Virginia Electric and Power Company, d/b/a Dominion Energy North Carolina
Application of Dominion Energy North Carolina for Adjustment of Rates and Charges Applicable to Electric Service in North Carolina
E-22, Sub 562 and E-22, Sub 566

Post-Hearing Exhibit 3

VPDES PERMIT FACT SHEET

This document gives pertinent information concerning the reissuance of the VPDES permit listed below. This permit is being processed as a major, industrial permit. The effluent limitations contained in this permit will maintain the Water Quality Standards of 9VAC25-260 et seq. The discharges result from the generation of electricity (station capacity of 1750 megawatts) using steam produced by the combustion of coal and other fossil fuels. This permit action proposes to establish effluent limitations and monitoring and reporting requirements on the discharges from the station. The owner proposes to construct a Low Volume Wastewater Treatment System (LVWWTS) to address changes to the coal combustion residuals management system in response to the Disposal of Coal Combustion Residuals from Electric Utilities final rule signed April 17, 2015. Internal Outfalls 301, 302, 303, and 304 have been added as part of the LVWWTS. Internal Outfall 104 has been renamed to Outfall 401 and Internal Outfall 402 has been added. Outfalls 006-011 have been removed. Special conditions are updated to reflect current agency policy and site activities.

1. Facility Name and Address: Dominion Chesterfield Power Station
   5000 Dominion Boulevard
   Glen Allen, Virginia 23060

   Location: 500 Coxendale Road
   Chester, Virginia 23831
   See **Attachment 1** for location and site maps.

2. SIC Code: 4911 – Electric Services

3. Permit No. VA0004146 — Existing Permit Expiration Date: December 9, 2009
   This permit has been administratively continued.

4. Owner: Virginia Electric and Power Company
   Owner Contact: Cathy C. Taylor
   Director, Environmental Support
   Telephone: 804/273-2929
   E-mail: Cathy.C.Taylor@dom.com

   Facility Contact: Kenneth Roller
   Senior Environmental Specialist
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5. Application Complete Date: The initial application was complete on June 2, 2009. Additional material was submitted to supplement the application on July 8, 2009, October 8, 2009, July 21, 2015, October 19, 2015, November 19, 2015, February 12, 2016, March 7, 2016, May 9, 2016, and May 23, 2016.

Permit Drafted By:	Emilee Adamson	Date:	August 30, 2012 (initial draft)
	Brian Wrenn	Date:	October 27, 2015
	Joseph Bryan	Date:	May 13, 2016
Reviewed By:	Ray Jenkins	Date:	October 5, 2012
	Emilee Adamson	Date:	November 8, 2015 May 27, 2016
	Curtis J. Linderman	Date:	February 4, 2013 February 12, 2013 February 24, 2016 May 19, 2016
	Kyle Winter	Date:	February 25, 2013 November 23, 2015 February 17, 2016 May 17, 2016

Public Comment Period Dates: From: May 2, 2014 To: June 2, 2014

From: June 6, 2016 To: July 21, 2016

6. Receiving Stream:

OUTFALLS	001*	101	002*	003	301	302	303	304	305	004*	401	402	005*
Receiving Stream	James River, Main Channel	Internal Discharge to OF001 or OF 002	James River, Main Channel	James River (Farrar Gut)	Internal Discharge to OF 003	Internal Discharge to OF301	Internal Discharge to OF 301	Internal Discharge to OF301	Internal Discharge to OF301	James River (Farrar Gut)	Internal Discharge to OF 004	Internal Discharge to OF 004	James River (Farrar Gut)
Lat/Lon	N 37°22'58" W 77°22'51"	TBD	N 37°22'58" W 77°22'48"	N 37°22'19" W 77°23'4"	N 37°22'71" W 77°23"02"	N 37°22'58" W 77°23"10"	N 37°22'35" W 77°23"04"	TBD	TBD	N 37°22'18" W 77°22'54"	N 37°22'35" W 77°23'04"	N 37°22'58" W 77°23'09"	N 37°22'20" W 77°21'50"
Basin	James River (Lower)	James River (Lower)	James River (Lower)	James River (Lower)	James River (Lower)	James River (Lower)	James River (Lower)	James River (Lower)	James River (Lower)	James River (Lower)	James River (Lower)	James River (Lower)	James River (Lower)
Subbasin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Section	1	NA	1	1	NA	NA	NA	NA	NA	1	NA	NA	1
Class	II	NA	II	II	NA	NA	NA	NA	NA	II	NA	NA	II
Special Standards	bb	NA	bb	bb	NA	NA	NA	NA	NA	bb	NA	NA	bb
River Mile	2-JMS097.70	NA	2-JMS097.70	2-JMC003.77	NA	NA	NA	NA	NA	2-JMC003.75	NA	NA	2-JMC000.37
Low Flow 1Q10 (MGD)*	TIDAL	NA	TIDAL	0	NA	NA	NA	NA	NA	0	NA	NA	TIDAL
Low Flow 7Q10 (MGD)*	TIDAL	NA	TIDAL	0	NA	NA	NA	NA	NA	0	NA	NA	TIDAL
Low Flow 30Q10 (MGD)*	TIDAL	NA	TIDAL	0	NA	NA	NA	NA	NA	0	NA	NA	TIDAL
Low Flow 30Q5 (MGD)*	TIDAL	NA	TIDAL	0	NA	NA	NA	NA	NA	0	NA	NA	TIDAL
High Flow 1Q10 (MGD)*	TIDAL	NA	TIDAL	0	NA	NA	NA	NA	NA	0	NA	NA	TIDAL
High Flow 7Q10 (MGD)*	TIDAL	NA	TIDAL	0	NA	NA	NA	NA	NA	0	NA	NA	TIDAL

OUTFALLS	001*	101	002*	003	301	302	303	304	305	004*	401	402	005*
High Flow 30Q10 (MGD)*	TIDAL	NA	TIDAL	0	NA	NA	NA	NA	NA	0	NA	NA	TIDAL
HM (MGD)*	TIDAL	NA	TIDAL	0	NA	NA	NA	NA	NA	0	NA	NA	TIDAL
Tidal	Yes	NA	Yes	Yes	NA	NA	NA	NA	NA	Yes	Yes	Yes	Yes
303(d) list**	Category 5D	NA	Category 5D	Category 4A	NA	NA	NA	NA	NA	Category 4A	Category 4A	Category 4A	Category 4A

*The James River is tidally influenced at the discharge points. Flow frequencies cannot be determined for tidal waters; therefore, conservative tidal dilution ratios are used. Historically the standard tidal default dilution ratios (2:1 acute, 50:1 chronic) were used; however, in recognition of the discharge flow rates and the tidal influence at the discharge location, conservative dilution ratios of (2:1 acute, 2:1 chronic) are used to evaluate Outfalls 001 and 002. Farrar Gut is also tidal; however, the gut is dominated by the discharge from the facility's Outfall 003. Outfalls 003 and 004 discharge at the head of Farrar Gut, where tidal influence is minimal; therefore, these outfalls are evaluated without dilution. At Outfall 005, which is near the mouth of Farrar Gut, conservative tidal dilution ratios of 2:1 acute and 2:1 chronic are used to evaluate the discharge.

** Category 5D means the Water Quality Standard is not attained where Total Maximum Daily Loads (TMDLs) for a pollutant(s) have been developed but one or more pollutants are still causing impairment requiring additional TMDL development. Category 4A means the water is impaired or threatened for one or more designated uses but does not require a TMDL because the TMDL for specific pollutant(s) is complete and US Environmental Protection Agency (EPA) approved.

See **Attachment 2**.

7. Operator License Requirements: The Virginia Department of Professional and Occupational Regulation requires licensed operators for wastewater works. A wastewater works using advanced treatment methods, including chemical precipitation and coagulation having a design hydraulic capacity greater than 0.5 MGD but equal to or less than 5.0 MGD requires a Class 2 licensed operator (18VAC160-20-130.C & 9VAC25-31-200.C). Based on the metals pond and the Flue Gas Desulfurization (FGD) Waste Water Treatment Plant (WWTP), a Class 2 operator is required for this facility.

8 Reliability Class: Reliability is a measurement of the ability of a component or system to perform its designated function without failure or interruption of service. The reliability classification is based on the water quality and public health consequences of a component or system failure. The permittee is required to maintain Class II for sewage pumping facilities to the County sewerage system.

9. Permit Characterization:

( ) Issuance	(X) Existing Discharges
(X) Reissuance	(X) Proposed Discharge
( ) Revoke & Reissue	(X) Effluent Limited
( ) Owner Modification	(X) Water Quality Limited
( ) Board Modification	(X) WET Limit
( ) Change of Ownership/Name	(X) Interim Limits in Permit
Effective Date:	( ) Interim Limits in Other Document (attached)
( ) Municipal	(X) Compliance Schedule Required
SIC Code(s):	( ) Site Specific WQ Criteria
(X) Industrial	(X) Variance to WQ Standards
SIC Code(s): 4911	( ) Water Effects Ratio
( ) POTW	(X) Discharge to 303(d) Listed Segment
( ) PVOTW	(X) Toxics Management Program Required
(X) Private	( ) Toxics Reduction Evaluation
( ) Federal	( ) Pretreatment Program Required
( ) State	( ) Storm Water Management Plan
( ) Publicly-Owned Industrial	( ) Possible Interstate Effect

10. Wastewater Flow and Treatment: This facility produces electricity using steam produced by the combustion of coal (primary fuel for Units 3, 4, 5, and 6), natural gas (primary fuel for Units 7 and 8), or distillate fuel oil (auxiliary fuel for all units). The station capacity is rated at 1750 megawatts.

    On July 21, 2015, Virginia Electric Power Company submitted an application addendum including a preliminary Concept Engineering Report, describing planned changes to the facility. The changes will occur to meet the requirements of the Disposal of Coal Combustion Residuals (CCRs) from Electric Utilities final rule signed April 17, 2015. In response to the rule, the facility will convert from a wet ash management system to a dry ash management system in the third quarter of 2017. Once the conversion is complete, CCRs will be disposed of in the Fossil Fuel Combustion Product (FFCP) Management Facility, an industrial landfill that will be located at the Chesterfield Power Station. Use of the FFCP Management Facility will allow Virginia Power to close the two existing ash ponds, the Lower Ash Pond (LAP) and the Upper Ash Pond (UAP). Currently, the LAP receives wet sluiced ash and wastewater from various sources at the facility. The wastewater sources are listed below in the Wastewater Summary Table and described in detail in Attachment 2. Of special note are wastewaters from the Metals Pond and the Flue Gas Desulfurization Wastewater Treatment Plant (FGD WWTP) which are monitored at internal outfalls 401 and 402, respectively. The wet ash is dewatered and transported to the UAP for final disposal. The free standing wastewater in the LAP is discharged through Outfall 004. Prior to the conversion, a Low Volume Wastewater Treatment System (LVWWTS) will be constructed to treat the wastewater currently routed to the LAP. The LVWWTS will discharge through an internal outfall (301) with a diffuser to the thermal discharge channel for Outfall 003.

    There shall be no discharge of bottom ash or fly ash transport wastewaters generated at this facility on or after November 1, 2018. On or after November 1, 2018, any bottom ash or fly ash transport wastewaters generated at this facility prior to that date shall be regarded as legacy wastewaters, which may be discharged in accordance with the applicable respective Part I.A. subpart requirements.

Internal outfalls for the FGD WWTP and the Metals Pond will be maintained and renamed to Internal Outfalls 302 and 303, respectively. Two new internal outfalls, Outfalls 304 and 305, will also discharge to Outfall 301. These outfalls will discharge leachate from the FFCP Management Facility and Coal Pile Runoff, respectively. Once the conversion is complete and the LVWWTS is receiving and treating wastewater, the LAP and the UAP will be closed in accordance with the CCR rule via a Solid Waste permit. During drawdown and dewatering of the LAP and UAP the wastewater will be discharged through internal Outfall 101, which is authorized to discharge through Outfall 001 or 002. The permittee estimates that 280 million gallons of wastewater will be pumped/dewatered from the LAP over a three month period. The UAP will be pumped out and dewatered over a one month period discharging a total of approximately 3.5 million gallons. All discharge flows during closure activities will be treated prior to discharge. A concept engineering report for the treatment process must be submitted and approved prior to construction.

See **Attachment 3** for a description of the waste streams, a schematic of wastewater flows and treatment, and diffuser details.

Wastewater Summary:

Outfall Number	**Wastewater Source**	**Treatment**	**Flow, MGD *(maximum of 30-day averages)***
001	Cooling Water from Units 7 and 8	Dechlorination	212
101	Discharge from Centralized Source Water Treatment Facility – will receive effluent from the LAP and UAP during closure activities	TBD (CER to be submitted prior to commencement of treatment construction)	5.0
002	Cooling Water from Unit 3	Dechlorination	89
003	Cooling Water from Units 4, 5, and 6	Dechlorination	753
301	Discharge from Low Volume Wastewater Treatment System (LVWWTS) – will receive coal pile retention basin discharge, master sump effluent, FGD yard sump effluent, bottom ash handling area runoff, sierra ditch stormwater runoff, Upper Ash Pond (UAP) toe drain discharge, Lower Ash Pond (LAP) toe drain discharge, leachate and contact stormwater from Fossil Fuel Combustion Product (FFCP) Management Facility, Discharge from Internal Outfalls 302 and 303 (see discussions for Internal Outfalls 302 and 303 below)	Sedimentation, oil and grease removal, and neutralization at a minimum. CER to be submitted during permit term.	6.0*
302	FGD wastewater, and Combustion Residual Leachate (if redirected to this outfall)	Wastewater equalization, pH elevation, gypsum desaturation, heavy metal precipitation, coagulation, flocculation, clarification, pH	0.11

		adjustment, and sludge dewatering. Wastewater treatment is achieved through chemical addition. Upgrade to meet new FEGs anticipated. CER will be submitted prior to construction. See **Attachment 3**.	
303	Metals Cleaning Wastewater	Lime addition, mixing, and chemical precipitation	2.7
304	Leachate from the FFCP Management Facility	TBD (CER to be submitted prior to commencement of treatment construction)	0.19**
305	Coal Pile Runoff	Settling and metals treatment (CER to be submitted during permit term)	2.4***
004	Discharge from LAP – receives ash sluice water and wastewater from sumps throughout the station (low volume wastes, non-chemical cleaning wastes, screen backwash associated with reuse of Proctor's Creek WWTP effluent, wastewater from the station's car wash (non-chemical), storm water from the Unit 6 FGD runoff collection system, coal pile runoff, Water Treatment Plant wastewater, a portion of Drainage Area 4 and various other onsite tank containment areas including the station's light oil storage tank. Outfall 004 also receives the treated discharge from the metals treatment pond and the treated discharge from the FGD WWTP.	Settling, skimming. Some of the sources to the LAP receive treatment prior to discharge to the ash pond. There is also occasional chemical coagulation and pH adjustment as needed. See **Attachment 3**.	17.47
401	Metal cleaning wastewater	See Internal Outfall 303 above.	2.7
402	FGD wastewater	See Internal Outfall 302 above.	0.11
005	Storm water runoff from coal ash pond closure and recovery wells/toe drains.	Settling, skimming	4.05 *(Max of 30 day maximum)*

* This is the maximum flow estimated for the LVWWTS discharge at internal outfall 301.
** This is the maximum flow estimated for the FFCP Management Facility discharge at internal outfall 304.
*** This is the maximum flow estimated for the Coal Pile Runoff discharge at internal outfall 305.

11. Sewage Sludge Use or Disposal: No sewage sludge is generated on site. Sanitary wastewater is discharged into Chesterfield County's sewerage system.

12. Material Storage: No. 2 fuel oil is stored in an 11.256 million gallon tank which has a steel containment wall. Used oil is stored in a 5,000 gallon tank, also with dike. Diesel fuel is stored in a 12,300 gallon tank at the coal yard for equipment use. Drainage from these areas eventually reaches the LAP (Outfall 004). Water treatment chemicals are stored in their shipping containers in an area that drains to the master sump, which discharges to the LAP. Sodium hypochlorite is used for chlorination of the cooling water system and sodium bisulfite is used for dechlorination. All of the runoff from the coal yard discharges to the LAP. A list of all chemicals used on site is included in **Attachment 3**.

13. Ambient Water Quality Information: See **Attachment 2** for ambient monitoring data from 2-JMS099.30 and a location map. This information was used in pollutant analyses for all outfalls as representative of pH and hardness. 2-JMS099.30 is located at Buoy 157 on the James River approximately 4 miles upstream of Farrar Gut. The data from this station represent background ambient conditions before interaction with the heated effluent from the facility.

    During the 2014 305(b)/303(d) Water Quality Integrated Reports, the James River was assessed as a Category 5D waterbody ("The Water Quality Standard is not attained where TMDLs for a pollutant(s) have been developed but one or more pollutants are still causing impairment requiring additional TMDL development."). Farrar Gut was considered a Category 4A water ("Impaired or threatened for one or more designated uses but does not require a TMDL because the TMDL for specific pollutant(s) is complete and US EPA approved."). See **Attachment 2** for the applicable fact sheets.

    The Recreation Use in the James River is impaired due to *E. coli* violations. The James River and Tributaries City of Richmond Bacterial TMDL was approved by the EPA on November 4, 2010. The power station was included in the TMDL; however, the facility was not assigned a bacteria wasteload allocation because it is not a source of the pollutant. There was insufficient information to assess the Recreation Use in Farrar Gut; however *E. coli* was considered a non-impairing observed effect.

    The Fish Consumption Use in the James River is impaired due to a VDH Fish Consumption Advisory for PCBs. All outfalls were analyzed for PCBs and no observed concentrations were reported. The permittee has not performed the voluntary low level PCB monitoring (method 1668) for the pending TMDL development. As the data currently indicated that PCBs are not present in the discharge and Part I.C.9 of the permit prohibits the discharge of PCBs, this permit should neither cause nor contribute to the impairment. The Fish Consumption Use in Farrar Gut is considered fully supporting with observed effects due to the kepone advisory.

    The Aquatic Life Use in the James River and Farrar Gut are impaired due to exceedance of the chlorophyll a standard, altered benthic community, and inadequate submerged aquatic vegetation (SAV) in the upper James River tidal freshwater estuary. This facility discharges directly to the James River and to Farrar Gut in the Chesapeake Bay watershed. The receiving streams have been addressed in the Chesapeake Bay TMDL, approved by EPA on December 29, 2010. The TMDL addresses dissolved oxygen (DO), chlorophyll a, and submerged aquatic vegetation (SAV) impairments in the main stem Chesapeake Bay and its tidal tributaries by establishing non-point source load allocations (LAs) and point-source waste load allocations (WLAs) for Total Nitrogen (TN), Total Phosphorus (TP) and Total Suspended Solids (TSS) to meet applicable Virginia Water Quality Standards contained in 9VAC25-260-185. This facility is considered a Significant Chesapeake Bay wastewater discharge. All Significant Chesapeake Bay wastewater discharges have been assigned aggregate WLAs of 5,014,234 pounds per year TN, 496,712 pounds per year TP, and 67,321,434 pounds per year TSS.

    Implementation of the Chesapeake Bay TDML is currently accomplished in accordance with the Commonwealth of Virginia's Phase I Watershed Implementation Plan (WIP), approved by EPA on December 29, 2010. The approved WIP recognizes that the TMDL nutrient WLAs for Significant Chesapeake Bay wastewater dischargers are set in two regulations: 1) the Water Quality Management Planning Regulation (9VAC25-720); and 2) the "General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the

Chesapeake Bay Watershed of Virginia" (9VAC25-820). The WIP further outlines that since TSS discharges from wastewater facilities represent an insignificant portion of the Bay's total sediment load, they may be considered in the aggregate. The WIP also states that wastewater discharges with technology-based TSS limits are considered consistent with the TMDL.

9VAC25-31-220.D requires permits to be written with effluent limits necessary to meet water quality standards and to be consistent with the assumptions and requirements of applicable WLAs. Outfalls 001-003 are not subject to the TMDL because "point source dischargers" as defined in the Nutrient Technology Regulation (9VAC25-40) do not include permitted discharges of noncontact cooling water. Outfalls 004 and 005 are subject to the TMDL. The Department of Environmental Quality (DEQ) has provided coverage under the VPDES Nutrient General Permit (GP) for Outfalls 004 and 005 under permit VAN040086. Outfalls 101 and 301 will be subject to the TMDL upon commencement of discharge during the permit term and will be addressed during the reissuance of the VPDES Nutrient GP which expires December 31, 2016. The requirements of the Nutrient GP currently in effect for this facility are consistent with the Chesapeake Bay TMDL. This individual permit includes technology-based TSS limits of 30 mg/L that are also consistent with the Chesapeake Bay TMDL and WIP.

In the James River, there were screening level exceedances for mercury and arsenic in fish tissue, mercury in sediment, and a VDH Fish Consumption Advisory for kepone; these are considered non-impairing "observed effects". In Farrar Gut, the Fish Consumption Use is considered fully supporting with observed effects due to the kepone advisory. Outfalls 001 through 003 are once through non-contact cooling water; consequently, they are not a source of kepone, mercury or arsenic and should neither cause nor contribute to the observed effects. Observed concentrations of arsenic and mercury at these outfalls represent background ambient stream concentrations. The discharge from Outfall 004 was analyzed for mercury and kepone with less than quantifiable results; and therefore should neither cause nor contribute to the observed effects. Arsenic was observed at quantifiable levels in the Outfall 004 discharge and is a pollutant reported to be potentially present in coal and coal combustion by-products. A reasonable potential analysis for arsenic indicates that a limitation is not needed during pre-drawdown activities. Furthermore, the observed concentrations of arsenic are orders of magnitude less than the water quality standard.
Outfall 005 was analyzed for mercury and kepone with less than quantifiable results; and therefore should neither cause nor contribute to the observed effects. Arsenic was observed at quantifiable levels in the 005 discharge and is a pollutant reported to be potentially present in coal and coal combustion by-products. A reasonable potential analysis for arsenic indicates that a limitation is not needed. Furthermore, the observed concentrations of arsenic are orders of magnitude less than the water quality standard. Wastewater from the LAP and UAP during closure activities will discharge through internal Outfall 101. Mercury and arsenic limitations detailed below were developed for Outfall 101 to address any potential concentrations discharged during the closure activities.

Parameter	**Outfall 101 UAP and LAP Effluent – Closure Monthly Average Limitation**
Mercury (µg/L)	1.2
Arsenic (µg/L)	240

The Wildlife Use in the James River is fully supporting. The Public Water Supply and Wildlife Uses were not assessed for Farrar Gut.

14. Antidegradation Review and Comments:

James River (Main Channel): Tier 1 X Tier 2 _____ Tier 3 _____

James River (Farrar Gut): Tier 1 X Tier 2 _____ Tier 3 _____

The State Water Control Board's Water Quality Standards includes an antidegradation policy (9VAC25-260-30). All state surface waters are provided one of three levels of antidegradation protection. For

Tier 1 or existing use protection, existing uses of the water body and the water quality to protect those uses must be maintained. Tier 2 water bodies have water quality that is better than the water quality standards. Significant lowering of the water quality of Tier 2 waters is not allowed without an evaluation of the economic and social impacts. Tier 3 water bodies are exceptional waters and are so designated by regulatory amendment. The antidegradation policy prohibits new or expanded discharges into exceptional waters.

The receiving streams are determined to be Tier 1 waterbodies. That determination is based on the existence of the Richmond-Crater 208 Plan, which allocates BOD and ammonia to multiple dischargers in the segment for the purpose of maintaining dissolved oxygen concentrations at or above the level of the standard. This river segment is also on the 303(d) impaired waters list. See **Attachment 2**.

15. Site Inspection: September 26, 2008 by Heather Horne
March 10, 2010 by Meredith Williams
Site Visit: April 29, 2015 by Emilee Adamson and Brian Wrenn
February 10, 2016 by Brian Wrenn, Kyle Winter, Joy Abel

See **Attachment 11.**

16. Effluent Screening: See **Attachment 4**, which includes Discharge Monitoring Report (DMR) data and effluent data reported in the 2009 application and application addendums.

