2011

EA-11-158

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

**SUBJECT: WITHDRAWAL OF NOTICE OF VIOLATION 70-7001/2011-002-01 AND REPLY  
TO NOTICE OF VIOLATION 70-7001/2011-002-02**

Dear Mr. Van Namen:

I am responding to your letter dated June 3, 2011, regarding two violations that occurred at your Paducah Gaseous Diffusion Plant between January 1 and March 31, 2011. As documented in the NRC's Notice of Violation of April 29, 2011. The violations involved: (1) the failure to properly secure a licensed neutron producing source as required by 10 CFR Part 20.1801, Violation 70-7001/2011-002-01; and (2) the failure to notify the NRC of an unplanned contamination event as required by 10 CFR 76.120, Violation 70-7001/2011-002-02. The NRC characterized both as Severity Level IV violations.

Your June 3, 2011 letter stated that Violation 70-7001/2011-002-01 (failure to properly secure a licensed source), should be characterized as a minor violation instead of as Severity Level IV. Additionally, your letter stated that the facts and circumstances involving the failure to notify the NRC of an unplanned contamination event (Violation 2011-002-02) did not represent a violation of 10 CFR 76.120.

The NRC has independently reviewed the information provided in your letter of June 3, 2011, and has concluded that Violation 70-7001/2011-002-01 (failure to properly secure the source) did not occur. Accordingly, this violation is hereby withdrawn. Additionally, the NRC has concluded that Violation 70-7001/2011-002-02 occurred as stated in the NRC's Notice of Violation of April 29, 2011. The bases for the NRC's conclusions regarding these matters are provided in the Enclosure to this letter. You are required to respond to this letter within 30 days and should follow the instructions specified in the NRC's Notice of Violation, dated April 29, 2011, when preparing your response to Violation 70-7001/2011-002-02.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response will be available electronically for public inspection in the NRC Public Document Room (PDR) or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> in the Public Electronic Reading Room.

R. Van Namen

2

Should you have any questions regarding this letter, please contact Mr. Joselito Calle of my staff at (404) 997-4418.

Sincerely,

*/RA/*

Anthony T. Gody, Director  
Division of Fuel Facility Inspection

Docket No. 70-7001  
Certificate No. GDP-1

Enclosure:  
NRC Evaluation and Conclusion for  
Violations 70-7001/2011-002-01 and 02

cc w/encl:  
Steve Penrod, Vice President & General Manager  
Paducah Gaseous Diffusion Plant  
United States Enrichment Corporation  
Electronic Mail Distribution

Jim Lewis, Plant Manager  
Paducah Gaseous Diffusion Plant  
United States Enrichment Corporation  
Electronic Mail Distribution

Vernon Shanks, Manager, Nuclear Regulatory Affairs  
Paducah Gaseous Diffusion Plant  
United States Enrichment Corporation  
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Mark Keef, General Manager  
Portsmouth Gaseous Diffusion Plant  
United States Enrichment Corporation  
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Steve A. Toelle, Director Regulatory Affairs  
United States Enrichment Corporation  
Electronic Mail Distribution

R. M. DeVault, Manager Regulatory Oversight  
Department of Energy  
Electronic Mail Distribution

(cc w/encl: Cont'd on page 3)

R. Van Namen

2

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Steve A. Toelle, Director Regulatory Affairs  
United States Enrichment Corporation  
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R. M. DeVault, Manager Regulatory Oversight  
Department of Energy  
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(cc w/encl: Cont'd on page 3)

X PUBLICLY AVAILABLE       NON-PUBLICLY AVAILABLE       SENSITIVE      X NON-SENSITIVE  
ADAMS: X Yes      ACCESSION NUMBER: ML11244A006      X SUNSI REVIEW COMPLETE      X FORM 665 ATTACHED

