



April 13, 2007
GDP 07-0008

Mr. Michael F. Weber
Director, Office of Nuclear Material Safety and Safeguards
Attention: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

**Paducah Gaseous Diffusion Plant (PGDP)
Portsmouth Gaseous Diffusion Plant (PORTS)
American Centrifuge Lead Cascade Facility
Docket Nos. 70-7001, 70-7002 and 70-7003; Certificate Nos. GDP-1 and
GDP-2 and License No. SNM-7003
Submittal of Environmental Compliance Status Report (ECSR) Related Information**

Dear Mr. Weber:

On January 16, 2001, representatives from the United States Enrichment Corporation (USEC) and the Nuclear Regulatory Commission (NRC) Staff met at NRC Headquarters to discuss the ECSR contained in Volume 3 of the PGDP and PORTS Certification Applications.

As a result of this January meeting, USEC committed (Reference 1) to provide the following information to NRC for the Gaseous Diffusion Plants:

An annual summary for the previous calendar year of the following information:

1. Ambient Gamma Levels for PORTS and PGDP from the environmental TLD monitoring systems;
2. Summary of Notice of Violations (NOVs), permit exceedances, or other citations issued to the GDPs.

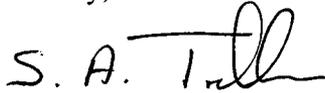
In addition, the Application for the American Centrifuge Lead Cascade Facility contains a commitment to incorporate Lead Cascade effluents into the existing environmental reports (Reference 2).

Enclosures 1 and 2 provide the above information for PGDP and the Piketon facilities, respectively, for calendar year 2006. Other than the exceedances or noncompliances summarized in Enclosures 1 and 2, there were no other exceedances, citations or NOVs received by USEC for its environmental programs in calendar year 2006.

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Should you have any questions or require additional information, please contact Mark Smith at (301) 564-3244. There are no new commitments contained in this submittal.

Sincerely,

Handwritten signature of Steven A. Toelle in black ink, appearing as "S. A. Toelle" with a stylized flourish.

Steven A. Toelle
Director, Regulatory Affairs

References: 1. Letter from Steven A. Toelle (USEC) to Mr. Michael F. Weber (NRC), Paducah Gaseous Diffusion Plant (PGDP), Portsmouth Gaseous Diffusion Plant (PORTS), Docket Nos. 70-7001 and 70-7002, "Environmental Compliance Status Report (ECSR) Related Information", GDP 01-0018, dated March 26, 2001.

2. License Application for the American Centrifuge Lead Cascade Facility, Section 9.3.

Enclosures: 1. PGDP Environmental Compliance Status Report Related Information
2. Piketon Facilities Environmental Compliance Status Report Related Information

cc: J. Downs, NRC HQ
D. Hartland, NRC Region II
J. Henson, NRC Region II
G. Janosko, NRC HQ
M. Raddatz, NRC HQ
B. Smith, NRC HQ
M. Thomas, NRC PGDP

PGDP Environmental Compliance Status Report Related Information

PADUCAH GASEOUS DIFFUSION PLANT
Permit Exceedances and Other Citations
Calendar Year 2006

Month	Permit Exceedance or Citation
April	Kentucky Permit Discharge Elimination System (KPDES) Permit Limit Exceeded. Toxicity testing conducted on effluent from Outfall 013 exceeded the toxicity limit of 1.0. The toxicity test result for the effluent was 6.96. The retest passed. No Notice of Violation (NOV) was issued.
August	KPDES Permit Limit Exceeded. August 3 fecal coliform sample collected at Outfall 004 exceeded the daily maximum limit of 400 colonies/100 ml. The sample result was 820 colonies/100 ml. The monthly average limit was met during the month of August. KDEP issued an NOV on November 27, 2007 for the daily maximum exceedance.
November	Notice of Violation. A NOV was issued on November 27 for the August 3 permit exceedance. See above.