17. Effluent Limitation Development:

Parameter	Limitation	Basis for Limitation
Outfall 001 – Condenser Cooling Water from Units 7 and 8		
Flow	Monitoring only	PJ*
Total Residual Chlorine	22 µg/L monthly average 32 µg/L daily maximum	WQBEL*
Temperature	Monitoring only	PJ
Heat Rejected	11.3 x 10^8 BTU/Hour	Water Quality Standards (i.e. 316(a) variance)
Outfall 101 – UAP and LAP Closure(1)		
Flow	5.0 MGD	PJ
pH	6.0 SU minimum 9.0 SU maximum	Water Quality Standards, Federal Effluent Guidelines – BPT
TSS	30 mg/L and 560 Kg/d monthly average 88 mg/L and 1670 Kg/d daily maximum	Federal Effluent Guidelines – BPT and BAT
Total Recoverable Chlorine (TRC)	18 µg/L monthly average 32 µg/L daily maximum	WQBEL
Dissolved Oxygen	Monitoring Only	PJ
Total Recoverable Copper	11 µg/L monthly average 20 µg/L daily maximum	PJ
Dissolved Chromium VI	17 µg/L monthly average 32 µg/L daily maximum	PJ
Total Organic Carbon	110 mg/L daily maximum	PJ
Total Recoverable Molybdenum	Monitoring Only	PJ

Total Hardness (as $CaCO_3$)	Monitoring Only	PJ
Chloride	360 mg/L monthly average 660 mg/L daily maximum	PJ
Total Recoverable Barium	Monitoring Only	PJ
Total Recoverable Nickel	26 µg/L monthly average 48 µg/L daily maximum	PJ
Total Recoverable Silver	2.7 µg/L monthly average 5.0 µg/L daily maximum	PJ
Total Recoverable Thallium	0.90 µg/L monthly average 0.90 µg/L daily maximum	PJ
Total Recoverable Zinc	100 µg/L monthly average 190 µg/L daily maximum	PJ
Total Recoverable Cadmium	1.4 µg/L monthly average 2.6 µg/L daily maximum	PJ
Total Recoverable Arsenic	240 µg/L monthly average 440 µg/L daily maximum	PJ
Total Recoverable Chromium III	100 µg/L monthly average 190 µg/L daily maximum	PJ
Total Recoverable Lead	17 µg/L monthly average 31 µg/L daily maximum	PJ
Total Recoverable Mercury	1.2 µg/L monthly average 2.2 µg/L daily maximum	PJ
Total Recoverable Cobalt	Monitoring Only	PJ
Total Petroleum Hydrocarbons	Monitoring Only	PJ
Total Recoverable Iron	Monitoring Only	PJ
Total Recoverable Boron	Monitoring Only	PJ
Total Recoverable Selenium	7.7 µg/L monthly average 14 µg/L daily maximum	PJ
Total Recoverable Vanadium	Monitoring Only	PJ
Total Recoverable Aluminum	Monitoring Only	PJ
Oil and Grease	15 mg/L monthly average 20 mg/L daily maximum	Federal Effluent Guidelines - BPT
Whole Effluent Toxicity (WET) Limitation - Acute, *Ceriodaphnia dubia* and *Pimephales promelas*	NOAEC = 100%	PJ
WET Limitation - Chronic, *Ceriodaphnia dubia* and *Pimephales promelas*	2.85 TU_c	PJ
Total Recoverable Beryllium	Monitoring Only	PJ
Total Recoverable Antimony	1,300 µg/L monthly average 1,300 µg/L daily maximum	PJ
Outfall 002 – Condenser Cooling Water from Unit 3		

Flow	Monitoring only	PJ
Total Residual Chlorine	22 µg/L monthly average 32 µg/L daily maximum	WQBEL
Dissolved Copper	Monitoring only	PJ
Temperature	Monitoring only	PJ
Heat Rejected	6.52 x 10^8 BTU/Hour	Water Quality Standards (i.e. 316(a) variance)
Outfall 003 – Condenser Cooling Water from Units 4, 5, and 6		
Flow	Monitoring only	PJ
Total Residual Chlorine	11 µg/L monthly average 16 µg/L daily maximum	WQBEL
Temperature	Monitoring only	PJ
Heat Rejected	5.55 x 10^9 BTU/Hour	Water Quality Standards (i.e. 316(a) variance)
Outfall 301 – LVWWTS		
Flow	6.0 MGD daily maximum	PJ
pH	6.0 SU minimum 9.0 SU maximum	Federal Effluent Guidelines – BPT*
TSS	30 mg/L monthly average 50 mg/L daily maximum	Federal Effluent Guidelines – BPT, PJ
TRC	180 µg/L monthly average 180 µg/L daily maximum	WQBEL
Ammonia	235 kg/d (daily maximum)	PJ
Total Recoverable Copper	72 µg/L monthly average 72 µg/L daily maximum	WQBEL
Chloride	3100 mg/L monthly average 3100 mg/L daily maximum	WQBEL
Total Recoverable Nickel	230 µg/L monthly average 230 µg/L daily maximum	WQBEL
Total Recoverable Zinc	900 µg/L monthly average 900 µg/L daily maximum	WQBEL
Heptachlor	Monitoring only	PJ
Oil and Grease	15 mg/L monthly average 20 mg/L daily maximum	Federal Effluent Guidelines - BPT
Outfall 302 – FGD WWTP		
Flow	Monitoring only	PJ
pH	Monitoring only	PJ - Internal outfall to 301. pH limited at outlet of LVWWTS.

TSS	30 mg/L and either 12 or 34 Kg/d monthly average*** 100 mg/L and either 42 or 114 Kg/d daily maximum***	Federal Effluent Guidelines – BPT and BAT
Total Recoverable Arsenic	8 µg/L monthly average** 11 µg/L daily maximum	Federal Effluent Guidelines – BAT*
Total Recoverable Mercury	356 ng/L monthly average** 788 ng/L daily maximum	Federal Effluent Guidelines – BAT
Nitrate/Nitrite as N	4.4 mg/L monthly average** 17 mg/L daily maximum	Federal Effluent Guidelines – BAT
Total Recoverable Selenium	12 µg/L monthly average** 23 µg/L daily maximum	Federal Effluent Guidelines – BAT
Oil and Grease	15 mg/L monthly average 20 mg/L daily maximum	Federal Effluent Guidelines – BPT
Outfall 303 – Metal Cleaning Waste Treatment Basin		
Flow	Monitoring only	PJ
pH	Monitoring only	PJ - Internal outfall to 301. pH limited at outlet of LVWWTS.
TSS	30 mg/L monthly average 100 mg/L daily maximum	Federal Effluent Guidelines – BPT
Total Recoverable Copper	1.0 mg/L monthly average 1.0 mg/L daily maximum	Federal Effluent Guidelines – BPT/BAT
Total Recoverable Iron	1.0 mg/L monthly average 1.0 mg/L daily maximum	Federal Effluent Guidelines – BPT/BAT
Oil and Grease	15 mg/L monthly average 20 mg/L daily maximum	Federal Effluent Guidelines – BPT
Outfall 304 – Combustion Residual Leachate		
Flow	Monitoring only	PJ
pH	Monitoring only	PJ - Internal outfall to 301. pH limited at outlet of LVWWTS.
TSS	30 mg/L monthly average 100 mg/L daily maximum	PJ
Total Recoverable Arsenic	8 µg/L monthly average 11 µg/L daily maximum	PJ
Total Recoverable Mercury	356 ng/L monthly average 788 ng/L daily maximum	PJ
Oil and Grease	15 mg/L monthly average 20 mg/L daily maximum	PJ
Outfall 305 – Coal Pile Runoff		
Flow	Monitoring only	PJ
TSS	50 mg/L instantaneous maximum	Federal Effluent Guidelines – BPT

Outfall 004 – Pre-Drawdown[(1)]			
Flow	Monitoring only		PJ
pH	6.0 daily minimum 9.0 daily maximum		Water Quality Standards, Federal Effluent Guidelines – BPT
Total Suspended Solids	30 mg/L monthly average 88 mg/L daily maximum		Federal Effluent Guidelines – BPT
Dissolved Oxygen	Monitoring only		PJ
Ammonia as N	0.61 mg/L monthly average 0.80 mg/L daily maximum**	235 kg/d	WQBEL, PJ
Total Organic Carbon	110 mg/L daily maximum		PJ – taken from previous bulk oil guidance to address releases of oily water to ash pond.
Total Recoverable Thallium	0.47 µg/L monthly average 0.47 µg/L daily maximum**		HHBEL
Total Petroleum Hydrocarbons	Monitoring only		PJ – see explanation for Total Organic Carbon below.
Total Recoverable Selenium	5.9 µg/L monthly average 7.3 µg/L daily maximum**		WQBEL
Oil and Grease	15 mg/L monthly average 20 mg/L daily maximum		Federal Effluent Guidelines - BPT
WET Limitation	1.36 TU_c		Reasonable potential analysis of WET data.
Outfall 401 – Metal Cleaning Waste Treatment Basin			
Flow	Monitoring only		PJ
pH	Monitoring only		PJ - Internal discharge to LAP (Outfall 004). pH limited on discharge from ash pond.
Total Suspended Solids	30 mg/L monthly average 100 mg/L daily maximum		Federal Effluent Guidelines – BPT
Total Recoverable Copper	1.0 mg/L monthly average 1.0 mg/L daily maximum		Federal Effluent Guidelines – BPT/BAT
Total Recoverable Iron	1.0 mg/L monthly average 1.0 mg/L daily maximum		Federal Effluent Guidelines – BPT/BAT
Oil and Grease	15 mg/L monthly average 20 mg/L daily maximum		Federal Effluent Guidelines – BPT
Outfall 402 – FGD WWTP			
Flow	Monitoring only		PJ
pH	Monitoring only		PJ - Internal discharge to LAP (Outfall 004). pH limited on discharge from ash pond.

TSS	30 mg/L and 12 Kg/d monthly average 100 mg/L and 42 Kg/d daily maximum	Federal Effluent Guidelines – BPT and BAT
Total Recoverable Arsenic	8 µg/L monthly average** 11 µg/L daily maximum	EPA Comments, Federal Effluent Guidelines – BAT
Total Recoverable Mercury	356 ng/L monthly average** 788 ng/L daily maximum	EPA Comments, Federal Effluent Guidelines – BAT
Nitrate/Nitrite as N	4.4 mg/L monthly average** 17 mg/L daily maximum	EPA Comments, Federal Effluent Guidelines – BAT
Total Recoverable Selenium	12 µg/L monthly average** 23 µg/L daily maximum	EPA Comments, Federal Effluent Guidelines – BAT
Oil and Grease	15 mg/L monthly average 20 mg/L daily maximum	Federal Effluent Guidelines – BPT
Outfall 005 – Pre-Drawdown(1)		
Flow	Monitoring only	PJ
pH	6.0 daily minimum 9.0 daily maximum	Water Quality Standards, Federal Effluent Guidelines - BPT
Total Suspended Solids	30 mg/L and 460 Kg/d monthly average 100 mg/L and 1530 Kg/d daily maximum	Federal Effluent Guidelines – BPT and BAT
Dissolved Oxygen	Monitoring Only	PJ
Oil and Grease	15 mg/L monthly average 20 mg/L daily maximum	Federal Effluent Guidelines – BPT

* Acronyms from Federal Effluent Guidelines:

BPT – Best Practical Treatment
BAT – Best Available Treatment
PJ – Professional Judgment
WQBEL – Water Quality Based Limit
HHBEL – Human Health Based Limit

**Final limitations – A compliance schedule is included in this permit for internal Outfalls 301, 302 and 402, 304, and 004. See item 19 for further discussion.

*** Lower loading limit applies if combustion residual leachate from the Fossil Fuel Combustion Product (FFCP) Management facility is separately treated and discharged to Outfall 301; higher loading limit applies if combustion residual leachate is directed to the FGD WTP for treatment and discharge through Outfall 302.

(1) See Pre-Drawdown/Closure discussion below for the UAP and LAP.

The final rule for the Federal Effluent Guidelines (FEGs) for the Steam Electric Power Generating Point Source Category was signed September 30, 2015, published in the Federal Register on November 3, 2015, and becomes effective January 4, 2016. These FEGs replaced the original rule signed in 1982. However, EPA did not change the applicability date for new source performance standards, November 19, 1982. Therefore, any power generating unit put into operation after November 19, 1982 is considered a new source. Chesterfield Power Station was put in operation in 1945. Units 3 through 6 were put in service in 1952 (Unit 3), 1960 (Unit 4), 1964 (Unit 5) and 1969 (Unit 6). Consequently, Units 3 through 6 are considered existing generating sources and not subject to New Source Performance Standards. Units 7 and 8 were put in service in 1990 and 1992, respectively. Because these units were

put in service after 1982, the isolated discharge from these units, noncontact cooling water to Outfall 001, is subject to New Source Performance Standards (NSPS).

In the reissuance of this permit, DEQ used water quality-based reasonable potential analyses and professional judgment to develop limitations for pollutants not addressed under the federal effluent limitation guidelines (FEGs) for steam electric power plants.

Effluent limitations for discharges from the UAP and LAP were developed for two distinct phases of operation: operation prior to closure activities (Outfalls 004 and 005 – Pre-Drawdown) and operation during closure activities (Outfall 101 – UAP and LAP Effluent - Closure). Pre-drawdown activities are discussed below under the individual outfalls. Closure activities are addressed below in the Outfall 101 discussion.

Reasonable Potential Evaluations to determine the need for Water Quality Based (WQ-based) effluent limitations are included in **Attachment 5.a.** through **5.f.** Documentation of ammonia and nutrient evaluations is also included in **Attachment 5.g.** and **5.h**.

Outfalls 001-003:
NOTE: Neither limitations nor monitoring requirements for pH are included on Outfalls 001, 002, and 003, which are non-contact, once-through cooling water outfalls. The Federal Effluent Guidelines for Steam Electric Power do not impose pH limitations on non-contact, once-through cooling water discharges. No reasonable potential exists for the pH of the cooling water or the receiving stream to be changed even in the event of equipment failure. In addition, the permittee has no control over the pH of the intake water and no reasonable remedy is available to the permittee if the intake water fails to meet the applicable water quality standards.

TRC: Outfalls 001 through 003 are assigned TRC limitations based on the Water Quality reasonable potential analyses in **Attachment 5.a**. and **b**. Outfall 001 is also subject to FEG [40CFR 423.15(a)(8)(i)] NSPS Effluent Limitations of 0.20 mg/L. Outfalls 002 and 003 are also subject to FEG [40CFR 423.13(b)(1)] BAT Effluent Limitations of 0.20 mg/L. The WQ-based effluent limitations are assigned because they are more stringent than the FEG technology based limitations.

Heat Rejected: The Heat Rejected limitations are supported by the 316(a) variance approved with the 2004 permit reissuance. The limitations are appropriate to ensure that heat rejection does not exceed the values in the 316(a) study. See **Attachment 7** for additional discussion.

See **Attachments 5.a and 5.b** for additional discussion.

Outfall 101:
Closure activities will include the drawdown and dewatering of the wastewater in the UAP and LAP in preparation of capping and closing in place the CCRs. Drawdown in both ponds will involve pumping down free standing water below existing outfall structures to the settled CCR layers. Dewatering will involve the pumping of pore water or interstitial water from the CCRs. For the purposes of effluent limitation development, it is assumed that the dewatering wastewater will have the highest concentrations of pollutants as it has the closest contact with the CCRs. During the development of the CCR rule, EPA identified 23 pollutants known to be present in CCRs that present potential hazards to human health and ecological receptors. In addition, the permittee simulated four dewatering events and analyzed the samples for a wide range of pollutants. The results of these samples along with EPA's list of pollutants were used to determine the appropriate parameters to evaluate and the necessary effluent limitations for each parameter during closure activities. See **Attachment 5.f** for further discussion on the effluent limitation development. The closure effluent limitations become effective upon intentional drawdown of the water elevation below 2 feet 2 inches from the top of the concrete outfall structure for Outfall 004 and 15 feet 6 inches from the top of the concrete outfall structure for Outfall 005, whichever occurs first.

Flow: The estimated discharge flow rate during closure activities is 5.0 MGD. This rate is based on information provided by the permittee. It considers the estimated drawdown volume and the estimated timeframe for closure.

pH, TSS, O&G: These limitation and monitoring requirements are included to satisfy the requirements of 40CFR 423. The TSS concentration is set equal to that calculated for Outfall 004 in consideration of the waste streams historically discharged into the Lower Ash Pond.

DO, TOC, TPH: These limitation and monitoring requirements are carried forward from the pre-drawdown operations at the LAP and UAP – Outfalls 004 and 005, respectively.

Total Residual Chlorine, Total Recoverable Copper, Dissolved Chromium VI, Total Hardness (as $CaCO_3$), Chloride, Total Recoverable Nickel, Total Recoverable Silver, Total Recoverable Thallium, Total Recoverable Zinc, Total Recoverable Cadmium, Total Recoverable Arsenic, Total Recoverable Chromium III, Total Recoverable Lead, Total Recoverable Mercury, Total Recoverable Selenium, Total Recoverable Antimony: See **Attachment 5.f** for further discussion of effluent limitation development for this outfall. Many of the parameters requiring monitoring and limits are metals. Therefore, total hardness monitoring is required based on PJ.

Total Recoverable Molybdenum, Total Recoverable Barium, Total Recoverable Cobalt, Total Recoverable Iron, Total Recoverable Boron, Total Recoverable Vanadium, Total Recoverable Aluminum, Total Recoverable Beryllium: No applicable Virginia WQS exist for these parameters. In lieu of limits for these parameters, WET limitations were developed to identify any potential toxicity issues associated with the discharge of these pollutants. Monitoring concurrent with the WET monitoring is required in this permit. Should any toxicity be demonstrated through the WET monitoring, the concurrent monitoring for the parameters above will assist in identifying the source of the toxicity.

WET Limitations: As discussed above, closure activities are assumed to be a worst case scenario discharge from this outfall. To address the potential toxic characteristics of the closure discharge and to provide limitations on parameters known to be present in CCRs for which there are no water quality standards, acute and chronic WET testing limitations are added to this permit. See **Attachment 5.f** and **Attachment 9** for further discussion of effluent limitation development for this outfall.

Outfall 301:
As described above in item 10, Outfall 301 will discharge wastewater from the LVWWTS. The LVWWTS will treat low volume wastes that have historically been treated in the LAP and UAP and includes, but is not limited to, treated FGD wastewater, treated metals pond wastewater, leachate wastewater, coal pile runoff, and toe drain wastewater from the UAP. It should be noted that pretreatment of the FGD wastewater, leachate and coal pile runoff will ultimately be provided in advance of the LVWWTS. At the time that the LVWWTS commences discharging, the facility will have converted to a dry ash management system; therefore, no ash sluice water will be routed to the LVWWTS.

The final FEGs require specific monitoring and numerical limits for FGD wastewaters prior to comingling with any other low volume wastewaters. In accordance with the FEGs and at the request of EPA, a new internal outfall (302) is established in this reissuance to isolate and characterize the FGD waste stream. See Outfall 302 below for additional details.

The FEGs require specific monitoring and numerical limits for metal cleaning wastes prior to comingling with the low volume wastewaters. In accordance with the FEGs, internal outfall 303 (previously 104 in the 2004 permit) is carried forward in this reissuance to isolate and characterize the metals cleaning pond waste stream. See Outfall 303 below for additional details.

Numerical limitations for leachate from the FFCP Management Facility are required in this permit. The limitations reflect the New Source Performance Standards for leachate wastewater in 40CFR 423.1(b), but are included in the permit based on professional judgment. See Outfall 304 below for additional details.

The FEGs require specific monitoring and numerical limits for coal pile runoff. In accordance with the FEGs, an internal outfall (305) is established in this reissuance to isolate and characterize the coal pile runoff waste stream. See Outfall 305 below for additional details.

Toe drain wastewater is comingled with the other low volume wastewaters described above in item 10. The comingled wastewater is evaluated for reasonable potential as described below and in **Attachment 5.c**. Only waste streams from the metals cleaning pond, FGD WWTP, FFCP

Management Facility, and coal pile runoff, have internal outfalls with applicable effluent limitations prior to comingling with other low volume wastewaters.

WQ-based effluent monitoring and limitations are typically developed using ambient flow data. In this case the outfall is an internal outfall to the 003 cooling water discharge channel. In order to determine ambient flows for use in the reasonable potential analysis, daily flow data from Outfall 003 were evaluated to determine the 1Q10, 7Q10, 30Q10, 30Q5, and harmonic mean flows. The application addendum (See **Attachment 4.a**) received from the permittee on May 5, 2016 indicated that the low flows reflected in the previous ten years are not representative of normal operating conditions. The addendum asserts that 57.28 MGD is an appropriate minimum process-driven flow for Outfall 003. Given this information, the evaluation has been adjusted to reflect minimum 1Q10 and 7Q10 flows of 57.28 MGD. In addition, minimum daily flow monitoring and reporting has been added for Outfall 003 and a prohibition on the discharge from Outfall 301 has been added when the flow from 003 is less than 57.28 MGD. See **Attachments 4.b** and **5.c** for further discussion.

pH, Total Suspended Solids (TSS), Oil and Grease (O&G): Effluent limitation requirements for these parameters for internal outfall 301 are derived from FEGs [40CFR 423.12(b)]. Coal pile runoff is one of the low volume wastewater sources to outfall 301 (See Wastewater Summary Table in Item 10). The FEG-BPT require a TSS maximum concentration of 50 mg/L [40CFR 423.12(b)(9)]. In the application addendum dated May 5, 2016, the permittee indicated treatment will be installed to address coal pile runoff as an isolated wastestream. However, that treatment is not anticipated until after the LVWWTS is operating and discharging. Therefore, the most stringent maximum TSS concentration limitation, 50 mg/L, is applied to Outfall 301.

Total Recoverable Copper, Chloride, TRC, Total Recoverable Nickel, Total Recoverable Zinc: These limitations are water quality based effluent limitations developed through the reasonable potential analysis. Worst case scenario pollutant concentrations for TRC and chloride presented with the October 19, 2015 additional information submittal indicated the need for further evaluation of water quality-based limits. The permittee felt that the concentrations for TRC and chloride were anomalous. Chlorine is not introduced anywhere in the treatment processes going to Outfall 301, so elevated concentrations would not be expected. Chloride is an expected pollutant from the FGD WWTP; however, not from the Master sump and yard sump waste streams which are primarily stormwater. The permittee conducted another round of sampling at the individual waste streams and found TRC and chloride concentrations in line with the expected levels. Despite the new data, the reasonable potential analyses indicated that limitations for TRC and chloride are still needed. See **Attachment 5.c** for additional discussion.

Heptachlor: Monitoring is required for this parameter on a semi-annual basis (1 per 6 months). See **Attachment 5.c** for additional discussion.

Ammonia: A loading limit for ammonia identical to the limit developed for Outfall 004 is included in Outfall 301. See **Attachment 5.g** for further discussion.

Outfall 302:
pH: Only pH monitoring is required at this internal outfall. Compliance with pH limitations per 40CFR 423.12(b)(1) is determined at Outfall 301.

TSS, O&G: Effluent limitations for these pollutants are derived from the FEG-BPT [40CFR 423.12(b)(11)].

Total Recoverable Arsenic, Total Recoverable Mercury, Total Recoverable Selenium, Nitrate/Nitrite as N: Effluent limitations for these pollutants are derived from FEG-BAT [40CFR 423.13(g)(1)(i)]. New source performance standards (NSPS) are not applicable to this discharge. *New source* is defined in the Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation [9 VAC 25-31-10]. In referencing new sources, the preamble of 40CFR 423 consistently refers to new sources as new power generating units. Although wastewater from the FGD units (installed on power generating units 3, 4, 5, and 6) is a new wastestream, the power generating units are existing. The only new generating units are units 7 and 8 which are natural gas-fired units. The only wastestream associated with units 7 and 8 is non-contact cooling water, and NSPS have been applied to this wastestream.

Outfall 303:
pH: Only pH monitoring is required at this internal outfall. Compliance with pH limitations per 40CFR 423.12(b)(1) is determined at Outfall 301.

TSS, O&G: Effluent limitations for these pollutants are derived from the FEG-BPT [40CFR 423.12(b)(5)].

Total Recoverable Copper, Total Recoverable Iron: Effluent limitations for these pollutants are derived from FEG-BPT/BAT [40CFR 423.12(b)(5) and 40CFR 423.13(e)].

Outfall 304:
As discussed above, 40CFR Part 423, Federal Effluent Guidelines and Standards for the Steam Electric Power Generating Point Source Category published by EPA as a final rule in the Federal Register on November 3, 2015 applies to discharges from this facility.

The new rule establishes effluent limitation guidelines that apply to combustion residual leachate for existing and new sources. "New source" is defined at 9 VAC 25-31-10. This definition applies unless the applicable new source performance standard otherwise defines "new source." The FEG Technical Development Document and final rule refer to new and existing sources in terms of power generating units. §423.15 requires that NSPS apply to any new source as of November 19, 1982. The permittee has four coal fired power generating units that produce combustion residuals, the most recent of which was put in service in May of 1969. Consequently, the combustion residual leachate generated by the proposed landfill is technically considered an existing source under the FEGs.

The VPDES Regulation, at 9 VAC 25-31-210 and 220, provides for the establishment of permit conditions, including effluent limitations, on a case-by-case basis, to assure compliance with the requirements of the State Water Control Law. As discussed in the Guidance on Preparing VPDES Permit Limits Memo No. 00-2011, state law does not prescribe the method by which such case-by-case decisions are made but rather indicates that the decision may "consider available or installed technology, the required water quality or any combination of these considerations."

New source performance standards recognize that the owners of new sources have the opportunity to incorporate into their operations the best available demonstrated control technologies. The permittee has proposed a new landfill to receive coal combustion residuals upon the facility's conversion to dry ash management. Combustion residual leachate from that landfill will be a new wastestream. The technology required to treat to NSPS standards for combustion residual leachate is also required for the BAT standards for the FGD. Because the permittee is subject to the BAT standards for the FGD wastestream, the necessary treatment technology is available and will be installed at the permitted facility. Consequently, it is the Department's professional judgment to apply NSPS to the combustion residual leachate.

Section XVI.A.1 of the 11/3/15 publication of the federal register (Vol. 80; No.212) of the final steam electric guidelines rule addresses timing of implementation. There is no extended implementation period for new sources under the rule. This requirement is based on the fact that new sources have the opportunity to install treatment prior to the generation of the wastestream. In this case, the permittee is already generating the ash and will have to convert to dry ash management to meet the requirements of the CCR rule and the Steam Electric Guidelines. Consequently, landfill leachate may be generated before the appropriate treatment can be designed, constructed and commissioned. Given these circumstances and the fact that the limitations are assigned based on Professional Judgment and in accordance with 9VAC25-31-250, a compliance schedule of 4 years is proposed to allow the permittee to design, construct and commission a combustion residual leachate treatment facility to meet the assigned limitations. Alternatively, the combustion residual leachate may be redirected to the FGD WWTP. The NSPS guidelines for combustion residual leachate address arsenic and mercury. The concentrations are equivalent to the BAT guidelines for FGD wastewater. 423.13(n) of the guidelines states that "in the event that wastestreams from various sources are combined for treatment or discharge, the quantity of each pollutant property…attributable to each controlled waste source shall not exceed the specified limitation for that waste source." Because the guidelines for arsenic and mercury are the same for both wastestreams, the wastestreams may be combined for treatment and discharge without adjusting the corresponding limitations. See FS section 19 for further discussion of compliance schedules.

pH, TSS, Total Recoverable Arsenic, Total Recoverable Mercury, O&G: Effluent monitoring and limitations for these parameters are included in the permit based on PJ. The numerical limitations are taken from 40CFR 423.15(b)(3) and (b)(16).

Outfall 305:

TSS: The effluent limitation for this pollutant is derived from FEG-BPT [40CFR 423.12(b)(9)]. The guidelines [40CFR 423.12(b)(10)] specify that "any untreated overflow from facilities designed, constructed and operated to treat the volume of coal pile runoff which is associated with a 10 year, 24 hour rainfall event shall not be subject to the [TSS] limitation…" The current facility is designed and operated to direct a 10 year 24 hour storm event to the LAP for treatment prior to discharge to Outfall 004. Phase I of the Integrated Ash Plan involves construction of a coal pile basin, which will be designed and operated to contain a 25 year 24 hour storm event. This basin will discharge to the LVWWTS for treatment and ultimately to Outfall 301. Overflows from the coal pile runoff basins exceeding the design storm event will be directed to the thermal channel and ultimately, Outfall 003. These overflows are not subject to effluent limitations.

