



SWP618 Dominion Energy Virginia Bremo Power Station - Compliance Inspection Report

From Shaw, David (DEQ) <David.Shaw@deq.virginia.gov>

Date Wed 10/30/2024 9:22 AM

To William.P.Ruch@dominionenergy.com <William.P.Ruch@dominionenergy.com>

Cc Stuart, Laura (DEQ) <Laura.Stuart@deq.virginia.gov>; Rohrer, Priscilla (DEQ) <Priscilla.Rohrer@deq.virginia.gov>; George, Shannon (DEQ) <Shannon.George@deq.virginia.gov>

 1 attachments (137 KB)

SWP618_CIR_ND_20240918.pdf;

Good morning Mr. Ruch,

Attached, please find the complete inspection report concerning the Compliance Evaluation Inspection (CEI) that took place on September 18, 2024 at the Dominion Energy Virginia Bremo Power Station (SWP618), located in Bremo Bluff, Virginia.

Please keep a copy of this report for your records. A hard copy will not be mailed to you unless requested.

Please note that a response to this report is not required. If you would like to discuss any portion of the report, feel free to contact me. I can be reached at (540) 575-6335 or at david.shaw@deq.virginia.gov.

It was a pleasure meeting with you and your staff. Thank you for your time.

Respectfully,
David Shaw



David Shaw

Solid Waste Inspector Senior, Valley Region
[Virginia Department of Environmental Quality](#)
4411 Early Road
Harrisonburg, VA 22801
(540) 575-6335



Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

www.deq.virginia.gov

Travis A. Voyles
Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director

October 30, 2024

VIA ELECTRONIC MAIL

Mr. William Ruch
Senior Environmental Compliance Coordinator
Dominion Energy Virginia Bremo Power Station
1038 Bremo Bluff Road
Bremo Bluff, Virginia 23022
william.p.ruch@dominionenergy.com

NO DEFICIENCY LETTER

Subject: Dominion Energy Virginia Bremo Power Station– Bremo Bluff, Virginia
Solid Waste Permit (SWP) 618

Dear Mr. Ruch,

On September 18, 2024, the Virginia Department of Environmental Quality Valley Regional Office (VRO) staff conducted a compliance inspection of the Dominion Energy Virginia Bremo Power Station's Coal Combustion Residuals (CCR) surface impoundment, the North Pond. The purpose of the inspection was to evaluate the impoundment for compliance with SWP618 and applicable provisions of the Virginia Solid Waste Management Regulations, 9 VAC 20-81-10 et seq. ("Regulations") that incorporate 40 CFR Part 257 Subpart D promulgated as of October 4, 2016, which is the EPA's Final Rule on the Disposal of CCR from Electric Utilities (CCR Rule).

During the inspection, no apparent violations of the Act, Regulations, or SWP 618 were observed. A copy of the inspection checklist is enclosed.

If you have any questions, please contact me at (540) 575-6335 or david.shaw@deq.virginia.gov.

October 30, 2024

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Sincerely,

A handwritten signature in black ink, appearing to read "David Shaw", with a long horizontal line extending to the right.

David Shaw, Solid Waste Compliance Inspector

Virginia Department of Environmental Quality

(540) 575-6335 (Direct)

david.shaw@deq.virginia.gov

Valley Regional Office

4411 Early Road

Harrisonburg, VA 22801

(540) 574-7800 (Office)

Attachment

CC: *(via email)*

Laura Stuart, PG, DEQ VRO Land Protection Program Manager,

laura.stuart@deq.virginia.gov

Priscilla Rohrer, DEQ CO Solid Waste Compliance Coordinator,

priscilla.rohrer@deq.virginia.gov

Shannon George, PG, DEQ VRO Groundwater Specialist,

shannon.george@deq.virginia.gov

ECM – SWP 618

Compliance Inspection Report

Inspection Summary

Facility: Dominion Energy Virginia – Brema Power Station

Permit: SWP618

Region: Valley

Inspection Type: Compliance Evaluation Inspection

Facility Staff: Will Ruch, Dillon Otten, Douglas Yeabower, Taylor Kokal, Dorothy Caserta, Will Ruch

