January 8, 1998

Mr. J. H. Miller
Vice President - Production
United States Enrichment Corporation
Two Democracy Center
6903 Rockledge Drive
Bethesda, MD 20817

SUBJECT: RESPONSE TO PADUCAH INSPECTION REPORT 70-7001/97008

Dear Mr. Miller:

This refers to your December 22 1997, response to Notice of Violation (NOV) transmitted to you by our letter dated November 20, 1997, with Paducah Inspection Report 70-7001/97008. In your response you acknowledged the cited violations. We have reviewed your corrective actions for the violations and have no further questions at this time. Your corrective actions will be examined during future inspections.

If you have any questions, please contact me at (630) 829-9603.

Sincerely,

Original Signed by

Patrick L. Hiland, Chief
Fuel Cycle Branch

Docket No. 70-7001

cc: J. C. Hodges, Paducah Site Manager, DOE
S. A. Folston, Paducah General Manager
J. B. Morgan, Portsmouth Acting General Manager
W. E. Skyes, Paducah Regulatory Affairs Manager
S. Toelle, Manager, Nuclear Regulatory Assurance and Policy, USEC
Paducah Resident Inspector Office
Portsmouth Resident Inspector Office

See Attached Distribution

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bcc w/ltr dtd 12/22/97:

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PUBLIC (IE 07)
DOCDESK

USEC
A Global Energy Company

December 22, 1997

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

SERIAL: GDP 97-1055

**Paducah Gaseous Diffusion Plant (PGDP)**
**Docket No. 70-7001**
**Response to Inspection Report (IR) 70-7001/97008 Notices of Violations (NOVs)**

The Nuclear Regulatory Commission (NRC) letter dated November 20, 1997, transmitted the subject IR which contained four NOVs. United States Enrichment Corporation's (USEC) response to these violations is provided in Enclosures 1-4. Enclosure 5 lists the commitments made in this report. Unless specifically noted, the corrective actions specified in each enclosure apply solely to PGDP.

If you have any questions regarding this submittal, please contact Bill Sykes at (502) 441-6796.

Sincerely,

Steve Polston
General Manager
Paducah Gaseous Diffusion Plant

SP:SRC:mlg

Enclosures (5)

cc: NRC Region III
NRC Senior Resident Inspector, PGDP

P.O. Box 1410, Paducah, KY 42001
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ENCLOSURE 1

UNITED STATES ENRICHMENT CORPORATION (USEC)
REPLY TO NOTICE OF VIOLATION (NOV) 70-7001/97008-01

Technical Safety Requirement 3.9.1 requires, in part, that procedures shall be implemented for activities described in Safety Analysis Report, Section 6.11, Appendix A.

Safety Analysis Report, Section 6.11, Appendix A identifies, in part, procedures management (use) as an activity that shall be performed in accordance with approved procedures.

Procedure CP2-PS-PS1038, "Use of Procedures at PGDP," requires, in part, that the first line manager must approve and document, in the logs, the reason for and the special entry and exit points for use of a partial procedure.

Violation Cited

Contrary to the above, on July 27, 1997, the certificatee failed to document the reason for and the special entry and exit points for partial procedures used during restart of the purge cascade.

**USEC Response**

I. Background Information

In July 1997, the C-310 purge cascade was lost when the high speed cells tripped due to $UF_6$ entering the cells and causing an overload.

A procedure for the recovery from loss of high speed cells was not available. Therefore, procedure CP4-CO-CN2017, "Start-Up of a C-310 Cell," was used. The procedure was entered at a special entry point several steps into the procedure. However, the requirement of step 6.1.9 of CP2-PS-PS1038, "Use of Procedures at PGDP," to document the reason for the special entry point in the procedure, work package or narrative log book was not performed.

II. Reason for Violation

The reason for the violation was the training method on the requirements of CP2-PS-PS1038, "Use of Procedures at PGDP," was not adequate regarding the documentation requirements for use of a partial procedure. More than a dozen managers in various groups in Operations, Maintenance, and Engineering were surveyed to determine their understanding of the special use requirements of this procedure. The majority of those personnel were not familiar with the special use requirements of CP2-PS-PS1038. Most did not believe there was any flexibility in the requirements for using procedures. These personnel would follow procedures as written.

/ contributing cause to this violation was the lack of a procedure for recovery from a loss of high speed cells.

III. Corrective Actions Taken and Results Achieved

1. On July 21, 1997, CP4-CO-CN2017 was exited and the procedure was no longer applicable.

2. A crew briefing training package has been developed describing this deficiency and the requirements of CP2-PS-PS1038, "Use of Procedures at PGDP." Training using this package is ongoing.