Outfall 004 – Pre-Drawdown:
During pre-drawdown activities, Outfall 004 will operate as it has historically, decanting, by gravity, free standing wastewater in the LAP. This wastewater is made up of various low volume waste streams including but not limited to treated metals cleaning wastewater, treated FGD wastewater, and wastewater from toe drains around the LAP.

The FEGs require specific monitoring and numerical limits for metal cleaning wastes prior to comingling with any other low volume wastewaters. In accordance with the FEGs, internal outfall 401 (previously 104 in the 2004 permit) is carried forward in this reissuance to isolate and characterize the metals cleaning pond waste stream. See Outfall 401 below for additional details.

The final FEGs require specific monitoring and numerical limits for FGD wastewaters prior to comingling with any other low volume wastewaters. In accordance with the FEGs and at the request of EPA, a new internal outfall (402) is established in this reissuance to isolate and characterize the FGD waste stream. See Outfall 402 below for additional details.

Toe drain wastewater is comingled with the other low volume wastewaters described above in item 10. The comingled wastewater is evaluated for reasonable potential as described below and in **Attachment 5.d**. Only waste streams from the metals cleaning pond and FGD WWTP have internal outfalls with applicable effluent limitations prior to comingling with other low volume wastewaters.

All priority pollutants have been analyzed for reasonable potential (using the conservative assumptions of EPA's guidance: Technical Support Document for Water Quality Based Toxics Control, 1991) of exceeding water quality criteria and all applicable water quality based limits are imposed. See **Attachment 5.d** for further discussion. To address narrative standards, the permit also includes whole effluent toxicity limits (See **Attachment 9**). Seepage discharge from the impoundments to the receiving stream is addressed through the ground water monitoring discussed in Part 20.g of the Fact Sheet. All Pre-Drawdown monitoring and limitations are in effect until closure activities are initiated as defined by Part I.C.25.

The WQBELs discussed below were developed using no dilution from the receiving stream. See **Attachment 5.c** for further discussion.

pH: The limitation is based on the Water Quality Standards (WQS) for Class III receiving streams (9VAC25-260-50). 40CFR 423.12(b)(1) requires all discharges, except once through cooling water, to meet the pH limitations. The limitation is also consistent with the Industrial Storm Water General Permit, Sector O coal pile runoff pH limitations.

TSS and O&G: These limitations for Outfall 004 are based on the technology limitations from the FEGs [40CFR 423.12.(b)(3) and (4)] for low volume waste and fly ash and bottom ash transport water. Outfall 004 also receives coal pile runoff, which makes up 0.128 MGD (during a 1" rainfall) of the 10.3 MGD 10^{th} percentile flow reported in the DMRs over the last three years. The FEG-BPT effluent limitation for coal pile runoff is a daily maximum TSS concentration of 50 mg/L [40CFR 423.12.(b)(9)]. The FEGs (40CFR 423.12(b)(10)) provide an exception to the 50 mg/L technology standard for "untreated overflow

from facilities designed, constructed, and operated to treat the volume of coal pile runoff associated with a 10 year, 24 hour rainfall event..." This exception does not apply to the LAP because the effluent receives settling treatment. The FEGs establish a 100 mg/L limit in the other applicable sections (40CFR 423.12.(b)(3) and (4)), for the contributing flows to Outfall 004 aside from coal pile runoff. 40CFR 423.12 (b)(12) states: *"in the event that waste streams from various sources are combined for treatment or discharge, the quantity of each pollutant or pollutant property controlled in paragraphs (b)(1) through (11) of this section attributable to each controlled waste source shall not exceed the specified limitations for that waste source."* Consequently, the FEGs authorize the application of limitations based on a mass balance approach. Given the variable flows from the coal pile runoff, a conservative estimate of the flow contribution (i.e., the highest flows from the coal pile runoff) was calculated based on a 25 year 24 hour storm event with no infiltration. The resulting flow rate is 2.4 MGD. This flow rate was used with a conservative estimate of total flow (i.e., 10th percentile flows reported over the last three years) to calculate the flow weighted average concentration as follows:

$$\frac{[(7.9\ \text{MGD} * 100\ \text{mg/L}) + (2.4\ \text{MGD} * 50\ \text{mg/L})]}{10.3\ \text{MGD}} = 88\ \text{mg/L}$$

A compliance schedule is not appropriate as the Federal Regulations required compliance no later than July 1, 1977 (40CFR 401.12(b)).

After November 1, 2018, the contents of the Lower Ash Pond become "legacy wastewaters" and are subject to load limits in addition to the concentration limits.

Furthermore, the DMR data summary indicates that the facility is already in compliance with the reduced limitation for TSS.

Dissolved Oxygen: Monitoring for this parameter was initially introduced in the 1991 permit. The DMR data summary in **Attachment 4.a** does not indicate any violations of the Class II dissolved oxygen criterion (9VAC25-260-50) of 5.0 mg/L daily average. However, monitoring is beneficial to demonstrate that the discharges continue to maintain the criteria. Consequently, the monitoring is carried forward in this reissuance.

Ammonia as N, Total Recoverable Selenium: These limitations are water quality based effluent limitation developed through the reasonable potential analysis. A compliance schedule for these limitations is included in the permit. See Item 19 below for further discussion on the compliance schedule. See **Attachment 5.d** for further discussion on these limitations.

An ammonia loading limit was included to ensure conformance with the Richmond-Crater Water Quality Management Plan (WQMP). See **Attachment 5.g** for further discussion.

Total Recoverable Thallium: Effluent limitations for thallium are based on human health standards. A compliance schedule for this limitation is included in the permit. See Item 19 below for further discussion on the compliance schedule. See **Attachment 5.d** for additional discussion.

Total Petroleum Hydrocarbons (TPH) and Total Organic Carbon (TOC): The limitation for TOC and monitoring for TPH are assigned to Outfall 004 based on PJ to address potentially oily wastewater directed to Outfall 004 through the master sump. Storm water from oil storage containments is directed to the master sump and ultimately Outfall 004. The limitation and monitoring were originally based on the Bulk Oil Facility Guidance Memo 97-2002. Although the guidance suggests a limitation for TPH of 30 mg/L monthly average, O&G was already limited at this outfall at 15 mg/L monthly average. Consequently, the O&G limitation provided sufficient control of TPH in facility discharges. The Petroleum Contamination General Permit (GP) adopted February 26, 2013 contains a maximum daily TPH limitation of 15 mg/L for discharges contaminated by petroleum products other than gasoline. The fact sheet for this GP further states that while O&G has historically been the parameter used for potential sources of petroleum hydrocarbons, DEQ recently "determined that the oil & grease analytical method is better suited for detection of animal and vegetable fats rather than petroleum." Therefore, a TPH effluent limit is used in the GP in lieu of O&G. However, in this permit, the O&G limitation is based on the FEG (40 CFR 423.12(b)(3)), so the limited parameter cannot be substituted while maintaining

compliance with federal law. A review of the DMR data indicates that, like O&G, TPH is consistently reported as less than quantifiable, demonstrating no reasonable need for a TPH effluent limit at this time. In order to continue accurately monitoring petroleum in the effluent, TPH monitoring is carried forward in this reissuance; however, daily maximum reporting is required in lieu of monthly average to be consistent with the Petroleum GP guidance.

WET Limitation: A more stringent WET limitation was developed for the outfall per the discussion in **Attachment 9**.

Outfall 401:
pH: Only pH monitoring is required at this internal outfall. Compliance with pH limitations per 40CFR 423.12(b)(1) is determined at Outfall 004.

TSS, O&G: Effluent limitations for these pollutants are derived from the FEG-BPT [40CFR 423.12(b)(5)].

Total Recoverable Copper, Total Recoverable Iron: Effluent limitations for these pollutants are derived from FEG-BPT/BAT [40CFR 423.12(b)(5) and 40CFR 423.13(e)].

Outfall 402:
pH: Only pH monitoring is required at this internal outfall. Compliance with pH limitations per 40CFR 423.12(b)(1) is determined at Outfall 004.

TSS, O&G: Effluent limitations for these pollutants are derived from the FEG-BPT [40CFR 423.12(b)(11)].

Total Recoverable Arsenic, Total Recoverable Mercury, Total Recoverable Selenium, Nitrate/Nitrite as N: All effluent limitation requirements for internal outfall 402 are derived from the FEGs [40CFR 423.13(g)(1)(i)]. See the discussion above for Internal Outfall 302 for a discussion of NSPS.

Once the conversion to dry ash management occurs and the LVWWTS is functional, Outfalls 401 and 402 will be converted to Outfalls 303 and 302, respectively.

Outfall 005 – Pre-Drawdown:
Pre-Drawdown limitations have been developed similarly to those for Outfall 004 – Pre-Drawdown for the treatment pond from which Outfall 005 discharges (see **Attachment 5.e**). Pre-Drawdown limitations are in effect until drawdown activities are initiated as described above in the Outfall 004 – Pre-drawdown discussion.

pH: The limitation is based on the WQS for Class II receiving streams (9VAC25-260-50). 40CFR 423.12(b)(1) requires all discharges, except once through cooling water, to meet the pH limitations.

TSS and O&G: These limitations for Outfall 005 are based on the technology limitations from the FEGs [40CFR Part 423.12(b)(3)] for low volume waste.

Dissolved Oxygen: Monitoring for this parameter was initially introduced in the 1991 permit. The DMR data summary in **Attachment 4.a** does not indicate any violations of the Class II dissolved oxygen criterion (9VAC25-260-50) of 5.0 mg/L daily average. However, monitoring is beneficial to demonstrate that the discharges continue to maintain the criteria. Consequently, the monitoring is carried forward in this reissuance.

18. Antibacksliding: Total phosphorus limitations were removed from Outfalls 001-005. The justification for the removal of these limitations is developed in **Attachments 5.h**. The Total Phosphorus limitations were technology-based. Antibacksliding does not apply to technology-based limitations, unless the proposed relaxation is less stringent than existing FEGs or would not maintain water quality, neither of which is the case for Total Phosphorus at Outfalls 001-005. Outfalls 006-011 are being removed in this reissuance because there is no longer a discharge of pollutants to state waters. According to 9 VAC 25-31-220.L.2, limitations can be made less stringent (or removed) if material and substantial alterations or additions have been made to the facility that would justify less stringent limits. In this case the source of pollutants has been removed, and the effluent now represents river water with no additives. Consequently, antibacksliding does not prohibit the removal of effluent limitations for Outfalls 006-011. See **Attachment 6**.

19. Compliance Schedule – Part I.B: Five compliance schedules are included in this permit: one schedule for Outfall 301, one schedule for Outfalls 302 and 402, one schedule for Outfall 304, and one schedule for Outfall 004.

    Outfall 301 discharges effluent from the LVWWTS. A 4 year schedule of compliance is proposed for WQBELs for copper, chloride, nickel and zinc. 9VAC25-31-250 allows schedules of compliance to be established for "existing sources." While this is a new treatment facility, it will be receiving existing wastestreams that are being redirected away from the LAP to facilitate closure in accordance with the CCR rule. The schedule for pond closure does not allow the permittee sufficient time to design, construct and commission treatment facilities necessary to meet the final limitations prior to the commencement of discharge to the LVWWTS. The proposed four year schedule will allow the permittee to design and build the treatment facilities (including pretreatment for contributing wastestreams) before the limits become effective.

    Outfalls 302 and 402 discharge wastewater from the FGD WWTP during different phases of ash management. The Steam Electric FEGs (40CFR 423, November 3, 2015) require technology-based numerical limitations for total recoverable arsenic, total recoverable mercury, total recoverable selenium, and nitrate/nitrite as N. These limitations are based on FGD treatment technology that includes chemical precipitation and biological treatment. The FEGs [40CFR 423.13(g)(1)(i)] require facilities to meet the effluent limitations for FGD wastewater "as soon as possible beginning November 1, 2018, but no later than December 31, 2023." EPA explains in the preamble to the FEGs (Federal Register, November 3, 2015, p. 67883) that a determination of "as soon as possible" should be based on factors including (a) "time to plan, design, procure, and install equipment;" (b) changes being made at the power station in response to the greenhouse gas regulations and final CCR rule; (c) a commissioning period to optimize the equipment; and "(d) other factors as appropriate." Currently, the FGD WWTP at the facility only includes a chemical precipitation component. DEQ staff has determined the permittee will need additional time beyond November 1, 2018 to plan, design, construct, optimize and commission a biological treatment system at the FGD WWTP. Based on documents submitted by the permittee of schedules needed to plan, design, procure, and install equipment; changes being made at the power station in response to the final CCR rule and other recent federal regulations, and a commissioning period, DEQ staff has determined March 29, 2022 to be the "as soon as possible" date for upgrades and optimization of the equipment to be reasonably expected to be completed. 9VAC25-31-250.A.1 states that when a compliance schedule is specified in a permit to comply with the law, the Clean Water Act (CWA), and regulations, the schedule of compliance "shall require compliance as soon as possible, but not later than the applicable statutory deadline under the CWA." The date of compliance, March 29, 2022, stated in the permit is well before the latest effective date of the federal effluent guidelines for FGD wastewater streams, December 31, 2023, cited in the FEGs. Based on these factors, the compliance schedule is appropriate. Outfall 304 assigns effluent limitations on the landfill leachate discharge consistent with the FEGs applicable to new sources. Section XVI.A.1 of the 11/3/15 publication of the federal register (Vol. 80; No.212) of the final steam electric guidelines rule addresses timing of implementation. There is no extended implementation period for new sources under the rule. This requirement is based on the fact that new sources have the opportunity to install treatment prior to the generation of the wastestream. In this case, the permittee is already generating the ash and will have to convert to dry ash management to meet the requirements of the CCR rule and the Steam Electric Guidelines. Consequently, landfill leachate may be generated before the appropriate treatment can be designed, constructed and commissioned. Given these circumstances and the fact that the limitations are assigned based on Professional Judgment and in accordance with 9VAC25-31-250, a compliance schedule of 4 years is proposed to allow the permittee to design, construct and commission a combustion residual leachate treatment facility to meet the assigned limitations. See **Attachment 3** for a discussion on the permittee's proposed schedule.

    Outfall 004 – Pre-Drawdown has a compliance schedule for ammonia as N, total recoverable thallium, total recoverable selenium, and Chronic WET testing. The permittee will need time to determine the best method for treating the wastewater to meet the water quality based limits and to plan, design, and install any necessary equipment upgrades. 9VAC25-31-250.A.3 allows for compliance schedules to meet "new or more restrictive water quality based effluent limitations," but limits the period of the compliance schedule to the term of the permit. Based on these factors, the compliance schedule is

appropriate. It is likely that due to Dominion's efforts to comply with the CCR rule, the discharge from Outfall 004 will be terminated before the limits become effective.

20. Special Conditions – Part I.C

a. I.C.1. Notification Levels
Rationale: Required by VPDES Permit Regulation, 9VAC25-31-200 A for all manufacturing, commercial, mining, and silvicultural dischargers.

b. I.C.2. Nutrient Reopener
Rationale: 9 VAC 25-40-70.A authorizes DEQ to include technology-based annual concentration limits in the permits of facilities that have installed nutrient control equipment, whether by new construction, expansion or upgrade. 9VAC25-31-390.A authorizes DEQ to modify VPDES permits to promulgate amended water quality standards.

c. I.C.3. Materials Handling/Storage
Rationale: 9VAC25-31-50.A prohibits the discharge of any wastes into State waters unless authorized by permit. Code of Virginia §62.1-44.16 and §62.1-44.17 authorize the Board to regulate the discharge of industrial waste or other waste.

d. I.C.4. Discharge of Chlorine in Cooling Water
Rationale: This special condition prohibits the discharge of chlorine from any one power generating unit for more than 2 hours in any one day unless the utility can demonstrate that it is required for macroinvertebrate control. This 2-hour prohibition is contained in Federal Effluent Guidelines (FEG) as BAT [40CFR 423.13(b)(2)] for Outfalls 002 and 003, and NSPS [40CFR 423.15(a)(8)(ii)] for Outfall 001. This prohibition is different from the 2004 permit. The 2004 permit reflected the FEG for cooling water from a plant with electric generating capacity less than 25 megawatts (MW). The condition is revised to appropriately reflect the FEG requirement for plants with electric generating capacity greater than 25 MW.

e. I.C.5. Operation and Maintenance Manual Requirement
Rationale: Required by Code of Virginia § 62.1-44.16; VPDES Permit Regulation, 9VAC25-31-190 E, and 40CFR 122.41(e). These require proper operation and maintenance of the permitted facility. Compliance with an approved O&M manual ensures this.

f. I.C.6. Discharge of Tank Bottom Waters
Rationale: This special condition prohibits the discharge of tank bottom waters from bulk fuel oil or waste oil storage facilities. This prohibition is consistent with the regulation of bulk petroleum handling facilities and is applicable to this facility because large quantities of fuel oil are stored. This special condition does not prohibit the discharge of tank bottom waters from highly refined lubricating oil tanks. Such discharges would be to the LAP (Outfall 004) and should not pose any problem.

g. I.C.7. Groundwater Monitoring
Rationale: State Water Control Law § 62.1-44.21 authorizes the Board to request information needed to determine impact on State waters. Groundwater monitoring for parameters of concern will indicate whether pond seepage is resulting in violations to the State Water Control Board's Ground Water Standards.

This special condition references a groundwater monitoring program that was approved in 2001. Reference to monitoring around the oil storage facilities was deleted in 2004 because those facilities are now adequately monitored in accordance with the State's Facility and Aboveground Storage Tank (AST) Regulation under file number 4012652. This condition also makes reference to coverage under the Solid Waste program if and when a solid waste permit is issued to supersede the monitoring plan approved by this permit. See rationale in Item 20.h below.

See **Attachment 8** for a complete discussion of groundwater monitoring at the site.

h. I.C.8. Closure Plan for Upper Ash Pond

Rationale: This special condition references the updated closure plan for the Upper Ash Pond approved in 2003 and revised in 2015. EPA issued a Final Rule for the Disposal of Coal Combustion Residuals (CCR) from Electric Utilities on December 19, 2014. The rule established technical requirements for CCR landfills and surface impoundments under Subtitle D of the Resource Conservation and Recovery Act (RCRA). These regulations address the management and disposal of coal ash including stability, groundwater monitoring, and fugitive dust emissions. The federal regulations were adopted into the Virginia Solid Waste Management Regulations and became effective January 27, 2016.

CCR Surface Impoundments have historically been regulated under the VPDES program in Virginia. 9VAC20-81-310 provides the requirements for surface impoundments where closure is not provided for by the VPDES program. The long-term management which may include operational requirements, closure, post-closure, and/or groundwater monitoring of these impoundments will be transitioned to the solid waste program moving forward in accordance with established solid waste program requirements and requirements under the EPA rule as applicable. Existing groundwater monitoring, corrective action and/or risk assessment plans currently in effect under the VPDES permit will remain in effect until such time that they are superseded by a solid waste permit for closure and/or post-closure in accordance with the Virginia Solid Waste Management Regulations (9VAC20-81). It may be necessary to update the VPDES closure plan to comply with the CCR rule prior to issuing a solid waste permit.

i. I.C.9. Discharge of Polychlorinated Biphenyl Compounds
Rationale: This special condition implements a prohibition against the discharge of polychlorinated biphenyl compounds contained in the FEGs [40CFR 423.12(b)(2), 40CFR 423.13(a), and 40CFR 423.15(a)(2)].

j. I.C.10. Low Level PCB Sampling for Internal Outfall 301
Rationale: State Water Control Law §62.1-44.21 authorizes the Board to request information needed to determine the discharge's impact on State waters. To ensure that water quality standards are maintained, the permittee is required to analyze the facility's effluent for the substances noted. The monitoring was included in accordance with GM09-2001.

k. I.C.11. Discharge of Debris from Trash Racks
Rationale: This special condition prohibits the return of debris collected on the intake trash racks to the waterway.

l. I.C.12. Discharges of Uncontaminated River Water
Rationale: This condition identifies sources of uncontaminated river water that the permittee is authorized to discharge directly to the river and not through a permitted outfall. The sources identified in this special condition should be uncontaminated river water which do not have any impact on the receiving stream. The intake screen backwash flows (designated as Outfalls 006-011 in the 2004 permit) were removed from this condition in the 2004 permit as the discharges were incorporated in the Part I.A page to address chlorine use in the system. After relocation of the chlorine injection points, all intake screen backwash discharges now consist of James River water only. Outfalls 006-011 are being removed in this permit reissuance in accordance with the justification in **Attachment 6**, and the screen backwashes returned to this condition.

m. I.C.13. Licensed Operator Requirement
Rationale: Licensed operators are required by VPDES Permit Regulation 9VAC25-31-200 C and the Code of Virginia § 54.1-2300 et seq., Rules and Regulations for Waterworks and Wastewater Works Operators and Onsite Sewage System Professionals (18VAC160-20-10 et seq.).

n. I.C.14. Compliance Reporting
Rationale: Authorized by VPDES Permit Regulation, 9VAC25-31-190.J.4 and 220.I. This condition is necessary when pollutants are monitored by the permittee and a maximum level of quantification and/or a specific analytical method is required in order to assess compliance with a permit limit or to compare effluent quality with a numeric criterion. The condition also establishes protocols for calculation of reported values.

The QLs established in the permit, except for TRC, ammonia, chloride and nitrate-nitrite, are based on actual laboratory capabilities. The QLs for TRC and ammonia are established by GM14-2003, IN-3. The QL for choride and nitrate-nitrite are based on coordination with the permittee.

o. I.C.15. TMDL Reopener
Rationale: Section 303(d) of the Clean Water Act requires that Total Maximum Daily Loads (TMDLs) be developed for streams listed as impaired. This special condition is to allow the permit to be reopened if necessary to bring it into compliance with any applicable TMDL approved for the receiving stream. The re-opener recognizes that, according to Section 402(o)(1) of the Clean Water Act, limits and/or conditions may be either more or less stringent than those contained in this permit. Specifically, they can be relaxed if they are the result of a TMDL, basin plan, or other wasteload allocation prepared under section 303 of the Act.

p. I.C.16. Treatment Works Closure Plan
Rationale: Code of Virginia § 62.1-44.16 of the State Water Control Law supports the requirement to submit and implement a closure plan for a wastewater treatment facility if the treatment facility ceases operations or undergoes new construction or substantial modification.

q. I.C.17. Whole Effluent Toxicity (WET) Program
Rationale: VPDES Permit Regulation, 9VAC25-31-210 and 220.I, requires monitoring in the permit to provide for and assure compliance with all applicable requirements of the State Water Control Law and the Clean Water Act. This industrial category of facilities is identified in Agency guidance for inclusion in the toxics monitoring program.

Special Condition C.17 requires acute and chronic WET testing on Outfalls 001, 002, 003, and 005 – Pre-Drawdown. A chronic limitation and quarterly testing on Outfall 004 – Pre-Drawdown is required in Part I.A.11 and acute and chronic limitations and monthly testing on Outfall 101 is required in Part I.A.2. See **Attachment 9**.

r. I.C.18. Oil Storage Ground Water Monitoring Reopener
Rationale: Reference to bulk oil storage was removed in the 2004 reissuance from the special condition requiring groundwater monitoring because such monitoring is now addressed by the Facility and Aboveground Storage Tank (AST) Regulation, 9VAC25-91-10 et seq. Where potential exists for groundwater pollution and that regulation does not require monitoring, the VPDES permit may require such monitoring under Code of Virginia § 62.1-44.21.

s. I.C.19. Water Quality Criteria Reopener
Rationale: This special condition was added in 2004, in response to public comment specific to the adoption of temperature standards addressing human health. VPDES Permit Regulation, 9VAC25-31-220.D requires effluent limitations to be established which will contribute to the attainment or maintenance of the water quality standards.

t. I.C.20. CER
Rationale: § 62.1-44.16 of the Code of Virginia requires industrial facilities to obtain DEQ approval for proposed discharges of industrial wastewater. A Concept Engineering Report (CER) means a document setting forth preliminary concepts or basic information for the design of industrial wastewater treatment facilities and the supporting calculations for sizing the treatment operations. 9VAC25-40-70.A authorizes DEQ to include technology-based annual concentration limits in the permits of facilities that have installed nutrient control equipment, whether by new construction, expansion or upgrade.

u. I.C.21. Treatment Requirements for the Lower and Upper Ash Pond Closure Discharge
Rationale: Section 62.1-44.21 requires every owner to furnish when requested plans, specification, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. This special condition establishes the enhanced treatment requirements for the wastewater associated with the closure of the UAP and LAP. It also establishes monitoring and reporting requirements in accordance with 9VAC25-31-220.I to ensure compliance with the condition is maintained. See **Attachment**

12 for proposed CER Permit Language submitted in an Application Addendum received May 23, 2016.

v. I.C.22. Outfall 301 – Water Quality Criteria Monitoring
Rationale: This condition was added to the permit to provide effluent characterization for Outfall 301. Worst case concentrations were developed to conduct the reasonable potential analyses for this outfall, but real data is needed to truly characterize the effluent. State Water Control Law §62.1-44.21 authorizes the Board to request information needed to determine the discharge's impact on State waters. To ensure that water quality standards are maintained, the permittee is required to analyze the facility's effluent for the substances noted.

w. I.C.23. Ash Pond Closure Stormwater Management
Rationale: This condition was added to the permit to address industrial stormwater associated with coal ash pond closures that may not be addressed in the Sector O sector specific requirements of Industrial Stormwater General Permit No. VAR051023. The Sector O requirements do not specifically address closure activities for coal ash ponds or impoundments. Sector O does address "residual treatment, storage, or disposal," and "areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water." This condition is intended to regulate stormwater for closure activities such as CCR transport, loading and unloading, and stockpiling. The State Water Control Law §62.1-44.21 authorizes the Board to request information needed to determine the discharge's impact on State waters.

x. I.C.24. Ash Pond Closure Discharge
Rationale: This condition was added to provide clarification on when the closure activity effluent limitations at Outfall 101 become effective during the closure procedures. This condition also defines the reporting requirements prior to and after the initiation of drawdown at the LAP and UAP. The State Water Control Law §62.1-44.21 authorizes the Board to request information needed to determine the discharge's impact on State waters. The water level measurements included in the permit are explained in further detail in **Attachment 3**.

y. I.C.25. Notification of Commencement of Discharge
Rationale: This condition is designed to clarify monitoring and reporting requirements before the commencement of discharge from the LVWWTS. The State Water Control Law §62.1-44.21 authorizes the Board to request information needed to determine the impact on State waters.

z. I.C.26. Cease Discharge Requirements for Outfall 101 – UAP and LAP Effluent - Closure
Rationale: This condition is included to ensure that any discharge from Outfall 101 during closure activities that exceeds established effluent limitations is ceased as soon as possible once the exceedance(s) is discovered. §62.1-44.15.8a grants the Board authority to "issue special orders to owners who are permitting or causing pollution (as defined by §62.1-44.3) of state waters to cease and desist." §62.1-44.5 prohibits discharges except in compliance with the permit. 9VAC25-31-210 allows on a case-by-case basis any conditions required to assure compliance with applicable requirements of the law, the CWA, and regulations. Because the characterization of the discharge during closure activities cannot be fully known in advance, it is appropriate to include this condition to protect water quality.

aa. I.C.27. Pond Closure Drawdown Rate
Rationale: This condition is included to limit the drawdown rate of the ponds in an effort to reduce the risk of dam stability issues during drawdown. The drawdown limit of 2 foot per day was developed based on the estimated flow rate from the ponds, the drawdown volume, the estimated timeframe for closure, and recommendations from DCR's Dam Safety Program staff.

ab. I.C.28. Process Water Conveyance Investigation
Rationale: Section 62.1-44.21 requires every owner to furnish when requested plans, specification, and other pertinent information as may be necessary to determine the effects of the wastes from his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. In recognition of the size, complexity and age of the infrastructure at this permitted facility, a comprehensive investigation is

warranted to identify potential risks and prevent illicit and unauthorized discharges to state waters.

ac. I.C.29 §316(a) Alternate Effluent Limitations

Rationale: VPDES Permit Regulation 9VAC25-31-210.A authorizes the Board to establish permit conditions to provide for and assure compliance with all applicable requirements of the law, the CWA and regulations. Federal regulations at 40CFR §125.72 include a Note stating, *"At the expiration of the permit, any discharger holding a section 316(a) variance should be prepared to support the continuation of the variance with studies based on the discharger's actual operation experience."* This special condition is intended to place the permittee on notice that additional studies are warranted following the expiration of this permit to support the continuation of the thermal variance during the next permit cycle.

