



November 23, 1998  
GDP 98-2048

United States Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555-0001

**Portsmouth Gaseous Diffusion Plant (PORTS)**

**Docket No. 70-7002**

**Reply to Inspection Report (IR) 70-7002/98014 Notice of Violations (NOVs) 98014-01 and 02**

The subject Inspection Report contained two NOVs involving: 1) failure to complete corrective actions required to resolve noncompliances identified in the Compliance Plan, and 2) failure to provide complete and accurate information relative to the status of actions required to resolve noncompliances identified in the Compliance Plan. USEC's response to these NOVs is provided in Enclosures 1 and 2, respectively. Enclosure 3 lists the commitments made in this letter. Unless specifically noted, the corrective actions specified in each enclosure apply solely to PORTS.

If you have any questions regarding this submittal, please contact Peter J. Miner at (740) 897-2710.

Sincerely,

J. Morris Brown  
General Manager  
Portsmouth Gaseous Diffusion Plant

Enclosures: As Stated

cc: NRC Region III Office  
NRC Resident Inspector-PORTS  
NRC Project Manager - PORTS

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**UNITED STATES ENRICHMENT CORPORATION (USEC)  
REPLY TO NOTICE OF VIOLATION (NOV) 70-7002/98014-01**

Restatement of Violation

Condition 8 of the Certificate of Compliance requires, in part, that the certificatee shall conduct its operations in accordance with the statements and representations contained in the Compliance Plan.

- a. Issue 8 of the Compliance Plan requires, in part, that all existing and new nuclear criticality safety operations shall be documented in and implemented by approved nuclear criticality safety evaluations and approvals by November 30, 1996.
- b. Issue 9 of the Compliance Plan requires, in part, the plant staff to review all nuclear criticality safety approvals in order to identify and track the designated nuclear criticality safety conditions, specifications, and controls and to verify full implementation of the same into plant procedures and postings by March 3, 1997.
- c. Issue 23 of the Compliance Plan requires, in part, the plant staff to review all nuclear criticality safety documents in order to identify, track, and control those structures, systems, and components relied upon for nuclear criticality safety by March 3, 1997.
- d. Issue 7 of the Compliance Plan requires, in part, that documentation shall be on file to justify the downgrade of any High Efficiency Particulate Air (HEPA) filter systems by June 30, 1997.
- e. Issue 18 of the Compliance Plan requires, in part, that building emergency packets shall be updated to reflect current facility configurations and conditions including: 1) general building/area layout drawings or sketches; 2) critical action, equipment, or material listing; 3) facility/area utility services; 4) facility emergency systems and equipment; and, 5) lists of hazardous, toxic, and/or radioactive materials, including compressed gases, by October 1, 1996.
- f. Issue 27 of the Compliance Plan requires, in part, that an organizational level assessment program will be implemented consisting of the preparation and implementation of a procedure for the performance of organizational level assessments in a uniform manner by September 30, 1996.
- g. Issue 42 of the Compliance Plan requires, in part, that testing of process gas leak detectors shall be conducted using the revised method developed in accordance with Issue 42 by July 31, 1997.

Contrary to the above, the certificatee failed to conduct its operations in accordance with the statements and representations contained in the Compliance Plan as demonstrated by the following examples:

