USEC
A Global Energy Company

December 5, 2011
GDP 11-0031

Ms. Catherine Haney
Director, Office of Nuclear Material Safety and Safeguards
Attention: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Paducah Gaseous Diffusion Plant (PGDP)
Docket No. 71-0832
Revision to the Radioactive Material Packaging and Transportation Quality Assurance Program (PTQAP)

Dear Ms. Haney:

The United States Enrichment Corporation (USEC) hereby submits proposed changes to UEO-1041, "Radioactive Material Packaging and Transportation Quality Assurance Program (PTQAP)" for NRC review and approval. This program is referred to in the NRC Quality Assurance Program Approval for Radioactive Material Packages No. 0832.

Enclosure 1 provides a description of the proposed changes and the bases for the changes. These changes remove the Portsmouth Gaseous Diffusion Plant (PORTS) from the PTQAP and update the title of the corporate executive who receives the biennial PTQAP assessment reports. Enclosure 2 contains the proposed revision to the PTQAP. These changes are necessary since the Certificate of Compliance for PORTS (GDP-2) has been terminated and the title of the corporate official has been changed. USEC requests NRC review of this submittal as soon as practical. Upon receipt of the NRC approval of the enclosed change, the PTQAP will be revised and issued to the NRC using the next sequential revision number.

Should you have any questions related to this submittal, please contact me at (301) 564-3250.

Sincerely,

S. A. Toelle

Steven A. Toelle
Director, Regulatory Affairs

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Enclosures:

1. Proposed Changes to Radioactive Material Packaging and Transportation Quality Assurance Program, USEC Document UEO-1041, Description of Changes and Bases

2. Proposed Revision Pages, Radioactive Material Packaging and Transportation Quality Assurance Program, USEC Document UEO-1041

cc: J. Calle, NRC Region II Office
T. Liu, NRC Project Manager - HQ
NRC Sr. Resident Inspector - PGDP

Enclosure 1

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Radioactive Material Packaging and Transportation Quality Assurance Program,
USEC Document UEO-1041

Description of Changes and Bases

United States Enrichment Corporation (USEC)

Proposed Changes to
Radioactive Material Packaging and Transportation Quality Assurance Program,
USEC Document UEO-1041

Description of Changes and Bases

Changes to UEO-1041, "Radioactive Material Packaging and Transportation Quality Assurance Program" are proposed herein:

- Section 1, Introduction, third paragraph: deletes reference to Portsmouth and adapts the sentence to a singular subject format by changing the text to, "In accordance with the provisions, this document applies to the Paducah Gaseous Diffusion Plant (GDP)."
- Section 2.1.1, Structure, second sentence: adapts the sentence to a singular subject format to, "...Safety Analysis Report (SAR) for the GDP."
- Section 2.1.2, Responsibilities: adapts the sentence to a singular subject format by changing the text to, "...Safety Analysis Report (SAR) for the GDP."
- Section 2.2.1, General, second paragraph: adapts the sentence to a singular subject format by changing the text to, "... structures systems, and components (SSCs) of the GDP to protect the health and safety of the public and workers and the protection of the environment."
- Section 2.2.5, Review and Assessment, third paragraph, first sentence, change title of corporate executive to "Vice President, Enrichment Operations".
- Section 2.2.5, Review and Assessment, third paragraph, first sentence, adapt sentence to a singular subject format by changing the text to, "... by the NS&Q manager.
- Section 2.5.2, Responsibilities, second paragraph: deletes the second paragraph, which delineates the Training Manager (PORTS) responsibilities. Also deletes "(PGDP)" from the third paragraph.
- Section 2.6.2, Responsibilities, first paragraph: deletes reference to Records Management and Document Control Manager (PORTS) by changing the text to, "The Production Support Manager has the overall responsibility for the development and implementation of the document control system."
- Section 2.17.2, Responsibilities, first paragraph: deletes reference to Records Management and Document Control Manager (PORTS) by changing the text to, "The Production Support Manager is responsible for the development, maintenance, and implementation of the records management system."

Bases: The proposed changes delete reference to PORTS and change many sections to a singular case vs. the present plural case wording. The plural case wording was needed to apply the discussions/descriptions to both the Paducah Gaseous Diffusion Plant (PGDP) and PORTS. Due to the termination (ref: NRC letter of October 12, 2011) of the PORTS Certificate of Compliance (GDP-2), inclusion of PORTS in the PTQAP no longer required. The changes also update the title of the corporate executive who receives the biennial PTQAP assessment reports.

