

August 3, 2006

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

SUBJECT: AMENDMENT 9 - PADUCAH GASEOUS DIFFUSION PLANT - CHANGE TO  
TECHNICAL SAFETY REQUIREMENT 3.2.2.1, MINIMUM STAFFING  
REQUIREMENTS (TAC L52577)

Dear Mr. Starkey:

In accordance with your application dated June 23, 2006, and pursuant to Part 76 to Title 10 of the Code of Federal Regulations, Certificate of Compliance GDP-1 is hereby amended. Specifically, Technical Safety Requirement (TSR) Table 3.2.2.1, "Minimum Staffing Requirements," is modified to reduce the staffing requirement for "C-300" from 4 to 3, and eliminate "APSS on plant site" from the C-300 "Work Area Definition."

Accordingly, Condition 9 is revised to include the date June 23, 2006.

All other conditions of Certificate of Compliance GDP-1 shall remain the same.

This amendment is effective upon issuance of this letter.

Enclosed are copies of the revised Certificate of Compliance and the staff's Compliance Evaluation Report that describes the basis for the staff's review and conclusion.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter 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 Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

R. Starkey

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If there are any questions regarding this action, please contact the Project Manager, Dan E. Martin, by telephone at (301) 415-7254, or by email, to [dem1@nrc.gov](mailto:dem1@nrc.gov).

Sincerely,

**/RA/**

Gary S. Janosko, Chief  
Fuel Cycle Facilities Branch  
Division of Fuel Cycle Safety  
and Safeguards  
Office of Nuclear Material Safety  
and Safeguards

Docket: 70-7001  
Certificate: GDP-1  
Amendment 9

Enclosures: 1. Compliance Evaluation Report  
2. Certificate of Compliance GDP-1

cc: Steven A. Toelle, USEC-Headquarters  
Randall M. DeVault, DOE-Oak Ridge  
Steve Penrod, Paducah

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**Closes TAC NO. L52577**

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## Compliance Evaluation Report

DOCKET NUMBER: 70-7001

CERTIFICATE HOLDER: United States Enrichment Corporation  
Paducah Gaseous Diffusion Plant  
Paducah, KY

SUBJECT: COMPLIANCE EVALUATION REPORT: CERTIFICATE  
AMENDMENT REQUEST DATED JUNE 23, 2006, REVISION OF  
TECHNICAL SAFETY REQUIREMENT TABLE 3.2.2.1, MINIMUM  
STAFFING REQUIREMENTS, AT THE PADUCAH GASEOUS  
DIFFUSION PLANT (TAC No. L52577)

#### PROPOSED CHANGES

This certificate amendment request (CAR) was submitted by letter dated June 23, 2006, to the U.S. Nuclear Regulatory Commission (NRC). The principal purpose of this request is to change Technical Safety Requirement (TSR) Table 3.2.2.1, "Minimum Staffing Requirements," to require the Paducah Gaseous Diffusion Plant (PGDP), operated by the United States Enrichment Corporation (USEC), to maintain 3 personnel onsite for the C-300 facility, instead of 4, as is currently required. A companion change would eliminate the requirement for an on-site Assistant Plant Shift Superintendent (APSS), a position which USEC intends to abolish. This would be accomplished by making a change to Table 3.2.2.1 to reduce the minimum staffing requirement for C-300 from 4 to 3, and eliminate the phrase "APSS on plant site" from the Work Area Definition. The current table 3.2.2.1 C-300 requirements are as illustrated below:

**TSR Table 3.2.2.1  
Minimum Staffing Requirements<sup>a</sup>**

<b>Facility Function</b>	<b>Mode/Operation</b>	<b>Staffing Requirements</b>	<b>Work Area Definition</b>
<b>C-300</b>	<b>All</b>	<b>4</b>	<b>PSS on plant site with designee in C-300. APSS on plant site. Cascade coordinator on plant site. Power operator in C-300.</b>

**a. Staffing may be less than the minimum requirement listed for a period of time not to exceed 4 hours in order to accommodate unexpected absence of on-duty shift members provided immediate action is taken to restore the shift manning requirements to within the minimum requirements.....**

## DISCUSSION

The proposed change would modify TSR Table 3.2.2.1, to eliminate the requirement for an on-site APSS at all times, and reduce the minimum staffing requirement for the C-300 facility from 4 to 3 personnel. USEC states that the proposed change will allow USEC to more effectively use resources by eliminating the APSS requirement, which USEC says is no longer needed, and allow the 4 current APSS staff to be reassigned to other positions.

