



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931**

March 23, 2006

EA-06-012

NMED Nos. 050759, 050770, and 050780

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

SUBJECT: NOTICE OF VIOLATION (NRC INSPECTION REPORT NO. 70-7001/2005-009)

Dear Mr. Starkey:

This refers to our review of the findings of an inspection conducted from October 23 through December 27, 2005, at the Paducah 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. The results of the inspection were discussed during a teleconference and transmitted to you by our letter of January 24, 2006. During the discussion, you were informed that the NRC was considering escalated enforcement action based on the identification of an apparent violation involving the inoperability of the Criticality Accident Alarm System (CAAS) horns for a process building, which went undetected for 24 days. During the discussion of January 24 and as documented in the subject inspection report, you also were informed that the NRC had sufficient information regarding the apparent violation and your corrective actions to make an enforcement decision without the need for a predecisional enforcement conference or a written response from you. Your staff advised during a subsequent telephone conversation of January 26, 2006, that a written response to the apparent violation would be provided in lieu of a predecisional enforcement conference. The United States Enrichment Corporation's (USEC) written response was provided to the NRC by letter dated February 10, 2006.

Therefore, based on the information developed during the inspection and the information contained in USEC's letter of February 10, the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation (Notice), and the circumstances surrounding it is described in detail in the subject inspection report. The violation involved the signal-generating system for the C-337 CASS, which was not capable of being automatically actuated by an initiating event without requiring human action, during the period of November 5 through November 29, 2005. This system is required to be automatically actuated by Technical Safety Requirement 3.11.1, Safety Analysis Report (SAR) Section 3.12.6, and ANSI/ANS Section 8.3, "Criticality Accident Alarm System," 1986 edition. Your review of the issue determined that the horn switch was slightly misaligned and was not in the "AUTO" position because of a missing locking ring that would have ensured that the switch was properly engaged. A contributing cause was a lack of attention to detail by the operator who left the switch in the intermediate position following maintenance activities on

November 5, 2005. Your staff provided the required 24-hour notification to the NRC to report the disabled safety-related equipment in accordance with 10 CFR 76.120.

The violation did not result in any actual consequences because a scenario under which the CAAS horn would be needed for automatic actuation, i.e., an inadvertent criticality during fissile operations in the affected area, did not occur. However, the NRC views the potential safety significance of the violation to be significant, in that in the unlikely event of an inadvertent criticality, operators and other employees may not have received timely notification of the event such that evacuation and other mitigative actions would be implemented as appropriate. Because the violation involved a safety system that was unable to perform its intended function, this violation has been categorized at Severity Level III in accordance with the NRC Enforcement Policy.

In accordance with the Enforcement Policy, a base civil penalty in the amount of \$65,000 is considered for a Severity Level III violation. Because your company has not been the subject of escalated enforcement action within the last two years, the NRC considered whether credit was warranted for *Corrective Action* in accordance with the civil penalty assessment process described in Section VI.C.2 of the Enforcement Policy. Your corrective actions were discussed in detail in your written response of February 10, 2006, and included: (1) verification that all CAAS horn switches were energized from their respective switch in area C-300; (2) all area C-300 panel switches were tightened and aligned; (3) CAAS surveillance instruction were revised to include verification that horn system circuit voltage is present as appropriate; (4) plant personnel were made aware of the event and provided with detailed instruction regarding switch operation and verification; (5) plant management issued an order requiring the Plant Shift Superintendent to ensure that voltage checks were performed each time the CAAS horn control switch was operated; (6) plans were initiated to develop a modification that will inform the operator that the switch in question is in auto. Additional corrective actions as specified in USEC's letter are planned or have been completed. Based on the above, the NRC concluded that credit was warranted for the factor of *Corrective Action*.

Therefore, to encourage prompt and comprehensive correction of violations and in recognition of the absence of previous escalated enforcement action, I have been authorized, after consultation with the Director, Office of Enforcement, to propose that no civil penalty be assessed in this case. However, similar violations in the future could result in further escalated enforcement action. Issuance of this Notice constitutes escalated enforcement action, that may subject you to increased inspection effort.

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and the date when full compliance was achieved is adequately addressed on the docket in the subject inspection report, USEC's response of February 10, 2006, and in this letter. Therefore, you are not required to respond to this letter unless the description herein does not accurately reflect your corrective actions or your position. In that case, or if you choose to provide additional information, you should follow the instructions specified in the enclosed Notice.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response (should you choose to provide one) will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), which is accessible from the NRC Web site at

<http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, the response should not include any personal privacy, proprietary, classified, or safeguards information so that it can be made available to the Public without redaction. The NRC also includes significant enforcement actions on its Web site at www.nrc.gov; select **What We Do, Enforcement**, then **Significant Enforcement Actions**.

If you have any questions regarding this matter, please contact Douglas M. Collins, Director, Division of Fuel Facility Inspection, at 404-562-4700.

Sincerely,

/RA/

William D. Travers
Regional Administrator

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

Enclosure: Notice of Violation

cc: (see page 4)

cc w/encl:

S. Penrod, Paducah General Manager

S. R. Cowne, Paducah Regulatory Affairs Manager

P. D. Musser, Portsmouth General Manager

S. A. Toelle, Director, Nuclear Regulatory Affairs, USEC

R. M. DeVault, Regulatory Oversight Manager, DOE

G. A. Bazzell, Paducah Facility Representative, DOE

Dewey Crawford, Department of Public Health, Commonwealth of Kentucky

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NOTICE OF VIOLATION

United States Enrichment Corporation
Paducah Gaseous Diffusion Plant
Paducah, KY

Docket No. 70-7001
License No. GDP-1
EA-06-012

During an NRC inspection conducted October 23 through December 27, 2005, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

Technical Safety Requirement 3.11.1 requires that a criticality safety program shall be established, implemented, and maintained as described in the Safety Analysis Report (SAR) and shall address, in part, adherence with ANSI/ANS standards.

SAR Section 3.12.6 states that the Paducah Gaseous Diffusion Plant (PGDP) Nuclear Criticality Safety Section (SAR Section 5.2) has established criteria for the Criticality Accident Alarm System (CAAS) that satisfies the requirements of ANSI/ANS 8.3, "Criticality Accident Alarm System, 1986 edition.

ANSI/ANS 8.3, Section 4.4.6 requires that the signal-generating system(s) shall be automatically actuated by an initiating event without requiring human action.

Contrary to the above, during the period of November 5 through November 29, 2005, the signal-generating system for the C-337 Criticality Accident Alarm System was not capable of being automatically actuated by an initiating event without requiring human action.

This is a Severity Level III violation (Supplement VI).

The NRC has concluded that information regarding the reason for the violation, the corrective actions taken and planned to correct the violation and prevent recurrence, and the date when full compliance was achieved is already adequately addressed on the docket in the subject inspection report, the United States Enrichment Corporation's written response of February 10, 2006, and in the cover letter transmitting this notice of Violation (Notice). However, you are required to submit a written statement or explanation pursuant to 10 CFR 2.201 if the description therein does not accurately reflect your corrective actions or your position. In that case, or if you choose to respond, clearly mark your response as a "Reply to a Notice of Violation," and send it to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, Region II within 30 days of the date of the letter transmitting this Notice.

If you contest this enforcement action, you should also provide a copy of your response with the basis for your denial to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because any response will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS), to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without

Enclosure

redaction. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/ADAMS.html> (the Public Electronic Reading Room). If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days.

Dated this 23rd day of March 2006

Enclosure