- a. As of November 1996, the certificatee did not ensure that all nuclear criticality safety operations were documented in and implemented by approved nuclear criticality safety evaluations and approvals as required by Compliance Plan Issue 8. Specifically, the certificatee, in part, did not ensure that 140 of 180 nuclear criticality safety evaluations and approvals received a plant change review; did not ensure that 15 of 140 evaluations and approvals received Plant Operations Review Committee approval, and did not ensure that 5 of 140 evaluations and approvals received a field review or walkdown. (VIO 70-7002/98014-01a)
- b. As of March 3, 1997, the certificatee did not ensure that all plant procedures and postings fully implemented all of the conditions, specifications, and controls included in applicable nuclear criticality safety approvals as required by Compliance Plan Issue 9. Specifically, the certificatee, in part, did not ensure that the procedures and postings for five operations in Building X-705, halted prior to November 30, 1996, in order to ensure compliance with Compliance Plan Issue 9, and restarted between April and August 1997, fully implemented all of the conditions, specifications, and controls for the applicable evaluations and approvals. (VIO 70-7002/98014-01b)
- c. As of March 3, 1997, the certificatee did not ensure that all structures, systems, and components relied upon for nuclear criticality safety were identified, tracked, and controlled as required by Compliance Plan Issue 23. Specifically, the certificatee, in part, did not identify and control structures, systems, and components associated with the microfiltration system (blank flanges, and air line valves), unfavorable geometry containers (container lids), and the product withdrawal assay machines in the configuration management program that were relied on for nuclear criticality safety. (VIO 70-7002/98014-01c)
- d. As of June 30, 1997, the certificatee did not document and place on file justifications for the downgrade of HEPA filter systems as required by Compliance Plan Issue 7. Specifically, the certificatee, in part, did not document and place on file evaluations for each of the four criteria developed by the HEPA System Team and the As-Low-As-Reasonably-Achievable (ALARA) Committee and specified as the benchmark for a decision to downgrade a system prior to downgrading the systems. (VIO 70-7002/98014-01d)



- e. As of October 1, 1996, the certificatee did not update all of the building and area emergency packets to include the information required by Compliance Issue 18. Specifically, the certificatee, in part, did not update all of the emergency packets to include the information specified in items Number 1 through 5 of Compliance Plan Issue 18. (VIO 70-7002/98014-01e)
- f. As of September 30, 1996, the procedure developed and authorized by the certificatee to implement an organizational level self-assessment program, Procedure XP2-HR-HR-1031, "Organization Self-Assessment Program," did not specify criteria or provided guidance to ensure the development and implementation of an assessment program in a uniform manner. (VIO 70-7002/98014-01f)
- g. As of September 4, 1998, the certificatee had not conducted testing, including Technical Safety Requirement-related testing, of all process gas leak detectors, in service or placed in service, since July 31, 1997, using the new methodology developed in accordance with Compliance Plan Issue 42. (VIO 70-7002/98014-01g)

## **USEC Response**

### **I. Reason for the Violation**

The overall root cause of this violation was the lack of rigor at PORTS in the administrative controls needed to ensure that Compliance Plan (CP) issues were adequately completed. Specifically, issue closure criteria was either incorrectly established or not established; action tracking was either not properly developed or not documented; and verification of issue closure supporting documentation was not consistently performed. This resulted in the failure to complete some corrective actions needed to resolve noncompliances identified in the CP and provide documentation to show some corrective actions were adequately completed.

### **II. Corrective Actions Taken and Results Achieved**

Actions taken to address the overall root cause of this violation are listed below:

- 1. Compliance Plan review sheets with acceptance criteria were developed and issued to line organizations having open CP issues and actions. This action was completed on August 28, 1998. These sheets provide guidance to the action owner on how to successfully evaluate and document closure of CP issues and actions.

2. As a result of a conference call with NRC on September 30, 1998, USEC submitted a letter to NRC on October 9, 1998 (GDP 98-0214) describing the current status of PORTS CP issues. This letter included the results of reviews or self-assessments previously performed, discrepancies found, actions taken, justification for continued operation and assessment status for other issues. As documented in this letter, USEC committed to perform a 100% review of all remaining CP issues beginning with a Phase 1 review of remaining safety significant commitments.
3. USEC completed the Phase 1 review and the results of this review were submitted to NRC on October 30, 1998 (reference USEC letter 98-0239). This review identified one new deficiency related to CP Issue 36, "Depleted Uranium Management Plan," concerning the establishment of a program for inspection of Tails cylinders in long term storage.