OFFICE	RII:DFFI	RII:DFFI	RII:EICS				
SIGNATURE	/RA/	DHartland for	/RA/				
NAME	DHartland	JCalle	SSparks				
DATE	8/30/11	8/30/11	8/30/11	9/ /2011	9/ /2011	9/ /2011	9/ /2011
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY      DOCUMENT NAME: G:\DNMSII\FBII\REPORTS\DRAFT INSPECTION REPORT  
FOLDER\PADUCAH\NOV RELAED DOCUMENTS\PAD DENIAL RESPONSE REV 4.DOCX

R. Van Namen

3

(cc w/encl: cont'd)

G. A. Newtown

Paducah Site Office

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Dewey Crawford, Manager Radiation Health Branch

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275 East Main Street

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Frankfort, KY 40601-0001

R. Van Namen

4

Letter to: Mr. Robert Van Namen from Anthony T. Gody dated August 31, 2011

SUBJECT: RESPONSE TO NOTICE OF VIOLATIONS 70-7001/2011-002-01 AND 02

Distribution w/encl:

J. Calle, RII  
D. Hartland, RII  
M. Miller, RII  
T. Hiltz, NMSS  
T. Liu, NMSS  
S. Sparks, RII  
OEMAIL

## **NRC EVALUATIONS AND CONCLUSIONS**

### **INTRODUCTION**

NRC Inspection Report 70-7001/2011-002, dated April 29, 2011, documented a Notice of Violation with two violations regarding activities at the United States Enrichment Corporation's (USEC's) Paducah Gaseous Diffusion Plant, between January 1 and March 31, 2011. The violations involved: (1) the failure to properly secure a licensed neutron producing source as required by 10 CFR Part 20.1801, Violation 70-7001/2011-002-01; and (2) the failure to notify the NRC of an unplanned contamination event as required by 10 CFR 76.120, Violation 70-7001/2011-002-02. The NRC characterized both as Severity Level IV Violations.

United States Enrichment Corporation's (USEC's) letter of June 3, 2011, provided its written response to the above violations. In summary, USEC stated that Violation 70-7001/2011-002-01 (failure to properly secure a licensed source), should be characterized as a minor violation instead of Severity Level IV. Additionally, USEC concluded that the facts and circumstances involving the failure to notify the NRC of an unplanned contamination event (Violation 70-7001/2011-002-02) did not represent a violation of 10 CFR 76.120.

NRC's evaluations and conclusions regarding the two violations are provided below:

#### **Violation 70-7001/2011-002-01:**

10 CFR Part 76.60(d) states, in part, that the Corporation shall comply with the applicable provisions of 10 CFR Part 20.

10 CFR Part 20.1801 states, in part, that the certificate holder shall secure from unauthorized removal or access licensed materials that are stored in controlled areas.

Section 6.4.3 of Procedure CP2-HP-RP1046, "Sealed Radioactive Source Control," requires, in part, the control of storage rooms and cabinets containing sealed sources by keeping secured to prevent theft or unauthorized removal.

Section 8.4.8 of Procedure CP4-HP-RP2102, "Radioactive Source Control," requires, in part, that if sources are not in use, keep secured in a lockable storage container or room.

Contrary to the above, on February 21, 2011, the certificate holder failed to secure a licensed neutron producing source from unauthorized removal or access. Specifically, a 66 milliCurrie americium-beryllium calibration source located in a radioactive material storage area in the Building 720 lobby was not secured in a lockable storage container or room to prevent access or unauthorized removal while not in use.

This is a Severity Level IV violation (Enforcement Policy 6.7d) VIO 70-7001/2011-002-01.

Enclosure

USEC's BASIS:

USEC concluded that this violation should be characterized as a minor violation instead of Severity Level IV. USEC acknowledged that, although it failed to lock the storage box in which the source was housed as required, the source was stored within one of the plant's Restricted Areas and accessible only to individuals possessing a security clearance and the proper level of radiological work training or under escort. Therefore, USEC believed the risk that anyone within this secure environment could gain unauthorized access to this source during the time it was not secured was minor.

