



November 21, 2024
765-PS-24-013

CERTIFIED MAIL
7019 1640 0000 2365 7164

ATTN: Division of Surface Water
Mr. Marco Deshaies
Ohio Environmental Protection Agency
Southeast District Office
2195 Front Street
Logan, Ohio 43138-9031

Third Quarter Calendar Year 2024 Radiological Discharge Monitoring Report for the American Centrifuge Program at the Portsmouth Gaseous Diffusion Plant

Dear Mr. Deshaies:

Please find enclosed the radiological discharge monitoring report for the third quarter of calendar year 2024 for the American Centrifuge Program at the Portsmouth Gaseous Diffusion Plant. Sample results are summarized for effluent monitoring conducted at external National Pollutant Discharge Elimination System permitted outfalls. This report is submitted in accordance with Part II.J of Ohio Environmental Protection Agency Permit No. OIS00023*ED, issued to American Centrifuge Operating, LLC.

If you have any questions regarding this matter, please contact Christopher Brust at (740) 897-3149.

I certify under the penalty of law that I have personally examined and am familiar with the information submitted and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Sincerely,

A handwritten signature in black ink that reads "Ashley Wright".

Ashley Wright
Production Support Manager

Enclosure: As Stated

cc: M. Reim, DOE - NE

RECEIVED

NOV 29 2024

Ohio Environmental
Protection Agency
Southeast District

Enclosure 1 of 765-PS-24-013

Radiological Discharge Monitoring Report for the American Centrifuge Program

**Information Contained Within
Does Not Contain
Export Controlled Information**

Reviewing

Official: Lori Hawk / ACO

Date: 11/21/2024

**Radiological Discharges to Surface Water
Calendar Year 2024 - Third Quarter**

**American Centrifuge Operations, LLC (ACO)
Portsmouth Gaseous Diffusion Plant, Piketon, Ohio
Outfall 012 / X-2230M Southwest Holding Pond**

	Concentrations				Loadings			
	Alpha pCi/l	Beta pCi/l	Tc pCi/l	U ug/l	Alpha mCi	Beta mCi	Tc mCi	U kg
7/8/2024	< 5.20	< 5.75	< 3.23	1.32	< 0.0115	< 0.0128	AA	0.0029
7/15/2024	< 2.78	< 3.90	< 7.57	1.07	< 0.0024	< 0.0034	AA	0.0009
7/22/2024	< 2.89	< 3.69	< 7.27	1.25	< 0.0034	< 0.0044	AA	0.0015
7/29/2024	< 4.00	< 3.09	< 8.45	1.27	< 0.0035	< 0.0027	AA	0.0011
8/5/2024	< 3.17	< 3.61	< 9.17	1.12	< 0.0027	< 0.0031	AA	0.0010
8/12/2024	< 3.89	< 6.19	< 8.03	1.20	< 0.0019	< 0.0030	AA	0.0006
8/19/2024	< 4.33	< 3.70	< 7.87	1.18	< 0.0046	< 0.0039	AA	0.0012
8/26/2024	< 4.27	< 4.82	< 8.83	1.08	< 0.0008	< 0.0009	AA	0.0002
9/3/2024	< 4.48	< 5.41	< 6.63	0.95	< 0.0095	< 0.0114	AA	0.0020
9/9/2024	< 2.94	< 3.64	< 4.90	0.89	< 0.0016	< 0.0020	AA	0.0005
9/16/2024	< 2.87	< 4.01	< 8.40	0.88	< 0.0007	< 0.0009	AA	0.0002
9/23/2024	< 1.39	< 2.05	< 8.36	0.99	< 0.0009	< 0.0013	AA	0.0006
9/30/2024	< 3.75	< 3.92	< 10.30	0.88	< 0.0663	< 0.0693	AA	0.0155
Total	< 46.0	< 53.8	< 99.0	14.06	< 0.1097	< 0.1190	AA	0.0282
Average	< 3.54	< 4.14	< 7.62	1.08	< 0.0084	< 0.0092	AA	0.0022
Maximum	< 5.20	6.19	< 10.30	1.32	< 0.0663	< 0.0693	AA	0.0155
Minimum	< 1.39	< 2.05	< 3.23	0.88	< 0.0007	< 0.0009	AA	0.0002
Transuranics 8/5/2024	Am 241 < 0.058	Np 237 < 0.092	Pu 238 < 0.105	Pu 239+240 < 0.110	pCi/l			