Reason for the Changes

The UEO-1041, "Radioactive Material Packaging and Transportation Quality Assurance Program (PTQAP)" was a joint document, shared by both PGDP and PORTS. However, with the termination of the certificate for PORTS (ref: NRC letter of October 12, 2011), this plan only applies to PGDP. Also, by announcement of 8/03/11, the new position of Vice President, Enrichment Operations was created. This position replaces and encompasses the duties formerly performed by the Vice President, Operations.

Justification of the Changes

The changes proposed to the UEO-1041, "Radioactive Material Packaging and Transportation Quality Assurance Program" are administrative in nature, safe, and present no undue risk to the public health and safety, environment, common defense, or security. Each change, as detailed above, deletes references to the PORTS, PORTS employees' responsibilities, and/or adapts the sentence structure to a singular subject format (i.e.: PGDP only), or administratively changes a position title without changing the roles, responsibilities, or qualifications of the position.

These proposed changes update the UEO-1041, "Radioactive Material Packaging and Transportation Quality Assurance Program" to describe current USEC radioactive material packaging and transportation operations conducted under 10 CFR 76.60 (g) at PGDP.

Enclosure 2
GDP 11-0031
11 Pages Total

Proposed Revision
Radioactive Material Packaging and Transportation Quality Assurance Program
USEC Document UEO-1041

Removal/Insertion Instructions

Remove Pages	Insert Pages
Title, iii, xi, 1, 2, 3, 5, 8, 9, 20	Title, iii, xi, 1, 2, 3, 5, 8, 9, 20

UEO-1041

RAC 11C017

RADIOACTIVE MATERIAL PACKAGING AND TRANSPORTATION QUALITY ASSURANCE PROGRAM

LIST OF EFFECTIVE PAGES

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vii	4
viii	4
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19	18
20	RAC 11C017
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Revision Summary Page

Revision	Revision Summary
16	Revised Section 2.5.2, second paragraph and added a new third paragraph to address the organization change that resulted from combining the Training and Procedures Section with the Production Support Section at PGDP.
17	Revised the Introduction, first paragraph, changing "10CFR 71.12 (c) (2)" to "10 CFR 71.17 (c) (2)." Revised sections 2.6.2 and, first paragraph to address the organization change that resulted from deleting the Plant Services Organization and transferring the document control and records management system to the Production Support Organization at PGDP.
18	Revised Sections 2.2.2, 2.3.2, 2.3.3, 2.4.2, 2.5.2, 2.7.2, 2.8.2, 2.9.2, 2.10.2, 2.10.3, 2.11.2, 2.12.2, 2.12.3, 2.13.2, 2.15.2, and 2.16.2 to minimize the PTQAP dependence on specific organizational titles where possible and to focus on the related quality assurance requirement(s) and where functionally they are to be performed within the organization. Revised Sections 2.6.2 and 2.17.2 to replace "Plant Services" with "Records Management and Document Control" to reflect the specific entity at PORTS responsible for records management and document control.
RAC 11C017	Revised Sections 1, 2.1.1, 2.1.2, 2.2.1, 2.2.5, 2.5.2, 2.6.2, and 2.17.2 to delete references to Portsmouth responsibilities and/or adapted sentence structure to a singular subject format, i.e. Paducah Gaseous Diffusion Plant (GDP) only. Also revised section 2.2.5 to update the title of the corporate executive how receives the biennial assessment of the PTQAP.

1. INTRODUCTION

10 CFR 76.60 (g) requires the United States Enrichment Corporation (USEC) to comply with the applicable provisions of 10 CFR 71, "Packaging and Transportation of Radioactive Material." 10 CFR 71.0 (d) subjects the transport of licensed material or delivery of licensed material to a carrier for transport to the quality assurance requirements of Subpart H. 10 CFR 71.17 (c)(2) requires compliance with the applicable requirements of Subpart H. This Quality Assurance Program describes how USEC satisfies the applicable requirements of Subpart H in accordance with 10 CFR 71.101(c).

This document is organized in accordance with the applicable criteria of 10 CFR 71 Subpart H. U.S. Nuclear Regulatory Commission Regulatory Guide 7.10, "Establishing Quality Assurance Programs for Packaging Used in the Transport of Radioactive Material," was used as guidance in developing the Radioactive Material Packaging and Transportation Quality Assurance Program. The PTQAP is applied to the design, procurement, fabrication, assembly, use, maintenance, repair and testing of packing used in the transport of radioactive material in excess of Type A quantities or fissile material.

In accordance with these provisions, this document applies to the Paducah Gaseous Diffusion Plant (GDP).

