Date of Inspection: 11/6/2023
Facility: Chesterfield Upper Pond

Annual Inspection Report for Existing CCR Surface Impoundment

Reference: 40 CFR Section 257.83, *Inspection Requirements for CCR Surface Impoundments*

Owner Information

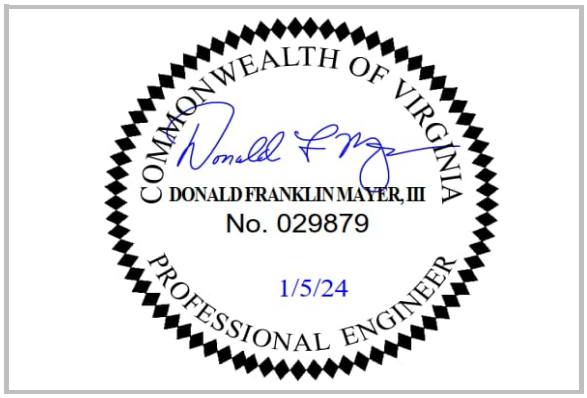
Name of Dam:	Chesterfield Power Station Dam
Owner's Name:	Virginia Electric and Power Company d.b.a. Dominion Energy
State ID #:	DCR Inventory # 041045, VPDES # VA0004146
Owner Contact:	Kevin Bishoff - Construction Project Manager
Dam Location:	Chester, VA

Engineer Information

Name and Virginia License Number:	Donald Mayer 029879
Firm Name:	WSP USA Inc.
Firm Address:	1100 Boulders Parkway, Suite 503, Richmond, VA 23225
Telephone No.:	804-358-7900

Certification Statement

I certify that the inspection of the above listed CCR surface impoundment was conducted in conformance with the requirements listed in 40 CFR 257.83, and with generally accepted good engineering practices.



Engineer seal, signature and date

As used herein, the word certify shall mean an expression of the Engineer's professional opinion to the best of his or her information, knowledge and belief, and does not constitute a warranty or guarantee by the Engineer

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	Yes	No
Was a review performed of available information regarding the status of the CCR unit, including files in the operating record?	X	
Was a visual inspection performed (i) to identify signs of stress or malfunction of the CCR unit and appurtenant structures, and (ii) of all hydraulic structures underlying the base or passing through the dike of the CCR unit for structural integrity and safe and reliable operation?	X	

Identify any changes in the geometry of the impounding structure since the previous annual inspection.

In accordance with the CCR Rule and the UAP Closure Plan prepared in accordance with 40CFR 257.102, the UAP is being prepared for removal of CCR material. Construction activities are supported by sump/pumping systems and cut areas will be temporarily covered with Wind Defender as the removal layer is completed. A camera inspection of the 72" discharge pipe from the UAP Stormwater Management Facility was conducted on August 9, 2023. PE evaluation of the video of the inspection indicated observations of concrete pipe joint seal degradation and solids accumulation/deposition at approximately 163 feet from the outlet location (approximately 35 feet from the inlet riser structure). The video showed that water was infiltrating at the pipe joint at this location. Additional evaluation of this condition is recommended, with repair of the joint as needed to seal the pipe and eliminate the infiltration.

Verify the type, location, and condition of existing instrumentation (e.g. flow meter or staff gauge). Document the maximum recorded readings of each instrument since the previous annual inspection.

Instrumentation		Location	Max. Reading	
Inclinometers	UAP-IN-01	SW Embankment	0.13	inches
	UAP-IN-02	SW Embankment	-0.15	inches
	UAP-IN-03	Southern Embankment	-0.12	inches
	UAP-IN-04	SE Embankment	0.06	inches
	UAP-IN-05	NE Embankment	0.03	inches
	UAP-IN-06	NW Embankment	0.03	inches
	TW-IN-01	NW Embankment Toe	-	inches
	TW-IN-02	NW Embankment Toe	-	inches
Piezometers	UAP-PZ-01	SW Embankment	2.60	feet
	UAP-PZ-02	SW Embankment	1.70	feet
	UAP-PZ-03	Southern Embankment	3.80	feet
	UAP-PZ-04	SE Embankment	7.47	feet
	UAP-PZ-05	NE Embankment	7.83	feet
	UAP-PZ-06	NW Embankment	4.55	feet
	TW-PZ-01	NW Embankment Toe	-	feet
	TW-PZ-02	NW Embankment Toe	-	feet

Notes:
1. UAP Instrumentation was installed in 2021 to support pond closure activities.
2. All instrumentation was observed to be in good condition.
3. The maximum reading of the inclinometers was recorded as the maximum displacement of the tilt sensor in any direction (+ or -) relative to the baseline measurement when the instrument was installed.
4. The maximum reading of the piezometers was recorded as the hydraulic head above mean sea level (MSL).
5. TW-IN-01 and TW-PZ-01 were removed March 18, 2022. TW-IN-02 and TW-PZ-02 were removed July 12, 2022.

*READINGS PROVIDED BY OTHERS

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List the minimum, maximum, and present depth and elevation of impounded water and CCR since the previous annual inspection.

Water level in pond*:

Minimum Depth (ft)	0.0	Maximum Depth (ft)	5 +/-	Present Depth (ft)	3.5
Minimum Elev. (Ft)	25.0	Maximum Elev. (ft)	30.0	Present Elev. (ft)	28.5

*STORMWATER MANAGEMENT FACILITY

CCR level in Pond:

Minimum Depth (ft)	50.0	Maximum Depth (ft)	115.0	Present Depth (ft)	Varies*
Minimum Elev. (Ft)	40.0	Maximum Elev. (ft)	105.0	Present Elev. (ft)	Varies*

*CCR SURFACE TOPOGRAPHY VARIES BETWEEN MIN AND MAX ELEVATION ACROSS THE HORIZONTAL PROFILE OF THE SURFACE IMPOUNDMENT

Maximum Storage Capacity: 9,017 Ac - Ft.

Present volume of the impounded water:	17	Ac - Ft.
Present volume of the impounded CCR:	6,545	Ac - Ft.
Present volume, total	6,562	Ac - Ft.

Identify any appearances of an actual or potential structural weakness of the CCR unit or existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit and appurtenant structures.

As described above, the water infiltration/leaking joint in the UAP Stormwater Management Facility discharge pipe should be further evaluated to determine potential operational or safety impacts and repaired as needed.

Identify any changes that may have affected the stability or operation of the impounding structure since the previous annual inspection.

At the time of the inspection, the UAP was being prepared for removal of CCR material. Construction activities are supported by sump/pumping systems and cut areas will be temporarily covered with Wind Defender as removal layers are completed. As described above, the water infiltration/leaking joint in the UAP Stormwater Management Facility discharge pipe should be further evaluated to determine potential stability or operational impacts and repaired as needed.

Additional comments

The Chesterfield Upper Ash Pond meets the definition of an existing surface impoundment under 40CFR 257.53 of the "Standards for the Disposal of Coal Combustion Residuals (CCR) in Landfills and Surface Impoundments". The Upper Ash Pond no longer receives CCRs and is being prepared for CCR removal. Construction activities are supported by sump/pumping systems and cut areas will be temporarily covered with Wind Defender as they are completed.