Other DEQ Staff: Shannon George (Groundwater Specialist)

Inspector: David Shaw

Inspection Date: 9/18/2024

Approximate Arrival Time: 10:00 am

Inspection Method: Unannounced

Exit Interview: Yes

Weather Conditions: about 70 degrees, north wind ~10 mph, overcast/ light rain

Comments: A solid waste permit (SWP618) for this facility was issued by DEQ on 6/6/2019. The purpose of this compliance inspection was to evaluate the Dominion Energy Virginia - Brema Power Station's coal combustion residuals (CCR) surface impoundment, the North Pond, for compliance with SWP618 and applicable provisions of the Virginia Solid Waste Management Regulations (VSWMR), which incorporate 40 CFR Part 257 Subpart D promulgated as of October 4, 2016, which is the EPA's Final Rule on the Disposal of CCR from Electric Utilities (CCR Rule). The following checklist is provided for the NORTH POND.

Surface Impoundment, Existing/New CCR (Inactive)

Reference	Description	SL	Result
Compliance Area: Operator Information			
10.1-1408.1	Disclosure Statement	I	✓
Compliance Area: Recordkeeping, Reporting & Permit			
20-81-300.B	Compliance with the facility's permit	II	✓
20-81-530	Permittee recordkeeping and reporting	II	✓
Compliance Area: Design, Construction & Operation			
20-81-610-660	Special Waste	II	N/A
Compliance Area: Closure & Post-Closure Care			
20-81-160	Closure requirements	II	N/A
20-81-170	Post-closure care requirements	II	N/A
20-81-370	Surface Impoundment Closure	II	✓
Compliance Area: Groundwater Monitoring			
20-81-250	Groundwater monitoring program	II	✓
20-81-260	Corrective action program	II	✓
Compliance Area: CCR Requirements			
20-81-800-810	Requirements for CCR Landfills and Surface Impoundments	II	✓
40 CFR 257.73(a)(1),74(a)(1)	Permanent Identification Marker	I	✓
40 CFR 257.73(a)(2-3),74(a)(2-3)	Hazard Potential Classification Assessments & Emergency Plan	II	✓
40 CFR 257.73(a)(4),74(a)(4)	Slope Protection	I	✓
40 CFR 257.73(b-g),74(b-g)	Construction, Structural Stability & Safety Factor Assessments	II	✓
40 CFR 257.80	Fugitive Dust Control, Plan, and Annual Reports	I	✓
40 CFR 257.82	Hydrologic and Hydraulic Capacity Requirements	II	✓
40 CFR 257.83(a)	Facility Inspections	I	✓
40 CFR 257.83(b)	Annual PE Inspections	II	✓
40 CFR 257.90-98	Groundwater Monitoring and Corrective Action Program	II	✓
40 CFR 257.101-103	Closure Standards	II	✓
40 CFR 257.104	Post-Closure Care	II	✓

40 CFR 257.105	Recordkeeping Requirements	I	✓
40 CFR 257.106	Notification Requirements	I	✓
40 CFR 257.107	Public Website	I	✓