Actions taken to address the specific examples of the violation are listed below:

4. On July 31, 1997, Nuclear Criticality Safety (NCS) procedure XP4-EG-NS1001, "Nuclear Criticality Safety Evaluation and Approval" was revised to require a Plant Change Review (PCR) be performed for each Nuclear Criticality Safety Approval/Evaluation (NCSA/E) submitted to the Plant Operations Review Committee (PORC). This action ensures all NCSA/Es receive a PCR. However, an inappropriate decision was made to "grandfather" the NCSA/Es approved and implemented prior to this administrative control becoming effective. (Example a.)
5. Actions taken to address the 15 NCSA/Es which did not receive PORC approval are adequately described in PORTS reply to NOV 98013-01 (reference USEC letter GDP 98-2045). The 5 NCSA/Es which did not receive a field review or walkdown are also part of these 15 NCSA/Es, therefore additional corrective actions to address this discrepancy are not necessary. PORC began approving NCSA/Es in November 1995. However, a similar inappropriate decision was made to "grandfather" the NCSA/Es approved and implemented prior to this administrative control becoming effective. (Example a.)
6. Supplemental closure evidence consisting of: 1) 25 NCSA/Es; 2) related NCSA verification checklists for NCSA implementation and; 3) a listing of the flowdown of Building X-705 NCSA controls into procedures was assembled and approved on November 17, 1998. Accordingly, appropriate corrective actions have been taken. This documentation is consistent with the closure evidence previously provided for CP Issue 9. It is important to note that these X-705 operations were not restarted until their respective NCSA/Es were fully implemented. The documentation needed

as evidence did exist, however, it was not packaged for inclusion into the CP Issue 9 evidence file. (Example b.)

7. Actions taken to address the Configuration Management Program deficiencies are adequately described in PORTS reply to NOV 98-206-02 (reference USEC letter GDP 98-2027). (Example c.)
8. Supplemental closure evidence for Criteria 1, 2, and 4, developed to justify downgrades of HEPA filter systems as discussed in CP Issue 7 was reconstructed on September 21, 1998, in the same format as the original summary report which discussed Criteria 3. Accordingly, appropriate corrective actions have been taken. Criterion 3 had the most stringent criteria of the first three criteria and this was used as the standard. Criterion 4 was established to cover any other unforeseen problems. The documentation needed as evidence did exist, however, it was not packaged for inclusion into the CP Issue 7 evidence file. (Example d.)
9. Emergency packets were reviewed against the requirements of CP Issue 18 and discrepancies were documented on July 9, 1998, in a Problem Report. Information on these discrepancies was submitted to NRC in PORTS letter GDP 98-0214, "Current Status of Compliance Plan Issues Closure Review". (Example e.)
10. Actions taken to address the Self-Assessment Program are adequately described in PORTS reply to NOV 97013-E (reference USEC letter GDP 98-0076). NRC staff has determined that these actions had been implemented as of September 1, 1998, as documented in NRC Inspection Report 98014. (Example f.)
11. The process gas leak detectors (smokeheads) for the autoclave facility, and the ERP, LAW, and Tails withdrawal areas were declared inoperable by September 3, 1998. Smoke watches were established as required by the Technical Safety Requirements (TSR) Limiting Conditions for Operation (LCO) action statements. Testing using the revised methodology to restore detector operability was sufficiently completed by September 11, 1998, and smoke watches were no longer needed as required by the TSR LCO action statements. Accordingly, appropriate corrective actions have been taken. (Example g.)

### **III. Corrective Actions to be Taken**

1. A review of open CP actions contained in the commitment tracking system will be performed to ensure that they agree with the CP Plan of Actions and Schedules. This review is scheduled to be completed by December 9, 1998.



