

May 25, 2006

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

SUBJECT: AMENDMENT 7 - PADUCAH GASEOUS DIFFUSION PLANT - CHANGE TO
TECHNICAL SAFETY REQUIREMENT 3.2.2.1, MINIMUM STAFFING
REQUIREMENTS (TAC L52573)

Dear Mr. Starkey:

In accordance with your application dated January 4, 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 "Health Physics" from 2 to 1.

Accordingly, Condition 9 is revised to include the date January 4, 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.

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, at dem1@nrc.gov.

R. Starkey

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In accordance with 10 CFR 2.790 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).

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 7

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

R. Starkey

2

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Sincerely,

/RA/

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

Closes TAC NO. L52573

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DOCKET NUMBER: 70-7001

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

SUBJECT: COMPLIANCE EVALUATION REPORT: CERTIFICATE
AMENDMENT REQUEST DATED JANUARY 4, 2006, REVISION
OF TECHNICAL SAFETY REQUIREMENT TABLE 3.2.2.1,
MINIMUM STAFFING REQUIREMENTS, AT THE PADUCAH
GASEOUS DIFFUSION PLANT (TAC NO. L52573)

PROPOSED CHANGES

This certificate amendment request (CAR) was submitted by letter dated January 4, 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 1 health physics (HP) personnel onsite instead of 2, as is currently required. This would be accomplished by making a change to Table 3.2.2.1 to reduce the minimum requirement for Health Physics staffing from 2 to 1 as illustrated below:

**TSR Table 3.2.2.1
Minimum Staffing Requirements^a**

Facility Function	Mode/Operation	Staffing Requirements	Work Area Definition
Health Physics	At all times	1	onsite

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.....

A request for additional information (RAI) was issued by NRC dated April 5, 2006, and USEC responded by letter dated may 9, 2006.

DISCUSSION

The proposed change would modify TSR Table 3.2.2.1, to require only 1 HP personnel onsite at all times. USEC states that the proposed change will allow USEC to more effectively use resources by eliminating the requirement to call in additional HP personnel if only 1 is needed to support ongoing activities. USEC states that there is no safety function that requires 2 HP personnel onsite at all times, and that the current requirement causes USEC to incur additional HP staff call-in expenses without a commensurate safety benefit.

USEC states that during normal working hours there are approximately 10 to 20 HP personnel available onsite, and that on nights and weekends 2 HP personnel are maintained in order to satisfy current TSR requirements. USEC maintains that normal operations requiring HP support can be suspended if, for any reason, sufficient HP support is unavailable.

During emergency operations, HP support is relied upon to monitor and control radiological exposure and contamination. USEC's emergency procedures also provide for this function to be performed by members of the Emergency Squad (E-Squad), who are trained to perform these functions in emergencies.

USEC states, in the response to the RAI, that E-Squad members receive biennial radiation worker training. This training includes a comprehensive curriculum consisting of fundamentals of atomic structure, radiological definitions, types of ionizing radiation, units of measurement, dose, and dose rate calculations; biological effects of radiation including cell sensitivity, chronic and acute exposure, radiation work permit applications and use; radiation limits for occupational and non-occupational workers as well as the general public; As Low As Reasonably Achievable (ALARA) practices for protection from exposure to radiation or radioactive materials; personnel monitoring programs in place to monitor worker exposure to radiation; radioactive contamination control to minimize and control the spread of contamination; radiological postings and control for familiarization with the signs and postings in work areas; emergencies involving radioactive material and the correct response; chemical toxicity of soluble uranium compounds; and practical applications of personal protective equipment, personnel monitoring, and radiation measurements.

USEC states in the RAI response that E-Squad members also receive specific training on how to operate, read, and report measurements made with the radiological monitoring equipment stored on USEC's emergency response vehicles. The training includes topics on radiation risks and exposure limits, site emergency dose limits for rescue and recovery of personnel, personnel processing during emergencies, and exercises designed to reinforce radiation and contamination instrument knowledge and use. USEC states that E-Squad members completing this training are competent to monitor radiation levels and contamination of personnel and equipment until a qualified HP technician arrives.

USEC states that the typical number of E-Squad members on duty and available, at all times, is 12 to 17 personnel. The Plant Shift Superintendent (PSS) is responsible for verifying there is a minimum of 6 E-Squad members on duty at all times, and for calling in additional personnel, as necessary, to maintain adequate E-Squad staffing. In the event of an emergency resulting in activation of the emergency response organization, additional HP personnel are on call to support emergencies and are required to report to the plant site within one hour.

The reviewer is satisfied that there is no concern over reducing the required minimum of HP staff onsite from 2 to 1 during normal working hours, since ample HP support staff are available. On off-normal hours (nights, weekends, and holidays), footnote a to TSR Table 3.2.2.1 would allow that, on occasion, there are no HP staff on-site. USEC recalls only one instance in the past 6 years when HP staffing temporarily fell below the required minimum and staffing was restored within the 4 hour limit of footnote a. Therefore, the staff is satisfied that this would be a highly infrequent occurrence.

USEC has explained that any normal work activity can simply be postponed if adequate HP support is not available, and that in the event of an emergency, the E-Squad provides competent trained backup. E-Squad support is available at all times in numbers sufficient to cope with foreseeable emergencies; if needed, additional HP staffing is on call and required to report within one hour.

The reviewer concludes that reduction of the HP required minimum staffing from 2 to 1 will not have any significant safety impact, given the unlikelihood of an event occurring simultaneously with the absence of HP personnel, the constant presence of trained E-Squad members, and the availability of backup HP support on call 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 January 4, 2006, the NRC staff finds that the proposed revisions to Paducah TSR Table 3.2.2.1, is acceptable, is in compliance with the requirements of 10 CFR Part 76, and should be approved.

Principal Contributor:

Dan E. Martin

ENCLOSURE 2

Certificate of Compliance