May 17, 2011

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

FROM: Tilda Liu, Senior Project Manager **/RA/**
Conversion, Deconversion
and Enrichment Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

SUBJECT: MAY 2, 2011, TELEPHONE CONFERENCE SUMMARY ON REVSION TO TECHNICAL SAFETY REQUIREMENTS SECTION 2.6.4.1, SAFETY ANALYSIS REPORT SECTIONS 4.2 AND 4.3.2.6, TO ALLOW USE OF C-745-X FOR STORAGE OF PROCESS EQUIPMENT CONTAINING SMALL QUANTITIES OF FISSILE MATERIAL, PADUCAH GASEOUS DIFFUSION PLANT (TAC NO. L32769)

The U.S. Nuclear Regulatory Commission's staff and representatives of the United States Enrichment Corporation (USEC), Paducah Gaseous Diffusion Plant (PGDP), held a telephone conference on May 2, 2011, to discuss the staff's draft requests for additional information (D-RAIs) concerning USEC-PGDP's proposed revision to its Technical Safety Requirement, Section 2.6.4.1, and Safety Analysis Report, Sections 4.2 and 4.3.2.6, to allow use of C-745-X for outdoor storage of process equipment containing very small quantities of fissile material, as submitted by its certificate amendment request dated February 14, 2011(Agencywide Documents and Management System Accession No. ML110530055).

The conference call was useful in clarifying the intent of the staff's D-RAIs. On the basis of the discussion, USEC-PGDP's representatives were able to better understand the staff's questions. No staff decisions were made during the telephone conference, and USEC-PGDP agreed to provide information for clarification.

CONTACT: Tilda Liu, NMSS/FCSS
(301) 492-3217

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-PGDP, via e-mail, on April 14, 2011, to facilitate the telephone discussion.

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

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

Enclosures:
As stated

cc: Vernon Shanks, USEC-Paducah
Paducah Gaseous Diffusion Plant
P.O. Box 1410
Paducah, KY 42001

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Paducah Gaseous Diffusion Plant
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NAME	LAllen	TLiu	DMorey
DATE	5/11/2011	5/11/2011	5/17/2011

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LIST OF PARTICIPANTS FOR TELEPHONE CONFERENCE TO DISCUSS DRAFT REQUEST FOR ADDITIONAL INFORMATION REGARDING REVISION TO TECHNICAL SAFETY REQUIREMENTS, SECTION 2.6.4.1, AND SAFETY ANALYSIS REPORT, SECTIONS 4.2 AND 4.3.2.6, TO ALLOW USE OF C-745-X FOR STORAGE OF PROCESS EQUIPMENT CONTAINING POTENTIALLY FISSILE MATERIAL

PADUCAH GASEOUS DIFFUSION PLANT

May 17, 2011

NAME	AFFILIATION
Chris Tripp	U.S. Nuclear Regulatory Commission (NRC)
Dennis Morey	NRC
Tilda Liu	NRC
Vernon Shanks	Paducah Gaseous Diffusion Plant (PGDP)
Tracey Henson	PGDP
Clint Gross	PGDP
Jeffery Stephens	PGDP
Greg Englert	PGDP
Darrin English	PGDP

PADUCAH GASEOUS DIFFUSION PLANT

REVISION TO TECHNICAL SAFETY REQUIREMENTS, SECTION 2.6.4.1, AND SAFETY ANALYSIS REPORT, SECTIONS 4.2 AND 4.3.2.6, TO ALLOW USE OF C-745-X FOR STORAGE OF PROCESS EQUIPMENT CONTAINING POTENTIALLY FISSILE MATERIAL

DRAFT REQUEST FOR ADDITIONAL INFORMATION (D-RAI)

D-RAI 1

The supplemental responses, dated April 4, 2011, only referred to outdoor storage of Uncomplicated Handling (UH) components. There is no mention of a control preventing outdoor storage of Planned Expeditious Handling (PEH) components. What ensures that only UH components will be stored outside? The information is needed because the criticality evaluation only considers intrusion of rain or snow into UH components. Assurance of subcriticality under normal and credible abnormal conditions requires that either the analysis adequately covers outdoor storage of PEH components, or PEH components be banned in the Safety Analysis Report or Technical Safety Requirements from being stored outdoors.

D-RAI 2

The only scenario considered specifically for outdoor storage of UH components is 4.5.20. That relies only on a single administrative control and the natural and credible course of events. The certificate holder is requested to address the following: (1) failure of operators to cover openings with waterproof covers, when unattended or in inclement weather; (2) improper classification of removed process equipment as UH; (3) improper movement of PEH onto the C-745-X storage pad; and (4) [since covers do not have to be fireproof] failure due to a fire on the C-745-X storage pad. Reasonable assurance of safety with outdoor storage of UH components necessitates that failure mechanisms associated with the administrative controls be considered.

D-RAI 3

What provisions will there be for initially and periodically verifying correct installation, and continued effectiveness, of waterproof covers on UH equipment? Because these covers are the only control preventing criticality, reasonable assurance of safety necessitates that sufficient measures be established to ensure they will perform their safety function when needed.

D-RAI 4

The C-746Q CAAS Audibility Building Checklist indicates that the critically accident alarm system (CAAS) sufficiently exceeds the background noise level at 500 hertz (Hz) for each survey location. However, in several cases, the broadband level is stated as not being acceptable or not applicable. The listening check was also reported as not applicable for each survey location. There are also no units listed in the table [staff assumes these are in decibel (dB)]. Explain the table and how it demonstrates acceptable CAAS audibility on the C-745-X pad. ANS-8.3-1997, Section 4.3.6, specifies that horns should be at least 10 dB above background in order to ensure they will be adequate to initiate personnel evacuation.