

November 26, 2002

Mr. J. Morris Brown  
Vice President - Operations  
United States Enrichment Corporation  
Two Democracy Center  
6903 Rockledge Drive  
Bethesda, MD 20817

SUBJECT: NRC PERFORMANCE REVIEW OF CERTIFIED ACTIVITIES

Dear Mr. Brown:

The managers and staff in the NRC Region III Office and the Office of Nuclear Material Safety and Safeguards (NMSS) have reviewed your program for conducting NRC certified activities at the Portsmouth Gaseous Diffusion Plant. The review consisted of an evaluation of your organization's performance for the period of October 1, 2000, through September 30, 2002. This letter provides the results of our review which will be used as a basis for establishing the future NRC inspection program at your facility.

We evaluated your organization's performance in the four major areas of safety operations, safeguards, radiological controls, and facility support. An outline of the results of the NRC's review in the context of areas needing improvement is enclosed. The results of the NRC's review will be discussed with you at a meeting to be held on December 19, 2002, starting at 2:00 p.m. at the Ohio State University's South Centers in Piketon, Ohio. The public and other interested stakeholders will be invited to observe our discussions with you and your staff. During the meeting, we expect you to discuss your view of your organization's performance in the same four major areas.

Based on our review, we concluded that the area of safeguards was functioning well with no areas needing improvement identified. In the specific areas of safety operations, radiological controls, and facility support, we identified several areas needing improvement. Within the area of safety operations, adherence to, and the quality of procedures relating to the conduct of operations are areas needing improvement. Problems with procedural adherence and quality were also identified in connection with the conduct of maintenance and surveillance activities. These areas were identified as needing improvement in the last licensee performance review. During the meeting on December 19th, we would like you to specifically address what actions you and your staff have taken or plan to take to address this ongoing concern.

In the area of radiological controls, contamination control practices was identified as an area needing improvement. In the area of facility support, configuration control, particularly with regard to valve positioning, and corrective action implementation were identified as areas needing improvement. Although some improvement was noted regarding implementation of your corrective action program, continued focus in this area is warranted. Based upon our assessment of your organization's performance, we have decided to continue implementing the

core inspection program for your facility, but will continue to focus the inspection effort on the areas identified as needing improvement with emphasis on adherence to procedures and configuration control.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be 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)*. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Should you have any questions or comments, we would be pleased to discuss them with you.

Sincerely,

*/RA/*

Marc L. Dapas, Acting Director  
Division of Nuclear Materials Safety

Docket No. 07007002  
Certificate No. GDP-2

Enclosure: As stated

cc w/encl: P. D. Musser, Portsmouth General Manager  
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## LICENSEE PERFORMANCE REVIEW

### PORTSMOUTH GASEOUS DIFFUSION PLANT October 1, 2000 - September 30, 2002

**A. SAFETY OPERATIONS** (comprised of criticality safety, chemical process safety, plant operations, and fire protection.)

Areas Needing Improvement

- Adherence to, and quality of, procedures related to the conduct of operations.<sup>1</sup>
- Contrary to the Technical Safety Requirement action statement, an approved procedure authorized multiple personnel to use a single electronic personal dosimeter and authorized its use in some high noise areas. (IR 2000-010)
- The failure to perform an as-found pressure decay test, required by procedure, resulted in not reporting a safety system failure in a timely manner. (IR 2001-003)
- During Extended Range Product Station pyrotronics testing, plant staff did not follow procedural requirements for properly timing the closure of cylinder safety valves nor did they contact management when a smokehead failed to actuate when tested, as required by procedure. (IR 2001-006)
- Inadequate procedural guidance resulted in a violation of nuclear criticality safety requirements when mass limits for stored waste were exceeded. (IR 2002-001)
- The failure to record time on a space recorder chart, required by procedure, resulted in a delay in identifying a reduced space can pressure and the shut down of an ongoing evolution. (IR 2002-003)
- Inconsistencies existed in procedural requirements for monitoring cold trap temperatures during flashing evolutions. (IR 2002-003)
- Public Warning System test acceptance criteria were not included in the surveillance procedure, allowing for changes to be made to the criteria without implementing the plant change review process. (IR 2002-004)

**B. SAFEGUARDS** (comprised of material control and accounting, physical protection, and classified material)

Areas Needing Improvement

None

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<sup>1</sup> NOTE: This area needing improvement applies to other areas, with particular emphasis on the conduct of maintenance and surveillance activities.

**C. RADIOLOGICAL CONTROLS** (comprised of radiation protection, environmental protection, waste management, and transportation)

Areas Needing Improvement

- Contamination control practices.
  - Control of health physics boundaries in the less frequented areas of the plant were not consistent with other improvement efforts. (IR 2002-002)
  - Poor radioactive contamination control practices were identified. (IR 2002-006)

**D. FACILITY SUPPORT** (comprised of maintenance and surveillance, management organization and controls, training, and emergency preparedness)

Areas Needing Improvement

- Configuration control program, particularly with regard to valve positioning.
  - Criticality controls were lost for a greater than safe mass deposit of uranyl fluoride due to inadequate controls over valve positioning. (IR 2001-008)
  - Two instances of the failure to implement valve positioning control requirements were identified; however, other independent controls prevented the return to service of the affected system with valves in the wrong position. (IR 2002-002)
  - The failure to close recirculating cooling water supply block valves resulted in a nuclear criticality safety requirement violation. (IR 2002-004)
  - A trailer and a shed were moved within 200-feet of Criticality Accident Alarm System monitored buildings without conducting an engineering evaluation to ensure alarm horn audibility. (IR 2002-006)
- Corrective action programs (continued focus).
  - Corrective actions were not effective in preventing the recurrence of a problem related to the completion of in-hand checklists. (IR 2001-004)
  - Corrective actions were not effective in precluding nuclear criticality safety approval and Technical Safety Requirement violations (e.g., control of inadvertent containers and use of electronic personal dosimetry.) (IR 2001-007)
  - Previous engineering evaluations contained recommended corrective actions for legacy equipment which were not effectively implemented, namely, replace potentially defective cylinder valve bonnet nuts and perform ultrasonic testing of cylinder walls to ensure cylinder integrity prior to heat-up. (IR 2002-005)
  - A problem report was not initiated regarding the tilting of a partially-filled cylinder during a lift. (IR 2002-006)