SWP618 Dominion Energy Virginia Bremo Power Station - Compliance Inspection Report

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

Fri 4/5/2024 8:11 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 >

1 attachments (230 KB)
SWP618_CIR-ND_20240222.pdf;

Good morning Mr. Ruch,

Attached, please find the complete inspection report concerning the Compliance Evaluation Inspection (CEI) that took place on February 22, 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

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Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Travis A. Voyles Secretary of Natural and Historic Resources Michael S. Rolband, PE, PWD, PWS Emeritus Director (804) 698-4020

April 5, 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 February 22, 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 impoundments, the North Pond, East Pond, and West Pond. The purpose of the inspection was to evaluate the impoundments 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.

Sincerely,

David Shaw

VRO Solid Waste Compliance Inspector

Attachment: Inspection Checklist

CC: 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

ECM – SWP618



Compliance Inspection Report

Inspection Summary

Facility: Dominion Energy Virginia – Bremo Power Station Inspector: David Shaw
Permit: SWP618 Inspection Date: 2/22/2024

Region: Valley Approximate Arrival Time: 10:00 am Inspection Type: Compliance Evaluation Inspection Inspection Method: Unannounced

Facility Staff: Nick Blankenship, Will Ruch, Dillon Otten, Kelly Hicks, Exit Interview: Yes

Dorothy Caserta Weather Conditions: About 45 degrees, partly cloudy, light variable

breeze

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 - Bremo Power Station's existing Coal Combustion Residuals (CCR) surface impoundment - the North Pond, and the inactive CCR surface impoundments, the East Pond and West 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: Ope	erator Information		
10.1-1408.1	Disclosure Statement	I	✓
Compliance Area: Rec	ordkeeping, Reporting & Permit		
20-81-300.B	Compliance with the facility's permit	П	✓
20-81-530	Permittee recordkeeping and reporting	Ш	✓
Compliance Area: Des	ign, Construction & Operation		
20-81-610-660	Special Waste	П	N/A
Compliance Area: Clos	sure & Post-Closure Care		
20-81-160	Closure requirements	Ш	N/A
20-81-170	Post-closure care requirements	Ш	N/A
20-81-370	Surface Impoundment Closure	П	✓
Compliance Area: Gro	undwater Monitoring		
20-81-250	Groundwater monitoring program	Ш	✓
20-81-260	Corrective action program	Ш	✓
Compliance Area: CCF	R Requirements		
20-81-800-810	Requirements for CCR Landfills and Surface Impoundments	П	✓
40 CFR 257.73(a) (1),74(a)(1)	Permanent Identification Marker	_	✓
40 CFR 257.73(a) (2-3),74(a)(2-3)	Hazard Potential Classification Assessments & Emergency Plan	П	✓
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	П	✓
40 CFR 257.80	Fugitive Dust Control, Plan, and Annual Reports	I	✓
40 CFR 257.82	Hydrologic and Hydraulic Capacity Requirements	Ш	✓
40 CFR 257.83(a)	Facility Inspections	I	✓
40 CFR 257.83(b)	Annual PE Inspections	Ш	✓
40 CFR 257.90-98	Groundwater Monitoring and Corrective Action Program	Ш	✓
40 CFR 257.101-103	Closure Standards	Ш	✓
40 CFR 257.104	Post-Closure Care	Ш	✓

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 facility provided the most recent Disclosure Statement documents on 11/8/23. Updates included the addition of Virginia Electric and Power Commission (VEPCO) to the key personnel list, and removal of Rick Woolard from the list. During the inspection, the facility indicated that William Ruch will be added to the list of key personnel, and updated Disclosure Statement forms will be provided.	
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	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). 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. According to the report, 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). 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 beneficial reuse summary report to DEQ on 9/30/22 and the report indicates that no proposals meeting the required criteria have been received. Both reports submitted on 9/30/22 are publicly accessible through Dominion Energy's website.	
20-81-250	Groundwater monitoring program - Monitoring Wells MW-1, MW-22, MW-23, MW-25S/D, MW-26S/D, MW-32S/D, MW-34, and MW-35 were observed during the inspection and the wells were in good condition. The other compliance wells were inspected during the 9/1/23 inspection. 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 amended) and as incorporated into the Virginia Solid Waste Management Regulations. The Liner Documentation and Locat 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)	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.	