PADUCAH GASEOUS DIFFUSION PLANT
Ambient Gamma Radiation Levels
Summary of External Gamma Radiation Monitoring CY 2006

TLD Location		Direct Radiation (mrem/hr)				Annual Dose	
		1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	(mrem/hr)	(mrem/yr) ^a
Perimeter Fence							
EG1	Plant North	0.004	0.003	0.003	0.003	0.003	28
EG2	Plant East	0.004	0.004	0.005	0.006	0.005	42
EG4	Plant West	0.008	0.006	0.006	0.008	0.007	61
	mean	0.005	0.004	0.005	0.006	0.005	44
	std deviation	0.002	0.002	0.002	0.003		
EG3 ^b	Plant South	0.102	0.112	0.110	0.110	0.108	0.94
Reservation Boundary							
EG5	Boundary North	0.004	0.003	0.003	0.003	0.003	28
EG6	Boundary East	0.006	0.004	0.004	0.005	0.005	42
EG16	Boundary South	0.007	0.006	0.007	0.008	0.007	61
EG17	Boundary Southeast	0.005	0.005	0.005	0.005	0.005	44
	mean	0.006	0.005	0.005	0.005	0.005	44
	std deviation	0.001	0.001	0.002	0.002		
Nearby Communities							
EG7	1 Mile North	0.005	0.005	0.004	0.004	0.004	39
EG8	1 Mile East	0.003	0.004	0.003	0.004	0.003	31
EG9	1 Mile South	0.005	0.004	0.005	0.007	0.005	46
EG10	1 Mile Southeast	0.005	0.004	0.005	0.005	0.005	42
EG11	1 Mile West	0.005	0.005	0.004	0.005	0.005	42
EG12	Grahamville	0.005	0.005	0.004	0.004	0.004	39
EG13	Magruder Village	0.005	0.004	0.004	0.005	0.005	39
	mean	0.005	0.004	0.004	0.005	0.005	40
	std deviation	0.001	0.001	0.001	0.001		
Background Locations							
EG14	Paducah	0.005	0.004	0.005	0.005	0.005	42
EG15	Oaks Road	0.006	0.005	0.005	0.005	0.005	46
	mean	0.006	0.005	0.005	0.005	0.005	44
	std deviation	0.001	0.001	0.000	0.000		

^aAnnual TLD field hours were 8,712. The dose was annualized using 8,760 hours per year.

^bEG3 Plant South is located near the corner of a DOE material storage yard with elevated gamma levels. Public access to this area is limited. Annual dose to the public for 2006 is estimated at 0.94 mrem/yr.

Background has not been subtracted from each TLD location.

Piketon Facilities Environmental Compliance Status Report Related Information

**PORTSMOUTH GASEOUS DIFFUSION PLANT
 AMERICAN CENTRIFUGE LEAD CASCADE FACILITY
 NPDES PERMIT EXCEEDANCES AND OTHER NONCOMPLIANCES
 CALENDAR YEAR 2006**

Month	Limit Exceedance or Noncompliance
January	<p>On January 5, 2006, the East Holding Pond (NPDES Outfall 001) effluent discharge had a Total Residual Chlorine detection of 0.11 mg/l. Upon investigating the cause for the presence of chlorine in the East Holding Pond, it was discovered that the X-330 Dry Air Plant (DAP) blowdown was not being dechlorinated with the correct amount of sodium sulfite. The Utility Water Engineer made the necessary adjustments to the dechlorination system that evening. Chlorine samples were collected again on January 9 and 10; to confirm that proper dechlorination adjustments had been made. Both samples were reported as no detectable chlorine present in pond discharge.</p> <p>On January 19, 2006, a water leak was discovered in a sanitary supply line that supplies the Ohio Valley Electrical Corporation with sanitary water. The sanitary water leak drained into the influent of the Northwest Holding Pond (Outfall 010); the leak was estimated at approximately 20 gallons per minute. The Northwest Holding Pond effluent was sampled for Total Residual Chlorine on January 19 and January 23; no chlorine was detected in either sample. Repair to the line break was completed on January 24, 2006.</p>
February	<p>On February 14, 2006, the X-633 RCW blowdown (NPDES Outfall 004) was valved on to the Scioto River. The X-633 RCW blowdown had been valved off for the past two weeks, and was valved on by the Utilities operator due to the high water level in the X-633 RCW basin. Environmental Compliance was not notified of the X-633 blowdown startup, and due to the NPDES Permit sampling frequency (7th thru the 14th), the weekly chlorine sample was missed for that week. This error was recognized the following morning. A chlorine sample was collected and no chlorine was detected in sample analyzed. Environmental and Utilities are working together to ensure proper notification is made before facility startups.</p>