2. A lessons learned will be developed and issued to line organization managers discussing who has responsibility for reviewing closure evidence packages to ensure the evidence demonstrates adequate action closure. This lessons learned will be issued by December 18, 1998.
3. USEC is currently performing a review of all remaining CP commitments as described in a previous PORTS submittal to NRC (see USEC letter GDP 98-0214 dated October 9, 1998).
4. USEC will perform a PCR for the NCSA/Es in which PCRs were not performed or could not be located. These PCRs will be completed by January 8, 1999.  
(Example a)
5. Concurrent with Task 3 of the NCS Corrective Action Plan (CAP) for the PORTS NCSA/E Upgrade Project, new or upgraded NCSA/Es will be reviewed and Systems, Structures, and Components reclassified, as appropriate. This action will be completed as discussed in PORTS recent submittal to NRC for the NCS CAP revised schedule (reference USEC letter GDP 98-0255 dated November 13, 1998).  
(Example c)
6. Emergency packets will be evaluated, discrepancies will be dispositioned, and corrections will be made as needed. These actions will be completed as discussed in a previous PORTS submittal to NRC (see USEC letter GDP 98-0214).  
(Example e)

#### **IV. Date of Full Compliance**

Full compliance has been/will be achieved for each example (a through g) cited in the violation as follows:

- a. Full compliance will be achieved by January 8, 1999, when a PCR for the NCSA/Es in which PCRs were not performed or could not be located is scheduled to be completed. It should be noted that on August 27, 1998, administrative controls were in place to prevent performing operations without PORC approved NCSA/Es and NCSA/Es without a field review or walkdown.
- b. Full compliance was achieved on November 17, 1998, when the supplemental closure evidence for the five operations in Building X-705 was approved.
- c. Full compliance will be achieved by May 19, 2000, when the final classification of

AQ-NCS SSCs for the NCSA/E upgrade project is scheduled to be completed.

- d. Full compliance was achieved on September 21, 1998, when the supplemental closure evidence for the downgrade of the HEPA filter system was assembled.
- e. Full compliance will be achieved by April 15, 1999, when the final corrections to the emergency packets, as needed, is scheduled to be completed.
- f. Full compliance was achieved on September 1, 1998, when revisions to the self-assessment program were completed.
- g. Full compliance was achieved on September 11, 1998, when the process gas leak detectors (smokeheads) for the autoclave facility, and the withdrawal areas were tested using the revised methodology.



**UNITED STATES ENRICHMENT CORPORATION (USEC)  
REPLY TO NOTICE OF VIOLATION (NOV) 70-7002/98014-02**

Restatement of Violation

Title 10 of the Code of Federal Regulations, Part 76.9 requires, in part, that information provided to the Commission must be complete and accurate in all material respects.

Contrary to the above, the certificatee in the December 1997, March 1998, and July 1998 Compliance Plan Quarterly Status Reports provided the Commission with incomplete and inaccurate information regarding the completion status of corrective actions required by the Compliance Plan for Issues 8, 9, 18, 23, 27, and 42.

**USEC Response**

**I. Reason for the Violation**

The reason for this violation was a lack of mutual understanding between USEC and NRC of the purpose of the Compliance Plan Status Report and its required content. The basis for this determination is provided below:

The *Introduction* section of the Compliance Plan states the purpose of the Compliance Plan Status report is to identify "plans of actions that were completed during the past quarter, plans of actions scheduled to be completed during the next quarter, and a discussion of any plans of actions that are behind schedule. The executive summary will be supported by a detailed listing, sorted by noncompliance, of the individual commitments within each plan of action. The listing will include a comparison of the commitment completion date with the current projected completion date for each individual commitment that has not been completed."

USEC therefore understood that the purpose of this report was to inform the NRC of the status of those Compliance Plan issues that were completed during the last reporting period and progress on those issues that were coming due during the next reporting period.

The *Introduction* section of the Compliance Plan also states that the status reports "will include, where appropriate, proposed revisions to remove the discussions of noncompliances that have been closed." The *Introduction* section goes on to state:

"Issues, including the justification for continued operation, that have been completed, but not verified by DOE prior to NRC assuming regulatory

authority or by NRC after assuming regulatory authority, will be retained in the Compliance Plan and annotated as "complete." After completion of the plan of action had been verified by DOE or NRC, as appropriate, the issue will be retained only in the table of contents with the notation that the issue is now "closed."