40 CFR 257.73(a) (4),74(a)(4) 40 CFR 257.73(b-g),74(b-g)	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. 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. 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
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)	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. 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 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. The initially provided (30-day) field monitoring reports from October 2023 through February 2024 indicated "N/A" for the piezometer data. The reports did not provide an explanation for the missing piezometer data and the reports stated, "Based on the data collected from the CCR instruments, all instruments appear to be in operating condition and WSP has not identified signs of instability or other significant issues of concern requiring corrective action." After requesting clarification, Dominion indicated that animal damage severed power to the data logging system, and their consultant repaired the system before the November monitoring event. The Facility was able to retrieve piezometer data from November 2023 through February 2024, and Dominion provided revised reports. In the future, please ensure that any equipment malfunctions resulting in data losses are explained in the monitoring reports, and any missing data is reconciled as soon as possible. Two inclinometers were previously used to monitor stability of the Support of Excavation (SOE) during installation, excavation, and backfill at the North Pond embankment.
40 CFR 257.83(b)	Annual PE Inspections - The most recent (2023) Annual Engineering Inspection Report for the North Pond was certified on 7/13/23. Dominion notified DEQ that the report had been placed in the operating record and posted on the Dominion Energy website.
40 CFR 257.90-98	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: The Facility notified DEQ (on 11/3/23) that the Semi-Annual Remedy Selection Progress Report for the North Pond was placed in the operating record on 10/6/23. The Facility notified DEQ (on 3/1/24) that the 2023 Annual Groundwater Monitoring and Corrective Action Report was placed in the operating record on 1/31/24.

40 CFR 257.101-103	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.
	Dominion posted the first demonstration to extend the time necessary to close the North Pond on their website on 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.
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: 3/16/2020

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.



Compliance Inspection Report

Inspection Summary

Facility: Dominion Energy Virginia – Bremo Power Station Inspector: David Shaw
Permit: SWP618 Inspection Date: 2/22/2024

Region: Valley Approximate Arrival Time: 10:00 am Inspection Type: Compliance Evaluation Inspection Inspection Method: Unannounced

Facility Staff: Nick Blankenship, Will Ruch, Dillon Otten, Kelly Hicks, Exit Interview: Yes

Dorothy Caserta Weather Conditions: About 45 degrees, partly cloudy, light variable

breeze

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 - Bremo Power Station's existing Coal Combustion Residuals (CCR) surface impoundment - the North Pond, and the inactive CCR surface impoundments, the East Pond and West 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 EAST POND.

Surface Impoundment, Inactive CCR (Inactive)

Reference	Description	SL	Result
Compliance Area: Op	erator Information		
10.1-1408.1	Disclosure Statement	I	✓
Compliance Area: Re	cordkeeping, Reporting & Permit		
20-81-300.B	Compliance with the facility's permit	ll l	✓
20-81-530	Permittee recordkeeping and reporting	II	✓
Compliance Area: Clo	osure & Post-Closure Care		
20-81-160	Closure requirements	II	✓
20-81-170	Post-closure care requirements	II	N/A
20-81-370	Surface Impoundment Closure	II	✓
Compliance Area: Gr	oundwater Monitoring		
20-81-250	Groundwater monitoring program	ll l	✓
20-81-260	Corrective action program	II	✓
Compliance Area: CC	R Requirements		
20-81-800-810	Requirements for CCR Landfills and Surface Impoundments	II	✓
20-81-820	Inactive CCR Surface Impoundments	II	✓
40 CFR 257.73(a) (1),74(a)(1)	Permanent Identification Marker	1	✓
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	✓

4	40 CFR 257.106	Notification Requirements	I	✓	l
4	40 CFR 257.107	Public Website	I	✓	1