SL = Severity Level

✓ = In Compliance

X = Alleged Violation

N/A = Not Applicable

Blank = Not Inspected

General Comments

Reference	Comments
10.1-1408.1	Disclosure Statement - The list of key personnel was reviewed on-site and the facility indicated that changes are not needed at this time.
20-81-300.B	Compliance with the facility's permit - The facility has a site-specific Surface Water Monitoring Plan (last revised in 2022) and it conducts quarterly monitoring of 8 downgradient sampling locations close to the shoreline of the James River. There are 4 sampling locations downgradient of the West Pond (BR-01 through BR-04) and 4 sampling locations downgradient of the North Pond and East Pond (BR-05 through BR-08). The facility also collects samples from two upstream reference locations (JR-01 and JR-02). The upstream samples are collected from the James River to document ambient conditions. DEQ staff did not observe the sampling locations during the inspection because they are more easily accessed by boat. However, the Station is required to keep the locations permanently marked or flagged at the nearest shore to allow for easy identification.
20-81-530	Permittee recordkeeping and reporting - Copies of records and reports were provided on site and via email, and reviewed as part of this inspection.
20-81-610-660	Special Waste - The facility does not accept special waste.
20-81-160	Closure requirements - Closure requirements for CCR surface impoundments are included in Subpart D of 40 CFR Part 257 (and 9VAC20-81-370).
20-81-170	Post-closure care requirements - Post-closure requirements for CCR surface impoundments are included in Subpart D of 40 CFR Part 257 (and 9VAC20-81-370).
20-81-370	<p>Surface Impoundment Closure - The North Pond will be closed in accordance with Subpart D of 40 CFR Part 257, which includes more stringent requirements than the closure requirements for surface impoundments and lagoons included in 9VAC20-81-370. Subpart D of 40 CFR Part 257 was incorporated into the Virginia Solid Waste Management Regulations (per 9VAC20-81-800).</p> <p>Chapter 14 of the Virginia Waste Management Act (§ 10.1-1402.03) requires the owner or operator of certain CCR facilities (that stopped accepting waste prior to 7/1/19) to submit biennial progress reports that document progress to date closing CCR units subject to the 2019 legislation (SB 1355). The initial biennial progress report was due by 10/1/22 and the Bremo report was submitted to DEQ on 9/30/22. The facility submitted the required 2024 report to DEQ on 10/1/24. According to the reports, the Facility's closure plan includes excavation and removal of approximately 6.2 million cubic yards of CCR from the North Ash Pond, and placement in a new on-site CCR landfill (to be constructed near the existing North Ash Pond).</p> <p>The statute (§ 10.1-1402.03) also requires preparation of biennial reports that summarize the proposals submitted for beneficial reuse of the CCR material not covered by an existing contractual agreement. The Facility submitted their (initial) beneficial reuse summary report to DEQ on 9/30/22, and an updated report was provided on 10/1/24. One proposal, consisting of a conceptual plan for manufacturing synthetic sand from coal ash, was submitted in 2024. However, the proposal did not meet the requirements of the statute because it did not provide the amount of CCR to be used, the complete cost, or the anticipated timeframe.</p> <p>The biennial progress and beneficial reuse summary reports are posted on Dominion Energy's publicly accessible website.</p>
20-81-250	Groundwater monitoring program - Monitoring Wells MW-11, MW-24, MW-25S/D, MW-26S/D, MW-27S/D, MW-28, MW-29S/D, MW-33, MW-34, and MW-35 were observed during the inspection and the wells were in good condition. The Facility is currently in compliance with its groundwater monitoring and corrective action requirements. See below (Reference 40 CFR 257.90-98) for additional details regarding the groundwater monitoring program.
20-81-260	Corrective action program - The Facility is currently in compliance with its groundwater monitoring and corrective action requirements. See below (Reference 40 CFR 257.90-98) for additional details regarding the corrective action program.
20-81-800-810	Requirements for CCR Landfills and Surface Impoundments - The North Pond is an existing CCR surface impoundment subject to EPA's final rule (40 CFR 257) on the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule as amended) and as incorporated into the Virginia Solid Waste Management Regulations. The Liner Documentation and Location Restrictions Demonstrations have been placed in the facility's operating record and are posted on the Dominion Energy website as required. According to facility documentation, the surface impoundment is considered to be unlined, and the base of the pond is less than 1.52 meters (five feet) above the upper limit of the uppermost aquifer.
40 CFR 257.73(a)(1),74(a)(1)	Permanent Identification Marker - The Facility has an identification marker for each of its Ponds (North, West, and East). Each sign displays the required information, including the permit number, the name of unit, and the owner name.

