

March 17, 1999

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

SUBJECT: RESPONSE TO PORTSMOUTH INSPECTION REPORT 70-7002/98018(DNMS)

Dear Mr. Adkins:

This refers to your February 25, 1999, response to the Notice of Violation (NOV) transmitted to you by our letter dated January 26, 1999, with Inspection Report 70-7002/98018(DNMS). We have reviewed your corrective actions 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,

/s/ P.L. Hiland

Patrick L. Hiland, Chief
Fuel Cycle Branch

Docket No. 070-7002
Certificate No. GDP-2

cc: J. M. Brown, Portsmouth General Manager
P. J. Miner, Manager, Nuclear Regulatory Affairs, Portsmouth
H. Pulley, Paducah General Manager
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Assurance and Policy, USEC
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February 25, 1999
GDP 99-2008

U. S. 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) 70-7002/98018 Notice of Violation (NOV) 98018-01

The subject IR contained one violation involving the failure to adjust process motor load alarm setpoints as required by plant procedures. The United States Enrichment Corporation's response to this violation is provided in Enclosure 1. Enclosure 2 lists the commitments contained in this submittal. 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 Regional Administrator, Region III
NRC Resident Inspector - PORTS

9903030236 GPP

**UNITED STATES ENRICHMENT CORPORATION (USEC)
REPLY TO NOTICE OF VIOLATION (NOV) 70-7002/98018-01**

Restatement of Violation

Technical Specification Requirement 3.9.1 requires that written procedures shall be prepared, reviewed, approved, implemented, and maintained to cover activities described in Safety Analysis Report (SAR), Section 6.11.4.1, and listed in Appendix A to SAR Section 6.11.

Appendix A to SAR Section 6.11 requires that "cell load" alarm shall be covered by written procedures.

Paragraph 8.3 of Procedure XP4-CO-CP2643, "X-330 Process Power System," requires, in part, that the motor load monitor setpoints be adjusted to 10 percent above and below the nominal motor load.

Contrary to the above, on December 13, 1998, the motor load monitor setpoints for stages of cell 31-5-7 and adjacent cell stages in area control room 2 were not adjusted to 10 percent above and below the nominal motor load.

USEC Response

I. Background

As noted in the IR, the procedural requirement that the load monitor alarms be adjusted to $\pm 10\%$ of the nominal motor load stems from SAR section 3.1.1.10.1, "Area Control Room Instrumentation and Controls."¹ This SAR section was issued in September 1995, which stated: "A nominal 10 percent increase or decrease in amp load in any motor will actuate an audible and visual alarm on the respective cell." However, this SAR requirement was not incorporated into any operating procedures at the time it was issued. Thus, when the GDPs transitioned to NRC oversight in March 1997, there was no procedural requirement for the load motor alarms to be set at $\pm 10\%$ of their nominal value.

In December 1997, a Request for Application Change (RAC) was approved to revise this SAR section as follows: "**With the exception of the purge and stripper sections of the cascade**, a nominal 10 percent increase or decrease in amp load in any motor will actuate an

¹ The load monitors provide indication of the amperage for the stage motors of the cascade. The monitors are set to alarm when the amperage increases or decreases by 10 percent of the nominal value. For those monitors with design features that allow the $\pm 10\%$ settings to be easily adjusted, operators frequently adjust the alarm settings on the monitors to account for fluctuations in the amperage of the motors due to changing cascade conditions.

audible and visual alarm on the respective cell."

The Safety Evaluation for this RAC stated that the purpose of the change was that with the alarms set at $\pm 10\%$ for certain cells, "the alarms would be in alarm constantly and operators may ignore annunciation of real problems. The stripping and purging sections, by the nature of operation, will have surges in amperage during normal operation that exceed 10 percent."

The requirements of SAR section 3.1.1.10.1 was incorporated into new procedures XP4-CO-CP2643, "X-330 Process Power System," and XP4-CO-CP2660, "X-333 Process Power System," for the X-330 and X-333 facilities, respectively, which became effective in December 1997. The training that was done for these new procedures was performed via required reading. However, the revised SAR section was not incorporated into any procedures for the X-326 facility which also has load monitors. Additionally, the above procedures did not contain any requirements to adjust the load motor alarm setpoints on any established frequency.

As indicated in the IR, on December 13, 1998, during a tour in the Area Control Room (ACR) 2 in the X-330 Building, NRC inspectors observed that the motors for stages 5 and 6 were operating above or below the nominal 10 percent stage motor amperage load. As a result of the fire that had occurred in the X-326 Building on December 9, 1998, the cascade (UF_6) front had moved from its normal position in X-326 to unit 31-5 in X-330. This caused significant variations in the motor amperage load for stages 5 and 6. The inspectors also observed that the load monitors were not properly adjusted to $\pm 10\%$ of the nominal load for the remaining stages in cell 31-5-7 and adjacent cells which were operating at a steady state level. As indicated in the IR, the First Line Manager (FLM) was not aware that this was a procedural requirement. Subsequently, a Problem Report (PR) was written; however, the PR was not evaluated for applicability to the other facilities that have similar load motor alarms. Subsequently, on December 21, 1998, an NRC inspector observed the load monitors in alarm in the X-326 facility with no apparent operator actions being taken.