2. REQUIREMENTS

2.1 ORGANIZATION

2.1.1 Structure

The United States Enrichment Corporation (USEC) is responsible for the design, procurement, fabrication, assembly, use, maintenance, repair, and testing of packaging used in the transport of radioactive material. The USEC organizational structure is described in the Safety Analysis Reports (SAR) for the GDP.

2.1.2 Responsibilities

The positions having principal responsibility for activities covered under the scope of the Radioactive Material Packaging and Transportation Quality Assurance Program (PTQAP) are described in the Safety Analysis Report (SAR) for the GDP.

2.1.2.1 ***Section deleted***

2.1.2.2 ***Section deleted***

2.1.2.3 ***Section deleted***

2.1.2.4 ***Section deleted***

2.1.2.5 ***Section deleted***

2.1.2.6 ***Section deleted***

2.1.2.7 ***Section deleted***

2.2 QUALITY ASSURANCE PROGRAM

2.2.1 General

The PTQAP complies with the applicable provisions of 10 CFR 71 Subpart H and is established, maintained, and executed as described in this document.

The PTQAP governs those activities within USEC control and responsibility for the management, operation, maintenance, modification, and new construction of radioactive material packaging and transportation structures, systems, and components (SSCs) of the GDP to protect the health and safety of the public and workers and for the protection of the environment.

The PTQAP is applicable to packaging and shipment for quantities of fissile material or licensed material in excess of Type A quantity. USEC applies quality assurance in a graded approach commensurate with the importance to safety of these packaging and transportation SSCs. The importance to safety of packaging and transportation SSCs is determined by the packaging design and approval, as reflected in the Safety Analysis Report for Packaging and Packaging Certificate of Compliance.

The quality of existing packaging and transportation SSCs, as well as related activities and services performed prior to the date NRC assumes regulatory oversight was assured by construction, operation, and maintenance procedures and practices employed at that time. These procedures and practices have been validated by more than 40 years of safe operation.

2.2.2 Scope

The requirements of the PTQAP apply to activities affecting the ability of radioactive material packaging and transportation SSCs to perform their safety functions. These activities affecting quality include designing, purchasing, fabricating, handling, receiving, shipping, storing, cleaning, erecting, inspecting, testing, operating, maintaining, repairing and modifying. These items are identified as Q items in a controlled document listing provided by the manager responsible for the engineering function. Safety Analysis Reports for Packaging and packaging Certificates of Compliance, as applicable, provide the basis for this determination.

The requirements of the PTQAP are applied in a graded approach to an extent commensurate with the importance to safety. The graded approach methodology for Q items is based on an assessment of the relative importance to safety of specific SSCs, taking into consideration as appropriate:

1. The complexity of the package and component design, fabrication, or uniqueness.

2. The proposed use of the package, its quality history and degree of standardization.

3. The impact of malfunction or failure of the item to safety.

4. The degree to which functional compliance can be demonstrated by inspection or test and the need for surveillance over processes and equipment.

The Paducah Tiger Overpack is the only packaging for fissile materials for which USEC has design responsibility. USEC is a registered user of other packagings shipped or received at the GDP. Cylinders for shipment of uranium hexafluoride are procured, inspected, handled, and maintained in accordance with the current revision of the Safety Analysis Report (SAR) for the Gaseous Diffusion Plant.

An assessment of the status, adequacy, and effectiveness of this PTQAP is provided to the USEC Vice President, Enrichment Operations at least once every 24 months by the NS&Q manager. This assessment is developed from such sources as audits, self-assessments, trend data, status reports, etc. Revisions to the PTQAP shall be submitted for approval by NRC in accordance with the provisions of 10 CFR 71.101(c).

2.3 PACKAGE DESIGN CONTROL

2.3.1 General

Packaging design control applies to radioactive material packaging and transportation SSC items, as described below. This system ensures design and design change activities are planned, controlled, and carried out in an orderly manner, with design bases, regulatory requirements, and quality standards correctly translated into design output for procurement and procedural documents. This system provides for verification and checks of the technical adequacy of original and revised design documents.

2.3.2 Responsibilities

The manager responsible for the engineering function is responsible for implementation and execution of the design control system for radioactive material packaging and transportation SSCs.

Design changes and new designs for radioactive material packaging and transportation SSCs are authorized by responsible management and approved by the Plant Operations Review Committee prior to submittal for NRC review and approval, as applicable. Management ensures changes to packaging and transportation SSCs are verified for acceptability and that personnel affected by the changes are adequately trained as described in procedures.

2.3.3 Requirements

Established written procedures for design activities provide measures to ensure the following:

1. The selection and review for suitability of application of materials, parts, equipment and processes essential to the safety functions of the packaging and its components.