The scope of information to be submitted as part of any application for renewal of a §316(a) variance is addressed in federal regulations at 40 CFR §125.72(a) and (b). Alternatively, existing dischargers may base their §316(a) demonstration based on the absence of prior appreciable harm in lieu of predictive studies in accordance with federal criteria and standards established in 40CFR §125.73(c).

Due to the potential interrelationship in the facility's management of its thermal discharges to the compliance strategies to be developed by the facility to address the §316(b) impingement mortality and entrainment standards in Part I.D of this permit, the date for submittal of the results of updated §316(a) updated studies or demonstrations was set equivalent to the Part I.D requirements for submittal of 40CFR §122.21(r) application information addressing the cooling water intake structures at this facility.

21. Special Conditions Part I.D

a. I.D.1 Interim §316(b) Best Technology Available (BTA)

Rationale: VPDES Permit Regulation 9VAC25-31-165.C requires existing facilities with cooling water intake structures to meet the requirements under §316(b) of the Clean Water Act (CWA) determined by the department on a case-by-case, best professional judgment basis. DEQ staff have determined the permitted facility to be subject to the §316(b) requirements because it is a point source that uses or proposes to use one or more cooling water intake structures that withdraws waters of the U.S. for cooling purposes.

Federal regulations at 40CFR §§125.98(b)(5) and (b)(6) mandate that for permits issued before July 14, 2018, for which an alternate schedule has been established for the submission of information required by 40CFR §122.21(r), must include interim BTA requirements in the permit based on best professional judgment on a site-specific basis. This special condition outlines interim BTA practices to minimize impingement and entrainment (I&E) mortality and adverse impacts to aquatic organisms.

The permittee conducted an entrainment characterization study in 2005-2006. The results of the study along with details of the CWIS were published in the *Impingement Mortality and Entrainment Characterization Report, Chesterfield Power Station, June 2005 – May 2006* in August 2007 (See **Attachment 7**). The report described the Ristroph traveling screens, low-pressure wash system, and fish return system used to reduced impingement mortality at the CWIS. This report was used to determine interim BTA for the facility.

b. I.D.2 Impingement and Entrainment Control Technology Preventative Maintenance

Rationale: VPDES Permit Regulation 9VAC25-31-190.E requires the permittee, at all times, to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit.

c. I.D.3 Alternate Schedule for Submittal of 40CFR §122.21(r) Information

Rationale: VPDES Permit Regulation 9VAC25-31-165.C requires existing facilities with cooling water intake structures to meet the requirements under §316(b) of the Clean Water Act (CWA) determined by the department on a case-by-case, best professional judgment (BPJ) basis. Federal regulations at 40CFR §125.95(a)(2) allow for owners or operators of a facility whose

permit expires prior to July 14, 2018 to request the Director establish an alternate schedule for the submission of the information required in 40CFR §122.21(r) when making application for this permit. If the owner or operator of the facility demonstrates that it could not develop the required information by the applicable date of submission, DEQ must establish an alternate schedule for the submission of the required information.

DEQ staff received a written request from the permittee, dated April 24, 2015, requesting an alternate schedule (see **Attachment 7**). Upon review of the request, DEQ staff determined the permittee successfully demonstrated the inability to reasonably develop the required information by their reissuance application due date, thereby qualifying for an alternate schedule to be established.

Federal regulations at 40CFR §125.98(a) requires the review, for completeness, of the materials submitted by the applicant under 40CFR §122.21(r) at the time of any application for a subsequent permit. To facilitate a determination of a timely and complete reissuance application in compliance with Part II.M of this permit, the Alternate Schedule for this facility has been established to require submission of the 40CFR §122.21(r) information to the DEQ-Regional Office by no later than 270 days prior to the expiration date of this permit.

d. I.D.4 Monitoring Requirements
Rationale: VPDES Permit Regulation 9VAC25-31-210.A authorizes the Board to establish permit conditions to provide for and assure compliance with all applicable requirements of the law, the CWA and regulations. Federal regulations at 40CFR §125.96(e) requires visual inspections or the employment of remote monitoring devices to be conducted at least weekly during the period any cooling water intake structure is in operation to ensure any technologies operated are maintained and operated to function as designed, including those installed to protect Federally-listed threatened or endangered species or designated critical habitat.

40 CFR §125.96 authorizes DEQ to establish monitoring requirements, and specific protocols, as appropriate. Provisions for inspection waivers, adverse weather conditions, and deficiency discoveries were developed, using as a foundation, comparable provisions found in the VPDES General Permit for Stormwater Discharges Associated with Industrial Activity, 9VAC 25-151-70, Part I.A.2.e, A.3. and A.6.b.

e. I.D.5 Annual Certification Statement Requirements
Rationale: VPDES Permit Regulation 9VAC25-31-210.A authorizes the Board to establish permit conditions to provide for and assure compliance with all applicable requirements of the law, the CWA and regulations. Federal regulations at 40CFR §125.97(c) requires the permittee to annually submit a certification statement signed by a responsible corporate officer reporting whether there have been substantial modifications to the operation at any unit at the facility that impacts cooling water withdrawals or operation of the cooling water intake structures, or if information contained in the previous year's annual certification remains pertinent.

f. I.D.6 Measures to protect Federally-listed Threatened or Endangered (T&E) species, designated critical habitat, and fragile species or shellfish
Rationale: VPDES Permit Regulation 9VAC25-31-165.C requires existing facilities with cooling water intake structures to meet requirements under section 316(b) of the Clean Water Act determined by the department on a case-by-case, best professional judgment (BPJ) basis. 40CFR §§125.94(a)(1), 125.94(g), 125.96(g), and 125.97(g) authorize DEQ to establish additional control measures, monitoring, and reporting requirements in the permit designed to minimize incidental take, reduce or remove more than minor detrimental effects to Federally-listed threatened or endangered species or designated critical habitat, or avoid jeopardizing Federally-listed species or destroying or adversely modifying designated critical habitat (e.g. prey base).

State Water Control Law §62.1-44.5.A.3 and VPDES Permit Regulation 9VAC25-31-50.A.2 prohibits the alteration of the physical, chemical or biological properties of State waters and making them detrimental to animal or aquatic life, except in compliance with a permit issued by the Board. In addition, VPDES Permit Regulation 9VAC25-31-190.E requires the permittee, at

all times, to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of the permit.

State Water Control Law §62.1-44.21 and VPDES Permit Regulation 9VAC25-31-190.H authorizes the Board to require owners to furnish plans, specifications, and other pertinent information as may be necessary to accomplish the purposes of the State Water Control Law. In addition, federal regulations at 40CFR §125.94(g) and §125.97(e) authorize DEQ to establish additional permit monitoring and reporting requirements. Information provided by the permittee under this special condition may be used as a foundation to address other reporting requirements of 40CFR §125.98(k).

g. I.D.7 Federal Endangered Species Act Compliance
Rationale: State Water Control Law §62.1-44.5.A.3 and VPDES Permit Regulation 9VAC25-31-50.A.2 prohibits the alteration of the physical, chemical or biological properties of State waters and making them detrimental to animal or aquatic life, except in compliance with a permit issued by the Board.

In addition, VPDES Permit Regulation 9VAC25-31-210.A authorizes the Board to establish permit conditions to provide for and assure compliance with all applicable requirements of the law, the CWA and regulations. 40CFR §125.98(j) stipulates that nothing in Subpart J of Part 125 of the Code of Federal Regulations authorizes the take, as defined at 16 U.S.C. 1532(19), of threatened or endangered species of fish or wildlife. Such take is prohibited under the Endangered Species Act unless it is exempted pursuant to 16 U.S.C 1536(o) or permitted pursuant to 16 U.S.C 1539(a). Absent such exemption or permit, any facility must not take threatened or endangered species. 40CFR §125.98(b)(1) requires all NPDES permits for facilities subject to §316(b) of the Clean Water Act to include as a permit condition the specific language of this special condition.

22. Part II, Conditions Applicable to All VPDES Permits
Rationale: The VPDES Permit Regulation at 9VAC25-31-190 requires all VPDES permits to contain or specifically cite the conditions listed.

23. Storm water discharges at the Station not directed to Outfall 004 or 005 are addressed by industrial storm water general permit VAR051023.

24. NPDES Permit Rating Work Sheet: Total Score – 600. See **Attachment 10**.

25. Changes to the 2008 Permit Modification:

Permit Cover Page Changes	
Item	**Rationale**
Introductory paragraph	Updated language to reflect January 27, 2010 VPDES Permit Manual (Guidance Memorandum 14-2003).
Facility Name	Revised from "Chesterfield Power Station" to "*Dominion* Chesterfield Power Station" to reflect the Facility Name reported on Form 1 of the reissuance application.
City	Deleted because it's not applicable.
River Basin	Removed "(Lower)" from the basin name to reflect guidance from senior Water Planning staff.
River Subbasin	Added "James River (Lower)" to reflect guidance from senior Water Planning staff.
Signatory	Revised from Water Permit Manager to Deputy Regional Director as the permit is a major. This change is consistent with DEQ Policy Statement 2-09.

Effluent Monitoring Changes – Outfall 001					
Parameter Changed	**Discharge Limitations Changed**		**Monitoring Requirements Changed**		**Rationale**
	From	**To**	**From**	**To**	
Total Residual Chlorine (µg/L) (Monthly Avg/Daily Max)	26/38	22/32	No Change		See discussion in **Attachment 5.a**
Total Phosphorus (Monthly Avg/ Daily Max)	2.0 mg/L /NL	None	1/Month	None	Removed per discussion in Attachment 5.h.

Part I.A.1 Changes – Outfall 001		
From	**To**	**Rationale**
I.A.1	I.A.1	No change to introductory narrative.
I.A.1.a	I.A.1.a	Updated language to remove “by the permittee” to reflect DEQ-PRO QA/QC feedback dated 2/28/2012. Added DMR parameter codes to each pollutant for increased clarity in reporting.
I.A.1.a.(1)	I.A.1.a(1)	No change.
I.A.1.a.(2)	I.A.1.a(2)	No change.
I.A.1.a.(3)	I.A.1.a(3)	No change.
I.A.1.a.(4)	I.A.1.a(4)	No change.
I.A.1.b	I.A.1.b	No change.
None	I.A.1.c	Language added in accordance DEQ-PRO QA/QC feedback dated 4/24/2012.

Effluent Monitoring Changes – Outfall 101 – UAP and LAP Effluent - Closure
Outfall 101 was added to address drawdown and dewatering of the Upper and Lower Ash Ponds. See Item 10 for further discussion. During the review of public comments, loading limits for TSS were developed to ensure consistency with federal effluent guidelines and the maximum concentration limit was reduced to be reflect the wastewaters historically discharged to Outfall 004. The permittee requested alternate monitoring for Chromium III and Chromium VI, which was granted with additional compliance conditions.

Effluent Monitoring Changes – Outfall 002					
Parameter Changed	**Discharge Limitations Changed**		**Monitoring Requirements Changed**		**Rationale**
	From	**To**	**From**	**To**	
Total Residual Chlorine (µg/L) (Monthly Avg/Daily Max)	26/38	22/32	No Change		See discussion in **Attachment 5.a**

Dissolved Copper (µg/L) (Monthly Avg/Daily Max)	None	NL	None	1 per Quarter	See discussion in **Attachment 5.a**
Total Phosphorus (Monthly Avg/ Daily Max)	2.0 mg/L /NL	None	1/Month	None	Removed per discussion in Attachment 5.h.

Part I.A.3 Changes – Outfall 002		
From	**To**	**Rationale**
I.A.2	I.A.3	No change to introductory narrative.
I.A.2.a	I.A.3.a	Updated language to remove "by the permittee" to reflect DEQ-PRO QA/QC feedback dated 2/28/2012. Added DMR parameter codes to each pollutant for increased clarity in reporting.
I.A.2.a.(1)	I.A.3.a(1)	No change.
I.A.2.a.(2)	I.A.3.a(2)	No change.
I.A.2.a.(3)	I.A.3.a(3)	No change.
I.A.2.a.(4)	I.A.3.a(4)	No change.
I.A.2.b	I.A.3.b	No change.
None	I.A.3.c	Language added in accordance DEQ-PRO QA/QC feedback dated 4/24/2012.

Effluent Monitoring Changes – Outfall 003					
Parameter Changed	**Discharge Limitations Changed**		**Monitoring Requirements Changed**		**Rationale**
	From	**To**	**From**	**To**	
Flow (MGD) (Monthly Avg/Daily Min/Daily Max)	NL/NA/NL	NL/NL/NL	No Change		PJ - Monitoring for Daily Minimum Flow added in order to assess compliance with the discharge prohibition on internal outfall 301. See **Attachment 5.c** for discussion.
Total Phosphorus (Monthly Avg/ Daily Max)	2.0 mg/L /NL	None	1/Month	None	Removed per discussion in Attachment 5.h.

Part I.A.5 Changes – Outfall 003		
From	**To**	**Rationale**
I.A.3	I.A.4	No change to introductory narrative.
I.A.3.a	I.A.4.a	Updated language to remove "by the permittee" to reflect DEQ-PRO QA/QC feedback dated 2/28/2012. Added DMR parameter codes to each pollutant for increased clarity in reporting.
I.A.3.a.(1)	I.A.4.a(1)	No change.
I.A.3.a.(2)	I.A.4.a(2)	No change.
I.A.3.a.(3)	I.A.4.a(3)	No change.
I.A.3.a.(4)	I.A.4.a(4)	No change.
I.A.3.b	I.A.4.b	No change.
None	I.A.4.c	Language added in accordance DEQ-PRO QA/QC feedback dated 4/24/2012.

Effluent Monitoring Changes – Internal Outfall 301
Internal outfall 301 was added for the planned construction of the LVWWTS. See Item 10 for further discussion.

Effluent Monitoring Changes – Internal Outfall 302
Internal Outfall 302 was added to address effluent from the FGD WWTP to the LVWWTS. See Item 10 for further discussion. During the review of public comments, loading limits for TSS were developed to ensure consistency with federal effluent guidelines.

Effluent Monitoring Changes – Internal Outfall 303
Internal Outfall 303 was added to address effluent from the Metal Cleaning Waste Treatment Basin to the LVWWTS. See Item 10 for further discussion.

Effluent Monitoring Changes – Internal Outfall 304
Internal Outfall 304 was added to address combustion residual leachate from the FFCP Management Facility to the LVWWTS. See Item 10 for further discussion.

Effluent Monitoring Changes – Internal Outfall 305
Outfall 305 was added to address coal pile runoff from the Coal Pile Runoff Metals Treatment System.

Effluent Monitoring Changes – Outfall 004 – Pre-Drawdown					
Parameter Changed	**Discharge Limitations Changed**		**Monitoring Requirements Changed**		**Rationale**
	From	**To**	**From**	**To**	
TSS (Loading)	-	1200 Kg/d monthly avg; 3400 Kg/d daily max	-	2/Month	After November 1, 2018, contents of LAP become legacy wastes and are subject to additional requirements.
TSS (Daily Max Conc)	100 mg/L	88 mg/L	2/Month	2 per Month	Per 40CFR 423.12(b)(9) for coal pile runoff.
Ammonia-N (Daily Max)	-	235 kg/d	-	1 per week	Included to ensure compliance with the Richmond Crater Water Quality Management Plan (WQMP). See **Attachment 5.g**.
Interim - Ammonia-N (mg/L) (Monthly Avg/ Daily Max)	13 mg/L 19 mg/L	No change	1/Week	1 per Week	Converted to an Interim Limit per discussion in **Attachment 5.d**.
Final - Ammonia-N (mg/L) (Monthly Avg/ Daily Max)	None	0.61 mg/L 0.80 mg/L	None	2 per Month	Water quality based effluent limits. See discussion in **Attachment 5.d**.
Total Phosphorus (Monthly Avg/ Daily Max)	2.0 mg/L /NL	None	1/Month	None	Removed per discussion in **Attachment 5.h**.

TPH	NL (Monthly Average)	NL (Daily Max)	1/Year	1 per Year	To be consistent with the Petroleum Contamination General Permit.
Interim – Total Recoverable Thallium (µg/L) (Monthly Avg/ Daily Max)	None	NL	None	2 per Month	Water quality based effluent limitations. See discussion in **Attachment 5.d**.
Final – Total Recoverable Thallium (µg/L) (Monthly Avg/ Daily Max)	None	0.47/0.47	None	2 per Month	Water quality based effluent limitations. See discussion in **Attachment 5.d**.
Interim – Total Recoverable Selenium (µg/L) (Monthly Avg/ Daily Max)	None	NL	None	2 per Month	Water quality based effluent limitations. See discussion in **Attachment 5.d**.
Final – Total Recoverable Selenium (µg/L) (Monthly Avg/ Daily Max)	None	5.9/7.3	None	2 per Month	Water quality based effluent limitations. See discussion in **Attachment 5.d**.
Interim – Chronic WET Limitation (TU_c) (Monthly Average/Daily Max)	NA/50	No change	1 per Quarter	No Change	Converted to an interim limit for a compliance schedule per discussion in section 19 above and **Attachment 13**. See also the WET discussion in **Attachment 9**.
Final – Chronic WET Limitation (TU_c) (Monthly Average/Daily Max)	None	NA/1.36	None	1 per Quarter	Added per WET discussion in **Attachment 9**.
Part I.A.10 Changes – Outfall 004 – Pre-Drawdown					
From	**To**	**Rationale**			
I.A.4	I.A.10	No change to introductory paragraph.			
I.A.4.a	I.A.10.a	Updated language to remove “by the permittee” to reflect DEQ-PRO QA/QC feedback dated 2/28/2012. Added DMR parameter codes to each pollutant for increased clarity in reporting. Added definitions for 1/Quarter and 1/Year monitoring frequencies for clarity.			
I.A.4.a.(1)	I.A.10.a(1)	No change.			
I.A.4.a.(2)	I.A.10.a(2)	No change.			

None	I.A.10.a(3)	Added to clarify the analytical method to be used for TPH samples.
None	I.A.10.a(4)	Added to reference the applicable compliance schedule.
I.A.4.b	I.A.10.b	No change.
I.A.4.c	I.A.10.c	No change.
None	I.A.10.d	Added to clarify discharge monitoring requirements and to define drawdown.

Effluent Monitoring Changes – Internal Outfall 401					
Parameter Changed	**Discharge Limitations Changed**		**Monitoring Requirements Changed**		**Rationale**
	From	**To**	**From**	**To**	
All Parameters	No change		1/discharge	1 per Week	1/discharge is not a compatible frequency with the compliance database.

Part I.A.11 Changes – Outfall 401		
From	**To**	**Rationale**
I.A.5	I.A.11	Outfall renamed from 104 to 401. Revised to reflect changes to authorization period.
I.A.5.a	I.A.11.a	Updated language to remove “by the permittee” to reflect DEQ-PRO QA/QC feedback dated 2/28/2012. Added DMR parameter codes to each pollutant for increased clarity in reporting. “Recoverable” was added to the metals parameters (Total Recoverable…) for clarity.
I.A.5.a.(1)	I.A.11.a(1)	No change.
None	I.A.11.a(2)	Added to clarify use of three significant figures per the federal ELG.
I.A.5.b	I.A.11.b	Removed and replaced with language clarifying internal outfall name changes.

Effluent Monitoring Changes – Internal Outfall 402
Internal Outfall 402 was added to address effluent from the FGD WWTP. See Item 10 for further discussion. During the review of public comments, loading limits for TSS were developed to ensure consistency with federal effluent guidelines.

Effluent Monitoring Changes – Outfall 005 – Pre-Drawdown					
Parameter Changed	**Discharge Limitations Changed**		**Monitoring Requirements Changed**		**Rationale**
	From	**To**	**From**	**To**	
Flow	NA	NA	Measured	Calculated	Per owner request
TSS (loading)	NA	460 Kg/d (avg); 1530 Kg/d (max)	NC	NC	During the review of public comments, loading limits were developed to ensure consistency with federal effluent guidelines.
Ammonia, as N (mg/L) (Monthly Avg/ Daily Max)	NL	None	1/Week	None	No longer needed to assess the effects of SCR and FGD wastewater on the effluent. See Attachments 5.g & 5.h.

Total Phosphorus (mg/L) (Monthly Avg/ Daily Max)	2.0 /NL	None	1/Week	None	Removed per discussion in Attachment 5.h.
Flow, pH, TSS, and O&G	NA	NA	2/Month	1 per Month	Frequency reduced per owner request

Part I.A.13 Changes – Outfall 005 – Pre-Drawdown		
From	**To**	**Rationale**
I.A.6	I.A.13	Revised introductory language to address Pre-Drawdown discharge.
I.A.6.a	I.A.13.a	Updated language to remove “by the permittee” to reflect DEQ-PRO QA/QC feedback dated 2/28/2012. Added DMR parameter codes to each pollutant for increased clarity in reporting.
I.A.6.a.(1)	I.A.13.a.(1)	No change.
None	I.A.13.a.(2)	Added to clarify use of three significant figures per the federal ELG
I.A.6.b	I.A.13.b	No change.
I.A.6.c	I.A.13.c	No change.

Part I.A Changes – Outfall 006 though 011		
From	**To**	**Rationale**
I.A.7	None	Removed outfalls per discussion in Attachment 6.

Part I.B Compliance Schedule		
From	**To**	**Rationale**
I.C	I.B	Revised to provide details on the compliance schedules for Outfalls 301, 302 and 402, 304, and 004.

Part I.C Special Conditions		
From	**To**	**Rationale**
I.B.1	I.C.1	Notification Levels: “the discharge” revised to “any discharge,” in part b, in accordance with GM14-2003, IN-3.
I.B.2	I.C.2	Nutrient Reopener: No change.
I.B.3	I.C.3	Materials Handling/Storage: Updated language to reflect GM 14-2003, IN-3.
I.B.4	I.C.4	Discharge of Chlorine in Cooling Water: Revised to reflect the appropriate section of the Federal Effluent Guidelines [40CFR423.13(b)(2)].
I.B.5	I.C.5	Operation and Maintenance Manual Requirement: Updated language in accordance with GM14-2003.
I.B.6	I.C.6	Discharge of Tank Bottom Waters: No change.
I.B.7	I.C.7	Groundwater Monitoring: Updated to reflect the progress with the LAP CAP and the requirement for a metals pond CAP. Language also added to address potential coverage under the Solid Waste program.
I.B.8	I.C.8	Closure Plan for Upper Ash Pond: Language added to address potential coverage under the Solid Waste program.
I.B.9	I.C.9	Discharge of Polychlorinated Biphenyl Compounds: No change
None	I.C.10	Low Level PCB Sampling for Internal Outfall 301: Added in accordance with GM09-2001 because of the PCB management on site. Deadline for submittal of sampling plan was modified at the request of the permittee.