40 CFR 257.73(a) (2-3),74(a)(2-3)	<p>Hazard Potential Classification Assessments & Emergency Plan - The initial Hazard Potential Classification Assessment for the North Pond was completed in October 2016, and the North Pond was classified as having significant hazard potential. A periodic hazard potential assessment is required to be completed every 5 years. The facility prepared a periodic Hazard Potential Classification Assessment for the North Pond in October 2021 and the hazard potential remains significant.</p> <p>The initial Emergency Action Plan (EAP) for the North Pond has been updated, and the most recent version was certified by Donald Mayer, P.E. Dominion notified DEQ on 2/15/24 that the updated EAP had been placed in the operating record on 1/16/24 and on the Dominion Energy website. The annual face-to-face exercise between representatives of the owner or operator of the CCR unit and the local emergency responders was conducted on 12/7/23. There were no EAP activations since the last DEQ inspection.</p>
40 CFR 257.73(a) (4),74(a)(4)	Slope Protection - The side slopes of the CCR surface impoundment were protected with vegetation. Deep erosion rills, bulging areas, seeps, or other signs of instability were not observed during the inspection.
40 CFR 257.73(b-g),74(b-g)	Construction, Structural Stability & Safety Factor Assessments - The history of construction, initial structural stability assessment, and initial safety factor assessment for the North Pond were certified in October 2016. Periodic safety factor and structural stability reassessments must be completed every 5 years, and the facility completed both reassessments in October 2021. The documents were placed in the facility's operating record and are posted on the Dominion Energy website as required. The assessment reports did not indicate the presence of deficiencies that require corrective measures.
40 CFR 257.80	Fugitive Dust Control, Plan, and Annual Reports - The most recent CCR Fugitive Dust Control Plan was certified in April 2016, placed in the facility's operating record, and is posted on the Dominion Energy website as required. Dominion notified DEQ on 1/12/24 that the 2023 Annual CCR Fugitive Dust Control Report was placed in the facility's operating record on 12/15/23. The report includes a description of actions taken to control CCR fugitive dust, indicates that no citizen complaints were recorded, and notes that CCR dust controls are sufficient and no corrective measures were necessary. During the inspection, fugitive dust control measures were observed (e.g. posted speed limits and stabilization of inactive areas), and no issues were noted.
40 CFR 257.82	Hydrologic and Hydraulic Capacity Requirements - The initial Inflow Design Flood Control System Plan for the North Pond was certified in October 2016, placed in the facility's operating record, and is posted on the Dominion Energy website as required. The plan concluded that the North Pond "inflow design flood control system has sufficient capacity for the 1000-year storm event." A periodic Inflow Design Flood Control System Plan is required to be prepared every 5 years, and Dominion updated the plan in October 2021.
40 CFR 257.83(a)	<p>Facility Inspections - The facility has several qualified personnel who have been trained to recognize structural weakness and other conditions which are disrupting or have the potential to disrupt the operation or safety of the CCR unit by visual 40 CFR 257.83(a) observation. The most recent qualified personnel training was conducted on 8/22/23. DEQ reviewed facility inspection records and CCR unit instrumentation monitoring records for the North Pond since the last inspection. The (7-day) facility inspection records appeared to be complete and current.</p> <p>As indicated in the annual P.E. inspection report, two vibrating wire piezometers (PZG-11 & PZG-12) and a digital staff gauge were considered CCR unit instrumentation at the time of DEQ inspection. The (30-day) monitoring records appeared complete and the instrumentation was monitored at intervals not exceeding 30 days. The staff gauge was installed in August 2020 to measure surface water levels in the North Pond channel to support the Site's Emergency Action Plan. Two inclinometers were previously used to monitor the stability of excavation support during earthwork for the North Pond embankment. The inclinometers are no longer monitored under the CCR Rule.</p> <p>The North Pond is covered by a geosynthetic rain cover and Wind Defender cover to prevent generation of (surface) contact water. The Facility systematically inspects the rain cover and perimeter channel each month, and the monthly inspection records were current at the time of the DEQ inspection.</p>
40 CFR 257.83(b)	Annual PE Inspections - The most recent (2024) Annual Engineering Inspection Report for the North Pond was certified on 7/16/24. Dominion notified DEQ that the report had been placed in the operating record and posted on the Dominion Energy website. The inspection report did not indicate the presence of deficiencies that require corrective measures.
40 CFR 257.90-98	<p>Groundwater Monitoring and Corrective Action Program - The Facility is currently in compliance with its groundwater monitoring and corrective action requirements. The required groundwater documentation for the North Pond appears to be posted on the Dominion Energy website, as specified in the regulation. Since the previous DEQ inspection report:</p> <p>The Facility notified DEQ (on 5/3/24) that the Semi-Annual Remedy Selection Progress Report for the North Pond was placed in the operating record on 4/3/24.</p> <p>The Facility notified DEQ (on 5/24/24) that a revised Nature and Extent Report and a revised Assessment of Corrective Measures Report were placed in the operating record on 4/25/24.</p> <p>The Facility notified DEQ (on 6/14/24) that a Groundwater Protection Standard (GPS) Exceedance Notification for the North Pond was placed in the operating record on 5/15/24.</p> <p>The Facility provided the 1st 2024 Semi-Annual Groundwater Monitoring Report for the North Pond on 7/30/24.</p>