**PORTSMOUTH GASEOUS DIFFUSION PLANT
 AMERICAN CENTRIFUGE LEAD CASCADE FACILITY
 NPDES PERMIT EXCEEDANCES AND OTHER NONCOMPLIANCES
 CALENDAR YEAR 2006**

February	<p>On February 23, 2006, foam was reported at the X-6619 effluent discharge (NPDES Outfall 003). The discovery prompted a visual inspection of the final effluent discharge at the Scioto River, which also had foam present. Upon investigating the possible cause of foam presence, it was discovered that a plant wide cleanup operation had been on going for the past couple of days. It is believed that due to the numerous mopping events, and then discharging the cleaning solutions to the sanitary drains, that this caused the heavy foaming at X-6619 Sewage Treatment Facility. Janitorial supervision was notified to use the proper dilution amounts when preparing cleaning solutions. No foam was detected at the X-6619 effluent discharges the following day.</p>						
April	<p>On April 13, 2006, a total suspended solids (TSS) exceedance (91.6 mg/L) was reported at NPDES Outfall 011. The permitted TSS limit for Outfall 011 is 45 mg/L. There have been no construction activities or ground disturbances upstream of Outfall 011, nor have there been any reports (daily surveillance) of discolored (murky) water at this outfall. The cause of this exceedance was due to a relocation of the sample collection point. The sample (grab) point was moved on February 23 from the holding pond weir to an area downstream of the holding pond and the oil diversion pond (mixing zone). The sample point was moved in an effort to obtain a more representative sample of water being discharged from the two ponds. The TSS exceedance occurred because of low water flow in the stream, causing the environmental sampler to place the TSS collection container into the stream bottom to fill the two-liter sample container. The sediment from the stream bottom entered into the container causing an elevated TSS result. After this problem was identified, the TSS sample point was moved back to the holding pond weir on April 17. The oil and grease sample point is still located at the mixing zone. The elevated April 13 TSS value also caused a monthly TSS exceedance at Outfall 011.</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 20px;">Outfall 011</td> <td style="padding-right: 20px;">Maximum Daily TSS</td> <td style="text-align: right;">91.6 mg/L</td> </tr> <tr> <td>Outfall 011</td> <td>Monthly Average TSS</td> <td style="text-align: right;">45.8 mg/L</td> </tr> </table>	Outfall 011	Maximum Daily TSS	91.6 mg/L	Outfall 011	Monthly Average TSS	45.8 mg/L
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**PORTSMOUTH GASEOUS DIFFUSION PLANT
AMERICAN CENTRIFUGE LEAD CASCADE FACILITY
NPDES PERMIT EXCEEDANCES AND OTHER NONCOMPLIANCES
CALENDAR YEAR 2006**

April	<p>The April monthly (average) water temperature for Outfall 902 (Little Beaver Creek, downstream of Outfall 001) and Outfall 903 (Big Run Creek, downstream of Outfall 002), exceeded the monthly NPDES limitation. Due to the unseasonable high ambient temperatures for the month of April, the water temperature in the creeks was elevated. The NPDES monthly average limit is 16.7 degrees Celsius. Outfall 902 monthly average was 1.3 degrees Celsius over the limit. Outfall 903 monthly average was 1.1 degrees Celsius over the limit.</p> <table data-bbox="577 751 1438 834"><tr><td>Outfall 902</td><td>Monthly Average Temperature</td><td>18°C</td></tr><tr><td>Outfall 903</td><td>Monthly Average Temperature</td><td>17.9°C</td></tr></table>	Outfall 902	Monthly Average Temperature	18°C	Outfall 903	Monthly Average Temperature	17.9°C
Outfall 902	Monthly Average Temperature	18°C					
Outfall 903	Monthly Average Temperature	17.9°C					

**PORTSMOUTH GASEOUS DIFFUSION PLANT
AMERICAN CENTRIFUGE LEAD CASCADE FACILITY
NPDES PERMIT EXCEEDANCES AND OTHER NONCOMPLIANCES
CALENDAR YEAR 2006**