I.B.10	I.C.11	Discharge of Debris from Trash Racks: No change.
I.B.11	I.C.12	Discharges of Uncontaminated River Water: Added subpart d. to address the deletion of Outfalls 006-011. See **Attachment 6**.
I.B.12	None	Discharge of Fly Ash Transport Water from Units 7 & 8: Removed because Fly Ash Transport Water is not generated for these units. See **Attachment 13**.
I.B.13	I.C.13	Licensed Operator Requirement: Updated language to reflect licensing board's new title.
I.B.14	I.C.14	Compliance Reporting: Updated language in accordance with GM14-2003. Removed QL for TOC and TP. The Agency does not have an established TOC QL and TP was removed from the permit. Updated QLs for total recoverable antimony, total recoverable arsenic, total recoverable cadmium, total recoverable chromium III, dissolved chromium VI, total recoverable copper, total recoverable iron, total recoverable lead, total recoverable mercury, total recoverable nickel, total recoverable selenium, total recoverable silver, and total recoverable zinc to be consistent with actual laboratory capabilities. See Part 20 for additional discussion.
I.B.15	I.C.15	TMDL Reopener: No change.
I.B.16	I.C.16	Treatment Works Closure Plan: Updated language to reflect GM 14-2003.
I.B.17	I.C.17	Whole Effluent Toxicity (WET) Testing Program: Revised in accordance with **Attachment 9**.
I.B.18	I.C.18	Oil Storage Groundwater Monitoring Reopener: No change.
I.B.19	None	Basis of Design Report: Condition removed as the condition has already been satisfied.
I.B.20	None	Interim Optimization Plan: Condition removed as the condition has already been satisfied.
I.B.21	None	§316(b) Requirements: Moved to Part I.D
I.B.22	I.C.19	Water Quality Criteria Reopener: added language in accordance with GM14-2003.
I.B.23	I.C.20	CER: Special condition added in accordance with DEQ-PRO staff decision dated 6/29/2010 and GM07-2008 Amendment 2.
None	I.C.21	Treatment Requirements for the Lower and Upper Ash Pond Discharge: See section 20 above.
None	I.C.22	Outfall 301 – Water Quality Criteria Monitoring: Special condition added to detail additional monitoring for Outfall 301. Language is in accordance with GM14-2003.
None	I.C.23	Ash Pond Closure Stormwater Management: Added to address stormwater management during closure of the LAP and UAP.
None	I.C.24	Ash Pond Closure Discharge: Added to clarify point at which closure limitations at Outfall 101 are triggered.
None	I.C.25	Notification of Commencement of Discharge: Added in accordance with GM14-2003, IN-3 to address new discharge proposed for the LVWWTS.
None	I.C.26	Cease Discharge Requirements for Outfall 101 : Added to detail requirements associated with monitoring during closure activities that does not meet the effluent limits.
None	I.C.27	Pond Closure Drawdown Rate: Added to limit the rate of drawdown in an effort to be protective of dam stability during closure activities.
None	I.C.28	Process Water Conveyance Investigation: See section 20 above

None	I.C.29	§316(a) Alternate Effluent Limitations: See section 20 above. Additional language requiring the permittee to submit, no later than 90 days following this permit reissuance, a general description of the type of data, studies, experiments, and other information which the permittee intends to submit for the update of the §316(a) rule was added in accordance with the Board's approval of the permit on 09/22/2016.

Part I.D Changes		
From	**To**	**Rationale**
None	Part I.D	§316(b) Phase II Conditions: Added in accordance with §316(b) final rule (August 15, 2014).
None	Part I.D.1	Interim §316(b) Best Technology Available (BTA): Added in accordance with §316(b) final rule (August 15, 2014).
None	Part I.D.2	Impingement and Entrainment Control Technology Preventative Maintenance: Added in accordance with §316(b) final rule (August 15, 2014).
None	Part I.D.3	Alternate Schedule for Submittal of 40 CFR §122.21(r) Information: Added in accordance with §316(b) final rule (August 15, 2014).
None	Part I.D.4	Monitoring Requirements: Added in accordance with §316(b) final rule (August 15, 2014).
None	Part I.D.5	Annual Certification Statement Requirements: Added in accordance with §316(b) final rule (August 15, 2014).
None	Part I.D.6	Measures to protect Federally-listed Threatened or Endangered (T&E) species, designated critical habitat, and fragile species or shellfish: Added in accordance with §316(b) final rule (August 15, 2014).
None	Part I.D.7	Federal Endangered Species Act Compliance: Added in accordance with §316(b) final rule (August 15, 2014).

Part II Changes:		
From	**To**	**Rationale**
Part II	Part II	Updated in accordance with GM14-2003.

26. Variances/Alternate Limits or Conditions: Thermal variance in accordance with Section 316(a) of the Clean Water Act. See **Attachment 7**.

27. Public Notice Information required by 9VAC25-31-280 B:

First Comment period: Publishing Newspaper: *Richmond Times Dispatch*
Publication Dates: May 1, 2014 and May 8, 2014
Start Date: May 2, 2014 End Date: June 2, 2014

Second Comment period: Publishing Newspaper: *Richmond Times Dispatch and Style Weekly*
Publication Dates: June 6, 2016 and June 13, 2016
Start Date: June 6, 2016 End Date: July 21, 2016

All pertinent information is on file and may be inspected and copied by contacting Joseph Bryan at:

Virginia Department of Environmental Quality (DEQ)
Piedmont Regional Office
4949-A Cox Road
Glen Allen, Virginia 23060-6296

Telephone Number 804/527-5012
Facsimile Number 804/527-5106
Email ChesterfieldPowerStationWaterPermit@deq.virginia.gov

DEQ accepts comments and requests for public hearing by hand delivery, e-mail, fax or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. A public hearing may be held, including another comment period, if public response is significant, based on individual requests for public hearing, and there are substantial, disputed issues relevant to the permit. The public may review the draft permit and application at the DEQ Piedmont Regional Office by appointment or may request copies of the documents from the contact person listed above. This permit includes requirements for cooling water intake structures.

Public Notice Comments: See **Attachment 14** for public comments and DEQ responses to these comments.

28. Additional Comments:

a. Previous Board Action: A Consent Special Order was issued in October 2003 authorizing operation of Selective Catalytic Reduction (SCR) air control technology. The 2003 Order was terminated when the 2004 permit was reissued. A separate Consent Special Order was issued in 2005 and terminated May 1, 2007. The Order addressed an unauthorized ash discharge through Outfall 004 to Farrar Gut. The Order required ambient stream assessment, remedial action and preventative planning.

Final Board Action on the Proposed Permit: The State Water Control Board met on 09/22/2016 and unanimously approved the Proposed Permit, including the addition of language to the §316(a) Alternate Effluent Limitations Special Condition (Part I.C.29.a) requiring that the permittee, no later than 90 days following this permit reissuance, submit a general description of the type of data, studies, experiments, and other information which the permittee intends to submit for the update of the §316(a) demonstration.

b. Staff Comments:

- A potential seep was identified during a site inspection on February 10, 2016. Despite saturated soil conditions attributed to recent snowfall, no discharge was observed. The permittee reported that there is no visible indication of a seep during dry conditions. The potential seep is located approximately 160 feet immediately east of the Outfall 004 discharge channel. Per a letter signed March 3, 2016, the permittee was notified of the potential seep and instructed to investigate the potential seep and perform corrective action as necessary. A response letter received May 13, 2016, detailed planned maintenance activities to the southwestern slope of the Lower Ash Pond which are to commence May 23, 2016.
- On August 15, 2014, EPA signed the final rule to the revised §316(b) of the CWA. §316(b) requires facilities with water intake structures designed to withdraw 2 MGD of surface waters for cooling purposes to minimize impingement and entrainment of aquatic organisms. Any permits to be issued after October 14, 2014 and before July 15, 2018 are required to provide documentation in the permit application demonstrating compliance with the final Best Technology Available (BTA) options described in 40CFR 125.94. However, upon demonstration that the permittee cannot provide this documentation prior to the deadline for a complete application, the permittee can request an alternate schedule for submission of the required documentation [40CFR §122.21(r)]. Once an alternate schedule has been approved, DEQ is required to make an interim BTA determination. On April 29, 2015, the permittee requested an alternate schedule for submission of application documentation required in 40CFR 122.21(r). An alternate schedule is provided in this permit along with interim BTA. In accordance with 40CFR 125.98(h), DEQ submitted a coordination request to the USFWS and NMFS on April 30, 2015 and again to NMFS on July 1, 2015. USFWS provided comments on

May 7, 2015. Draft permit documents were submitted to USFWS and NMFS on June 6, 2016. See **Attachment 16** for further details.

- On September 30, 2015, EPA signed the final rule for the Steam Electric Power Generating Point Source Category Federal Effluent Guidelines (FEGs) [40CFR 423]. All applicable FEGs for BPT, BAT, and NSPS have been incorporated into this permit. Where water quality-based effluent limits (WQBELs) were more stringent, the WQBELs have replaced the FEGs.
- Because of Warning Letters issued December 22, 2009, February 26, 2010 and March 1, 2011, the facility is not eligible for reduced monitoring with this reissuance. Furthermore, the monitoring frequencies in the 2008 permit are considered necessary for accurate characterization of the discharges. However, the effluent monitoring frequencies at Outfall 005 for flow, pH, TSS, and oil & grease were reduced from 2 to 1 per Month. The 2009 VPDES application reported that a discharge occurs at the outfall only 2-3 times per year. This was confirmed by DMR data for the outfall. Furthermore, although chronic WET testing is required at the outfall, no chronic tests were conducted during the last permit cycle due to the fact that discharges from Outfall 005 did not occur for consecutive days. In light of this discharge frequency, it is highly unlikely that 2 sampling events per month could be obtained. Therefore, a monitoring frequency of 1 per Month is appropriate for Outfall 005.
- This facility discharges to a receiving stream section with the special standards “a,” “z,” “EWS-11” and “bb.” The facility does not discharge to shellfish waters, therefore, special condition “a" does not apply. Because the location of Outfall 001 is not within the designated boundaries, special standards “z” and “EWS-11” do not apply. Special standard “bb” involves chlorophyll a. Chlorophyll a is adequately addressed through the Nutrient Trading TMDL discussed below (See Part 28).
- Chesterfield Power Station is a significant discharger of nutrients to the Chesapeake Bay. The facility was assigned a WLA in the 2005 rulemaking that is now reflected in the Bay TMDL. A Nutrient General Permit (VAN040086) was issued January 1, 2012 to this facility to address the nutrient discharges. The permit expires December 31, 2016.
- This facility is subject to the requirements of 9VAC25-151, General VPDES Permit for Discharges of Storm Water Associated with Industrial Activity. The facility currently holds a General VPDES Permit (VAR051023) which expires on June 30, 2019.
- 2015 annual fees were deposited October 5, 2015.
- The permittee is not currently a participant in the Virginia Environmental Excellence Program.
- The facility has been registered in eDMR since October 2, 2012.
- The permit expiration date is set as the last day of the month just shy of a five-year permit duration. This change is in accordance with a regional initiative (Staff Decisions: 10-25-11) to adjust permit cycles to include complete calendar months. The initiative will facilitate smoother monitoring transitions between cycles.
- The proposed limitations will maintain Water Quality Standards.
- The 2008 modified permit was administratively continued upon the permit expiration. The permit is being reissued subsequent to expiration due to administrative delays.
- Outfall 104 has been renamed to Outfall 401 for consistency with appropriate DEQ outfall naming conventions.
- Based on DEQ requirements and in accordance with the facility’s Corrective Action Plan (CAP) for PC #94-1599, Dominion is planning to install an oil recovery system at the CPS. Activities associated with this discharge are permitted separately under the Petroleum Contaminated Sites, Groundwater Remediation and Hydrostatic Tests GP (VAG83). The registration statement for this GP was submitted on March 20, 2014 and VAG830471 was issued on March 27, 2014.
- After close of the public comment period, DEQ has 90 days to render a decision on the permit reissuance application. The public comment period for this reissuance expired on June 2, 2014. The 90-day period ended August 31, 2014. However, DEQ and Virginia Electric and Power Company mutually agreed to an extension ending October 31, 2014 and again on an extension ending January 15, 2015. Subsequently, Dominion informed DEQ of major modifications that would occur at the facility in response to the CCR rule (final rule signed April

17, 2015). DEQ decided to merge the reissuance and the modifications into one permitting action for efficiency purposes.

- On January 29, 2016, DEQ notified all riparian landowners within 0.25 miles upstream and 0.25 miles downstream of the facility of the receipt of a VPDES permit application for major modifications at the facility.

c. EPA Comments:
   - After a review of the draft permit and fact sheet during the public comment period, EPA stated that they had no comments concerning the adherence to the impaired waters requirements. See **Attachment 14**.

d. T&E Coordination
   - The DEQ has coordinated with the DCR, DGIF, and USFWS in accordance with the Memorandum of Understanding signed May 8, 2007. See **Attachment 16** for a record of correspondence, including comments, between the agencies.

e. VDH-ODW Comments:
   - The application was sent to VDH-ODW on July 31, 2009. A response received August 10, 2009 indicated that there are no public water supply intakes within 15 miles of the discharge/activity. The raw water intake for the Virginia American-Hopewell water treatment plant is located on the Appomattox River, approximately 20 miles downstream of the discharge point for the Dominion Chesterfield Power Station. VDH waived the right to review and comment on the draft permit. **See Attachment 16**

f. Owner Comments:
   - See **Attachment 13** for Owner Review Comments and DEQ Response. Owner comments provided during the public comment period are addressed in the Response to Comments Document which is located within the permit reissuance file record.

g. Planning Conformance Statement:
   - Upon review of the draft permit and fact sheet during the public comment period, planning staff requested the inclusion of an ammonia limit of 235 kg/day (daily maximum) for both Outfall 004 and Outfall 301. These limits are necessary to ensure conformance with the Richmond-Crater Water Quality Management Plan (WQMP). For further discussion of the inclusion of these limits, see **Attachment 5.g**.
   - Following the inclusion of these revisions, planning staff stated that the discharges are in conformance with the existing planning documents for the area.

h. Public Notice Notifications:
   - The Chesterfield County Administrator, Chairman of the Chesterfield County Board of Supervisors, and Executive Director of the Richmond Regional Planning District Commission were notified of the public comment period on June 6, 2016, in accordance with the Code of Virginia, §62.1-44.15:01.
   - During the public comment period, DEQ-PRO received 739 comments from citizens and organizations. Comments received during the public comment period, and staff responses, are provided in a Response to Comments Document which is located within the permit reissuance file record.

29. Summary of attachments to this Fact Sheet:

Attachment 1	Location and Site Maps
Attachment 2	Ambient Stream Characterization
Attachment 3	Water Flow Diagram and Narrative; LVWWTS Phased Compliance and Design Narrative, Diagrams, and Gant Chart Schedules; Lower and Upper Ash Pond Decanting/Dewatering Process and Existing Outfall Structure Diagrams; Lower Ash Pond Drawdown and Discharge Rate Analysis; List of Chemicals Present; Map of Storage Tanks
Attachment 4	Effluent Characterization
Attachment 5	Effluent Limitation Development
Attachment 6	Removal of Outfalls 006-011
Attachment 7	Discussion of 316(a) and 316(b)
Attachment 8	Evaluation of Ground Water Monitoring Data
Attachment 9	Discussion of WET Testing
Attachment 10	NPDES Permit Rating Work Sheet
Attachment 11	Site Visit Memo
Attachment 12	Proposed Conceptual Engineering Report Permit Language
Attachment 13	Draft Owner Comments and DEQ Responses
Attachment 14	EPA Comments
Attachment 15	Public Comments and DEQ Responses
Attachment 16	Other Agency Comments

Golder Associates

January 13, 2010 Our Reference No. P039-6844

Maria Gwynn
Dominion
5000 Dominion Blvd
Glen Allen, VA 23060

RE: PROPOSAL FOR LEACHATE TREATMENT
CLOVER POWER STATION, HALIFAX COUNTY, VIRGINIA

Dear Mike:

Golder Associates Inc. (Golder) is pleased to present this proposal to assist Dominion Generation (Dominion) with wastewater management at the Clover Power Station (Facility). Our understanding of the project and Dominion's project objectives are summarized in the following section of this proposal followed by our proposed project scope, a brief introduction to our project Team, the project schedule and budget, and project limitations and Terms and Conditions. Golder appreciates the opportunity to submit this proposal to Dominion and looks forward to exceeding Dominion's expectations on this project.

1.0 BACKGROUND AND PROJECT UNDERSTANDING

We understand that the project Stakeholders include Dominion and Old Dominion Electric Cooperative (ODEC). As part of the Facility operation, the Stakeholders operate an industrial landfill that is used for the management of coal combustion by-products (CCB) generated by the Clover Power Station. Leachate from the landfill has historically been treated on–site and discharged under a Virginia Pollutant Discharge Elimination System Permit (VPDES; VA0083097) via permitted Outfall 009. The Facility's VPDES permit, scheduled for renewal in July 2010, has among other limits, a discharge limit for manganese of 50 micrograms per liter (ug/L) at Outfall 009.

Golder understands that the average monthly flow from Outfall 009 (January 2006 through August 2008) was 2.4 million gallons with an upper range of 4.5 million gallons. Outfall 009's discharge is derived from a combination of leachate from the Stage 1&2 and Stage 3 landfills as well as storm water runoff from the Stage 3 Landfill. Based on limited sampling data from 2003, 2005, and 2009, the average manganese concentration in the untreated Outfall 009 source wastewater is 6,950 ug/L ranging upward to 25,800 ug/L. The Total Dissolved Solids (TDS) concentration in the wastewater averages 30,800 milligrams per liter (mg/L) ranging upward to 78,000 mg/L. The iron concentration in the wastewater averages 103 ug/L ranging upward to 260 ug/L, and the pH of the untreated wastewater averages approximately 8.08 Standard Units (S.U.). In addition, trace concentrations of ammonia and other pollutants are generally present in the untreated wastewater.

Between 2005 and 2009, Dominion attempted to obtain a site-specific discharge limit for manganese based on the naturally occurring manganese concentration in the receiving water (Roanoke River) and dilution modeling results between the outfall discharge and the nearest surface water intake. On December 23, 2009, the project Stakeholders were informed by the Department of Environmental Quality (DEQ) that the Facility would not be receiving a higher permit limit for manganese and that compliance with the permit limit for manganese at Outfall 009 would be required by January 15, 2011.

Golder also understands that project Stakeholders believe a similar permit limit will eventually be applied to the discharge from Outfall 002, which discharges runoff from the Facility's coal stockpile. Based on available information, the average flow from Outfall 002 is approximately 100,000 gallons per month ranging upward to 380,000 gallons per month. Based on limited data from 1998 through 2009 the average manganese concentration in this untreated source wastewater for Outfall 002 is 640 ug/L ranging upward to 1,500 ug/L. The TDS concentration in the untreated wastewater averages 2,800 mg/L ranging

upward to 3,200 mg/L. The Iron concentration in the untreated wastewater averages 610 ug/L ranging upward to 1,600 ug/L, and the pH of the untreated wastewater averages approximately 7.40 S.U. In addition, as with the source wastewater for Outfall 009, trace concentrations of ammonia and other pollutants are generally present in the untreated wastewater.

Finally, we understand that the project Stakeholders desire to identify a proposed treatment technology by the middle of February 2010 to assist with initial discussions with the DEQ, and if required, the United States Environmental Protection Agency (EPA). With tentative agency approval of the proposed treatment technology, a Conceptual Design Report is desired by the end of March 2010 to assist with permitting activities associated with the renewal of the Facility's VPDES Permit. Subsequent to review and approval of the Conceptual Design Report, Golder understands that the project Stakeholders intend to construct (schedule is design dependent) and initiate operation of the wastewater treatment system (at a minimum to include source wastewater for existing Outfall 009) prior to the January 15, 2011, compliance date.

Based on this understanding of the project, Golder understands that the ultimate project goal is to achieve compliance with the manganese and other applicable permit limits for the Facility's wastewater discharge (existing Outfall 009) no later than January 15, 2011. Additionally, we understand that the ultimate wastewater treatment design should account for, and be capable of treating the wastewater discharge from existing Outfall 002, as well as the future discharge of the Stage 4 landfill leachate. In support of this understanding of the project goals, Golder proposes the following scope of services:

1.1 Task 1: Source Evaluation

The purpose of this activity is to allow Golder to compile available critical information from Dominion on the existing wastewater discharges from Outfalls 009 and 002. This information will be used in the conceptual design evaluation (subsequent activity). Specifically desired information, some of which has already been provided, is as follows:

- Copy of the existing VPDES Permit for the Facility. Dominion has previously forwarded a copy.
- Records of existing available laboratory analytical data, including field parameters for the untreated source wastewaters for existing permitted Outfalls 002 and 009. Some of this information has previously been forwarded by Dominion.
- Records of recorded flow from existing permitted Outfalls 002 and 009. Some of this information has previously been forwarded by Dominion.
- Summary observations pertaining to seasonal variations in pollutant concentrations and/or flow that are not otherwise apparent in the laboratory analytical and flow data that are provided by Dominion.
- Site Plan showing the source areas of existing permitted Outfalls 002 and 009, including the locations of existing wastewater discharge piping. Dominion has previously provided a copy of this information to Golder.
- Any other information, such as expected permit limits for the July 2010 VPDES permit renewal, which Dominion believes will be pertinent to the identification and design of a wastewater treatment system.

As discussed above, most of this information has previously been provided to Golder. Golder will compile the existing in-house information and if data gaps are identified, will coordinate with Dominion to obtain the remaining data, if available.

1.2 Task 2: Wastewater Characterization

The purpose of this activity is to allow Golder to obtain any additionally required analytical data that is required to assist with the conceptual design evaluation based on identified data gaps from Task 1, if any. If data gaps are identified, Golder will contract with a qualified laboratory or perform the additional analyses in-house to obtain the laboratory analytical data necessary for the successful completion of this project. Our proposal includes the review and identification of data gaps, but does not include sampling and analysis costs since they are unknown. Golder will notify Dominion of any required sampling efforts prior to proceeding.

1.3 Task 3: Process Development

The purpose of this activity is to allow Golder to identify the most cost effective treatment technology for treating the targeted wastewater sources based on the anticipated source water flows and geochemistry. Specifically proposed activities for this Task are as follows:

- Collection of representative untreated wastewater samples from the source waters for Outfall 002 and 009. Golder proposes to complete this activity on January 13, 2010. The representative samples will be shipped to Golder's Water Treatment Laboratory in Denver, Colorado evaluation.
- Bulk samples of will be obtained and shipped to the Golder Water Treatment Laboratory in Denver. It is anticipated that test work and design calculations will be performed to verify performance and design parameters for three processes including the following:
  - Manganese greensand;
  - Chemical treatment with conventional clarification and filtration; and
  - Chemical treatment with advanced membrane microfiltration.

Specific bench tests and/or process design calculations to be performed will generally include the following:

- Chemical Treatment
  - Oxidative type and dosage requirements;
  - pH adjustment chemical types (lime and caustic), requirements and dosages;
  - Coagulant/polymer types, requirements and dosages;
  - Oxidant removal options (if required); and
  - Oxygen addition options (if required).
- Greensand Media
  - Optimum pH;
  - Regeneration frequency and type;
  - Backwash and rewash volumes;
  - Polymer requirements;
  - Filter run times; and
  - Regenerant neutralization options.
- Sludge and Solids Testing
  - Sludge production determination for each treatment approach;
  - Settling tests;

- Sludge % solids tests; and
- Sludge dewatering tests.

All remaining wastewater samples and any residuals generated during the bench study effort will be returned to Dominion for disposition.

After completing the treatability study, Golder will prepare a *Recommendations Summary* outlining the activities that have been completed and will summarize the recommended treatment technology proposed for treatment of the wastewater sources for existing outfalls 002 and 009. The *Recommendations Summary* will be submitted to Dominion for internal use during its preliminary permit renewal discussions with the DEQ. Based on our understanding of Dominion's needs, the *Recommendations Summary* will contain the following information:

- Summary of available information used in this project to date to evaluate available proven treatment technologies.
- Summary of the treatability study testing results, including influent and effluent concentrations.
- A recommended wastewater treatment technology including a description of the major components and their purpose.
- A summary of the design parameters for the system, including maximum influent concentrations and expected effluent concentrations for pollutants of concern, to include pH, Total Suspended Solids (TSS), total recoverable iron, and total recoverable manganese (list based on current permit criteria for Outfalls 002 and 009).
- A conceptual flow process diagram for the preferred treatment technology, including a conceptual site plan showing the location of the system and re-routing, as required, of existing wastewater conveyance structures.
- A summary of assumptions, if any, used to select the preferred treatment technology.
- A summary of the expected operating requirements for the preferred treatment technology.
- An estimate of the likely construction and operating cost of the preferred treatment technology. Note that this will be a rough order of magnitude cost estimate developed to allow for the comparison of alternatives, and will not represent an estimate suitable for budget appropriations.

After submitting the *Recommendations Summary* to Dominion, Golder proposes to meet with the project stakeholders (1 to 2 weeks after submittal to Dominion) to review the information in the *Recommendation Summary* and obtain feedback on the recommended treatment technology. This feedback will be used as guidance in the completion of Task 4, preparation of the *Conceptual Design Report*.

Golder has assumed that compliance with Whole Effluent Toxicity (WET) requirements will not be required. Based on the timeline, we will also not be able to generate any bulk residual samples for TCLP testing prior to submitting the *Recommendations Summary*. This sample will be produced as part of the Conceptual Design effort.

1.4 Task 4: Conceptual Design Report

With approval to proceed from the project Stakeholders at the end of Task 3, Golder will prepare a *Conceptual Design Report* for the preferred treatment technology. The *Conceptual Design Report* will identify the concept design and opinion of probable costs for the preferred treatment technology and will contain sufficient information on the routing and discharge of wastewater streams for the project

Stakeholders to use in subsequent VPDES permit renewal permitting activities (i.e., will identify source areas, commingled wastewater streams and anticipated treatment system outfalls).

Specific steps in the *Conceptual Design Report* process, and information to be provided in the report to be presented to the project Stakeholders no later than the end of March 2010, are summarized as follows.

Predesign Evaluations. Several predesign evaluations are required prior to development of final construction plans and specifications. These typically include the following.

- Survey and site plan – required to prepare treatment site configurations, and must take into account issues such as access, parking, and drainage. It has been assumed that adequate electronic survey drawings of the site are available;
- Geotechnical evaluation – required for building foundation design. It has been assumed that adequate geotechnical data is available from construction of other facilities to allow for foundation design;
- Building code analysis – required to identify building design and construction standards;
- Utility corridor definition – includes power, natural gas, sewer, potable water, and communications; and
- Identification of key institutional/regulatory agency stakeholder requirements including relevant permits/approvals, etc.

Identify Site Constraints. The work effort in this task would be directed toward identifying any site constraints which would impact the detailed facilities design. These include the following.

- Establishment of facilities location;
- Unusual foundation conditions;
- Determination of vehicle access requirements; and
- Identification of utility requirements (power, drainage, etc.).

The early identification of constraints associated with the selected site will provide for the efficient and rapid continuation of the total design effort.

Tradeoff Studies. There are several trade-off studies that will be performed in order to optimize final facility design. These studies include the following.

- Facility Envelope – There are several types of buildings that can be constructed including pre-engineered metal, engineered metal, masonry, and concrete. Additional options are available for the roof, wall, and window systems that can significantly affect the total system cost and long-term performance; and
- Facility space planning – There are many functions internal to a treatment facility other than the process areas. These may include laboratories, offices, maintenance areas, storage areas, locker rooms, etc. This activity includes working with Dominion in establishing the overall space plan.

