

70-7001

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June 16, 1997

Dr. Carl J. Paperiello
Director, Office of Nuclear Material
Safety and Safeguards
Attention: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

SERIAL: GDP 97-0097

Paducah Gaseous Diffusion Plant (PGDP)
Docket No. 70-7001
Response To Request for Additional Information
Certificate Amendment Request-Autoclave Manual Isolation System

Dear Dr. Paperiello:

The purpose of this letter is to provide a response to the NRC's request (TAC. No. L32003) for additional information on the Certificate Amendment Request (CAR) dealing with the Autoclave Manual Isolation System (AMIS). This additional information request was provided to USEC in Reference 1 and identifies additional information required by NRC to allow final action to be taken on our request.

USEC's response to the NRC information request is provided in Enclosure 1 to this letter. Based on NRC comments provided in Reference 1, USEC has revised the proposed Technical Safety Requirement (TSR) for the Autoclave Manual Isolation System to specify a time period of 72 hours to return the Autoclave Manual Isolation System to operability. In addition, USEC has provided revised valve nomenclature for valve XV-511 to CV-511. The revised TSR pages are provided in Enclosure 2 and are replacement pages for those previously provided with our response to your initial request for additional information (Reference 3) which were submitted to NRC on February 14, 1997 (Reference 2, Enclosure 2). USEC has reviewed Enclosure 1 (Detailed Description of Change) and Enclosure 3 (Significance Determination) previously transmitted in Reference 4 and has determined that the conclusions of these enclosures remain valid. As such, only the enclosed TSR replacement pages (TSR Pages 2.2-30a and 2.2-30b) are provided with this response.

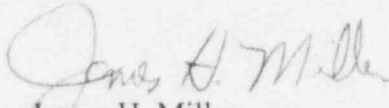
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This additional information should enable you to complete the review and approval of our Certificate Amendment Request. Any questions related to this subject should be directed to Mr. Mark Smith at (301) 564-3244.

Sincerely,



James H. Miller
Vice President, Production

cc: NRC Region III Office
NRC Resident Inspector - PGDP
NRC Resident Inspector - PORTS
DOE Regulatory Oversight Manager

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Reference

- 1) NRC Letter from Merri Horn to Mr. James H. Miller, "Certificate Amendment Request - Paducah Gaseous Diffusion Plant Autoclave Manual Isolation System (TAC L32003) dated May 1, 1997.
- 2) USEC Letter GDP-97-0016, Mr. James H. Miller to Dr. Carl J. Paperiello, "Response to Request For Additional Information Certificate Amendment Request - Autoclave Manual Isolation System", dated February 14, 1997.
- 3) NRC Letter from Merri Horn to Mr. James H. Miller, "Certificate Amendment Request-Paducah Gaseous Diffusion Plant Autoclave Manual Isolation System (TAC No. L32003)," dated January 15, 1997.
- 4) USEC Letter GDP 96-0188, Mr. James H. Miller to Dr. Carl J. Paperiello, "Paducah Gaseous Diffusion Plant (PGDP)-Docket No. 70-7001-Certificate Amendment Request-Autoclave Manual Isolation System," dated October 31, 1996.

**Response to Additional Information
Request (TAC No. L32003)**

Issue 1:

Issue 1 concerns the valves identified in Required Action D.2. It appears that Valve XV-511 has been misidentified and should be valve CV-511.

Response:

The valve identified as XV-511 in TSR 2.2.4.13 has been misidentified. Its correct nomenclature is CV-511. The proposed TSR has been corrected and is included as Enclosure 2 to this letter.

Issue 2:

Issue 2 concerns Required Action D.3. As written, the inoperable actuation devices located in the feed facility could remain in an inoperable state indefinitely. This situation is not acceptable. Required action D.3 should contain an AND statement that requires operability to be restored within a set time frame. If operability can not be restored with the set timeframe, Required actions D.1 or D.2 should be taken. A suggested time frame for restoring operability is 72 hours, however, we would consider different times to be acceptable with adequate justification.

Response:

The proposed TSR has been changed to add an AND statement to required action D.3. This step requires system operability to be restored within 72 hours of entering Condition D. To address the comment regarding the need to implement Required Action D.1 or D.2 if the 72 hour limit is not met, a statement has been added to the basis statement. This statement explains that actions D.1 or D.2 can be taken at any time, including upon expiration of the time limit required by action D.3.2, in order to meet the Required Action associated with Condition D. The revised TSR pages have been included in Enclosure 2 to this letter.