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 facility provided the most recent Disclosure Statement documents on 11/8/23. Updates included the addition of Virginia Electric and Power Commission (VEPCO) to the key personnel list, and removal of Rick Woolard from the list. During the inspection, the facility indicated that William Ruch will be added to the list of key personnel, and updated Disclosure Statement forms will be provided.
	Compliance with the facility's permit - The Facility maintains an active solid waste permit that includes both State-mandated and Federal CCR Rule requirements for the East Pond. See the "40 CFR 257.101-103: Closure Standards" section of this report for additional information regarding the closure status of the East Pond.
20-81-300.B	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.
20-81-160	Closure requirements - The Facility maintains a written closure plan in accordance with 9 VAC 20-81-160.B.1. See "40 CFR 257.101-103: Closure Standards" for details related to the status of Federal CCR Rule closure requirements.
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). A written Post-Closure Care Plan is not required for the East Pond because the impoundment is being closed through CCR removal under 40 CFR 257.102(c).
20-81-370	Surface Impoundment Closure - Subpart D of 40 CFR Part 257 was incorporated into the Virginia Solid Waste Management Regulations (per 9VAC20-81-800) and it includes more stringent requirements than the closure requirements for surface impoundments and lagoons included in 9VAC20-81-370.
	The Facility removed all CCR materials from the East Pond. DEQ approved a revised Closure Plan for the East Pond on 2/7/2024. Refer to the "20-81-300.B: Compliance with the facility's permit" and "40 CFR 257.101-103: Closure Standards" sections of this inspection report for additional details regarding the pond closure and State permit status.
20-81-250	Groundwater monitoring program - Monitoring Wells MW-1, MW-22, MW-23, MW-25S/D, MW-26S/D, MW-32S/D, MW-34, and MW-35 were observed during the inspection and the wells were in good condition. The other compliance wells were inspected during the 9/1/23 inspection. 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 East Pond is an inactive CCR surface impoundment subject to the 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 Demonstration documentation 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 was considered to be unlined, and there was no longer a need to perform the location restrictions demonstration because the surface impoundment has commenced closure and all CCR has been removed.
20-81-820	Inactive CCR Surface Impoundments - The Facility prepared a notification of intent to initiate closure of the (inactive) East Pond. James R. DiFrancesco, Jr., P. E. certified the intent to initiate closure statement on 12/14/16, and the statement was posted on the Dominion Energy Website.
	See "40 CFR 257.101-103: Closure Standards" for details related to the (revised) Closure Plan that was ammended on 11/13/23
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)	Hazard Potential Classification Assessments & Emergency Plan - The initial Hazard Potential Classification Assessment for the East Pond was completed in April 2018, and the East Pond was classified as having significant hazard potential. A periodic Hazard Potential Classification Assessment was certified on 9/9/20, and the East Pond was re-classified as having low hazard potential because the CCR materials were removed after the initial (April 2018) assessment. Dominion notified DEQ on 5/17/23