Conceptual Design Report. Once the selected alternative is approved, the process design can be completed. This includes development of process flow diagrams (PFD's) with corresponding material and energy balances. In addition to PFD's and process definition, this task also includes development of the following.

- A summary of the operating criteria for the facility;

- A list of required permits and a conceptual permitting timeline;
- Preliminary piping and instrumentation diagrams (P&ID's). These P&ID's will show all major and ancillary equipment, major and ancillary piping systems, major instruments, significant control loops and interlocks, and alarms;
- Control philosophy for the treatment facility, with tie-ins to existing monitoring and control systems;
- Initial facility layout showing process and support areas;
- Initial site plan for the selected site;
- Preliminary equipment list with major equipment sizes, capacities, and special features;
- Required utilities and interfaces. This includes an initial electrical one-line drawing to allow total electrical demand to be estimated;
- Control system philosophy and design approach;
- Design criteria to be used for discipline designs including architectural, civil, structural, mechanical (HVAC), mechanical (piping), and electrical;
- Specification index; and
- An opinion of probable construction cost and a conceptual construction timeline.
- Recommended operations staff list, including training and licensing requirements.

Golder proposed to present the *Conceptual Design Report* at a Stakeholder meeting to be held in Richmond, Virginia to facilitate discussions on the proposed design, operating requirements, and system construction.

2.0 PROJECT TEAM & QUALIFICATIONS

Golder proposes to complete the project by assigning a team of engineers tailored to the project's needs. The wastewater study will be led by senior members of our Water Treatment Group from our Denver, Colorado office. These personnel have relevant wastewater treatment studies experience and have carried these projects through design and implementation of industrial wastewater treatment plants. Overall project coordination will be provided by Dan McGrath, P.E. of the Richmond office.

Project Manager, Dan McGrath, PE. Dan is a senior engineer with more than nine years of experience in performing hydraulic design and modeling of surface water, pressurized water and landfill gas systems, as well as solid waste engineering for municipal solid waste and industrial landfills. Dan will be responsible for the management of scope, schedule and budget for the engineering and cost estimating tasks performed by Golder. Dan has worked with Dominion for the past six years providing engineering services for Dominion's facilities in Virginia and North Carolina. Dan is the current project manager assisting Dominion with permitting the new FFCP Facility at the Chesterfield Power Station.

Project Director, Paul E. Pigeon, PE. Paul is a senior consultant with over 33 years of experience in water and wastewater treatment for industry and mining clients. He will be responsible for the overall technical content and quality of the project. He has provided environmental engineering and project management services for public and private industry client organizations throughout his career. He has completed projects involving water and waste treatment for power generation, potable water supplies, mining, oil and gas, manufacturing, and oil sands industries, and site remediation and decontamination and decommissioning (D&D) programs. His technical strengths are in process/technology evaluation and selection, treatability studies, regulatory compliance, waste characterization, water quality assessment and treatment process design. Mr. Pigeon currently performs and manages projects involving water/wastewater treatment designs for flow rates up to 15 million gallons per day.

Project Engineer, Pamela W. Edrich. Pam is a senior engineer with over 24 years of experience in water and wastewater treatment, and waste management for industry, government and mining clients. She will be responsible for the day-to-day performance of technology and options analysis on the Clover Station wastewater treatment study, and will also lead the development of design and cost information for the recommended technologies and option(s). Pam has been the lead project engineer for several major industrial wastewater treatment design and construction projects in the last several years. She will be the main point of contact with the Golder Water Treatment Group in Denver for execution of the project.

Process Engineer, Bridgette C. Hendricks. Bridgette has over 20 years experience in water and wastewater treatment and management, and is responsible for treatability study planning and execution, data evaluation, process development, and conceptual design of water and wastewater treatment facilities. Her previous experience includes literally hundreds of projects involving the evaluation and development of processes for the treatment of metals, inorganics and radionuclides in mining dewatering water, acid mine drainage, other mine wastewater sources, industrial wastewater, oily wastewater, remediation water, and contaminated groundwater. Bridgette will lead the treatability study and process design efforts on the project.

Senior Technical Reviewer, Christopher A. Beck, PE. Chris is a senior project manager and has over 20 years of experience in water and wastewater treatment for industry and mining clients. He will provide quality reviews of the work in progress and of deliverable documents, designs and cost estimates. Chris recently was the lead process engineer for an FGD blowdown pond design project at a power plant in Florida, and previously served in a similar role for water treatment studies and designs at a power plant in Kansas. He has designed and prepared cost estimates for wastewater treatment plants with flow rates up to 10,000 gpm.

Senior Technical Reviewer, Terri C. Phillips, P.G. Ms. Phillips is a registered Professional Geologist with 20+ years of environmental consulting experience in Virginia, including technical, regulatory, and management service. She has experience with numerous environmental regulations and programs, and has managed contracts for Federal, state, and local governments as well as private clients. Her technical experience includes geologic/hydrogeologic studies, waste management, site assessments, remediation, wetlands and surface water quality, and regulatory compliance.

Senior Hydrogeologist, Mike G. Williams, P.G. Mike is a Senior Hydrogeologist with more than 17+ years of consulting experience, specializing in environmental services including siting investigations; permitting; environmental compliance; source area and water quality characterization; groundwater, surface water, and soil remediation; waste characterization; and risk assessments. Mike's experience with Dominion includes assisting the Clover Plant with stormwater and leachate quality with respect to manganese effluent limits in the VPDES permit, and site characterization and environmental permitting for a Greenfield ash monofill for the Chesterfield Plant. His technical experience includes treatability studies, environmental compliance monitoring programs, corrective action programs, geologic/hydrogeologic studies, site assessments, landfill gas remediation, wetlands permitting and mitigation, and regulatory compliance.

As noted previously, the project team is experienced on industrial wastewater treatment studies, designs, procurement and construction assistance, construction and commissioning. This experience includes a wide range of industrial treatment processes, plant flow rates, and industrial categories, including power generation.

Following the proposed study, Dominion may seek assistance in the implementation of the industrial wastewater treatment plant. Golder is prepared to assist with engineering, procurement and construction management (EPCM) assistance, or engineering, procurement and construction (EPC or design-build) capabilities, and has extensive experience with these project delivery methods. Golder is interested in discussing these opportunities with Dominion upon completing this project.

3.0 PROJECT REQUIREMENTS AND CLARIFICATIONS

The proposed project schedule, budget, and deliverables are subject to the following requirements:

- The treatment system evaluation and conceptual design will be based on historical analytical results and flow data to be provided by Dominion and the representative wastewater samples to be obtained from the untreated wastewater sources for Outfalls 002 and 009.
- If the representative samples obtained for this project contain pollutant concentrations that are significantly different from historical results, Golder will attempt to replicate the historical average wastewater quality for this evaluation based on average pollutant concentrations, to be determined from data provided by the project stakeholders.
- The treatment system will be based on a design flow derived from a statistical evaluation of available flow data (upper 80% confidence level).
- The evaluation's primary goal is the treatment of the Outfall 009 wastewater to remove manganese.
- The opinions of cost will be based on information supplied by equipment vendors and standard cost estimating references such as RS Means and similar trade publications and Golder's experience with similar WWTS designs.
- Detailed general arrangement drawings (site plans) and elevation drawings of the WWTS are not included in this scope.
- Consultation with local and state regulatory agencies is not included and these services, if requested, will be performed on a time-and-expense basis in accordance with the Terms & Conditions of this proposal.

4.0 SCHEDULE

Golder is prepared to initiate the activities proposed in this proposal immediately upon receipt of an authorization to proceed from the project Stakeholders. As discussed previously, representative wastewater samples are scheduled for collection on January 13, 2010. Our proposed schedule for the completion of this project is presented below:

Activity	**Completion Date**
Task 1: Source Evaluation, including data gap identification	January 22, 2010
Task 2: Wastewater Characterization (on-going as required)	February 19, 2010
Task 3: Treatability Study and *Recommendations Summary*	February 19, 2010
Stakeholder Meeting to discuss *Recommendation Summary*	Prior to March 1, 2010
Task 4: *Conceptual Design Report* (Stakeholder Meeting)	March 26, 2010

5.0 PROJECT DELIVERABLES

Deliverables for this project are as follows:

Recommendations Summary - Golder will complete the *Recommendations Summary* for the preferred WWTS technology no later than February 19, 2010. Draft copies of the *Recommendations Summary* will be provided to the project Stakeholders in electronic format (Acrobat Portable Document File format) by February 19, 2010, for review prior to the Stakeholder meeting that is recommended to be conducted no later than March 1, 2010. It is not anticipated that a final version of the *Recommendation Summary* will be prepared, rather comments and discussions on the preferred treatment technology during the Stakeholder meeting and as otherwise received by Golder from the project Stakeholders will be incorporated into the *Conceptual Design Report*.

Conceptual Design Report – Golder will provide the project Stakeholders with a draft hard copy of the *Conceptual Design Report* at the proposed March 26, 2010, Stakeholder meeting. Subsequent to the Stakeholder meeting, Golder will incorporate Stakeholder comments and recommendations into the final report and provide four bound hard copies and an electronic Acrobat Portable Document File of the *Conceptual Design Report* for the Stakeholder's internal use. Additional copies will be provided if requested.

6.0 BUDGET ESTIMATE

Golder estimates that it can complete the described scope of work for $158,000. The estimated fees associated with each task are summarized below.

Activity	Estimated Fee
Task 1: Source Evaluation, including data gap identification	$10,000
Task 2: Wastewater Characterization (on-going as required)	$7,800
Task 3: Treatability Study and *Recommendations Summary*	$54,500
Task 4: *Conceptual Design Report* (Stakeholder Meeting)	$85,700
	Project Total: $158,000

The fees are based upon the project limitations stated throughout this proposal and are summarized in the enclosed Fee Estimate Summary. Please note that this proposal does not include engineering design services related to the final design and construction of the WWTS. Golder would be pleased to provide a proposal to the project Stakeholders for these services at a later date if desired.

7.0 TERMS AND ACCEPTANCE

This scope of work will be conducted in accordance with the terms and conditions included under Value Contract 46027533. If this proposal is acceptable, please sign the enclosed acceptance form and return one copy to Golder.

We look forward to the opportunity to assist Dominion with this project. Please contact Dan McGrath at (804) 358-7900 should you have any questions.

Sincerely,

GOLDER ASSOCIATES INC.

Dan McGrath, P.E.
Senior Engineer

Kevin W. Conroy, P.E.
Principal and Water Treatment Practice Leader

cc: Ken Roller, Dominion
Tim Hamlet, Dominion

Attachments: Fee Estimate Summary

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Golder Associates, Inc.
Proposal Detail

Client Name: **Dominion Power**
Project Name: **Clover**
RFP Number: **none**

PROJECT SUMMARY											
Task/Item	**Practice Leader**	**Senior Consultant**	**Senior Engineer**	**Sr. Project Engineer**	**Project Engineer**	**Staff Engineer**	**Engineer**	**Senior Drafting**	**Lab Intern**	**Admin**	**Total**
	LV7	**LV6**	**LV5**	**LV4**	**LV3**	**LV2**	**LV1**	**LD3**	**LD2**	**LA2**	
Labor Hour Summary											
Task 1 - Source Evaluation	0	4	36	0	36	0	0	0	0	2	78
Task 2 - Characterization	0	2	16	0	46	0	0	0	0	2	66
Task 3 - Process Development	0	24	66	0	48	0	156	0	154	8	456
Task 4 - Conceptual Design Report	0	32	150	32	318	40	0	144	0	10	726
Task 5 -	0	0	0	0	0	0	0	0	0	0	0
Task 6 -	0	0	0	0	0	0	0	0	0	0	0
Task 7 -	0	0	0	0	0	0	0	0	0	0	0
Task 8 -	0	0	0	0	0	0	0	0	0	0	0
Total Labor Hours	0	62	268	32	448	40	156	144	154	22	1,326
Labor Cost Summary											
Labor Rate	$179.00	$158.00	$139.00	$118.00	$101.00	$86.00	$76.00	$84.00	$71.00	$58.00	
Task 1 - Source Evaluation	$0	$632	$5,004	$0	$3,636	$0	$0	$0	$0	$116	$9,388
Task 2 - Characterization	$0	$316	$2,224	$0	$4,646	$0	$0	$0	$0	$116	$7,302
Task 3 - Process Development	$0	$3,792	$9,174	$0	$4,848	$0	$11,856	$0	$10,934	$464	$41,068
Task 4 - Conceptual Design Report	$0	$5,056	$20,850	$3,776	$32,118	$3,440	$0	$12,096	$0	$580	$77,916
Task 5 -	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Task 6 -	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Task 7 -	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Task 8 -	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Labor Cost	$0	$9,796	$37,252	$3,776	$45,248	$3,440	$11,856	$12,096	$10,934	$1,276	$135,674
Project Cost Summary											
	Travel	Office	Other	Subtotal	Markup 10.00%	Subtotal	Labor	Services Fee 7.00%	Subtotal		
Task 1 - Source Evaluation	$0	$0	$0	$0	$0	$0	$9,388	$657	$10,045		$10,045
Task 2 - Characterization	$0	$0	$0	$0	$0	$0	$7,302	$511	$7,813		$7,813
Task 3 - Process Development	$2,130	$0	$7,500	$9,630	$963	$10,593	$41,068	$2,875	$43,943		$54,536
Task 4 - Conceptual Design Report	$2,130	$0	$0	$2,130	$213	$2,343	$77,916	$5,454	$83,370		$85,713
Task 5 -	$0	$0	$0	$0	$0	$0	$0	$0	$0		$0
Task 6 -	$0	$0	$0	$0	$0	$0	$0	$0	$0		$0
Task 7 -	$0	$0	$0	$0	$0	$0	$0	$0	$0		$0
Task 8 -	$0	$0	$0	$0	$0	$0	$0	$0	$0		$0
Cost Summary	$4,260	$0	$7,500	$11,760	$1,176	$12,936	$135,674	$9,497	$145,171	$158,107	$158,107

Golder Associates Inc.

3719 Saunders Avenue
Richmond, Virginia 23227
Telephone (804) 358-7900
Fax (804) 358-2900

ATTACHMENT 2: PROPOSAL ACCEPTANCE FORM

PROPOSAL NUMBER: **P0396844**

RE: **Proposal for Leachate Treatment - Clover Power Station, Dominion Generation**

SUBMITTED this **13th** day of **January** in the year **2010**

BY: **Daniel McGrath, P.E.** , for Golder Associates Inc. (GAI)

This proposal and terms and conditions of Dominion Value Contract No. 46027533 comprise the entire agreement between GAI and Dominion.

ACCEPTED this _____ day of _____ in the year _____

BY: _____
(Signature)

NAME: (Print or Type) _____

TITLE: (Print or Type) _____

FOR: Client Name and Address (Print or Type)
Dominion Generation
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, Virginia 23060

Clover Manganese Limit

Management Update

Brief History

- Outfall 009 (discharge from landfill).
- 50 ug/L Total Manganese limit.
- Included in permit with 4-year compliance schedule with deadline of 01/01/2010.
- Permit modified 12/29/2009 to include new compliance deadline of 01/15/2011.

What are we doing?

- Assembled Compliance Team (EES, F&H, Station).
- Developed Compliance Strategy
  - Includes Outfall 002 (coal pile runoff pond): Permit limit for this discharge probable when permit reissued (Expiration date (01/23/2011).

Compliance Strategy

- Ensure compliance with permit!
- Identify wastewater treatment alternatives and implementation schedules
  - Evaluate comprehensive approach Outfalls 009 & 002
  - Evaluate Outfall 009 separately
- Identify alternatives to discharge (just in case)
- Other Water Quality Standards alternatives outside of reasonable compliance window.

Wastewater Treatability Studies

- Golder, Inc. performed treatability analyses
- Draft report with treatment recommendation received
- Estimated cost ~$5 M Capital & 0.5 M O&M (only includes treatment plant)

Alternatives to Discharge (Outfall 009)

- Pump and haul to South Boston WWTP (~38 Mgpy)
  - Have applied for authorization
  - Preliminary feedback is that wastewater may not be accepted due to high TDS.
- Discharge, with or without pretreatment, to raw water storage pond
  - Estimates are that this would work for 6 months before TDS would affect treatment system.

Discussions with DEQ

- DEQ is not willing to extend compliance schedule for Outfall 009 (i.e., must meet limit 01/15/2011).
- A new compliance schedule for Outfall 002 can be incorporated into the reissued permit.
- Need solution to bridge gap between January 2011 and completion of treatment plant to treat both discharges.

Where are we?

- Continuing to investigate alternatives to discharging Outfall 009.
- Aggressive schedule to achieve compliance for both outfalls by April 2012.
- Most aggressive schedule for Outfall 009 indicates compliance date of July 2011.

COMMONWEALTH OF VIRGINIA

STATE CORPORATION COMMISSION

AT RICHMOND, AUGUST 5, 2019

PETITION OF

VIRGINIA ELECTRIC AND POWER COMPANY — CASE NO. PUR-2018-00195

For approval of a rate adjustment clause, designated Rider E, for the recovery of costs incurred to comply with state and federal environmental regulations pursuant to § 56-585.1 A 5 e of the Code of Virginia

FINAL ORDER

On December 14, 2018, pursuant to Code § 56-585.1 A 5 e and the State Corporation Commission's ("Commission") Rules Governing Utility Rate Applications and Annual Informational Filings,[1] Virginia Electric and Power Company d/b/a Dominion Energy Virginia ("Dominion" or "Company") filed with the Commission a petition ("Petition") for approval of a rate adjustment clause, designated Rider E, for the recovery of costs incurred to comply with state and federal environmental regulations.

The Company seeks cost recovery for certain environmental projects located at the Company's Chesterfield Power Station ("Chesterfield"), Clover Power Station ("Clover"), and Mt. Storm Power Station ("Mt. Storm") (collectively, "Power Stations").[2] The Petition states that the environmental projects are required for Dominion to comply with the United States Environmental Protection Agency's ("EPA") "Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities; Final Rule" ("CCR Rule").[3] The

[1] 20 VAC 5-201-10 *et seq.*

[2] Ex. 2 (Petition) at 3-4.

[3] *Id.* at 4.

Company states that to comply with the CCR Rule, it is required to close or retrofit certain coal ash ponds and certain water treatment basins and flue gas desulfurization sludge ponds that contain coal ash at its coal-fired power stations.[4] In addition, the Company asserts that compliance with the EPA's Steam Electric Power Generating Effluent Guidelines ("ELG Rule") is also a driver of certain of the environmental projects.[5]

The Company seeks recovery of three general categories of costs: (i) actual costs associated with closure of existing assets (such as a coal ash pond) at the Power Stations; (ii) actual and projected costs associated with newly constructed assets necessary to allow the Power Stations to continue to operate in compliance with environmental laws and regulations; and (iii) actual and projected costs associated with asset retirement obligations for the newly constructed assets.[6]

Dominion asks the Commission to approve Rider E for the rate year beginning November 1, 2019, and ending October 31, 2020 ("2019 Rate Year").[7] The Company states that the components of the revenue requirement are: the Projected Cost Recovery Factor; the Allowance for Funds Used During Construction Cost Recovery Factor; and the Actual Cost True-Up Factor.[8] Dominion originally requested a total revenue requirement of $113,650,000 for service rendered during the 2019 Rate Year; after making certain adjustments and corrections during the course of this proceeding, the Company now supports a revised total revenue

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[4] Ex. 3 (Taylor Direct) at 4.

[5] Ex. 2 (Petition) at 5.

[6] Ex. 2 (Petition) at 3; Ex. 3 (Taylor Direct) at 3.

[7] Ex. 2 (Petition) at 5; Ex. 6 (Givens Direct) at 2.

[8] Ex. 2 (Petition) at 5; Ex. 6 (Givens Direct) at 3.

requirement of $107,354,000.[9] In addition, for purposes of calculating the revenue requirement in this case, Dominion utilized a rate of return on common equity of 9.2%, which was approved by the Commission in its Final Order in Case No. PUR-2017-00038.[10]

On January 8, 2019, the Commission issued an Order for Notice and Hearing that, among other things: established a procedural schedule; set an evidentiary hearing date; directed Dominion to provide public notice of its Petition; and provided interested persons an opportunity to file comments on the Petition or to participate in the case as a respondent by filing a notice of participation. Notices of participation were filed by: Sierra Club; Virginia Committee for Fair Utility Rates ("Committee"); and the Virginia Office of the Attorney General, Division of Consumer Counsel ("Consumer Counsel").[11]

On June 10, 2019, Sierra Club filed a Motion *in Limine*.[12]

On June 11-12, 2019, the Commission convened an evidentiary hearing on the Petition. The Company, Sierra Club, the Committee, Consumer Counsel, and Commission Staff ("Staff") participated at the hearing.[13] On June 26, 2019, each of these participants filed an issues list as directed by the Commission.

NOW THE COMMISSION, upon consideration of this matter, is of the opinion and finds as follows.

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[9] *See* Ex. 2 (Petition) at 7; Ex. 18 (Davis Supp.) at 2; Tr. 14.

[10] Ex. 2 (Petition) at 5; *Application of Virginia Electric and Power Company, For the determination of the fair rate of return on common equity to be applied to its rate adjustment clauses,* Case No. PUR-2017-00038, 2017 S.C.C. Ann. Rept. 475, Final Order (Nov. 29, 2017).

[11] The Commission also received three electronically-submitted public comments on the Petition.

[12] As the Motion *in Limine* is now moot, the Commission shall not rule thereon.

[13] No public witnesses appeared to testify at the hearing. Tr. 10.

Code of Virginia

Code § 56-585.1 A 5 states as follows:

> A utility may at any time, after the expiration or termination of capped rates, but not more than once in any 12-month period, petition the Commission for approval of one or more rate adjustment clauses for the timely and current recovery from customers of the following costs: ...
>
> e. Projected and actual costs of projects that the Commission finds to be necessary to comply with state or federal environmental laws or regulations applicable to generation facilities used to serve the utility's native load obligations. The Commission shall approve such a petition if it finds that such costs are necessary to comply with such environmental laws or regulations; ....

Code § 56-585.1 D further provides in part:

> The Commission may determine, during any proceeding authorized or required by this section, the reasonableness or prudence of any cost incurred or projected to be incurred, by a utility in connection with the subject of the proceeding. A determination of the Commission regarding the reasonableness or prudence of any such cost shall be consistent with the Commission's authority to determine the reasonableness or prudence of costs in proceedings pursuant to the provisions of Chapter 10 (§ 56-232 et seq.). ....

Mt. Storm and Clover Power Stations

No party asserted that the costs of the environmental projects at Mt. Storm ($48.0 million) and Clover ($7.6 million) fail to satisfy the above statutory criteria.[14] The Commission approves the Company's request to recover the environmental project costs identified in this case attendant to these two power stations.[15]

[14] *See, e.g.*, Tr. 17, 30, 178, 478.

[15] In addition, the Commission approves an accelerated five-year recovery period for the asset retirement cost associated with the ponds at Mt. Storm and Clover, which was not opposed by the Company and will result in a lower lifetime revenue requirement to be paid by customers. *See, e.g.*, Ex. 18 (Davis Direct) at 16; Ex. 18 (Davis Supp.) at 4; Ex. 22; Ex. 25 (Givens Rebuttal) at 7.

Chesterfield Power Station

The environmental projects at Chesterfield involve Units 3, 4, 5, and 6. These projects totaled $246.9 million and are comprised of the following: Wet-to-Dry Conversion ($124.2 million); Reymet Road Landfill ("Landfill") ($66.8 million); and Low Volume Waste Water Treatment System ("Waste Water Treatment System") ($55.9 million).[16]

Consumer Counsel asserts that Dominion did not "carry its burden of proof and establish that it reasonably and prudently incurred the costs" of the environmental projects for Chesterfield Units 3, 4, 5, and 6.[17] Similarly, Sierra Club argues that the Company has not "met its obligation to demonstrate" that its investment in these environmental projects was "reasonable and prudent."[18] Sierra Club also asserts that Dominion has failed to demonstrate that the environmental projects at Chesterfield "will be used and useful going forward."[19]

The Commission has fully considered the evidence and arguments in the record supporting and opposing Dominion's requests.[20] To the extent there is conflicting evidence or differing opinions from expert witnesses, the Commission has interpreted such and decided how

[16] *See, e.g.*, Ex. 4 (Mitchell Direct) at 7-8; Ex. 15 (Norwood) at 6.

[17] Consumer Counsel's June 26, 2019 Issues List at 1.

[18] Sierra Club's June 26, 2019 Issues List at 1-3.

[19] *Id.* at 5.

[20] *See also Board of Supervisors of Loudoun County v. State Corp. Comm'n*, 292 Va. 444, 454 n.10 (2016) ("We note that even in the absence of this representation by the Commission, pursuant to our governing standard of review, the Commission's decision comes to us with a presumption that it considered all of the evidence of record.") (citation omitted).

much "weight to afford it."[21] Further, the Commission has concluded that its findings in this matter are properly supported by the record.[22]

Wet-to-Dry Conversion for Units 3 and 4

In December 2018, the Company placed Chesterfield Units 3 and 4 into cold storage.[23] In March 2019, Dominion announced the retirement of Units 3 and 4 permanently.[24] As a result, the Wet-to-Dry Conversion for Units 3 and 4 is not used in providing service to the public and is not providing benefits to retail customers.[25] In addition, because these units are retired, the Wet-to-Dry Conversion is not currently necessary to comply with federal regulations.

In this instance, however, such finding does not end the analysis. The Commission will also consider the Company's assertion that it was reasonable and prudent to incur the Wet-to-Dry Conversion cost for Units 3 and 4 based on the circumstances at the time Dominion made such investment decision.[26] In this regard, the Commission finds that Dominion has failed to establish in the instant proceeding that it was reasonable and prudent to incur this environmental capital cost for Units 3 and 4 based on the circumstances existing at such time.

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[21] *City of Alexandria v. State Corp. Comm'n*, 296 Va. 79, 102 (2018) ("The Commission is entitled to interpret the conflicting evidence and to decide the weight to afford it.") (citing *Board of Supervisors of Loudoun County*, 292 Va. at 458) (internal quotation marks omitted).