However, NRC requested USEC to keep completed and closed issues for 'historic purposes'. Thus, USEC carried forward the status of those Compliance Plan issues that USEC had previously informed NRC were complete as a cumulative listing. Therefore, USEC did not view the Compliance Plan Status Report as the vehicle to inform NRC of the *ongoing* status of compliance with all of the various issues addressed in the Compliance Plan.

USEC's understanding of the purpose of the Compliance Plan was to identify conditions at the plant that were not in compliance with NRC regulations at the time of submittal of the Application for Certification, the schedule to bring them into compliance, and the bases for continued operation in light of such non-compliances (i.e., the Justification for Continued Operation). In other words, it constitutes a temporary relief, or discretionary enforcement, from NRC requirements until the expiration date of the particular Compliance Plan issue. Once the date has passed, the relief granted by the Compliance Plan issue expired and the facility was required to comply with the NRC requirement or be subject to enforcement action. This understanding is supported by the *Introduction* section of the Compliance Plan which states:

"In several instances, USEC has reported that the plans of actions to eliminate an identified noncompliance have been completed. Thus, these issues are no longer USEC-identified noncompliances and the commitments made in their justifications for continued operation are superseded by the implementation of the corresponding Application commitments."

USEC believed that NRC agreed with USEC's understanding of the purpose of the Status Report. The report had not been used to inform NRC of other noncompliances that were identified with other Compliance Plan issues (e.g., the PGDP seismic issue, packaging and transportation, configuration management and control, maintenance procedures, and other procedure and training violations).

The cited violation specifically cites USEC for not providing in the last Compliance Plan

Status Report<sup>1</sup> the completion status of corrective actions required by the Compliance Plan for Issues 8, 9, 18, 23, 27, and 42. USEC recognizes that the information in the last Compliance Plan Status Report, at face value, is inconsistent with the more recent determination of the implementation status of these issues. It was to correct this gap in information being provided to the NRC that USEC recently volunteered to notify the NRC of the deficient completion of Compliance Plan actions which would not otherwise meet the criteria for reportability.

In hindsight, USEC believed that NRC already had information regarding the status of these issues. The deficiencies involving Compliance Plan Issues 8, 9, and 23, concern the Nuclear Criticality Safety (NCS) program at PORTS. The events that led to these deficiencies and the actions USEC is taking to resolve these deficiencies have been described in docketed correspondence between USEC and NRC (see Table 1). Regarding Compliance Plan Issues 18 (Emergency Packets), 27 (Assessments), and 42 (UF<sub>6</sub> Leak Detector Sensitivity Testing), the inadequate completion of these issues was identified in USEC's Problem Reporting process and in a Compliance Plan Self-Assessment Report, both of which we shared with the NRC Resident's office. Additionally, the NRC inspection team that was at PORTS the week of August 31, 1998 through September 4, 1998 had copies of this self-assessment report. However, USEC now recognizes that better communication with the NRC should have taken place regarding the deficiencies in the completion and implementation of these Compliance Plan issues.

## **II. Corrective Actions Taken**

1. As a result of a conference call with NRC on September 30, 1998, USEC submitted a letter to NRC on October 9, 1998 (GDP 98-0214) describing the current status of PORTS Compliance Plan Issues (including Issues 8, 9, 18, 23, 27, and 42). This letter included the results of reviews or self-assessments previously performed, discrepancies found, actions taken, justification for continued operation and assessment status for other issues. As documented letter, October 9, 1998, USEC committed to perform a 100% review of all remaining Compliance Plan issues.
2. On October 15, 1998, USEC and NRC met to discuss the closure of Compliance Plan issues. At this meeting, NRC requested that USEC develop criteria to determine when a completed Compliance Plan issue should be reopened. Accordingly, on November 5, 1998, USEC submitted this proposed criteria to NRC for consideration

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<sup>1</sup>USEC letter to NRC dated July 31, 1998 (GDP 98-0144), "Compliance Plan Status Report."



(reference USEC letter GDP 98-0237).