II. Reason for the Violation

1. Inadequate Procedures

At the time the events that led to the NOV occurred (i.e., December 13, 1998), there were no proceduralized requirements which established a frequency to adjust the load motor alarm setpoints. Thus, it was not readily apparent how long the load monitors alarm setpoints had been out of their $\pm 10\%$ range. Additionally, no specific Alarm Response Procedure existed.

2. Inadequate Procedure Training

The FLM in the X-330 facility was not aware that procedure XP4-CO-CP2643 contained a requirement to adjust the load monitor alarm setpoints to $\pm 10\%$ of their nominal value. It was also determined that this procedure requirement was not well known by the FLMs.

3. Inadequate Procedure Flowdown

The SAR requirement for the $\pm 10\%$ setting of the load monitor alarm setpoints was not proceduralized in 1996 at the time when the SAR requirement was issued. Furthermore, when it was identified in 1997 that the requirement needed to be proceduralized, the SAR requirement was not incorporated into all appropriate procedures (i.e., there was no procedure for the X-326 facility that incorporated this requirement).

A contributing factor to this violation was that when the deficiency with the load monitor alarms in the X-330 facility was identified on December 13, 1998, and a PR written, the PR was not evaluated for other applicable facilities. Therefore, plant personnel did not take immediate action to determine the extent of condition until NRC observed a similar condition in the X-326 facility on December 21, 1998.

III. **Corrective Actions Taken**

1. On December 13, 1998, the load monitor alarms in the X-330 facility were adjusted to the required $\pm 10\%$ of their nominal values.
2. Work orders were issued to adjust the load monitor alarms in the X-326 facility to the correct settings.² Additionally, an Engineering Service Order was issued to replace the load monitor alarms in the X-326 facility with ones that can be readily observed and adjusted.
3. A Daily Operating Instruction (DOI) was issued for the X-330 facility requiring that the load monitors on all running cells be checked every shift to ensure that they are set to $\pm 10\%$ of their nominal value (Note: a similar DOI was already in existence for the X-333 facility). Additionally, a DOI was issued for the X-326 facility to require that anytime the cell pressures are changed enough to effect cell load, a work request

²The load monitors in the X-326 facility are of an older type and require an electrician to adjust the setting. The newer model load monitors in the other facilities are numerical and can be easily adjusted.

will be issued for Electrical Maintenance to check the alarm set point to ensure it is properly set. (Note: these are interim actions pending the development of long-term proceduralized guidance as described in Section IV below).

4. With respect to the failure to properly flowdown the SAR requirements, USEC has previously committed to reopen portion of PORTS Compliance Plan Issue 23, concerning the flowdown of commitments from the Technical Safety Requirements and the SAR to procedures and training (see USEC letter GDP 99-0002 dated January 19, 1999). This effort will involve reverifying and correcting deficiencies in the flowdown of commitments.

IV. Corrective Actions to be Taken

1. Procedure guidance will be developed which will require operators to routinely check the load monitors, adjust setpoints where applicable, and document completion of the surveillance activity (this will replace the above DOIs). Training on this procedure will be completed with applicable personnel. These actions will be completed by May 14, 1999.
2. An Alarm Response Procedure(s) will be issued for the X-330, X-333, and X-326 facilities describing the appropriate actions to be taken when the load monitor alarms actuate. Training on this procedure will be completed with applicable personnel. These actions will be completed by November 3, 1999.
3. To address the contributing cause for this violation, PORTS will enhance the Problem Reporting process to require that Problem Reports receive an "extent of condition" review for applicability to other onsite facilities. This action will be completed by July 30, 1999.

V. Date of Full Compliance

Full compliance with respect to the cited violation was achieved on December 13, 1998, when the load monitor alarms in the X-330 facility were adjusted to the required $\pm 10\%$ of their nominal values.

List of Commitments^{*}**

1. Procedure guidance will be developed which will require operators to routinely check the load monitors, adjust setpoints where applicable, and document completion of the surveillance activity. Training on this procedure will be completed with applicable personnel. This action will be completed by May 14, 1999.
2. An Alarm Response Procedure(s) will be issued for the X-330, X-333, and X-326 facilities describing the appropriate actions to be taken when the load monitor alarms actuate. Training on this procedure will be completed with applicable personnel. This action will be completed by November 3, 1999.

^{***}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, or they are considered enhancements to USEC's investigation, procedures, programs, or operations.