2. The identification and control of design interfaces and coordination among participating design organizations.

2.5 INSTRUCTIONS, PROCEDURES, AND DRAWINGS

2.5.1 General

The system established for instructions, procedures, and drawings applies to radioactive material packaging and transportation SSC items, as described below. Measures are in place to ensure that activities affecting quality are prescribed by documented procedures, drawings, and instruction, as appropriate, and are accomplished in accordance with these documents.

2.5.2 Responsibilities

The Nuclear Safety and Quality Manager is responsible for review of selected procedures for inclusion of quality requirements.

The Production Support Manager is responsible for the system of preparation, review, approval, and use of procedures and instructions in accordance with the requirements of this PTQAP.

The manager responsible for the engineering function is responsible for the system of preparation, reviews, and approval of drawings for SSCs within the scope of the PTQAP.

Organization managers are responsible for developing and approving procedures which control functions or activities within their area of responsibility, as defined in the PTQAP.

All personnel are required to use and adhere to the requirements of applicable procedures, instruction, and drawings for activities within the scope of the PTQAP.

2.5.3 Requirements

Instructions, procedures, drawings and other documents pertinent to radioactive material packaging and transportation SSCs provide measures to ensure activities affecting quality are prescribed, including appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

Procedures ensure the following:

1. The requirements for meeting 10 CFR 71.87 are established.
2. Packaging maintenance and repair are prescribed with inspection and hold points incorporated as necessary.
3. Controls for packaging loading and unloading are specified.

4. Prior to shipment, packages are reviewed to ensure Department of Transportation (DOT) compliance.

Activities that require skills normally possessed by qualified personnel (known as skill-of-the-craft) may not require detailed step-by-step delineation in a procedure, but are subject to general administrative procedural controls.

Temporary procedures may be issued when permanent procedures do not exist:

1. to direct operations during testing, maintenance, and modification.

2. to provide guidance in unusual situations not within the scope of permanent procedures.

3. to ensure orderly and uniform operations for short periods when the plant, a system, or component of the system is performing in a manner not covered by existing permanent procedures or has been modified or extended in such a manner that portions of existing procedures do not apply.

Temporary procedures may be used for a period of time which should not exceed 60 days, or a period for which the temporary condition must exist, whichever is greater. These temporary procedures are subject to the same level of review and approval as required for permanent procedures.

2.6 DOCUMENT CONTROL

2.6.1 General

The document control system applies to radioactive material packaging and transportation SSC items, as described below. The system ensures documents defining the performance of activities affecting quality are controlled to ensure only current and correct information is available at the work location prior to commencing the work.

2.6.2 Responsibilities

The /Production Support Manager has the overall responsibility for the development and implementation of the document control system.

Organization managers are responsible for identifying documents to be included in the controlled document system; ensuring instructions, procedures, drawings, and other specified documents are reviewed for adequacy and approved for release; complying with document distribution requirement; and ensuring these documents are maintained and used by personnel performing the prescribed activity.

to quality, the cause of the condition is determined, documented, and reported to management, with corrective action taken to prevent recurrence. Follow-up actions are taken to verify implementation of corrective actions.

2.16.2 Responsibilities

The manager responsible for the regulatory affairs function is responsible for development, maintenance and implementation of the corrective action control system, including escalation of significant adverse conditions for management review. In addition, this manager is also responsible to ensure follow-up action is taken to verify implementation of the corrective action.

The Nuclear Safety and Quality Manager is responsible for audit and/or surveillance of follow-up action taken to verify implementation of corrective action.

Organization managers are responsible for evaluating and performing assigned corrective actions in a timely manner in accordance with procedures. They are also responsible for assuring the identification and documentation of conditions adverse to quality in accordance with applicable procedures.

2.16.3 Requirements

Procedures are established to assure the following:

1. Conditions adverse to quality, including deficiencies, deviations, defective material or equipment and nonconformances, are promptly identified and corrected.

2. Significant conditions adverse to quality, when identified, are analyzed or evaluated to assure the cause of the condition is determined and corrective action taken to preclude repetition.

3. The significant condition adverse to quality, the cause of the condition, and the corrective action taken are documented and reported to responsible levels of management; follow-up action is taken to verify implementation of the corrective action.

2.17 QUALITY ASSURANCE RECORDS

2.17.1 General

The records management system for items, activities, and services applies to radioactive material packaging and transportation SSC items, as described below.

2.17.2 Responsibilities

The Production Support Manager is responsible for the development, maintenance, and implementation of the records management system.