IV. Corrective Actions to be Taken

1. PGDP will conduct crew briefings on this particular deficiency and the requirements of CP2-PS-PS1038, "Use of Procedures at PGDP," for appropriate managers in Operations, Maintenance, and Engineering. This will be completed by March 6, 1998.

2. PGDP will issue a procedure for recovery from loss of high speed cells by May 22, 1998.

3. PGDP will revise appropriate Training Development Administrative Guidelines to include training on CP2-PS-PS1038, "Use of Procedures at PGDP." This will be completed by July 31, 1998.

V. Date of Full Compliance

USEC achieved full compliance on July 21, 1997, after CP4-CO-CN2017 was exited and the procedure was no longer applicable. Corrective actions to prevent recurrence will be completed by July 31, 1998.

ENCLOSURE 2

UNITED STATES ENRICHMENT CORPORATION (USEC)
REPLY TO NOTICE OF VIOLATION (NOV) 70-7001/97008-02

Technical Safety Requirement 3.9.1, requires, in part, that written procedures shall be maintained, and implemented for activities described in Safety Analysis Report, Section 6.11, appendix A.

Safety Analysis Report, Section 6.11, Appendix A identifies, in part, operations, including system procedures addressing startup, shutdown, normal operations, and abnormal operations as activities requiring written procedures.

Violation Cited

Contrary to the above the certificatee failed to implement and maintain written procedures for operations, including system procedures addressing startup, shutdown, normal operations, and abnormal operations as described by the following examples:

A. On September 2, 1997, operations management used an outdated procedure, CE-16, "Emergency Operations in Building Fires," during their oversight of the response to a small fire in building C-310.

B. As of September 30, 1997, numerous controlled manuals of plant procedures included canceled and outdated operations normal, off-normal, and emergency procedures.

**USEC Response**

I. Background

The administrative controls for maintenance of controlled procedure manuals and other documents are defined in the "Document Control Program" procedure, UE2-TO-PM1030. The following is a summary of those controls as they apply to this NOV.

The Document Control organization or the Procedure Control Organization transmits controlled copies of documents, identified by a "Controlled Copy" stamp or mark on the title page of the document along with a controlled copy number, to the "Controlled Copy Holder." These documents are transmitted using a "Transmittal/Receipt Acknowledgment" form. The Controlled Copy Holder verifies the information on the new Controlled Copy agrees with that on its associated transmittal form and following the transmittal form instructions, replaces the superseded documents. The removed/superseded documents are dispositioned as directed by Transmittal/Receipt Acknowledgement form or otherwise as approved by Document Control. The Controlled Copy Holder signs and dates the

transmittal form acknowledging receipt of the documents and returns the transmittal and the superseded documents to Document Control. As noted in the statement of the violation, examples were found where superseded documents remained in the controlled manuals and the Document Control/Procedure Control record of the activity indicated satisfactory completion of the required transmittal instructions. Although the Controlled Copy Holder is accountable for maintenance of the controlled documents received, there is no prohibition precluding individuals other than the copy holder from updating the manuals. Following the second example of this violation, USEC initiated a review for similar problems in other controlled procedure manual sets. Thirty-eight problem reports were initiated by various organizations documenting problems with other procedure manuals.

It should be noted here that an additional example of a problem similar to this violation was found with other controlled documents. While reviewing Nuclear Criticality Safety issues in certain site facilities, a controlled manual containing Nuclear Criticality Safety Approvals (NCSAs) was found to be deficient in a manner similar to that of the procedures addressed by this NOV. An expanded review of additional controlled NCSA manuals found additional similar deficiencies. A problem report was initiated and is being treated as a Significant Condition Adverse to Quality (SCAQ). Preliminary evaluations indicate this issue will find similar circumstances and root cause to that of this violation.

II. Reason for Violation

The reason for this violation was a failure to follow the required procedural/administrative controls for updating the procedures. A contributing cause was the lack of enforcement of accountability for properly updating controlled procedure manuals.

III. Corrective Actions Taken and Results Achieved

1. The Cascade Standard Operation Procedure Manuals were reviewed and corrected by Cascade Operations personnel by October 6, 1997.

2. The Enrichment Plant Manager directed that a plant-wide review of all controlled procedure manuals, by the manual owner, be conducted to determine if other manuals exhibited similar discrepancies. Problem Reports were initiated to document any discrepancies found. Thirty-eight problem reports were generated by multiple organizations on site. These problem report discrepancies identified were corrected by November 13, 1997.

IV. Corrective Actions to be Taken

1. Document Control will implement a self-assessment program of controlled documents as addressed in the Document Control Program procedure by April 15, 1998. The program will include notification of supervision when deficiencies are discovered in maintaining controlled documents.