[22] *See, e.g., id.* ("[W]hether the Commission could have [reached a different conclusion] ... is not the standard. ... Instead, the question is whether there is sufficient evidence in the record to support the Commission's finding ....") (internal quotation marks and citations omitted).

[23] *See, e.g.*, Ex. 21 (Myers) at 2; Ex. 23 (Abbott) at Attachment GLA-1.

[24] *See, e.g.*, Ex. 9 (Fisher) at 7; Ex. 23 (Abbott) at Attachment GLA-1.

[25] The incremental portion of the Wet-to-Dry Conversion cost attributable to Units 3 and 4 is $18.4 million. *See, e.g.*, Tr. 17; Ex. 21 (Myers) at 1-2, 4-6.

[26] *See, e.g.*, Tr. 19-20, 470-71.

The Company made the investment decision at issue herein in the June 2015 timeframe.[27] In June 2015, however, the Company's own analyses showed that Units 3 and 4 were expected to be either retired, or retrofitted to burn natural gas, by 2020. In June 2014, the EPA issued its proposed Clean Power Plan ("CPP") to regulate carbon emissions from existing power plants.[28] When Dominion subsequently filed its 2015 Integrated Resource Plan ("2015 IRP") with the Commission on July 1, 2015, the Company concluded that "it is *prudent* to begin planning *now* for implementation of a final [CPP] rule substantially similar to the proposed [CPP] released in 2014."[29]

In accordance with this assertion, Dominion's 2015 IRP presented four possible CPP-compliant resource plans that "represent[ed] long-term plausible paths for compliance with the [CPP]."[30] Under each of these plans, Units 3 and 4 were either retired, or retrofitted to burn natural gas, by 2020.[31] It is undisputed that the Company had these 2015 IRP results when it decided to make the environmental investment for Units 3 and 4.[32] In addition, Dominion prepared a subsequent analysis in 2015, which similarly concluded that Units 3 and 4 should

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[27] The Company executed the contract for the Wet-to-Dry Conversion in June 2015. *See, e.g.*, Ex. 26 (Mitchell Rebuttal) at 6. The Company obtained two bids for the Wet-to-Dry Conversion, one including and one excluding Units 3 and 4. *Id.* at 10. The Wet-to-Dry Conversion went into service in December 2017. *See, e.g.*, Ex. 4 (Mitchell Direct) at 7.

[28] Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34830 (proposed June 18, 2014). *See also* Ex. 8 (Glick) at 19 n.32; Ex. 15 (Norwood) at 8.

[29] 2015 IRP (*see* Ex. 15 (Norwood) at SN-2 p.2) (emphasis added).

[30] *Id.*

[31] *See, e.g.*, Ex. 15 (Norwood) at 10 and SN-4. Dominion's 2015 IRP also presented a least-cost plan that would not comply with CPP emissions standards, under which Units 3 and 4 would continue to operate. The Company acknowledges, however, that this least-cost plan was not presented as a resource planning alternative but, rather, was only included for reference purposes to compare against the CPP-compliant plans. *See, e.g.*, Ex. 15 (Norwood) at 10, SN-2 p.3, and SN-4.

[32] *See, e.g.*, Tr. 266-268, 304.

continue operation only in the "short term," and that life extension capital expenditures for these units should be "avoid[ed]."[33] Indeed, consistent with its own internal analyses, Dominion's operating team at Units 3 and 4 successfully sought out reasonable alternatives to repair these units without incurring life extension capital expenditures and, furthermore, reasonably "avoided other major capital investments" for these units.[34] Yet, with all of this information in hand, the Company's management contemporaneously chose to proceed with investing additional long-term environmental compliance capital into these units.[35]

The Commission further finds that other evidence presented by Dominion in support of its decision does not alter our conclusion herein regarding Units 3 and 4. For example, Dominion relies upon a one-page May 2015 retirement summary, which lists a $50 million net present value benefit for Units 3 and 4.[36] This one-page summary, however, does not identify the detailed assumptions, analyses, modeling parameters, or sensitivity studies that may have been utilized to reach (and to establish the reasonableness of) the summarized results for Units 3 and 4.[37] In short, the Commission finds that the analyses presented by Dominion in support of

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[33] Ex. 30 (Kelly Rebuttal) at 15-16. *See also* Ex. 29; Tr. 313-317. Dominion also notes that its 2015 IRP eventually proved incorrect (because CPP was not implemented as assumed therein), and that Units 3 and 4 were retired for other reasons. *See, e.g.*, Tr. 207-208, 482. As argued by the Company, however, the Commission must evaluate the circumstances as they existed at the time such decision was made in 2015, not in "hindsight." *See, e.g.*, Tr. 470.

[34] *See, e.g.*, Ex. 28 (Bennett Rebuttal) at 9-10.

[35] At the same time, Dominion also supported specific Virginia legislation in 2015 to address the Company's claimed expectations (which included early retirement of Units 3 and 4) for implementation of the CPP. *See, e.g.*, Tr. 173-177.

[36] *See, e.g.*, Ex. 30 (Kelly Rebuttal) at 13; Tr. 483-84; Ex. 15ES (Norwood) at 12.

[37] *See, e.g.*, Ex. 15 (Norwood) at 12; Tr. 125-131. The Company also presented a March 2015 analysis examining whether to co-fire Units 3 through 6 on natural gas. *See, e.g.*, Ex. 30 (Kelly Rebuttal) at 9-11. This co-fire analysis is not a substitute for detailed retirement or cold storage analyses for Units 3 and 4 that are not in the record. *See, e.g.*, Ex. 10ES.

its decision (and the Company's testimony thereon) are insufficient to establish that it was reasonable and prudent to incur the Wet-to-Dry Conversion cost for Units 3 and 4 based on the specific facts in this record attendant to those units at the time.

Finally in this regard, Dominion asserts that based on the history of electric utility regulation in the Commonwealth, it would represent "a very extraordinary finding" if the Commission concludes that a utility's capital investment was not reasonable and prudent.[38] The Company further states that such decisions by the Commission represent "a very situational inquiry" that must be made on a case-by-case basis.[39] We agree and that is what we have done herein.

In conclusion, the Wet-to-Dry Conversion for Units 3 and 4 is not being used to serve customers. Pursuant to Code § 56-585.1 D, the Commission finds that Dominion has not established that the "cost incurred" for this project was reasonable and prudent at the time such cost was incurred. The Company likewise has not established that such cost was "necessary" under Code § 56-585.1 A 5 e. Accordingly, the Wet-to-Dry Conversion for Units 3 and 4 shall not be reflected in the revenue requirement for Rider E.

Wet-to-Dry Conversion for Units 5 and 6; Landfill; Waste Water Treatment System

The Commission finds that the Wet-to-Dry Conversion for Units 5 and 6, the Landfill, and the Waste Water Treatment System shall be reflected in the revenue requirement for Rider E.

In stark contrast to Units 3 and 4, Chesterfield Units 5 and 6 continue to serve native load customers. Although the nature of that service may continue to evolve over time, these units

[38] Tr. 472.

[39] Tr. 474.

provide a reasonable benefit to customers by remaining available for service when needed.[40] Moreover, not only are these units in-service and reasonably available for the benefit of customers, those customers will continue to pay the historical capital costs therefor in base rates over the remaining useful lives thereof.[41] In light of the foregoing and based on the record in this proceeding, the Commission finds these units are reasonably utilizing the Wet-to-Dry Conversion, the Landfill, and the Waste Water Treatment System.[42] Indeed, no party in this case established a legal basis upon which the Commission would be required to reject specific Rider E environmental costs, sought to be recovered in the 2019 Rate Year, when such costs are "used and useful" in serving native load customers as found herein.[43]

Next, also unlike the Wet-to-Dry Conversion for Units 3 and 4, the Commission finds that Dominion reasonably and prudently incurred these specific environmental costs at the time such cost was incurred. In contrast to Units 3 and 4 at that time, Units 5 and 6:

(i) were newer, larger, and more efficient facilities;

(ii) were not expected to transition to intermediate or peaking status;

(iii) were not recommended for operation only in the "short term";

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[40] *See, e.g.*, Ex. 15ES (Norwood) at 5 (listing 2018 capacity factors). Dominion also testified that, based on a 2019 analysis, Units 5 and 6 should continue to operate for another decade under various market scenarios. *See, e.g.*, Ex. 30 (Kelly Rebuttal) at 24-25.

[41] This is not the case with Units 3 and 4. Specifically, the Company took a write-off on its books for the unrecovered base rate portion of Units 3 and 4 when it decided to retire those units. Tr. 241-242. This means that the Company will recover the remaining net book value of Units 3 and 4 through base rates in its first upcoming triennial review in 2021. *Id. See also* Code §§ 56-585.1 A 3 and A 8.

[42] *See, e.g.*, Ex. 26 (Mitchell Rebuttal) at 8; Tr. 53, 479-480.

[43] *See also Virginia Elec. and Power Co. v. State Corp. Comm'n*, 219 Va. 894, 901 (1979) ("Moreover, in determining the rate base upon which the utility is entitled to a reasonable rate of return, the Commission must decide which facilities are used and useful in providing service to the public.") (citing *Commonwealth v. Virginia Elec. and Power Co.*, 211 Va. 758, 760 (1971)).

(iv) were not avoiding major capital investments; and

(v) were not slated for retirement by 2020 under CPP-compliant plans in the 2015 IRP.[44]

The Commission also finds that the Company has reasonably implemented a phased approach for the Landfill, which will control the spending therefor while continuing to meet environmental compliance deadlines.[45] In addition, the Waste Water Treatment System (which was required by the ELG Rule) will be further necessary throughout the life of the Landfill and during the decommissioning of retired plant at Chesterfield.[46]

In conclusion, the Commission finds that the cost of these environmental projects, which are being used to serve Units 5 and 6, are "necessary" under Code § 56-585.1 A 5 e. The Commission also finds that the "cost incurred" for these environmental projects was reasonable and prudent pursuant to Code § 56-585.1 D at the time such cost was incurred. Accordingly, the Wet-to-Dry Conversion for Units 5 and 6, the Landfill, and the Waste Water Treatment System shall be reflected in the revenue requirement for Rider E.[47]

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[44] *See, e.g.*, Ex. 28 (Bennett Rebuttal) at 2, 9; Ex. 30 (Kelly Rebuttal) at 17, 22, 24-25; Ex. 15ES (Norwood) at 5; Ex. 27; Ex. 36; Tr. 479. One of the CPP-compliant plans in the 2015 IRP reflected natural gas conversion for all four coal units at Chesterfield by 2020. *See, e.g.*, Ex. 15 (Norwood) at 10 and SN-4. Based on the specific facts in this record attendant to Units 5 and 6, the Commission also finds that it was reasonable and prudent not to decide at that time to retrofit these units for natural gas. This is further supported by the March 2015 co-fire analysis. *See, e.g.*, Ex. 30 (Kelly Rebuttal) at 9-11. Nor have we found that it was imprudent or unreasonable for the Company not to delay the planned environmental investment for Units 5 and 6. *See, e.g.*, Ex. 26 (Mitchell Rebuttal) at 9.

[45] *See, e.g.*, Ex. 26 (Mitchell Rebuttal) at 8.

[46] *See, e.g., id.* Further, the Commission does not find that the Landfill and Waste Water Treatment System are oversized such that a portion of the costs thereof should be denied in the current proceeding.

[47] The Commission also approves the Company's Factor 1 (Average and Excess) for purposes of allocating the revenue requirement of Rider E at this time. *See, e.g.*, Tr. 31-34. This finding, however, does not preclude the Commission from subsequently approving other allocation methodologies for environmental projects reflected in Rider E or in other retail rates. In addition, as agreed to by Dominion, the Company's next Rider E application shall also include analyses and options attendant to the potential recovery of these costs from retail choice customers. *See, e.g.*, Tr. 403.

Accordingly, IT IS ORDERED THAT:

(1) Dominion's Petition for approval of a rate adjustment clause, designated as Rider E, is granted in part and denied in part as set forth herein.

(2) The Company shall file, within thirty (30) days of the date of this Final Order, a revised Rider E and supporting workpapers with the Clerk of the Commission and with the Commission's Divisions of Public Utility Regulation and Utility Accounting and Finance, as necessary to comply with the directives set forth in this Final Order. The Clerk of the Commission shall retain such filing for public inspection in person and on the Commission's website: http://www.scc.virginia.gov/case.

(3) Pursuant to Code § 56-585.1 A 7, the Company may implement Rider E, as approved herein, for service rendered on and after 60 days from the date of this Final Order. Alternatively, as requested by the Company, the Company may implement Rider E, as approved herein, for service rendered on and after November 1, 2019.

(4) The Company shall file its next annual Rider E application on or after January 2, 2020.

(5) This case is dismissed.

AN ATTESTED COPY hereof shall be sent by the Clerk of the Commission to all persons on the official Service List in this matter. The Service List is available from the Clerk of the Commission, c/o Document Control Center, 1300 East Main Street, First Floor, Tyler Building, Richmond, Virginia 23219.

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Blue Ridge Regional Office
www.deq.virginia.gov

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Secretary of Natural Resources

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January 13, 2011

Mr. C. D. Holley
VP Fossil & Hydro Systems Operation
Virginia Electric Power Company & Old Dominion Electric Cooperative
4201 Dominion Boulevard
Glen Allen, VA 23060

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: Reissuance of VPDES Permit No. VA0083097 – Dominion-Clover Power Station

Dear Mr. Holley:

Your VPDES permit is enclosed along with the final public participation pages of the fact sheet. A Discharge Monitoring Report (DMR) form for each outfall is included with the permit. Please make additional copies of the DMR for future use. The first DMR for the month of **February** is due by **March 10, 2011**. Please send the DMR to:

Department of Environmental Quality
Blue Ridge Regional Office-Lynchburg
7705 Timberlake Road
Lynchburg, VA 24502

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a notice of appeal in accordance with the Rules of the Supreme Court of Virginia with the Director, Department of Environmental Quality. In the event that this decision is served on you by mail, three days are added to the period.

Alternatively, any owner under §§62.1-44.16, 62.1-44.17, and 62.1-44.19 of the State Water Control Law aggrieved by any action of the state water Control Board taken without formal hearing, or by inaction of the Board, may demand in writing a formal hearing of such owner's grievance, provided a petition requesting such hearing is filed with the Board. Said petition must meet the requirements set forth in §1.23(b) of the Board's Procedural Rule No. 1. In cases involving actions of the Board, such petition must be filed within thirty days after notice of such action is mailed to such owner by certified mail.

If you have any questions about the permit, please contact Frank Bowman at (434) 582-6207 or by e-mail frank.bowman@deq.virginia.gov.

Sincerely,

Robert J. Weld
Regional Director

Enclosure: Fact Sheet pages, VPDES Permit and DMR for Permit No. VA0083097

cc: OWPP
EPA, Region III-3WP12
VDH RO – 1347 Piney Forest Road, Danville, VA 24540
Ms. Cathy C. Taylor; Director, Electric Environmental Services; Dominion Resources Services, Inc.
BRRO Compliance Auditor
BRRO Permit File

27. **EPA/VIRGINIA DRAFT PERMIT SUBMISSION CHECKLIST:**

SEE ATTACHMENT 14

28. **DEQ PLANNING COMMENTS RECEIVED ON DRAFT PERMIT:** Document any comments received from DEQ planning.

The discharge is not addressed in any planning document but will be included when the plan is updated.

29. **PUBLIC PARTICIPATION:** Document comments/responses received during the public participation process. If comments/responses provided, especially if they result in changes to the permit, place in the attachment.

VDH COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the Virginia Dept. of Health and noted how resolved.

By memo dated July 27, 2010, the VDH provided the following comments: "This permit application contains a proposed treatment facility to remove manganese such that the discharge from current outfalls 002/009 does not exceed 0.05 mg/l. We note that the sample result for outfall 006/007/008 was 5.89 mg/l for manganese. **We recommend that the Public Water Supply Water Quality Standards be maintained in the Public Water Supply stream segments downstream.**" These are storm water outfalls and will be addressed in the SWPPP.

EPA COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the U.S. Environmental Protection Agency and noted how resolved.

EPA has no objections to the adequacy of the draft permit.

ADJACENT STATE COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from an adjacent state and noted how resolved.

Not Applicable.

OTHER AGENCY COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from any other agencies (e.g., VIMS, VMRC, DGIF, etc.) and noted how resolved.

The draft permit was sent to DGIF and no comments were received.

OTHER COMMENTS RECEIVED FROM RIPARIAN OWNERS/CITIZENS ON DRAFT PERMIT: Document any comments received from other sources and note how resolved.

The application and draft permit have received public notice in accordance with the VPDES Permit Regulation, and no comments were received.

PUBLIC NOTICE INFORMATION: Comment Period: **Start Date:** December 9, 2010
End Date: January 10, 2011

Persons may comment in writing or by e-mail to the DEQ on the proposed reissuance of the permit within 30 days from the date of the first notice. Address all comments to the contact person listed below. Written or e-mail comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The Director of the DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requestor's interests would be directly and adversely affected by the proposed permit action.

All pertinent information is on file and may be inspected, and arrangements made for copying by contacting Frank Bowman at: Department of Environmental Quality (DEQ), Blue Ridge Regional Office, 7705

Timberlake Road, Lynchburg, VA 24502. Telephone: 434-582-6207 E-mail: frank.bowman@deq.virginia.gov

Following the comment period, the Board will make a determination regarding the proposed reissuance. This determination will become effective, unless the Director grants a public hearing. Due notice of any public hearing will be given.

30. **ADDITIONAL FACT SHEET COMMENTS/PERTINENT INFORMATION:**

The permittee is current with their annual permit maintenance fees.

31. **SUMMARY OF SPECIFIC ATTACHMENTS LABELED AS:**

Attachment 1 Site Inspection Report/Memorandum
Attachment 2 Discharge Location/Topographic Map
Attachment 3 Schematic/Plans & Specs/Site Map/Water Balance
Attachment 4 Discharge/Outfall Description
Attachment 5 Limitations/Monitoring
Attachment 6 Special Conditions
Attachment 7 Effluent/Sludge/Ground Water Limitations/Monitoring Rationale/Suitable Data/ Stream Modeling/Antidegradation/Antibacksliding
Attachment 8 Special Conditions Rationale
Attachment 9 Material Stored
Attachment 10 Receiving Waters Info./Tier Determination/STORET Data
Attachment 11 303(d) Listed Segments
Attachment 12 TABLE A and TABLE B - Change Sheets
Attachment 13 NPDES Industrial Permit Rating Worksheet
Attachment 14 EPA/Virginia Draft Permit Submission Checklist
Attachment 15 Chronology Sheet
Attachment ___

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No.:	VA0083097
Effective Date:	January 13, 2011
Expiration Date:	January 12, 2016

AUTHORIZATION TO DISCHARGE UNDER THE

VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM

AND

THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, the following owner is authorized to discharge in accordance with the information submitted with the permit application, and with this permit cover page, and Parts I and II of this permit, as set forth herein.

Owners:	Virginia Electric and Power Company, and Old Dominion Electric Cooperative
Facility Name:	Dominion-Clover Power Station
County:	Halifax
Facility Location:	4091 Clover Road; Clover, VA

The owner is authorized to discharge to the following receiving stream:

Stream:	Roanoke River (Outfalls 001, 002, 004, 005 and 009) Black Walnut Creek (Outfalls 003, 006-008 and 011-016)
River Basin:	Roanoke River
River Subbasin:	Roanoke River
Section:	5 (Roanoke River) 5a (Black Walnut Creek)
Class:	IV (Roanoke River) III (Black Walnut Creek)
Special Standards:	PWS

Robert J. Weld, Director, Blue Ridge Regional Office

1/13/2011
Date

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Blue Ridge Regional Office
www.deq.virginia.gov

Douglas W. Domenech
Secretary of Natural Resources

David K. Paylor
Director

Robert J. Weld
Regional Director

Lynchburg Office
7705 Timberlake Road
Lynchburg, Virginia 24502
(434) 582-5120
Fax (434) 582-5125

Roanoke Office
3019 Peters Creek Road
Roanoke, Virginia 24019
(540) 562-6700
Fax (540) 562-6725

January 13, 2011

Mr. C. D. Holley
VP Fossil & Hydro Systems Operation
Virginia Electric Power Company & Old Dominion Electric Cooperative
4201 Dominion Boulevard
Glen Allen, VA 23060

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: Reissuance of VPDES Permit No. VA0083097 – Dominion-Clover Power Station

Dear Mr. Holley:

Your VPDES permit is enclosed along with the final public participation pages of the fact sheet. A Discharge Monitoring Report (DMR) form for each outfall is included with the permit. Please make additional copies of the DMR for future use. The first DMR for the month of **February** is due by **March 10, 2011.** Please send the DMR to:

Department of Environmental Quality
Blue Ridge Regional Office-Lynchburg
7705 Timberlake Road
Lynchburg, VA 24502

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a notice of appeal in accordance with the Rules of the Supreme Court of Virginia with the Director, Department of Environmental Quality. In the event that this decision is served on you by mail, three days are added to the period.

Alternatively, any owner under §§62.1-44.16, 62.1-44.17, and 62.1-44.19 of the State Water Control Law aggrieved by any action of the state water Control Board taken without formal hearing, or by inaction of the Board, may demand in writing a formal hearing of such owner's grievance, provided a petition requesting such hearing is filed with the Board. Said petition must meet the requirements set forth in §1.23(b) of the Board's Procedural Rule No. 1. In cases involving actions of the Board, such petition must be filed within thirty days after notice of such action is mailed to such owner by certified mail.

If you have any questions about the permit, please contact Frank Bowman at (434) 582-6207 or by e-mail frank.bowman@deq.virginia.gov.

Sincerely,

Robert J. Weld
Regional Director

Enclosure: Fact Sheet pages, VPDES Permit and DMR for Permit No. VA0083097

cc: OWPP
EPA, Region III-3WP12
VDH RO – 1347 Piney Forest Road, Danville, VA 24540
Ms. Cathy C. Taylor; Director, Electric Environmental Services; Dominion Resources Services, Inc.
BRRO Compliance Auditor
BRRO Permit File

27. **EPA/VIRGINIA DRAFT PERMIT SUBMISSION CHECKLIST:**

SEE ATTACHMENT 14

28. **DEQ PLANNING COMMENTS RECEIVED ON DRAFT PERMIT:** Document any comments received from DEQ planning.

The discharge is not addressed in any planning document but will be included when the plan is updated.

29. **PUBLIC PARTICIPATION:** Document comments/responses received during the public participation process. If comments/responses provided, especially if they result in changes to the permit, place in the attachment.

VDH COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the Virginia Dept. of Health and noted how resolved.

By memo dated July 27, 2010, the VDH provided the following comments: "This permit application contains a proposed treatment facility to remove manganese such that the discharge from current outfalls 002/009 does not exceed 0.05 mg/l. We note that the sample result for outfall 006/007/008 was 5.89 mg/l for manganese. **We recommend that the Public Water Supply Water Quality Standards be maintained in the Public Water Supply stream segments downstream."** These are storm water outfalls and will be addressed in the SWPPP.

EPA COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the U.S. Environmental Protection Agency and noted how resolved.

EPA has no objections to the adequacy of the draft permit.

ADJACENT STATE COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from an adjacent state and noted how resolved.

Not Applicable.

OTHER AGENCY COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from any other agencies (e.g., VIMS, VMRC, DGIF, etc.) and noted how resolved.

The draft permit was sent to DGIF and no comments were received.

OTHER COMMENTS RECEIVED FROM RIPARIAN OWNERS/CITIZENS ON DRAFT PERMIT: Document any comments received from other sources and note how resolved.

The application and draft permit have received public notice in accordance with the VPDES Permit Regulation, and no comments were received.

PUBLIC NOTICE INFORMATION: Comment Period: **Start Date:** December 9, 2010
End Date: January 10, 2011

Persons may comment in writing or by e-mail to the DEQ on the proposed reissuance of the permit within 30 days from the date of the first notice. Address all comments to the contact person listed below. Written or e-mail comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The Director of the DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requestor's interests would be directly and adversely affected by the proposed permit action.

All pertinent information is on file and may be inspected, and arrangements made for copying by contacting Frank Bowman at: Department of Environmental Quality (DEQ), Blue Ridge Regional Office, 7705

Timberlake Road, Lynchburg, VA 24502. Telephone: 434-582-6207 E-mail: frank.bowman@deq.virginia.gov

Following the comment period, the Board will make a determination regarding the proposed reissuance. This determination will become effective, unless the Director grants a public hearing. Due notice of any public hearing will be given.

30. **ADDITIONAL FACT SHEET COMMENTS/PERTINENT INFORMATION:**

The permittee is current with their annual permit maintenance fees.

31. **SUMMARY OF SPECIFIC ATTACHMENTS LABELED AS:**

Attachment 1 Site Inspection Report/Memorandum
Attachment 2 Discharge Location/Topographic Map
Attachment 3 Schematic/Plans & Specs/Site Map/Water Balance
Attachment 4 Discharge/Outfall Description
Attachment 5 Limitations/Monitoring
Attachment 6 Special Conditions
Attachment 7 Effluent/Sludge/Ground Water Limitations/Monitoring Rationale/Suitable Data/ Stream Modeling/Antidegradation/Antibacksliding
Attachment 8 Special Conditions Rationale
Attachment 9 Material Stored
Attachment 10 Receiving Waters Info./Tier Determination/STORET Data
Attachment 11 303(d) Listed Segments
Attachment 12 TABLE A and TABLE B - Change Sheets
Attachment 13 NPDES Industrial Permit Rating Worksheet
Attachment 14 EPA/Virginia Draft Permit Submission Checklist
Attachment 15 Chronology Sheet
Attachment ___

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No.:	VA0083097
Effective Date:	January 13, 2011
Expiration Date:	January 12, 2016

AUTHORIZATION TO DISCHARGE UNDER THE

VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM

AND

THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, the following owner is authorized to discharge in accordance with the information submitted with the permit application, and with this permit cover page, and Parts I and II of this permit, as set forth herein.