	that the updated hazard potential assessment was placed in the facility's operating record on 4/17/23 and on the Dominion Energy website. An Emergency Action Plan and annual face-to-face exercises are no longer required for the East Pond due to the low hazard potential.
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 East Pond were certified in April 2018. Periodic safety factor and structural stability reassessments must be completed every 5 years, and the facility completed both reassessments in April 2023. The documents were placed in the facility's operating record and are posted on the Dominion Energy website as required.
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 East Pond was certified in April 2018, placed in the facility's operating record, and is posted on the Dominion Energy website as required. The plan concluded that the East 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 April 2023. The updated plan is posted to the Dominion website (as required) and findings regarding the adequacy of the capacity remain unchanged.
40 CFR 257.83(a)	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 East Pond since the last inspection. The (7-day) facility inspection records appeared to be complete and current.
	A digital staff gauge was 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. At the time of inspection, water level readings were collected automatically on an hourly basis.
	Annual PE Inspections - The most recent (2023) Annual Engineering Inspection Report for the East Pond was certified on 7/13/23. Dominion notified DEQ that the report had been placed in the operating record and posted on the Dominion Energy website.
40 CFR 257.83(b)	According to the 2023 Annual Engineering Inspection Report, "The East Pond no longer receives CCRs. All CCR has been removed, 6-inch over excavation of soil has been completed, and verified by Virginia DEQ in October 2019. Dominion continues to comply with the CCR rule and treat the pond as a CCR unit due to groundwater monitoring results that prevent the full closure of the unit. At the time of my visit the East Pond was functioning as a stormwater retention pond."
	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 East Pond appears to be posted on the Dominion Energy website, as specified in the regulation. Since the previous DEQ inspection report:
40 CFR 257.90-98	The Facility notified DEQ (on 3/1/24) that the 2023 Annual Groundwater Monitoring and Corrective Action Report was placed in the operating record on 1/31/24.
	The Facility notified DEQ (on 3/13/24) that the Semi-Annual Remedy Selection Progress Report for the East Pond was placed in the operating record on 2/12/24.
	Closure Standards - The Facility's operating record includes a Notification of Intent to Close the East and West Ash Ponds (by CCR removal). The notification was certified by a Professional Engineer (P.E.) on 12/14/16. The Facility prepared a (revised) Closure Plan for the East and West Ash Ponds in November 2023 and DEQ approved the revised plan on 2/7/2024. The revised Closure Plan distinguishes the closure requirements of the Federal CCR rule and the Virginia Solid Waste Management Regulations separately.
40 CFR 257.101-103	Although removal of the CCR material from the East Pond was completed in March 2019, the Facility provided a demonstration to extend the closure time frame on 12/14/21 because some groundwater constituents continue to exceed the established Groundwater Protection Standards, and continued monitoring was required. As such, the East Pond is currently working through the Corrective Action process, and the pond remains subject to both Federal and State requirements.
	The pond currently serves as a stormwater management pond. According to the Closure Plan dated 11/13/2023, the Facility intends to use the East Pond for long-term stormwater management needs.

40 CFR 257.104	Post-Closure Care - In accordance with the requirements specified in 40 CFR 257.104(a)(2), a post-closure care plan is not required for surface impoundments closed through removal of CCR. A document addressing this requirement was placed in the facility's operating record and is posted on the Dominion Energy website. The document notes that a full Post-Closure Care Plan was not developed because the East Pond is being closed through removal of CCR.
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.

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: 3/16/2020

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.



Compliance Inspection Report

Inspection Summary

Facility: Dominion Energy Virginia – Bremo Power Station Inspector: David Shaw
Permit: SWP618 Inspection Date: 2/22/2024

Region: Valley Approximate Arrival Time: 10:00 am
Inspection Type: Compliance Evaluation Inspection Inspection Method: Unannounced

Facility Staff: Nick Blankenship, Will Ruch, Dillon Otten, Kelly Hicks, Exit Interview: Yes

Dorothy Caserta

Weather Condition

Weather Conditions: About 45 degrees, partly cloudy, light variable

breeze

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 - Bremo Power Station's existing Coal Combustion Residuals (CCR) surface impoundment - the North Pond, and the inactive CCR surface impoundments, the East Pond and West 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 WEST POND.

Surface Impoundment, Inactive CCR (Inactive)

Reference	Description	SL	Result
Compliance Area: Ope	erator Information		
10.1-1408.1	Disclosure Statement	Ι	✓
Compliance Area: Red	cordkeeping, Reporting & Permit		
20-81-300.B	Compliance with the facility's permit	П	✓
20-81-530	Permittee recordkeeping and reporting	П	✓
Compliance Area: Clo	sure & Post-Closure Care		
20-81-160	Closure requirements	П	✓
20-81-170	Post-closure care requirements	П	N/A
20-81-370	Surface Impoundment Closure	П	✓
Compliance Area: Gro	undwater Monitoring		
20-81-250	Groundwater monitoring program	П	✓
20-81-260	Corrective action program	П	✓
Compliance Area: CC	R Requirements		
20-81-800-810	Requirements for CCR Landfills and Surface Impoundments	П	✓
20-81-820	Inactive CCR Surface Impoundments	П	✓
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	Ш	✓
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	П	✓
40 CFR 257.80	Fugitive Dust Control, Plan, and Annual Reports	I	✓
40 CFR 257.82	Hydrologic and Hydraulic Capacity Requirements	Ш	✓
40 CFR 257.83(a)	Facility Inspections	I	✓
40 CFR 257.83(b)	Annual PE Inspections	Ш	✓
40 CFR 257.90-98	Groundwater Monitoring and Corrective Action Program	Ш	✓
40 CFR 257.101-103	Closure Standards	Ш	✓
40 CFR 257.104	Post-Closure Care	Ш	✓
40 CFR 257.105	Recordkeeping Requirements	I	✓