Note also that the word "continuous" has been deleted from the proposed action D.3.1. This does not change USEC's intention regarding implementation of this requirement. This action requires that the operator establish and maintain the ability to immediately communicate with the ACR via radio in case of a release. This change is made to avoid possible confusion about what frequency of verbal, radio communication constitutes "continuous."

Enclosure 2
GDP 97-0097
3 pages

Revised Technical Safety Requirement Pages

SECTION 2.2 SPECIFIC TSRS FOR UF₆ FEED FACILITIES (C-333-A AND C-337-A)

2.2.4 GENERAL LIMITING CONDITIONS FOR OPERATION

2.2.4.13 AUTOCLAVE MANUAL ISOLATION SYSTEM

LCO 2.2.4.13: The autoclave manual isolation system actuation devices shall be operable.

APPLICABILITY: Modes: 4, 5

ACTIONS:

Condition	Required Action	Completion Time
A. The actuation device located in the OMR is inoperable.	A.1 Position an operator such that the "see-and-flee" path provides access to the actuation device located at the cylinder yard crane bay exit. TSR 1.6.2.2d is not applicable.	4 hours
B. The actuation device located at the cylinder yard crane bay exit is inoperable.	B.1 Provide continuous stationing of an operator in the OMR. TSR 1.6.2.2d is not applicable.	4 hours
C. Both feed facility actuation devices inoperable.	C.1 Restore operability to at least one actuating device. TSR 1.6.2.2d is not applicable.	4 hours
D. Required action C not satisfactorily accomplished.	D.1 Place the autoclaves in mode 2.	Immediately
	<u>OR</u>	
	D.2 Close containment valves XV-503, CV-504, XV-505, CV-511 and CV-510 on each autoclave.	Immediately
	<u>OR</u>	
	D.3.1 Establish radio communication with the associated Area Control Room in order to ensure immediate capability to actuate the Autoclave Manual Isolation System from the ACR in the event of a release.	Immediately
	<u>AND</u>	
	D.3.2 Restore operability of the Autoclave Manual Isolation System TSR 1.6.2.2d is not applicable	72 Hours

SECTION 2.2 SPECIFIC TSRS FOR UF₆ FEED FACILITIES (C-333-A AND C-337-A)

2.2.4 GENERAL LIMITING CONDITIONS FOR OPERATION

2.2.4.13 AUTOCLAVE MANUAL ISOLATION SYSTEM

SURVEILLANCE REQUIREMENTS:

Surveillance		Frequency
SR 2.2.4.13-1	Perform functional test of the system actuation devices.	Annually

BASIS:

The autoclave manual isolation system provides the means to remotely isolate all facility autoclaves in the event of a UF₆ release from a line outside the autoclave containment boundary. The system consists of two local (within the feed facilities) actuation devices located in the OMR and at the cylinder yard crane bay exit (the most likely point of egress from the autoclave area), and one remotely located actuation device in the associated cascade building ACR. Actuating the system will initiate closure of all containment valves for each of the autoclaves within the affected facility. In the event of a UF₆ release from a line outside the autoclave containment boundary, the operator, while exiting the facility in accordance with the "see-and-flee" policy, would actuate the system to isolate the release point from the UF₆ source and limit the amount of material released. Closure of valves XV-503, CV-504, XV-505, CV-511, and CV-510 isolate a cylinder within an autoclave from piping outside the containment boundary thereby eliminating the source of UF₆ available for release. [SAR Section 4.3.1.1.1]

The autoclave manual isolation system closes the same containment valves as those described in TSR 2.2.3.1 for the autoclave high pressure isolation system. Therefore, the operability and surveillance requirements for these valves are included in Section 2.2.3.1. TSR surveillance 2.2.4.13-1 is not required to include the actual closure of all of the containment valves on all autoclaves simultaneously as this would require complete shutdown of the feed facility. The test will be performed by disabling the local actuation devices from the autoclaves not being tested and verifying the appropriate containment logic output from the programmable logic controller for the autoclaves being tested. Testing of all autoclaves in a facility will verify operability of the manual isolation system. Containment valve closure is verified quarterly by the performance of the TSR surveillance requirement 2.2.3.1-2.

If condition D is entered and action D.3 is selected from among the three options, the 72 hour time limitation for completing action D.3.2 provides a limit for how long the AMIS may be out of service under Condition D. If Required Action D.3.2 can not be satisfactorily accomplished within the 72 hour time limit, then Required Action D.1 or D.2 shall be taken immediately upon expiration of the 72 hour time period. [Note: Required Action D.1 or D.2 may be taken immediately upon entering Condition D, or any time thereafter to satisfy the required action for Condition D.]