2. A revision will be made to the "Employee Discipline Handbook" under the "Guidelines for Administrative Control of Work Rules" Section which will incorporate errors in maintenance of controlled documents as an offense subject to escalated levels of disciplinary actions. This will be completed by April 15, 1998.

3. USEC currently has an ongoing effort to supplement controlled procedure manual sets with a controlled electronic on-line procedure version. This effort will allow reduction of the number of controlled copies and reduce the reliance on manual update of procedures. This effort is expected to be completed by June 30, 1998.

V. Date of Full Compliance

USEC achieved full compliance when the procedures cited in the violation were updated by October 6, 1997. Corrective actions to prevent recurrence will be completed by June 30, 1998.

ENCLOSURE 3

UNITED STATES ENRICHMENT CORPORATION (USEC)
REPLY TO NOTICE OF VIOLATION (NOV) 70-7001/97008-04

Technical Safety Requirement 3.9.1 requires, in part, that written procedures shall be prepared and implemented to cover the activities described in Safety Analysis Report, Section 6.11.4.1.

Section 6.11.4.1 of the Safety Analysis Report states, in part, that: "As a minimum, a procedure is required for any task that is described in, or implements a commitment that is described in, the Safety Analysis Report..."

Section 6.8.2.4 of the Safety Analysis Report, "Problem Reporting," states, in part, that: "All plant employees have the responsibility to write problem reports on safety, operating, and noncompliance items...Corrective actions are tracked through the plant's corrective action program."

Procedure UE2-HR-CI1030, "PROBLEM REPORTING," Revision 0, dated April 10, 1996, identifies "false alarms or false actuations related to safety system items" and "violations of, or deviations from, programs, policies, and procedures or deficiencies which could cause safety, operability, or reportability concerns" as problems requiring a problem report (PR). Step 6.1.3C requires that the problem report form be delivered to the Plant Shift Superintendent as soon as practical, but always prior to the end of the shift.

Violation Cited

Contrary to the above, the certificatee failed to deliver problem report forms to the plant shift superintendent by the end of the shift for the following examples of problems (false alarms or deviations from policies and procedures):

A. A false actuation of the high condensate safety system for the building C-333A Position 4 South autoclave on September 19, 1997.

B. A deviation from the procedurally required criticality safety posting for a fissile vacuum and its hose in building C-310 on September 23, 1997.

C. A deficient independent verification of assay form (missing originator signature) discovered in building C-400 on September 24, 1997.

D. The identification on September 24, 1997, that the certificatee had not performed load tests after modifications to two NCH-35 cylinder haulers were made in September and October 1996.

**USEC Response**

I. Reason for Violation

Based upon interviews with plant personnel, USEC has determined that the root cause of the violation was that some plant personnel were not aware of the specific time requirements associated with Problem Reports. They were also not aware of the guidance given in the procedure for what conditions warrant a problem report. They were, however, aware of the use of Problem Reports and the form used to document the problem.

II. Corrective Actions Taken and Results Achieved

1. A series of articles in the plant newspaper (InsidePi) were initiated to discuss the timeliness and applicability of situations which would dictate when problem reports should be written. These articles also discussed some of the benefits of the system. Additionally, a plant-wide bulletin was prepared and issued. This bulletin dealt with the specific problem of a lack of awareness of the requirements for writing a problem report. This information has increased discussion site-wide on when a problem report should be written and prompted discussion on changes to the system.

III. Corrective Actions to be Taken

1. The Problem Reporting Form included in procedure UE2-HR-CI1030, "Problem Reporting," will be revised by February 28, 1998, to specify the time requirements for submitting a problem report.

IV. Date of Full Compliance

USEC has taken efforts to reinforce compliance with submission of problem reports in accordance with the requirements as stated in UE2-HR-CI1030. Actions to prevent recurrence will be completed by February 28, 1998.

ENCLOSURE 4

UNITED STATES ENRICHMENT CORPORATION (USEC)
REPLY TO NOTICE OF VIOLATION (NOV) 70-7001/97008-08

Title 10 of the Code of Federal Regulations, Part 76.68 (b) requires, in part, that the certificatee shall evaluate any as-found conditions that do not agree with the plant's programs, plans, policies, and operations in accordance with Part 76.68 (a).

Violation Cited

Contrary to the above, between August 13 and September 5, 1997, the certificatee failed to evaluate the safety impact of as-found nonconformances identified in the purge cascade, a system described in the Safety Analysis Report, plant programs, plans, and operations.