NRC EVALUATION AND CONCLUSION:

In its response, USEC addressed the severity of the violation with respect to gaining access to the source and indicated that the radioactivity of the sealed source involved with this violation was not relevant to the level of enforcement. The NRC does not agree with this assertion, as the NRC Enforcement Policy specifically considers the radioactivity of the source as a basis for determining the severity level of the violation.

However, based on further review of the circumstances of this matter, the NRC has concluded that a violation of 10 CFR 20.1801 did not occur. Given the location of the source inside the protected area of the facility which limited access by unauthorized individuals, the storage of the source inside an unoccupied storage room appropriately posted as a Radioactive Material Area and inside a closed storage box, and its storage in a shielded container, the NRC has concluded that the source was secured sufficiently to meet 10 CFR Part 20.1801 requirements. The NRC acknowledges the corrective actions and enhancements as discussed in USEC's letter of June 2, 2011, to provide additional assurance that the source remains secure in accordance with 10 CFR 20.1801 and USEC procedures.

Violation 70-7001/2011-002-02:

10 CFR Part 76.120(c) states, in part, that the Corporation shall notify the NRC within 24 hours after the discovery of a unplanned contamination event that requires access to the contaminated area, by workers or the public, to be restricted for more than 24 hours by imposing additional radiological controls, involves a quantity of material greater than five times the lowest annual limit on intake specified in appendix B of 10 CFR part 20 for the material, and causes access to the contaminated area to be restricted for any reason other than to allow isotopes with a half-life of less than 24 hours to decay prior to decontamination.

Contrary to the above, on February 4, 2011, the licensee certificate holder failed to notify the NRC within 24 hours following an unplanned contamination event in the withdrawal room in Building C-310 that required access to the contaminated area by workers to be restricted for more than 24 hours by imposing additional radiological controls, involved a quantity of material greater than five times the lowest annual limit on intake specified in appendix B of 10 CFR Part 20 for the material; and caused access to the contaminated area to be restricted for reasons other than to allow isotopes with a half-life of less than 24 hours to decay prior to decontamination.

This is a Severity Level IV violation. (Enforcement Policy 6.9d) VIO 70-7001/2011-002-02.

USEC's BASIS:

United States Enrichment Corporation disputed Violation 70-7001/2011-002-02 because comments provided in the statements of considerations for a change to the applicable requirements for reporting unplanned contamination events in 10 CFR, published in August 1991, described an unplanned contamination event as an "unplanned release or spill of licensed material." USEC indicated that the examples provided by the NRC in the statements of consideration were spills and leaks of radioactive material. USEC determined that the contamination incident in C-310 did not qualify as a reportable event since it was neither a spill nor a release of licensed material. USEC also concluded that the change in radiological conditions was not "unplanned" as it occurred inside a contamination control zone where changes in radiological conditions were expected.

NRC EVALUATION AND CONCLUSION:

The inspectors noted that although the spill was initiated by a leak of condensate that was not radioactive, the area above the Building C-310 withdrawal room was contaminated with licensed material and was the "source" of the release to the room below. The inspectors also acknowledged that examples provided in the statements of considerations were spills and leaks of radioactive material. However, the NRC determined that the examples were not intended to be all inclusive and that, regardless of the source of the spread of contamination, the specific reporting criteria in 10CFR Part 76.120(c) were met.

During the inspection, the inspectors also noted that entry into contamination control zones did not require workers to don anti-contamination clothing. Further, it was USEC's practice to establish a contamination area and require the donning of anti-contamination clothing prior to performing work where the spread of contamination was possible. In this case, USEC did not establish a contamination area in the Building C-310 withdrawal room prior to the spread of contamination from the area above the room. Therefore, the NRC concluded that the spread of contamination was unplanned.

Based on the above, the NRC concluded that the violation occurred as stated in the NRC's letter of April 29, 2011.