



August 10, 2009
GDP 09-0023

Mr. Michael F. Weber
Director, Office of Nuclear Material Safety and Safeguards
Attention: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

**Portsmouth Gaseous Diffusion Plant (PORTS)
Docket No. 70-7002, Certificate No. GDP-2
Certificate Amendment Request- Revision of Technical Safety Requirement (TSR)
2.8, Specific TSRs for Miscellaneous Facilities (X-700, X-710, X-720, X-760, XT-847)**

Dear Mr. Weber:

In accordance with 10 CFR 76.45, the United States Enrichment Corporation (USEC) hereby submits a request for amendment to the Certificate of Compliance for the Portsmouth Gaseous Diffusion Plant (PORTS). This Certificate Amendment Request (CAR) proposes to revise TSR 2.8, Specific TSRs for Miscellaneous Facilities (X-700, X-710, X-720, X-760, XT-847).

This change is being made as the result of the planned de-lease of the X-760, Chemical Engineering Building from the Gaseous Diffusion Plant (GDP) to the Department of Energy (DOE) to accommodate DOE's stated plans to decontaminate and decommission (D&D) the facility. The X-760 has not been in operation for some time but has in the past contained quantities of low enriched material. The change involves revising TSR 2.8, which currently requires that a criticality accident alarm system (CAAS) be operable in the X-700, X-710, X-720, X-760, XT-847, to remove the X-760 from the stated applicability of the TSR.

Due to the uncertainty of the actual turnover date of the facility from USEC to DOE it is requested that an amendment approval be effective immediately and the change be implemented within 60 days of actual turnover of the X-760 to DOE.

There are no new commitments contained in this submittal. Any questions related to this submittal should be directed to me at (301) 564-3250.

Sincerely,

Steven A. Toelle
Director, Regulatory Affairs

KIMSSO1

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- Enclosures:
1. Oath and Affirmation
 2. United States Enrichment Corporation (USEC), Certificate Amendment Request, Revision of Technical Safety Requirement 2.8 Specific TSRs for Miscellaneous Facilities (X-700, X-710, X-720, X-760, XT-847), Detailed Description and Justification
 3. Certificate Amendment Request, Portsmouth Gaseous Diffusion Plant, Letter GDP 09-0023, Removal /Insertion Instructions
 4. United States Enrichment Corporation (USEC), Certificate Amendment Request, Revision of Technical Safety Requirement, 2.8 Specific TSRs for Miscellaneous Facilities (X-700, X-710, X-720, X-760, XT-847), Significance Determination

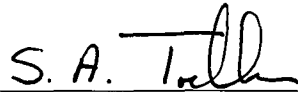
cc: D. Hartland, Sr. Fuel Facility Inspector, NRC Region II
J. Henson, Chief, Fuel Facility Branch 2, NRC Region II
T. Liu, NRC Project Manager, NRC HQ

Enclosure 1
GDP 09-0023

Oath and Affirmation

OATH AND AFFIRMATION

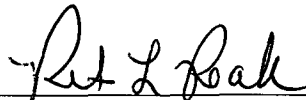
I, Steven A. Toelle, swear and affirm that I am the Director, Regulatory Affairs of the United States Enrichment Corporation (USEC), that I am authorized by USEC to sign and file with the Nuclear Regulatory Commission this Certificate Amendment request for the Portsmouth Gaseous Diffusion Plant addressing the revision to the Technical Safety Requirement 2.8, Specific TSRs for Miscellaneous Facilities (X-700, X-710, X-720, X-760, XT-847), as described in USEC letter GDP 09-0023, that I am familiar with the contents thereof, and that the statements made and matters set forth therein are true and correct to the best of my knowledge, information and belief.



Steven A. Toelle

On this 10th day of August 2009, the individual signing above personally appeared before me, is known by me to be the person whose name is subscribed to within the instrument, and acknowledge that he executed the same for the purposes therein contained.

In witness hereof I hereunto set my hand and official seal.



Rita L. Peak, Notary Public
State of Maryland, Montgomery County
My commission expires December 1, 2009

**United States Enrichment Corporation (USEC)
Certificate Amendment Request
Revision of Technical Safety Requirement 2.8 Specific TSRs for Miscellaneous
Facilities (X-700, X-710, X-720, X-760, XT-847)
Detailed Description and Justification**

Description of Change

The descriptive title for TSR 2.8 will be revised to remove the reference to the X-760 Facility which essentially removes the requirement to have an operable CAAS in the facility.