USEC states that there is no safety function that requires an APSS on-site at all times, and that the current requirement causes USEC to incur additional expenses without a commensurate safety benefit. USEC states that workloads at the plant have changed over time, and that there is no longer the need for an APSS on-site at all times to assist and backup the Plant Shift Superintendent (PSS). Over time, the demands on the PSS have decreased, as transition from DOE to NRC oversight was completed, and staff has become more experienced and knowledgeable. More recently, the Paducah plant has completed the transition to a revised enrichment regime in which USEC relies on Paducah to perform all enrichment services, rather than rely on the Portsmouth facility. USEC also reports that the number of corrective actions and plant events that the PSS must deal with has been reduced. USEC argues that the primary function of the APSS position is to support the PSS, and that the PSS workload is now reduced to the point where it is no longer necessary to maintain a full-time APSS. USEC provides a justification for the proposed change for normal operations, emergency operations, and times when the PSS is absent.

### Normal Operations

USEC states that during normal working hours the on-duty APSS reports directly to the PSS and assists in providing support functions to the plant shift operating staff for operational, environmental, technical, safety and health related activities. USEC maintains that the level of activity needed to support these functions has decreased and the PSS no longer needs continuous support from the APSS to carry out these daily activities. The staff would note that the PSS has authority to reassign resources as needed to cope with variations in plant activity, and to call in additional personnel as needed.

USEC states that the APSS has also acted as the PSS designee for the C-300 facility when the PSS is not located at C-300. USEC points out that the TSR will continue to require a PSS designee for the C-300 facility, and that the designee position must be filled by a person trained to execute plant emergency procedures and having the capability to be in contact with the PSS when the PSS is not in the C-300 facility. The Cascade Coordinators have the training necessary to serve as the PSS designee, and currently function in that role. USEC states that more frequent use of the Cascade Coordinator as the PSS C-300 designee does not significantly impact the Cascade Coordinator's normally assigned duties.

### Emergency Operations

During emergency operations, the PSS has primary responsibility to act as Incident Commander (IC). The PSS has the option of dispatching the APSS or other qualified individual to function as the IC. Normally, the APSS is the only other qualified individual on-site. Therefore, elimination of the APSS position will normally require that the PSS act as the IC in

an emergency. Since the PSS normally assumes the IC role and responsibility if there appears to be a significant event, loss of the option to designate the APSS as the IC has no real effect on the execution of the IC position. Also, the PSS has the ability to call in additional personnel if needed, or if there are two simultaneous incidents which cannot be managed effectively as a single incident scene. Available management and technical support during a typical shift includes first-line managers in UF6 Handling, Power Operations, Utilities, and Maintenance, plus three managers in Cascade Operations, one Cascade Coordinator, one Fire Officer, and one Shift Engineer. These supervisors typically assist the Emergency Squad in responding to emergencies and can provide technical and management support to the PSS.

For classified emergencies, the PSS is the only individual authorized to act as Crisis Manager. The APSS is not authorized to act as Crisis Manager and does not back up the PSS in that capacity. For classified emergencies, the PSS activates the Emergency Operations Center (EOC), which is required to be staffed and available to assume command and control of the emergency within one hour. USEC concludes that the proposed change will not impact the on-shift staff's ability to classify emergencies or carry out emergency responsibilities.

#### Absence of the PSS

Footnote "a" to Table 3.2.2.1 allows the PSS position to be vacant for up to 4 hours provided immediate action is taken to restore staffing. USEC asserts that the Operations Manager recalls only once in the last several years that a PSS became so ill or sick that he had to leave before a substitute PSS was on-site, that this is a very low probability event, and that the one time it did occur, the PSS position was vacant for less than one hour. USEC states that during day shift hours (weekdays from 0700 to 1530 hours), there is typically at least one extra PSS staff member available to act as IC if necessary. This is because USEC staffs the PSS position above minimum requirements to allow for vacations, training, or other absences, and the extra PSS staff are normally on-site during day shift hours.

The staff concludes that an emergency occurring when the PSS position is vacant is an extremely low probability event, and agrees with USEC's conclusion that the proposed change will not have a significant safety impact on plant operations.

The reviewer is satisfied that there is no safety or other concern over reducing the required C-300 staffing from 4 to 3 and eliminating the APSS position, especially since additional support is always on call and can be expected to arrive within an hour. It is concluded that USEC's proposal to modify TSR Table 3.2.2.1 is acceptable, and that the proposed change is consistent with the requirements of 10 CFR Part 76 and should be approved.

#### ENVIRONMENTAL REVIEW

Approval of this amendment is subject to the categorical exclusion provided in 10 CFR 51.22(c)(19) and will not have a significant impact on the human environment. Therefore, in accordance with 10 CFR 51.22(b), neither an environmental assessment nor an environmental impact statement is required for the proposed action.

## CONCLUSION

Based on review and evaluation of the information provided by USEC in its CAR, dated June 23, 2006, the NRC staff finds that the proposed revisions to Paducah TSR Table 3.2.2.1, are acceptable, are in compliance with the requirements of 10 CFR Part 76, and should be approved.

### Principal Contributor:

Dan E. Martin



## Certificate of Compliance