40 CFR 257.106	Notification Requirements	I	✓
40 CFR 257.107	Public Website	- 1	✓

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 facility provided the most recent Disclosure Statement documents on 11/8/23. Updates included the addition of Virginia Electric and Power Commission (VEPCO) to the key personnel list, and removal of Rick Woolard from the list. During the inspection, the facility indicated that William Ruch will be added to the list of key personnel, and updated Disclosure Statement forms will be provided.
	Compliance with the facility's permit - A Professional Engineer licensed in the Commonwealth of Virginia (James DiFrancesco, P.E.) certified closure completion of the West Pond per 40 CFR §257.102(f) on 12/1/2023. In accordance with 9 VAC 20-81-300.B, the Facility maintains an active solid waste permit that includes State-mandated requirements for the West Pond.
20-81-300.B	The Facility has a site-specific Surface Water Monitoring Plan and 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.
20-81-160	Closure requirements - The Facility maintains a written closure plan in accordance with 9 VAC 20-81-160.B.1. See "40 CFR 257.101-103: Closure Standards" for details related to the status of Federal CCR Rule closure requirements.
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). A written Post-Closure Care Plan is not required for the West Pond because the impoundment was closed through CCR removal under 40 CFR 257.102(c).
	Surface Impoundment Closure - Subpart D of 40 CFR Part 257 was incorporated into the Virginia Solid Waste Management Regulations (per 9VAC20-81-800) and it includes more stringent requirements than the closure requirements for surface impoundments and lagoons included in 9VAC20-81-370.
20-81-370	The Facility removed all CCR materials from the West Pond and certified closure completion of the pond per 40 CFR §257.102(f) on 12/1/2023. DEQ approved a revised Closure Plan for the West Pond on 2/7/2024. Refer to the "20-81-300.B: Compliance with the facility's permit" and "40 CFR 257.101-103: Closure Standards" sections of this inspection report for additional details regarding the pond closure and State permit status.
20-81-250	Groundwater monitoring program - Monitoring Wells MW-1, MW-22, MW-23, MW-25S/D, MW-26S/D, MW-32S/D, MW-34, and MW-35 were observed during the inspection and the wells were in good condition. The other compliance wells were inspected during the 9/1/23 inspection. 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 West Pond is an inactive CCR surface impoundment. The Facility was subject to the EPA's final rule (40 CFR 257) on the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule as amended) during a portion of the records review period for this inspection. The Liner Documentation and Location Restrictions Demonstration documentation 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 was considered to be unlined, and there was no longer a need to perform the location restrictions demonstration because the surface impoundment has commenced closure and all CCR has been removed.
20-81-820	Inactive CCR Surface Impoundments - The Facility prepared a notification of intent to initiate closure of the (inactive) West Ash Pond and James R. DiFrancesco, Jr., P. E. certified the notification on 12/14/16. The statement was posted on the Dominion Energy Website.
	On 1/2/2024, Dominion informed DEQ that a notification of closure completion (required under 40 CFR 257.102(h)) was placed in the Facility's operating record on 12/3/2023, and the notification was posted on the Dominion Energy Website.
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)	Hazard Potential Classification Assessments & Emergency Plan - The initial Hazard Potential Classification Assessment for the West Pond was completed in April 2018, and the West Pond was classified as having significant hazard potential. A periodic Hazard Potential Classification Assessment was certified on 9/9/20, and the West Pond was re-classified as having low hazard potential because the CCR materials were removed after the initial (April 2018) assessment. Dominion notified DEQ on 5/17/23 that the updated hazard potential assessment was placed in the facility's operating record on 4/17/23 and on the Dominion Energy website. An Emergency Action Plan and annual face-to-face exercises are no longer required for the West Pond due to the low hazard potential.
