



September 3, 2010  
GDP 10-2029

Mr. Tom Hiltz, Chief  
Advanced Fuel Cycle, Enrichment, and Uranium Conversion Branch  
Special Projects and Technical Support Branch  
Division of Fuel Cycle Safety and Safeguards  
Office of Nuclear Materials Safety and Safeguards  
U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555-0001

**Portsmouth Gaseous Diffusion Plant (PORTS)  
Docket 70-7002, Certificate Number GDP-2  
New Facilities Required to Support PORTS/DOE De-Lease Activities**

Dear Mr. Hiltz,

As briefly discussed in the NRC/PORTS April 2010 Meeting and in the PORTS Certificate Amendment Request to delete Technical Safety Requirements associated with facilities to be returned to the DOE on September 30, 2010, several utility systems were to be modified to provide isolation of utilities from any future DOE activities. This letter provides additional information on those modifications.

Six new facilities have been designed and are now nearing construction completion. These modifications will ensure protection of site utilities from future DOE site remediation activities and provide for uninterrupted services to existing site tenants. These facilities are briefly discussed below:

- X-614Q Sewage Booster Pump Station: Due to rerouting of the sanitary sewer line from the new air plant, a new booster pump station is required to compensate for limited drain line slope. This station is housed in a small manhole enclosure east of the X-101.
- X-640-2A Elevated Water Tank Auxiliary Building: The X-640-2 Water Tower relies upon steam and air from the X-330 facility for use in freeze protection and as a source of air for the bubbler system. Since the X-330 facility is being returned to the DOE on September 30, a small enclosure directly east of the X-640-2 Water Tower has been constructed to house a 750 KW electric boiler and an electric compressor to provide the steam and air that will no longer be available from the X-330 facility.

- X-670 Dry Air Plant: Plant air is currently provided from a dry air plant located in the X-330 facility with back-up compressors located in the X-326 and X-333 facilities; all facilities to be de-leased. The new Dry Air Plant is located south of the X-101 facility and houses a chiller, a pressure equalization tank, air compressors, air dryers, recirculating cooling water (RCW) pumps, and associated electrical substations. This new facility and equipment will replace the functions provided by the X-330 Dry Air Plant and its associated backup compressors for the remaining NRC Certified facilities.
- X-670A Cooling Tower: Cooling water to support facility cooling requirements for the X-710 Laboratory and X-300 Plant Control Facility are currently provided through the plant RCW system which relies on the cooling towers and cooling tower pump houses, all of which will be returned to the DOE on September 30. To replace this cooling capacity, a new cooling tower assembly is being constructed that will provide chilled water to the distribution system for the X-710 and X-300 facilities as well as provide cooling water to the new X-670 Dry Air Plant for equipment cooling purposes. This assembly is slab mounted and is located south of the X-101 facility.
- X-675 Plant Nitrogen Station: As with the Dry Air Plant, the current Plant Nitrogen Station is currently located in the X-330 facility. To accommodate future activities in NRC Certified facilities, a small open area has been constructed south of the X-101 to accommodate two new nitrogen storage tanks and two vaporizers that have been relocated from the X-330 facility; these will supply the plant nitrogen distribution system and a local dewar fill station for liquid nitrogen for laboratory and other miscellaneous uses.
- X-680 Blowdown Sample and Treatment Building: The X-6000 Cooling Tower blowdown line was re-routed to de-couple this American Centrifuge Plant facility from the RCW system being de-leased to DOE and to allow for future decontamination and demolition activities. A new facility for de-chlorination and sampling of the blowdown line flow is required to ensure environmentally acceptable discharge quality; this small facility houses a 500 gallon mixing tank, a small diesel back-up generator, and sampling ports and is located east of the X-326 facility. The current de-chlorination and sampling system is located in the X-333, a facility to be de-leased on September 30.

Although these are new facilities, they must be leased from the DOE and it must be done in conjunction with the de-lease of the facilities to be returned to the DOE on September 30. All of the facilities discussed above and their operations have been evaluated in accordance with 10 CFR 76.68 and determined to pose no undue risk to public health and safety, the common defense and security, or to the environment. The facilities and their operation do not involve an unreviewed safety question and their operations remain bounded by the SAR and within Certificate requirements. There is no use of uranium or radioactive materials, fissile material storage areas, or fissile operations in the facilities. The facilities and their operations do not impact the PORTS Technical Safety Requirements. USEC's evaluation of these changes indicated prior NRC approval was not

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necessary; our plans are to include the listing of these facilities and a brief description of the air and nitrogen plant in the annual update.

As initially noted, this letter provides supplemental information on system modifications that are necessary to isolate site utilities from impacts due to future DOE activities. If additional information is needed, please contact Doug Fogel at (740) 897-4561.

Sincerely,



Mark Keef  
General Manager

cc: Randy DeVault, DOE-ORO  
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