September	<p>On September 13, 2006, the Ohio EPA conducted an inspection of the X-230J-6 Northeast Holding Pond (NPDES Outfall 011). This inspection coincided with a heavy rainfall, totaling 2.5 inches over the previous 36 hours. The Ohio EPA inspector observed a small oil sheen discharging over the weir onto 3M absorbent pads; the pads were placed at this location for preventative measures during the heavy rains. USEC personnel (sampler and engineer) had inspected and walked down the X-230J-6 effluent discharge earlier that morning and detected no oil sheen discharging from the pond at that time. NPDES oil and grease samples were also collected earlier in the morning and no oil and grease was detected in the samples. The Ohio EPA inspector notified USEC Environmental Compliance later in the afternoon of his observations.</p> <p>On September 14, 2006, the Ohio EPA inspector notified USEC by telephone requesting a PCB analysis of the oil contained behind the inlet boom at the Northeast Holding Pond and a PCB sample collected from the 3M oil absorbent cloth, located behind the inlet boom. The analysis of the oil contained at the inlet boom was 6.6 ppm PCBs (Aroclor 1260) and the analysis of the 3M cloth at the inlet boom was 1.3 ppb PCBs (Aroclor 1260).</p> <p>On September 20, 2006 USEC was notified by the Ohio EPA that a Notice of Violation was being issued for the presence of a visible oil sheen discharging from the holding pond. This is a violation of USEC's NPDES Permit, Part III, Item 2, General Effluent Limitations. USEC is currently still in the process of collecting additional samples and taking proactive steps in stopping the oil run-off from the X-533 Switchyard.</p>
October	<p>On October 17, 2006, Utilities reported the X-611 (Water Treatment Facility) make-up holding pond overflowing. An estimated 30 thousand gallons of make-up water overflowed from the X-611 holding pond into Little Beaver Creek. The make-up water is groundwater pumped from the X-608 well fields. The water in the holding pond is lime softened and has some flocculent polymer added. A chlorine and pH sample was collected from the holding pond overflow, no chlorine was detected and the pH was 7.02. This event occurred during a heavy precipitation event.</p>

PORTSMOUTH GASEOUS DIFFUSION PLANT AMERICAN CENTRIFUGE LEAD CASCADE FACILITY AMBIENT GAMMA RADIATION LEVEL

QUARTERLY EXTERNAL GAMMA RADIATION LEVELS FOR 2006

TLD LOCATION	QUARTER				ANNUAL DOSE	
	FIRST	SECOND	THIRD	FOURTH	(μ rem/hr)	(mrem/yr)
Perimeter Road (excluding PP874)						
PP518	12.2	9.1	13.4	13.7	12.1	
PP737	14.0	8.2	10.4	14.2	11.7	
PP862	13.6	12.6	15.4	13.7	13.8	
PP906	8.6	8.2	11.4	10.2	9.6	
PP933	18.1	12.2	19.3	24.8	18.6	
PP1404A	9.5	10.0	10.9	12.4	10.7	
A35	14.5	8.2	10.4	14.2	11.8	
A40	8.6	8.2	10.4	10.2	9.3	
A36	10.9	10.4	12.9	12.9	11.7	
Mean	12.2	9.7	12.7	14.0	12.1	107
Std. Deviation	3.2	1.7	3.0	4.3		
PP874*	92.8	89.8	86.8	84.2	88.5	0.38
Reservation Boundary						
A3	10.0	8.2	10.4	11.1	9.9	
A8	12.2	9.5	11.4	15.1	12.1	
A9	9.5	8.7	11.9	11.5	10.4	
A12	10.0	9.1	13.9	10.6	10.8	
A15	12.2	11.3	11.4	14.2	12.3	
A23	11.3	10.0	13.4	14.2	12.2	
A24	11.8	9.5	14.9	12.4	12.1	
A29	Missing	Missing	9.9	Missing	9.9	
Mean	11.0	9.5	12.2	12.7	11.3	99
Std. Deviation	1.2	1.0	1.7	1.7		
Offsite						
Piketon	10.9	10.4	12.4	10.2	10.9	96
Camp Creek	14.0	9.5	12.4	13.7	12.4	109

Alphanumeric locations refer to Figures 5.1-14 and 5.1-15 of the Safety Analysis Report.

PP874 is located on Perimeter Road near the corner of a material storage yard within the DOE reservation with elevated gamma levels. The annual dose calculated for this location is an incremental dose based on historical public access to this area throughout the year. This was limited to drive through traffic and the most exposed member of the public was presumed to be a family member driving a plant worker to and from work. There has been no routine public access to this area since September 11, 2001.