### **III. Corrective Actions to be Taken**

The next Compliance Plan Status Report is scheduled to be submitted to NRC by January 31, 1999. To avoid any future misunderstandings regarding previously completed Compliance Plan Issues, USEC proposes that future Compliance Plan Status Reports not include any status on previous Compliance Plan issues that were previously reported as "Complete" or "Closed." Rather, these reports would include a discussion of issues that were completed during the reporting period and a status of those issues that are coming due during the next reporting period. If NRC still desires, from a historical perspective, a table which lists those Compliance Plan issues that USEC had previously informed NRC were complete, then USEC will note that the table does not represent a current status of compliance with Compliance Plan issues that were previously completed. Additionally, if the criteria that was proposed in USEC letter GDP 98-0237 is acceptable to NRC, then the next Compliance Plan Status Report would also include a discussion of any unresolved deficient Compliance Plan actions.

### **IV. Date of Full Compliance**

USEC achieved full compliance on October 9, 1998, when USEC submitted a letter to NRC (GDP 98-0214) describing the current status of PORTS Compliance Plan Issues (including Issues 8, 9, 18, 23, 27, and 42).

TABLE 1 INDEX OF CORRESPONDENCE CONCERNING PORTS NCS DEFICIENCIES		
DATE	USEC LETTER #	SUBJECT
11/5/97	GDP 97-2027	CONFIRMATION OF COMMITMENT MADE TO NRC DURING A CONFERENCE CALL ON 11/4/97 REGARDING A LOSS OF DOUBLE CONTINGENCY FOR SHUTDOWN CASCADE CELLS
11/7/97	GDP 97-2028	COMPLETION OF A REGULATORY COMMITMENT TO COMPLETE PRIORITIZATION OF NCSAs
11/10/97	GDP 97-2030	INITIAL SUBMITTAL OF NCS CORRECTIVE ACTION PLAN
12/1/97	N/A	LETTER FROM C. PEDERSON OF NRC TO J. MILLER OF USEC REQUESTING USEC TO SUBMIT A REVISED NCS CORRECTIVE ACTION PLAN
12/22/97	GDP97-0217	TRANSMITTAL OF THE REVISED NCS CORRECTIVE ACTION PLAN
1/13/98	GDP98-0004	RESPONSE TO NRC QUESTIONS ON THE REVISED NCS CORRECTIVE ACTION PLAN
1/30/98	GDP98-0013	NCS CORRECTIVE ACTION PLAN - QUARTERLY STATUS REPORT
2/27/98	GDP 98-0033	REVISED DUE DATE FOR TASK 2
3/20/98	GDP 98-053	REVISED DUE DATES FOR TASKS 3,5,8, AND 16
4/30/98	GDP 98-094	QUARTERLY STATUS REPORT
5/7/98	GDP 98-104	REVISION 3 OF NCS CORRECTIVE ACTION PLAN
7/6/98	98-1672	NRC LETTER DATED 7/6/98, "NCS CAP 5/15/98, STATUS REVIEW MEETING"
7/31/98	GDP 98-0147	NCS CAP QUARTERLY STATUS REPORT

**List of Commitments<sup>2</sup>**

NOV 70-7002/98014-01

1. A review of open CP actions contained in the commitment tracking system will be performed to ensure that they agree with the CP Plan of Actions and Schedules. This review is scheduled to be completed by December 9, 1998.
2. A lessons learned will be developed and issued to line organization managers discussing who has responsibility for reviewing closure evidence packages to ensure the evidence demonstrates adequate action closure. This lessons learned will be issued by December 18, 1998.
3. USEC will perform a PCR for the NCSA/Es in which PCRs were not performed or could not be located. These PCRs will be completed by January 8, 1999.

NOV 70-7002/98014-02

None

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<sup>2</sup>Regulatory commitments contained in this document are listed here. Other corrective actions listed in this submittal are not considered regulatory commitments in that they are either statements of actions completed, actions that USEC has previously committed to in previous correspondence, or they are considered enhancements to USEC's investigation, procedures, programs, or operations.