**Radiological Discharges to Surface Water
Calendar Year 2024 - Third Quarter**

**American Centrifuge Operations, LLC (ACO)
Portsmouth Gaseous Diffusion Plant, Piketon, Ohio
Outfall 013 / X-2230N West Holding Pond**

	Concentrations				Loadings			
	Alpha pCi/l	Beta pCi/l	Tc pCi/l	U ug/l	Alpha mCi	Beta mCi	Tc mCi	U kg
7/8/2024	< 4.11	4.34	< 3.37	0.48	< 0.0108	< 0.0114	AA	0.0013
7/15/2024	< 3.76	< 4.53	< 7.37	0.46	< 0.0036	< 0.0043	AA	0.0004
7/22/2024	< 3.15	< 4.19	< 7.28	0.52	< 0.0037	< 0.0049	AA	0.0006
7/29/2024	< 3.41	< 3.28	< 8.46	0.40	< 0.0035	< 0.0034	AA	0.0004
8/5/2024	< 4.41	< 6.29	< 8.97	< 0.29	< 0.0040	< 0.0057	AA	< 0.0002
8/12/2024	< 3.24	< 3.94	< 7.85	0.16	< 0.0016	< 0.0019	AA	0.0001
8/19/2024	< 2.91	< 3.46	< 7.85	0.16	< 0.0062	< 0.0074	AA	0.0003
8/26/2024	AL	AL	AL	AL	AL	AL	AL	AL
9/3/2024	< 2.76	< 4.31	< 6.90	0.13	< 0.0087	< 0.0136	AA	0.0004
9/9/2024	< 3.21	< 3.76	< 8.59	0.21	< 0.0029	< 0.0034	AA	0.0002
9/16/2024	< 2.87	< 6.07	< 8.27	0.25	< 0.0031	< 0.0066	AA	0.0003
9/23/2024	< 4.22	< 4.33	< 8.56	0.36	< 0.0047	< 0.0049	AA	0.0004
9/30/2024	< 3.95	< 4.67	< 10.50	0.38	< 0.0795	< 0.0940	AA	0.0076
Total	< 42.0	< 53.2	< 94.0	< 3.79	< 0.1323	< 0.1615	AA	< 0.0122
Average	< 3.50	< 4.43	< 7.83	< 0.32	< 0.0110	< 0.0135	AA	< 0.0010
Maximum	< 4.41	6.29	< 10.50	0.52	< 0.0795	< 0.0940	AA	0.0076
Minimum	< 2.76	< 3.28	< 3.37	< 0.13	< 0.0016	< 0.0019	AA	< 0.0001
Transuranics	Am 241	Np 237	Pu 238	Pu 239+240				
8/5/2024	< 0.042	< 0.098	< 0.108	< 0.101				pCi/l

**Radiological Discharges to Surface Water
Calendar Year 2024 - Third Quarter**

**American Centrifuge Operations, LLC (ACO)
Portsmouth Gaseous Diffusion Plant, Piketon, Ohio**

NOTES

Weekly concentrations and loadings with quarterly summaries are presented for Gross Alpha Activity, Gross Beta Activity, Technetium-99 (beta) Activity and Total Uranium Concentration. These figures are based on seven-day composite samples and measured flows at each outfall.

Quarterly concentrations are presented for Americium-241, Neptunium-237, Plutonium-238, Plutonium 239 and Plutonium 240 for the ACO outfalls. (All of these are transuranics. Plutonium 239 and Plutonium 240 activities are reported as a combined activity because the analytical method used cannot distinguish them.) These figures are based on grab samples collected quarterly.

Weekly concentrations that are below the Minimum Detectable Activity (MDA) or Laboratory Limit of Detection (LLD) are indicated by a "less than" (<) prefix ahead of the numerical MDA/LLD. MDA/LLDs vary somewhat from sample to sample depending on interferences present and other conditions.

Weekly loadings that correspond to less than MDA/LLD concentrations are calculated based on the MDA/LLD value and prefixed with a "<" except:

Technetium loadings are presumed to be zero unless actually detected, based on the historical absence of technetium in the ACO outfalls. These loadings are coded as "AA" unless actually detected.

Transuranic loadings are not calculated because there is no credible source for transuranic contamination in either ACO outfall and historically transuranics have not been detected in the ACO outfalls.

AC or AL indicates no flow during the sampling period.