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January 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 97-0002

Portsmouth Gaseous Diffusion Plant (PORTS)
Docket No. 70-7002
Response To Request for Additional Information
Certificate Amendment Request-Withdrawal Stations Standby Operational Mode

Dear Dr. Paperiello:

The purpose of this letter is to provide a response to the NRC's request (TAC. No. L32006) for additional information on the Certificate Amendment Request (CAR) dealing with the Withdrawal Stations Standby Operational Mode. This additional information request was provided to USEC in Reference 1 and identifies additional information required by NRC to evaluate USEC's above noted certificate amendment request. Specifically, the additional information request states:

It is not clear from USEC submitted documentation that going from a closed withdrawal manifold vent path to an open vent path in the standby mode would not constitute a significant increase in risk of a criticality accident. That is, neither your TSR amendment request package nor the PORTS SAR demonstrates that this TSR change would not significantly increase the probability of significant wet air (moderator) introduction, via the one inch withdrawal manifold vent line, into the cascade (unsafe geometry), which may contain deposits of solid enriched uranium exceeding safe mass. Based on the PORTS SAR Figure 3.2-10, while the pigtail is not attached to the withdrawal manifold, an inadvertent opening of the withdrawal manifold safety valve may provide a pathway for significant wet air introduction into the cascade.

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In an open meeting between USEC and Mr. Yawar Faraz of your staff on December 23, 1996, USEC made available to the NRC the LAW Station instrument application drawing showing valving between the LAW withdrawal point and the vent return to the cascade. As discussed in the December 23, 1996 meeting, this drawing indicates at least four valves between the withdrawal point and the cascade vent return which would prevent inadvertent introduction of wet air into the cascade vent return. When a pigtail is not connected to the withdrawal manifold and no withdrawal operations are in progress, these valves are closed and are not intentionally operated. Therefore, in this configuration, no significant wet air addition to the cascade is anticipated as a result of the proposed change to the standby operational mode description.

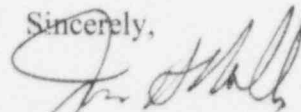
In addition, the December 31, 1996 information request also stated:

It is also not clear from the documentation included in the subject TSR amendment request that, as mentioned by USEC staff in the December 23 meeting, the only vent path that is needed to be open in the standby mode is the one leading from the compressors to the cascade. If this is indeed the case, then it should be accordingly reflected in the standby mode definition as agreed to in the December 23 meeting.

As discussed with Mr. Yawar Faraz on December 23, 1996, the only vent path that is needed to be open in the standby mode is the vent path leading from the compressors to the cascade vent return. Based on the December 23, 1996 discussion, USEC has revised the Withdrawal Station Standby Operational Mode description. This revised description is provided as Enclosure 1 to this letter and is a replacement for the description previously provided with the certificate amendment request submitted to NRC on November 8, 1996 (Reference 2, Enclosure 2). USEC has reviewed Enclosure 1 (Detailed Description of Change) and Enclosure 3 (Significance Determination) previously transmitted in Reference 2 and has determined that no changes to these enclosures are required. As such, only the enclosed TSR replacement page (TSR Section 2.5.1, Page 2.5-2) is provided with this response.

Any questions related to this subject should be directed to Mr. Robert L. Woolley at (301) 564-3413 or 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
Mr. J. Dale Jackson (DOE)

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Reference

- 1) NRC Letter from Mr. Robert C. Pierson to Mr. James H. Miller, "Certificate Amendment Request-Portsmouth Gaseous Diffusion Plant Withdrawal Stations Standby Operational Mode (TAC No. L32006)," dated December 31, 1996.
2. USEC Letter from Mr. James H. Miller to Dr. Carl J. Paperiello, "Portsmouth Gaseous Diffusion Plant (PORTS)-Docket No. 70-7002-Certificate Amendment Request-Withdrawal Stations Standby Operational Mode," dated November 8, 1996.

**SECTION 2.5 SPECIFIC TSRS FOR X-326 ERP, X-333 LAW, AND X-330 TAILS
WITHDRAWAL STATIONS**

2.5.1 WITHDRAWAL STATION OPERATIONAL MODES

- | | |
|---|---|
| I Preparation | Withdrawal station checkout performed, UF ₆ cylinder weighing, inspection and hookup completed. |
| II Compression/
 Liquifaction | Withdrawal loop compressors running, loop UF ₆ supply suction valve open, inlet valve to UF ₆ condenser open and liquifaction of UF ₆ is based on temperature/pressure conditions. |
| III Withdrawal | Liquid UF ₆ is draining into a cylinder; filled cylinders are being disconnected, weighed or placed by crane into local storage for cool down. |
| IV Standby | Withdrawal loop compressors shutdown or operating on recycle, withdrawal loop UF ₆ supply suction valve open or closed, vent valve(s) establishing a vent path from the compression loop to the cascade are open or closed. The withdrawal loop may still contain stored UF ₆ but station pressure remains below atmospheric. |
| V Transport | Cylinders being moved from local storage lot for further handling and storage. |
| VI Shutdown | Withdrawal loop compressors not running, withdrawal loop UF ₆ supply suction valve closed and UF ₆ evacuated from the loop. Accumulators may still contain some UF ₆ . |