The revised title for TSR 2.8 will read as follows:

“Specific TSRs for Miscellaneous Facilities (X-700, X-710, X-720, XT-847)”

Justification of the Change:

The X-760 facility has been used for a variety of plant support operations. In recent years the facility has been used by the laboratory groups to perform such activities as sample buggy repairs, chemical trap replacement media preparation and HEPA filter testing. Historically there have been operations that involved limited quantities of uranium but at this time there are no solid deposits of UO_2F_2/UF_4 in the facility as a result of USEC certified activities. At the present time, the DOE plans to treat this facility (after de-lease) as a Category 2 facility. DOE is required to modify their *BJC/PORTS-444, Documented Safety Analysis for the Portsmouth Gaseous Diffusion Plant Non-Cylinder Yards Hazard Category 2 Non-leased Facilities* and *BJC/PORTS-446, Technical Safety Requirements for Category 2 Facilities (except Cylinder Storage Yards)* to reflect the addition of the X-760 facility. USEC will continue to own the criticality accident alarm system (CAAS) and shall maintain, operate, and perform appropriate TSR (USEC or DOE) testing in the X-760 until such time as the DOE has evaluated and documented in writing to USEC that criticality detection monitoring is no longer required. The X-760 CAAS will remain integrated into the overall gaseous diffusion plant system and as such will alarm into the X-300 control facility and be subject to PORTS procedures governing its operation, maintenance and alarm response.

The return of the X-760 Chemical Engineering Building to the DOE, including the associated regulatory oversight, will not affect the PORTS safety basis by either increasing the probability of occurrence or consequences of a previously evaluated accident or malfunction of equipment important to safety, introduction of any new accident initiators of malfunctions of equipment important to safety or the reduction of the margin of safety as defined in the TSRs.

Certificate Amendment Request Portsmouth Gaseous Diffusion Plant Letter GDP 09-0023 Removal/Insertion Instructions	
Remove Pages	Insert Pages
APPLICATION FOR UNITED STATES NUCLEAR REGULATORY COMMISSION CERTIFICATION TECHNICAL SAFETY REQUIREMENTS VOLUME 4	
TSR 2.8 Pages 2.8-1 thru 2.8-6	TSR 2.8 Pages 2.8-1 thru 2.8-6

SECTION 2.8 SPECIFIC TSRs

FOR

MISCELLANEOUS FACILITIES
(X-700, X-710, X-720, XT-847)

**SECTION 2.8 SPECIFIC TSRs FOR MISCELLANEOUS FACILITIES
(X-700, X-710, X-720, XT-847)**

2.8.1 OPERATIONAL MODES

NONE

**SECTION 2.8 SPECIFIC TSRs FOR MISCELLANEOUS FACILITIES
(X-700, X-710, X-720, XT-847)**

2.8.2 SAFETY LIMITS

NONE

**SECTION 2.8 SPECIFIC TSRs FOR MISCELLANEOUS FACILITIES
(X-700, X-710, X-720, XT-847)**

**2.8.3 LIMITING CONTROL SETTINGS, LIMITING CONDITIONS FOR OPERATION,
SURVEILLANCES**

2.8.3.1 Criticality Accident (Radiation) Alarm Systems (continued)

SURVEILLANCE REQUIREMENTS:

Frequency	Surveillance
Semiannually	SR 2.8.3.1.1 Calibrate radiation clusters to a set point of 5 mRad/hr. in air.
	SR 2.8.3.1.2 Verify that the cluster nitrogen horn and X-300 alarm sounds when two out of three channels in a cluster are tripped.
Quarterly	SR 2.8.3.1.3 Verify nitrogen supply pressure is at least 900 psig for each CAAS horn.

BASIS:

Each cluster consists of three neutron-sensitive detection units. Clusters are designed and calibrated to detect and alarm on a minimum credible criticality accident of concern, defined as producing an integrated total dose of 20 Rads. in one minute at two meters from the reacting material. This system will provide an audible signal in the event of a criticality which will alert personnel to evacuate the immediate work areas. The minimum acceptable length of time for the CAAS horn to sound is 2 minutes. [SAR Sections 3.8.7.1 and 4.3.2.6].

**SECTION 2.8 SPECIFIC TSRs FOR MISCELLANEOUS FACILITIES
(X-700, X-710, X-720, XT-847)**

2.8.4 GENERAL DESIGN FEATURES

NONE

**United States Enrichment Corporation (USEC)
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Facilities (X-700, X-710, X-720, X-760, XT-847)
Sharing of Facilities, Structures, Systems, and Components
Significance Determination**

The United States Enrichment Corporation (USEC) has reviewed the proposed changes associated with this certificate amendment request and provides the following Significance Determination for consideration.