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 West Pond were certified in April 2018. Periodic safety factor and structural stability reassessments must be completed every 5 years, and the facility completed both reassessments in April 2023. The documents were placed in the facility's operating record and are posted on the Dominion Energy website as required. The April 2023 structural stability reassessment identified one area of the outboard slope (in the southeastern portion of the impoundment) that did not meet the target factor of safety for normal storage pool conditions. As of February 2024, the Facility was in the process of procuring the necessary permits for a project that will address the slope stability concerns by installing rip-rap and regrading the area.
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 West Pond was certified in April 2018, placed in the facility's operating record, and is posted on the Dominion Energy website as required. The plan concluded that the West 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 April 2023. The updated plan is posted to the Dominion website (as required) and findings regarding the adequacy of the capacity remain unchanged.
40 CFR 257.83(a)	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 West Pond since the last inspection. The (7-day) facility inspection records appeared to be complete and current. As indicated in the annual P.E. inspection report, a digital staff gauge was 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. At the time of inspection, water level readings were collected automatically on an hourly basis Annual PE Inspections - The most recent (2023) Annual Engineering Inspection Report for the West Pond was certified on
	7/13/23. Dominion notified DEQ that the report had been placed in the operating record and posted on the Dominion Energy website.
40 CFR 257.83(b)	According to the West Pond 2023 Annual Engineering Inspection Report, "The West Pond no longer receives CCRs. All CCR has been removed, 6-inch over excavation of soil has been completed and verified by Virginia DEQ in April 2020. Federal CCR Rule assessment groundwater monitoring continues to show that concentrations remain below groundwater protection standards. As a result, Dominion Energy intends to close the unit under Federal CCR Rule coverage in accordance with 40 CFR §257.102(c). At the time of my visit the West Pond was functioning as an influent storage pond for station source waters."
40 CFR 257.90-98	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 West Pond appears to be posted on the Dominion Energy website, as specified in the regulation. Since the previous DEQ inspection report:
	The Facility notified DEQ (on 3/1/24) that the 2023 Annual Groundwater Monitoring and Corrective Action Report was placed in the operating record on 1/31/24.
40 CFR 257.101-103	Closure Standards - The Facility's operating record includes a Notification of Intent to Close the East and West Ash Ponds (by CCR removal). The notification was certified by a Professional Engineer (P.E.) on 12/14/16. The Facility prepared a (revised) Closure Plan for the East and West Ash Ponds in November 2023 and DEQ approved the revised plan on 2/7/2024. The revised Closure Plan distinguishes the closure requirements of the Federal CCR rule and the Virginia Solid Waste Management Regulations separately.
	Although removal of the CCR material from the West Pond was completed in January 2020, the Facility provided a

	demonstration to extend the closure time frame on 12/14/21 because some groundwater constituents continued to exceed the established Groundwater Protection Standards, and continued monitoring was required. As of 11/13/2023 (the revised Closure Plan preparation date), groundwater water samples collected for West Pond monitoring no longer exceeded Groundwater Protection Standards established pursuant to 40 CFR §257.95(h) for constituents listed in Appendix IV of the CCR Rule. On 1/2/2024, the Facility notified DEQ that a Closure Completion Certification (per 40 CFR §257.102(f)) was placed in the Facility's operating record on 12/3/2023. James DiFrancesco, P.E. certified the closure completion on 12/1/2023. The West Pond currently serves as a process water pond to support North Pond closure activities. According to the Closure Plan dated 11/13/2023, the West Pond will be decommissioned and graded to leave an open vegetated area after completion of	
	the North Pond closure activities.	
40 CFR 257.104	Post-Closure Care - In accordance with the requirements specified in 40 CFR 257.104(a)(2), a post-closure care plan is not required for surface impoundments closed through removal of CCR. A document addressing this requirement was placed in the facility's operating record and is posted on the Dominion Energy website. The document notes that a full Post-Closure Care Plan was not developed because the West Pond was being closed through removal of CCR.	
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: 3/16/2020

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