**USEC Response**

I. Background Information

On August 13, 1997, purge cascade valve sizes were discovered to be different than that shown on a plant drawing. Specifically, the actual size of the valves was found to be 2 inches instead of the 3 inches shown in the engineering drawing. A problem report was filed for this condition by the System Engineer. At the time of filing, the System Engineer and Plant Shift Superintendent discussed the problem and its operational impact. This discussion addressed on the safety function of these AQ valves (which is a process pressure boundary not associated with the details of valve size or type). These individuals believed that the nonconforming valves would perform their safety function, therefore, system operations were continued.

The Problem Reporting Procedure requires that a Nonconformance Report Form (UE-685) should have been initiated along with the problem report. This is noted in the Inspection Report. This omission was an oversight on the part of the system engineer.

Following initial processing of the problem report by the Plant Shift Superintendent, the Shift Engineer then performed a screening for potential Unreviewed Safety Questions (USQ). This review was intended as a Part 76.68 (b) screen; however, the existing procedural guidance for the USQ screening was not detailed and prescriptive enough to fully achieve the intent of Part 76.68 (b). This led to an inadequate screening of the nonconformance.

II. Reason for Violation

The reason for this violation was that procedural guidance for screening problem reports for Part 76.68 (b) issues was insufficiently detailed. Specifically, PGDP did not provide adequate procedural guidance to shift personnel to ensure that nonconforming conditions are evaluated in accordance with 10CFR76.68 in a timely and thorough manner. Had the system engineer or shift engineer documented a thorough 76.68(b) screening on the day the Problem Report was turned in, this violation would have been avoided.

III. Corrective Actions Taken and Results Achieved

1. The System Engineer completed an engineering evaluation on the nonconforming condition in accordance with 10CFR76.68 on September 5, 1997.

2. System Engineering Standing Order 97-SE-003 was issued October 10, 1997. This interim order provides guidance to the Shift Engineer, who reviews all problem reports, on the review scope and timeliness criteria associated with problem report reviews for Part 76.68 (b) issues. In addition, guidance to System/Shift Engineers is provided to better clarify the definition of "nonconformance" in order to drive the timely disposition of these problems via the existing process.

3. Problem Reporting procedure UE2-HR-CI1030 was changed on November 14, 1997, to augment the Shift Engineer problem report screening actions such that potential Part 76.68 (b) issues are appropriately reviewed in a timely manner.

IV. Corrective Steps to be Taken

1. The interim guidance of System Engineering Standing Order 97-SE-003 will be issued as either changes to existing procedures or as a new general procedure covering review and disposition of nonconforming conditions. Final incorporation into procedures will be accomplished by March 26, 1998.

V. Date of Full Compliance

USEC achieved full compliance with the requirements cited in this violation on September 5, 1997, when Engineering completed the evaluation of the nonconforming condition in accordance with Part 76.68. Corrective actions to prevent recurrence will be complete on March 26, 1998.

ENCLOSURE 5

LIST OF COMMITMENTS

Enclosure 1

1. PGDP will conduct crew briefings on this particular deficiency and the requirements of CP2-PS-PS1038, "Use of Procedures at PGDP," for appropriate managers in Operations, Maintenance, and Engineering This will be completed by March 6, 1998.

2. PGDP will issue a procedure for recovery from loss of high speed cells by May 22, 1998.

3. PGDP will revise appropriate Training Development Administrative Guidelines to include training on CP2-PS-PS1038, "Use of Procedures at PGDP." This will be completed by July 31, 1998

Enclosure 2

1. Document Control will implement a self-assessment program of controlled procedure manuals as addressed in the Document Control Program procedure by April 15, 1998. The program will include notification of supervision when deficiencies are discovered in maintaining controlled documents.

2. A revision will be made to the "Employee Discipline Handbook" under the "Guidelines for Administrative Control of Work Rules" Section which will incorporate errors in maintenance of controlled documents as an offense subject to escalated levels of disciplinary actions. This will be completed by April 15, 1998.

3. USEC currently has an ongoing effort to supplement controlled procedure manual sets with a controlled electronic on-line procedure version. This effort will allow reduction of the number of controlled copies and reduce the reliance on manual update of procedures. This effort is expected to be completed by June 30, 1998.

Enclosure 3

1. The Problem Reporting Form included in procedure UE2-HR-CI1030, "Problem Reporting," will be revised by February 28, 1998, to specify the time requirements for submitting a problem report.

Enclosure 4

1. The interim guidance of System Engineering Stand Order 97-SE-003 will be issued as either changes to existing procedures or as a new general procedure covering review and disposition of nonconforming conditions. Final incorporation into procedures will be accomplished by March 26, 1998.