40 CFR 257.101-103	<p>Closure Standards - The initial Closure Plan for the North Pond was certified on 10/13/16. An updated Closure plan was certified on 10/15/21 and it was placed in the facility's operating record (and posted on the Dominion Energy website). The updated Closure Plan indicates Dominion intends to complete closure of the North Pond by removing all of the CCR material and placing it in an on-site (and permitted) solid waste disposal facility.</p> <p>Dominion posted the first demonstration to extend the time necessary to close the North Pond on their website on 3/5/24. The closure extension document indicates the Facility is in the process of obtaining necessary permits from DEQ and other agencies for the siting and construction of the new on-site landfill.</p>
40 CFR 257.104	Post-Closure Care - The initial Post-Closure Care Plan for the North Pond was certified on 10/13/16. An amendment to the 2016 plan was prepared in October 2021 and it was placed in the operating record (and posted to the Dominion website). The amendment states that a Post-Closure Care Plan will not be required since the facility intends to remove all of the CCR material from the North Pond.
40 CFR 257.105	Recordkeeping Requirements - Appropriate records to date were maintained in the facility's operating record and provided for review as requested.
40 CFR 257.106	Notification Requirements - The Facility has provided adequate notifications of the required records, plans, and reports.
40 CFR 257.107	Public Website - The facility has established and continues to maintain a publicly accessible website (https://www.dominionenergy.com/ccr). The website is to provide CCR Rule compliance data and information on CCR units, and all applicable records have been posted online as required. The website was reviewed as part of this inspection.

Disclosure Statement Details

Key Personnel	Title
Christopher M. Gee	Project Manager
Robert W. Sauer	Vice President - Systems Operations
Virginia Electric and Power Company (VEPCO)	Owner
William F. Reed	Station Director
William Gwynn	Station Manager

Disclosure Statement Last Updated: 11/8/2023

PLEASE advise the Regional Office within 10 calendar days if any information noted in this report is incorrect, if you have taken appropriate action to meet compliance, or if there is other information that the department should consider regarding any alleged violations.

PLEASE be advised that this report is not an agency proceeding or determination which may be considered a case decision under the Administrative Process Act (VA Code 2.2-4000 et seq). If informal discussions do not lead to a satisfactory conclusion on the contents of this report, you may request in writing that DEQ take all necessary steps to issue a final decision or fact finding under the APA on whether or not a violation has occurred.