

May 4, 2011

MEMORANDUM TO: Dennis C. Morey, Acting Chief
Conversion, Deconversion
and Enrichment Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

FROM: Kevin S. Mattern, Project Manager */RA/*
Conversion, Deconversion
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Division of Fuel Cycle Safety
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SUBJECT: APRIL 26, 2011, TELEPHONE CONFERENCE SUMMARY
REGARDING CERTIFICATE AMENDMENT REQUEST TO
REVISE TECHNICAL SAFETY REQUIREMENTS 2.1.1, 2.1.4.13,
AND 2.1.4.14, AND TABLE 3.2.2-1, C-360 MINIMUM
STAFFING REQUIREMENTS, PADUCAH GASEOUS
DIFFUSION PLANT (TAC NO. L32758)

The U.S. Nuclear Regulatory Commission's (NRC) staff and representatives of the United States Enrichment Corporation (USEC) held a telephone conference on April 26, 2011, to discuss the staff's questions concerning the December 15, 2011, (Agencywide Documents Access and Management System [ADAMS], Accession Number ML103560602) submittal provided by USEC regarding its proposed revisions to the Paducah Gaseous Diffusion Plant's Technical Safety Requirements (TSR).

The NRC previously transmitted draft requests for additional information (D-RAIs) via e-mail (ADAMS Accession Number ML110960603) on April 5, 2011. The purpose of the teleconference was to offer USEC additional clarification regarding the intent of the staff's questions; and to ensure that USEC's formal responses will be appropriately focused on the areas of regulatory interest for this amendment request.

The USEC indicated that the conference call was useful in clarifying the intent of the staff's questions. The additional information USEC provided greatly assisted the NRC staff's understanding of the technical basis and operational implementation of the proposed revision to the TSR, decreasing the minimum staffing requirements for the C-360 facility.

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While no regulatory decisions were made during the telephone conference, the staff informed USEC representatives that the staff's D-RAIs, which were provided to USEC by e-mail on April 5, 2011, will be issued as formal requests for additional information (RAIs) by letter via separate correspondence. While the staff reserves the right to issue additional RAIs, as necessary, based on the teleconference discussion, the staff feels that USEC adequately understands the staff's questions; and that USEC's responses will provide information appropriately targeted to address the staff's RAIs. No RAIs were added or rescinded as a result of this call.

Enclosure 1 provides a list of those who participated in the telephone conference. Enclosure 2 contains a listing of the D-RAIs that the staff provided to USEC, via e-mail, on April 5, 2011, to facilitate the telephone discussion.

USEC has had an opportunity to review and comment on this summary.

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

Enclosures:
As stated

cc: Mr. Vernon Shanks, USEC-Paducah
Paducah Gaseous Diffusion Plant
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DATE	5/2/11	5/3/11	5/3/11	5/4/11

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**LIST OF PARTICIPANTS FOR TELEPHONE CONFERENCE TO
ADDRESS U.S. NUCLEAR REGULATORY COMMISSION STAFF'S QUESTIONS**

**Regarding December 15, 2010, Certificate Amendment Request to Revise Technical
Safety Requirements 2.1.1, 2.1.4.13, and 2.1.4.14, and Table 3.2.2-1, Decrease in Minimum
Staffing Requirements for the Toll Transfer and Sampling Facility (C-360)**

United States Enrichment Corporation

Paducah Gaseous Diffusion Plant

April 26, 2011

NAME

AFFILIATION

Kevin Mattern
Mike Boren
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U.S. Nuclear Regulatory Commission
United States Enrichment Corporation (USEC)
USEC
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U.S. Nuclear Regulatory Commission Staff's Draft Requests for Additional Information

Regarding December 15, 2010, Certificate Amendment Request to Revise Technical Safety Requirements 2.1.1, 2.1.4.13, and 2.1.4.14, and Table 3.2.2-1, Decrease in Minimum Staffing Requirements for the Toll Transfer and Sampling Facility (C-360)

United States Enrichment Corporation

Paducah Gaseous Diffusion Plant

- 1) In the "Justification of Changes" section of Enclosure 2 of the submittal, it is stated that, "[T]he accident analysis does not credit any operator actions during these accident scenarios other than to evacuate the area and notify the PSS." The Safety Analysis Report (SAR), page 4.3-101, also states that: "[N]o actions are required in the C-360 facility because automatic detection of the lines are provided." Contrary to the above, SAR pages 4.3-96, 4.3-101, 4.3-102, and 4.3-103 describe required mitigative operator action, operator training, and manual isolation. Provide clarification that all references to "operator action" in Accident 4.3.2.2.10 in the Paducah Gaseous Diffusion Plant's SAR do not refer to any accidents in the C-360 facility. If "operator action" is in fact required for any accident in the C-360 facility, provide additional justification for reducing staffing requirements and associated additional mitigative measures.
- 2) Based on page 4.3-95 of the SAR which states that, "[D]uring these operating modes, multiple operator errors or equipment malfunctions could occur that could result in a pigtail failure and a release of UF₆," it is unclear that potential initiators for the relevant accidents are not adversely affected—even though the initial conditions may not be affected. While the staffing changes may not affect the accident analysis or response, provide further justification to demonstrate that the reduction in staff does not decrease operational effectiveness and potentially increase accident frequency, specifically in modes 2A, 6A and 6B.
- 3) The current submittal states: "[C]ompliance with the TSR is expected regardless of how many operators are present in C-360." Provide additional justification other than, "since no operations are performed during this mode," as to why a change from 2 operators required to 0 operators required for mode 2B would continue to maintain the same level of effectiveness of the Plant's safety programs and ensures compliance with the Technical Safety Requirements (TSR).
- 4) Provide additional justification for amending the TSRs to decrease the minimum staffing requirements from 43 to 40 for the C-360 facility immediately following the previously approved increase in the maximum number of hours for an individual worker from 24 to 26 in a 48-hour period. Discuss the synergistic effects of these two licensing actions, specifically, whether or not an increase in the probability of occurrence of evaluated accidents and/or a decrease in the margin of safety would result from these related changes. Provide justification that these related changes would ensure that adequate shift coverage will be maintained without routine heavy use of overtime as per SAR, Section 3.2.2.