1. No Significant Change to Any Conditions to the Certificate of Compliance

There are no conditions to the Certificate of Compliance for operation of the Portsmouth Gaseous Diffusion Plant (GDP-2) that pertain to the specific TSR affected by this change. Thus, the proposed change has no significant impact on any conditions to the Certificate of Compliance.

2. No Significant Change to Any Condition of the Approved Compliance Plan

All Compliance Plan Issues have been closed. As a result, the conditions specified in the Compliance Plan are no longer in effect. Thus, this proposed change does not represent a significant change to any condition of the approved Compliance Plan.

3. No Significant Increase in the Probability of Occurrence or Consequences of Previously Evaluated Accidents

The proposed change does not increase the probability of occurrence of previously evaluated accidents. The proposed change does not involve any change to the plant safety analysis or to the safety controls. The proposed change does not introduce any new external events from operations or activities in the proposed DOE owned X-760 facility that could initiate an accident in the GDP NRC Certified facilities. The proposed change does not affect the probability of an uncontrolled release of radioactive material or of a criticality in facilities or operations governed by the NRC Certificate of Compliance. The SSCs relied upon to prevent occurrence of an accident previously evaluated in the SAR will continue to meet the current SAR envelope requirements for availability and reliability. The TSRs will continue to be met as required for plant operations. Thus, the proposed change does not affect the probability of occurrence of an accident previously described in the SAR since it does not introduce any new or different potential accident scenarios or accident initiating events. Therefore, the overall potential for an accident involving these operations is unchanged, and the probability of a previously evaluated SAR accident is not increased.

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Significance Determination**

4. No New or Different Type of Accident

The proposed change will not create any new failure modes or create initiating events that are different than previously evaluated. While the X-760 and any associated operations related to D & D will be under DOE regulation, there are no new failure conditions identified for the SSCs and no different type of accident in NRC Certified facilities and operations has been identified. Accordingly, no new types of accidents are created by this change.

5. No Significant Reduction in Margins of Safety

The proposed change that removes the X-760 from the TSRs and transfers the regulatory authority to the DOE has no direct impact on the remaining TSRs in Section 2. The operation and maintenance of the X-760 CAAS will be managed no differently than other DOE owned facilities, such as the X-345, that co-exist within the PORTS Gaseous Diffusion Plant. The approved CAAS design or as-found installation of these systems while in operation remains unchanged.

The requirements of the TSRs governing the operation of the plant will continue to be met at all times. No margins of safety are impacted as defined in the supporting bases documents for any TSR. The requirements of the TSRs in Section 2 governing the operation of the plant will continue to be met at all times as required for the operating mode. No margins of safety are impacted as defined in the supporting bases documents for any TSR.

6. No Significant Decrease in the Effectiveness of the Plant's Safety and Safeguards Or Security Programs and Plans

The TSR change does not directly affect the plant's safety and safeguards or security programs and plans contained in the Certification Application. The change to the TSR does not impact any programmatic controls, requirements or surveillances.

7. The Proposed Change does not Result in Undue Risk to 1) Public Health and Safety, 2) Common Defense and Security, and 3) the Environment

This change does not alter any approved plant operation or physical condition nor any of the accident analysis assumptions. There is no increase in the probability of occurrence or consequences of a previously evaluated accident or malfunction of equipment important to safety. There are no new accident initiators, increase

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Significance Determination**

in hazardous materials or waste streams. The change being proposed has no adverse impact on security issues. Consequently, this change does not result in undue risk to public health and safety, the environment, or to the common defense and security.

8. No Change in the Types or Significant Increase in the Amounts of Any Effluents that May be Released Offsite

The proposed change does not involve any physical change to the plant or plant operations that could change the types or the amounts of any effluents that may be released offsite. Therefore, the proposed change does not change the type or significantly increase the amount of effluents that may be released offsite.

9. No Significant Increase in Individual or Cumulative Occupational Radiation Exposure

The proposed change does not significantly increase the probability or consequences of a UF₆ release. The proposed change will not effect the radiological protection program description or the actions in place to minimize occupational exposures. Therefore, there is no increase in individual or cumulative occupational radiation exposure as a result of this change.

10. No Significant Construction Impact

This change does not involve any construction activities other than the CAAS will be deactivated prior to the actual D & D of the facility. Therefore, there are no significant construction impacts associated with this change.