Owners:	Virginia Electric and Power Company, and Old Dominion Electric Cooperative
Facility Name:	Dominion-Clover Power Station
County:	Halifax
Facility Location:	4091 Clover Road; Clover, VA

The owner is authorized to discharge to the following receiving stream:

Stream:	Roanoke River (Outfalls 001, 002, 004, 005 and 009) Black Walnut Creek (Outfalls 003, 006-008 and 011-016)
River Basin:	Roanoke River
River Subbasin:	Roanoke River
Section:	5 (Roanoke River) 5a (Black Walnut Creek)
Class:	IV (Roanoke River) III (Black Walnut Creek)
Special Standards:	PWS

Robert J. Weld, Director, Blue Ridge Regional Office

1/13/2011
Date

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from outfall serial number 001 (final holding pond).

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS	
	MONTHLY AVERAGE		MINIMUM	MAXIMUM		FREQUENCY	SAMPLE TYPE
	mg/l*	lbs/day*	mg/l*	mg/l*	lbs/day*		
Flow (MGD)	NL		NA	NL		1/Day	Estimated
pH (standard units)	NA		6.0	9.0		5 Days/Week	Grab
Temperature (deg. C)	NA		NA	40		5 Days/Week	I.S.
Total Suspended Solids [a]	30	NA	NA	100	NA	1/3 Months	Grab
Oil & Grease (mg/l) [a]	15	NA	NA	20	NA	1/3Months	Grab
Dissolved Oxygen	NA		5.7	NA		5 Days/Week	Grab
Total Petroleum Hydrocarbons	NL	NA	NA	NA		1/Year	Grab

* = UNLESS OTHERWISE NOTED NA = NOT APPLICABLE NL = NO LIMIT, MONITORING REQUIREMENT ONLY

"I.S." means immersion stabilization

1/3 Months = In accordance with the following schedule: 1st quarter (January 1 - March 31, **due April 10**); 2nd quarter (April 1 - June 30, **due July 10**); 3rd quarter (July 1 - September 30, **due October 10**); 4th quarter (October 1 - December 31, **due January 10**).

1/Year = Between January 1 and December 31, **due January 10 of following year**.

[a] See Part I.D.7. for additional instructions regarding effluent monitoring frequencies.

a. There shall be no discharge of floating solids or visible foam in other than trace amounts.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from outfall serial number 101 (cooling tower blowdown)

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS	
	MONTHLY AVERAGE		MINIMUM	MAXIMUM		FREQUENCY	SAMPLE TYPE
	mg/l*	lbs/day*	mg/l*	mg/l*	lbs/day*		
Flow (MGD)	NL		NA	NL		1/Week	Estimated
Free Available Chlorine	0.2	NA	NA	0.5	NA	2/Month	Grab
Total Chromium [a] [b] [c]	0.2	NA	NA	0.2	NA	1/3 Months	Grab
Total Zinc [a] [b] [c]	1.0	NA	NA	1.0	NA	1/3 Months	Grab
The 126 priority pollutants contained in chemicals added for cooling tower maintenance, except chromium and zinc. [c]	Non-detectable.					1/3 Months	Grab

* = UNLESS OTHERWISE NOTED NA = NOT APPLICABLE NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/3 Months = In accordance with the following schedule: 1st quarter (January 1 - March 31, **due April 10**); 2nd quarter (April 1 - June 30, **due July 10**); 3rd quarter (July 1 - September 30, **due October 10**); 4th quarter (October 1 - December 31, **due January 10**).

[a] See Parts I.D.6.a. and I.D.6.b. for quantification levels and reporting requirements, respectively.

[b] See Part I.D.7. for additional instructions regarding effluent monitoring frequencies.

[c] As an alternative to routine monitoring by sample and analysis for the 126 priority pollutants (including chromium and zinc), compliance with the limitations may be determined by engineering calculations submitted by the permittee. The engineering calculations must demonstrate that the regulated pollutants are not detectable in the final discharge by the analytical methods in 40 CFR Part 136.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

3. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from outfall serial number 102 (neutralization basin).

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS	
	MONTHLY AVERAGE		MINIMUM	MAXIMUM		FREQUENCY	SAMPLE TYPE
	mg/l*	lbs/day*	mg/l*	mg/l*	lbs/day*		
Flow (MGD)	NL		NA	NL		1/Week	Estimated

* = UNLESS OTHERWISE NOTED NA = NOT APPLICABLE NL = NO LIMIT, MONITORING REQUIREMENT ONLY

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

4. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from outfall serial number 103 (sewage plant discharge).

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS	
	MONTHLY AVERAGE		MINIMUM	MAXIMUM		FREQUENCY	SAMPLE TYPE
	mg/l*	lbs/day*	mg/l*	mg/l*	lbs/day*		
Flow (MGD)	NL		NA	NL		5 Days/Week	Estimated
BOD5 [b]	30	NA	NA	45	NA	1/6 Months	Grab
Total Suspended Solids [b]	30	NA	NA	45	NA	1/6 Months	Grab
Total Residual Chlorine [a]	NA	NA	1.5	NA	NA	5 Days/Week	Grab

* = UNLESS OTHERWISE NOTED NA = NOT APPLICABLE NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/6 Months = In accordance with the following schedule: 1st half (January 1 - June 30, **due July 10**); 2nd half (July 1 - December 31, **due January 10**).

[a] See Part I.B for additional chlorine monitoring instructions.

[b] See Part I.D.7. for additional instructions regarding effluent monitoring frequencies.

a. The design flow of this treatment facility is 0.013 MGD.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

5. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from outfall serial number 002 (storm water runoff holding pond [coal storage, limestone and lime storage and handling, scrubber sludge storage and coal combustion by-product areas]).

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS	
	MONTHLY AVERAGE		MINIMUM	MAXIMUM		FREQUENCY	SAMPLE TYPE
	mg/l*	lbs/day*	mg/l*	mg/l*	lbs/day*		
Flow (MGD)	NL		NA	NL		1/Day	Estimated
pH (standard units)	NA		6.0	9.0		2/Month	Grab
Total Suspended Solids	NA	NA	NA	50	NA	2/Month	Grab

* = UNLESS OTHERWISE NOTED NA = NOT APPLICABLE NL = NO LIMIT, MONITORING REQUIREMENT ONLY

a. There shall be no discharge of floating solids or visible foam in other than trace amounts.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

6. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from outfall serial numbers 003, 011, 012, 013, 014, 015 and 016 (storm water from regulated SIC code industrial activity areas).

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
	ug/l*	ug/l*		
Flow (MG)	NA	NL	1/Year	Estimated [a]
pH (standard units)	NL	NL	1/Year	Grab
Total Suspended Solids (mg/l)	NA	NL	1/Year	Grab
Total Recoverable Iron	NA	NL	1/Year	Grab

* = UNLESS OTHERWISE NOTED NA = NOT APPLICABLE NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/Year = Between January 1 and December 31, **due January 10 of following year.**

[a] Estimate of the total volume of the discharge sampled during the storm event.

For outfall 003, the monitoring and reporting in Part I.F.1.a. b. c are not applicable to these outfalls. In addition, the substitute samples required in Part I.F.c are not necessary.

For outfalls 011, 012, 013, 014, 015 and 016, the monitoring and reporting in Part I.F.1.a. and b. are not applicable to these outfalls. In addition, the substitute samples required in Part I.F.c are not necessary.

Outfalls 011, 012, 013, 014, 015, and 016 are substantially identical and a sample at any 1 of the 6 can be considered representative of the remaining 5 outfalls.

For outfalls 014, 015, and 016, no monitoring and reporting requirements are required until the completion of Stage III Phase 2B of the landfill and the initiation of the placement of ash into that phase. (Stormwater is not currently from industrialized areas). At that time, these outfalls will be considered substantially

identical to outfalls 011, 012, and 013.

Samples shall be taken within the first 30 minutes after receiving 0.1 inches of rain if outfall is discharging or within 30 minutes of first flow after receiving 0.1 inches of rain.

a. There shall be no discharge of floating solids or visible foam in other than trace amounts.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

7. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from outfall serial numbers 004, 005, 006, 007, 008 (storm water from regulated SIC code industrial activity areas).

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
	ug/l*	ug/l*		
Flow (MG)	NA	NL	1/Year	Estimated [a]
pH (standard units)	NL	NL	1/Year	Grab
Total Suspended Solids (mg/l)	NA	NL	1/Year	Grab
Total Recoverable Iron	NA	NL	1/Year	Grab

* = UNLESS OTHERWISE NOTED NA = NOT APPLICABLE NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/Year = Between January 1 and December 31, **due January 10 of following year**.

[a] Estimate of the total volume of the discharge sampled during the storm event.

Samples shall be taken within the first 30 minutes after receiving 0.1 inches of rain if outfall is discharging or within 30 minutes of first flow after receiving 0.1 inches of rain.

Outfalls 006, 007, and 008 are substantially identical and a sample collected at any 1 of 3 outfalls can be considered representative of the remaining 2 outfalls.

a. There shall be no discharge of floating solids or visible foam in other than trace amounts.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

8. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from outfall serial number 009 (holding pond for storm water runoff and leachate from the Stage III, Phase I landfill, ground water from the underdrain system, leachate and storm water from the Stage I and II landfill and ground water well purge water [future Stage III, Phase II landfill runoff and leachate]).

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS					MONITORING REQUIREMENTS	
	MONTHLY AVERAGE		MINIMUM	MAXIMUM		FREQUENCY	SAMPLE TYPE
	mg/l*	lbs/day*	mg/l*	mg/l*	lbs/day*		
Flow (MGD)	NL		NA	NL		1/Day	Estimated
pH (standard units)	NA		6.0	9.0		2/Month	Grab
Total Suspended Solids	NL	NA	NA	50	NA	2/Month	Grab
Total Recoverable Manganese (µg/l)[a][b]	NA		NA	50	NA	1/Month	Grab

* = UNLESS OTHERWISE NOTED NA = NOT APPLICABLE NL = NO LIMIT, MONITORING REQUIREMENT ONLY

[a] See Parts I.D.6.a. and I.D.6.b. for quantification levels and reporting requirements, respectively.

[b] See Part I.C. for Schedule of Compliance. No monitoring or reporting required until after completion of the schedule.

a. There shall be no discharge of floating solids or visible foam in other than trace amounts.

A. GROUND WATER LIMITATIONS AND MONITORING REQUIREMENTS

9. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee shall monitor the ground water from the following site monitoring locations: PW-1 and PW-2 (upgradient wells); PW-3, PW-4, PW-5, PW-6, PW-7 and PW-8 (perimeter wells)

Such discharges shall be limited and monitored by the permittee as specified below:

PARAMETER	LIMITATIONS	UNITS	MONITORING REQUIREMENTS	
			FREQUENCY	SAMPLE TYPE
Static Water Level	NL	0.01 FT	1/6 Months	Measured
pH (standard units)	NL	SU	1/6 Months	Grab
Specific Conductance	NL	umhos/cm	1/6 Months	Grab
Total Dissolved Solids (TDS)	NL	mg/l	1/6 Months	Grab
Total Organic Carbon (TOC)	NL	mg/l	1/6 Months	Grab
Sulfate	NL	mg/l	1/6 Months	Grab
Dissolved Chromium	NL	mg/l	1/6 Months	Grab
Dissolved Manganese	NL	mg/l	1/6 Months	Grab

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/6 Months = In accordance with the following schedule: 1st half (January 1 - June 30, **due August 10**); 2nd half (July 1 - December 31, **due February 10**).

Grab samples - An individual sample should be taken after three (3) well volumes of ground water are removed (allowing the well to recharge between each well volume removed) or until well purging parameters (i.e. pH, temperature, and specific conductance) stabilize to ± 10%. The bailer or hose used should not contaminate samples.

B. ADDITIONAL TOTAL RESIDUAL CHLORINE (TRC) LIMITATIONS AND MONITORING REQUIREMENTS – Outfall 103

1. a. The permittee shall monitor the TRC at the outlet of the chlorine contact tank, prior to dechlorination, five days per week by grab sample.

b. No more than 4 of all samples taken after the chlorine contact tank, prior to dechlorination, shall be less than 1.5 mg/l for any one calendar month.

c. No TRC sample collected after the chlorine contact tank, prior to dechlorination, shall be less than 0.6 mg/l.

2. If an alternative to chlorination as a disinfection method is chosen, *E. coli* shall be limited and monitored by the permittee as specified below:

	Discharge Limitations Monthly Average	Monitoring Requirements Frequency	Sample Type
E. coli (n/100 ml)	126*	1/Month	Grab (Between 10 AM & 4 PM)

The above requirements, if applicable, shall substitute for the TRC requirements delineated in Parts I.A. and I.B.1 above.

* Geometric Mean

C. SCHEDULE OF COMPLIANCE – Outfall 009

The permittee shall achieve compliance with the final limitations and monitoring requirements for Total Recoverable Manganese as specified in Part I.A. of this permit in accordance with the following schedule:

1.	Submit Progress Reports to the DEQ Regional Office	**Quarterly, with the first report due April 10, 2011.**
2.	Achieve Compliance with Part I.A. Limitations	**No later than one year from the effective date of this permit.**

Quarterly = In accordance with the following schedule: 1st quarter (January 1 - March 31, **due April 10**); 2nd quarter (April 1 - June 30, **due July 10**); 3rd quarter (July 1 - September 30, **due October 10**); 4th quarter (October 1 - December 31, **due January 10**).

No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit to the DEQ Regional Office, either a **report of progress** or, in the case of specific actions being required by identified dates, a written **notice of compliance or noncompliance**. In the latter case, the notice shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

D. OTHER REQUIREMENTS OR SPECIAL CONDITIONS

1. Permit Reopeners

a. Sludge Reopener

This permit may be modified or, alternatively, revoked and reissued if any applicable standard for sewage sludge use or disposal promulgated under Section 405(d) of the Clean Water Act is more stringent than any requirements for sludge use or disposal in this permit, or controls a pollutant or practice not limited in this permit.

b. Water Quality Criteria Reopener

Should effluent monitoring indicate the need for any water quality-based limitation, this permit may be modified or, alternatively, revoked and reissued to incorporate appropriate limitations.

c. Total Maximum Daily Load (TMDL) Reopener

This permit shall be modified or, alternatively, revoked and reissued if any approved waste load allocation procedure, pursuant to section 303(d) of the Clean Water Act, imposes waste load allocations, limits or conditions on the facility that are not consistent with the requirements of this permit.

2. Licensed Wastewater Operator Requirement

The permittee shall employ or contract at least one Class III licensed wastewater works operator (for the industrial wastewater treatment facilities), and at least one IV licensed wastewater works operator (for the sewage treatment works). The license shall be issued in accordance with Title 54.1 of the Code of Virginia and the regulations of the Board for Waterworks and Wastewater Works Operators. The permittee shall notify the DEQ Regional Office, in writing, whenever the permittee is not complying, or has grounds for anticipating the permittee will not comply with this requirement. The notification shall include a statement of reasons and a prompt schedule for achieving compliance.

3. Operations and Maintenance (O & M) Manual

The permittee shall review the existing O & M Manual and notify the DEQ Regional Office, in writing, that it is still accurate and complete. If the O & M Manual is no longer accurate and complete, a revised O & M Manual shall be submitted for approval to the DEQ Regional Office. The permittee shall maintain an accurate, approved O & M Manual for the treatment works and operate the treatment works in accordance with the approved O & M manual. This manual shall include, but not necessarily be limited to, the following items, as appropriate:

a. Treatment works design and operation, routine preventative maintenance of units within the treatment works, critical spare parts inventory and record keeping;
b. Procedures for measuring and recording the duration and volume of treated wastewater discharged; and
c. Techniques to be employed in the collection, preservation and analysis of effluent samples.

Any changes in the practices and procedures followed by the permittee shall be documented and submitted for approval within 90 days of the effective date of the changes. Upon approval of the

submitted manual changes, the revised manual becomes an enforceable part of this permit. Noncompliance with the O & M Manual shall be deemed a violation of the permit.

Letter/Revised Manual Due: No later than May 10, 2011.

4. 95% Design Capacity Notification

A written notice and a **plan of action** for ensuring continued compliance with the terms of this permit shall be submitted to the DEQ Regional Office when the monthly average flow influent to the sewage treatment plant reaches 95 percent of the design capacity authorized in this permit for each month of any three consecutive month period. The written notice shall be submitted within 30 days and the plan of action shall be received at the DEQ Regional Office **no later than 90 days from the third consecutive month for which the flow reached 95 percent of the design capacity.** The plan shall include the necessary steps and a prompt schedule of implementation for controlling any current or reasonably anticipated problem resulting from high influent flows. Failure to submit an adequate plan in a timely manner shall be deemed a violation of this permit.

5. Notification Levels

The permittee shall notify the Department as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:
   (1) One hundred micrograms per liter (100 ug/l);
   (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
   (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
   (4) The level established by the Board.

b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following notification levels:

   (1) Five hundred micrograms per liter (500 ug/l);
   (2) One milligram per liter (1 mg/l) for antimony;
   (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application.
   (4) The level established by the Board.

6. Compliance Reporting Under Part I.A. and I.B.

a. Quantification Levels

   (1) Maximum quantification levels (QL) shall be as follows:

Effluent Characteristic	Quantification Level
Chlorine	0.10 mg/l

Total Recoverable Iron	250 µg/l
Total Recoverable Manganese	10 µg/l
Total Chromium	0.05 mg/l
Total Zinc	0.05 mg/l

(2) The permittee may use any approved method which has a QL equal to or lower than the QL listed in a.(1) above. The QL is defined as the lowest concentration used to calibrate a measurement system in accordance with the procedures published for the method.

(3) It is the responsibility of the permittee to ensure that proper QA/QC protocols are followed during the sampling and analytical procedures. QA/QC information shall be documented to confirm that appropriate analytical procedures have been used and the required QLs have been attained.

(4) An appropriate analytic method for metals shall be selected from the following list of EPA methods, or any approved method in 40 CFR Part 136, which will achieve a QL that is less than or equal to the QL specified in a.(1) above.

Metal	Analytical Methods
Chromium	218.1; 200.7; 218.2; 218.3; 200.9; 1639; 200.8
Iron	236.1; 200.7; 236.2
Manganese	243.1; 200.7; 200.9; 243.2; 200.8
Zinc	289.1; 200.7; 1638; 1639; 200.8; 289.2

b. Reporting

(1) **Monthly Average** -- Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in a.(1) above shall be determined as follows: All concentration data below the test method QL shall be treated as zeros. All concentration data equal to or above the QL shall be treated as reported. An arithmetic average shall be calculated using all reported data for the month, including the defined zeros. This arithmetic average shall be reported on the DMR as calculated. If all data are below the QL, then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the calculated concentration is <QL, then report "<QL" for the quantity; otherwise, use the calculated concentration to calculate the quantity.

(2) **Daily maximum** -- Compliance with the daily maximum limitations and/or reporting requirements for the parameters listed in a.(1) above shall be determined as follows: All concentration data below the test method QL shall be treated as zeros. All concentration data equal to or above the QL shall be treated as reported. An arithmetic average of the values shall be calculated using all reported data, including the defined zeros, collected within each day during the reporting month. The maximum value of these daily averages thus determined shall be reported on the DMR as the Daily Maximum. If all data for each daily maximum are below the QL, then the average shall be reported as <[QL]. If reporting for quantity is required on the DMR and the calculated concentration for each daily average is <QL, then report "<QL" for the quantity; otherwise, use the calculated maximum value of the daily averages to calculate the quantity.

(3) Any single datum required shall be reported as "<QL" if it is less than the test method QL listed in a.(1) above. Otherwise, the numerical value shall be reported.

7. Effluent Monitoring Frequencies

If the facility permitted herein is issued a Notice of Violation for any of the parameters listed below, then the following effluent monitoring frequencies shall become effective upon written notice from DEQ and remain in effect until permit expiration date.

Effluent Parameter	Outfall	Frequency
TSS	001	1/Week
Oil and Grease	001	1/Week
Total Chromium	101	2/Month
Total Zinc	101	2/Month
BOD5	103	1/Month
TSS	103	1/Month

No other effluent limitations or monitoring requirements are affected by this special condition.

8. Water Quality Monitoring

The permittee shall monitor the effluent at outfalls 002 and 009 for the substances noted in Attachment A of the permit according to the indicated analysis number, quantification level, sample type and frequency. **Monitoring shall be initiated after the start of the third year from the permit's effective date.** Using Attachment A as the reporting form, the data shall be submitted with the next permit reissuance application. Monitoring and analysis shall be conducted in accordance with 40 CFR Part 136 or alternative EPA approved method. It is the responsibility of the permittee to ensure that proper QA/QC protocols are followed during the sample gathering and analytical procedures. The DEQ will use these data for making specific permit decisions in the future. This permit may be modified or, alternatively, revoked and reissued to incorporate limits for any of the substances listed in Attachment A.

Completed Attachment A Due: No later than June 30, 2015

9. Ground Water Monitoring Plan

The permittee shall continue sampling and reporting in accordance with the ground water monitoring plan approved on December 16, 2004. The purpose of this plan is to determine if the system integrity is being maintained and to indicate if activities at the site are resulting in violations of the Board's Ground Water Standards. The approved plan is an enforceable part of the permit. Any changes to the plan must be submitted for approval to the DEQ Regional Office.

If monitoring results indicate that any unit has contaminated the ground water, the permittee shall submit a corrective action plan within 60 days of being notified by the DEQ Regional Office. The plan shall set forth the steps to be taken by the permittee to ensure that the contamination source is eliminated or that the contaminant plume is contained on the permittee's property. In addition, based on the extent of contamination, a risk analysis may be required. Once approved, this plan and/or analysis shall be incorporated into the permit by reference and become an enforceable part of this permit.

Monitoring Schedule:

Semi-annual (1/6 Months) Monitoring = In accordance with the following schedule: 1st half (January 1 - June 30, **due August 10**); 2nd half (July 1 - December 31, **due February 10**).

10. Sludge Management Plan

The permittee shall conduct all sewage sludge use or disposal activities in accordance with the Sludge Management Plan (SMP) approved with the issuance of this permit. Any **proposed changes** in the sewage sludge use or disposal practices or procedures followed by the permittee shall be documented and **submitted for Department of Environmental Quality approval 90 days prior to the effective date of the changes**. Upon approval, the revised SMP becomes an enforceable part of the permit. The permit may be modified or, alternatively, revoked and reissued to incorporate limitations or conditions necessitated by substantive changes in sewage sludge use or disposal practices.

11. PCB Discharge Prohibition

There shall be no discharge of polychlorinated biphenyl compounds such as those commonly used for transformer fluid. Compliance with this requirement will be determined using EPA Method 608.

12. Metals Cleaning Waters Discharge Prohibition

There shall be no discharge of metal cleaning wastewater to State waters. Following metal cleaning activities, the neutralization basin shall be filled with water or wastewater and the entire contents discharged to the scrubber ponds for use as make-up water to the flue gas desulfurization system.

13. PCB Monitoring

The permittee shall monitor the effluent at Outfalls 001, 002, 003, 007 & 009 for Polychlorinated Biphenyls (PCBs) in accordance with the schedule in f. below. DEQ will use these data for development of a PCB TMDL for the Kerr Reservior and not for compliance purposes. The permittee shall conduct the sampling and analysis in accordance with the requirements specified below. At a minimum:

a. Monitoring and analysis shall be conducted in accordance with the most current version of EPA Method 1668, congener specific results as specified in the PCB Point Source Monitoring Guidance. It is the responsibility of the permittee to ensure that proper QA/QC protocols are followed during the sample gathering and analytical procedures.

b. The permittee shall collect a minimum of 2 wet weather samples (Outfall 007), 2 dry weather samples (Outfalls 001 and 009) and 2 samples (Outfall 003) according to the PCB Point Source Guidance No. 09-2001, Appendix C (Sample Collection Methods for Effluent and Storm Water) and/or its amendments. Samples previously collected from these outfalls and analyzed with Method 1668, may be used in satisfying the total number of samples required even if the collection occurred prior to the current permit term.

c. The sampling protocol shall be submitted to DEQ-BRRO Lynchburg Regional Office for review and approval in accordance with the schedule in f. below prior to the first sample collection.

d. The data shall be submitted to DEQ-BRRO Lynchburg Regional Office by the 10th day of the month following receipt of the results according to the PCB Point Source Guidance No. 09-2001, Appendix E (Reporting Requirements for Analytical (PCB) Data Generated Using EPA Method 1668) and/or its amendments. The submittal shall include the unadjusted and appropriately quantified individual PCB congener analytical results. Additionally, laboratory and field QA/QC documentation and results should be reported. Total PCBs are to be computed as the summation of the reported, quantified congeners.

e. If the results of this monitoring indicate actual or potential exceedance of the water quality criterion or the Waste Load Allocation specified in the approved TMDL, the permittee shall submit to DEQ-BRRO Lynchburg Regional Office for review and approval a Pollutant Minimization Plan (PMP) designed to locate and reduce sources of PCBs in the collection system. A component of the plan may include an evaluation of the PCB congener distribution in the initial source intake water to determine the net contributions of PCBs introduced to the treatment works.

f. PCB monitoring shall proceed in accordance with the following schedule:

1.	Submit PCB sampling protocol	**No later than December 10, 2011.**
2.	Complete and Submit PCB monitoring results to the DEQ Blue Ridge Regional Office – Lynchburg.	**No later than January 10, 2013.**
3.	If required, Submit Pollutant Minimization Plan (PMP)	**Within 1 year of notification by DEQ.**

14. Application Requirement

In accordance with Part II. M. of this permit, a new and complete permit application shall be submitted for the reissuance of this permit.

Application Due: No later than July 17, 2015

E. TOXICS MANAGEMENT PROGRAM

1. Biological Monitoring

a. In accordance with the schedule in 2. below, the permittee shall conduct annual acute toxicity tests for the length of the permit. The permittee should collect 24-hour flow-proportioned composite samples of final effluent from outfall 001, and grab samples from outfalls 002 and 009. The acute tests for outfalls 001 and 002 to use are:

48 Hour Static Acute test using *Ceriodaphnia dubia*

The acute tests for outfalls 002 and 009 to use are:

48 Hour Static Acute test using *Ceriodaphnia dubia*
48 Hour Static Acute test using *Pimephales promelas*

These acute tests shall be performed with a minimum of 5 dilutions, derived geometrically, for calculation of a valid LC_{50}. Express as the results as TU_a (Acute Toxic Units) by dividing $100/LC_{50}$ for reporting.

The permittee may provide additional samples. These data shall be reported and may be included in the evaluation of effluent toxicity. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3

b. The test dilutions should be able to determine compliance with the following endpoint:

Outfall 001 – Acute LC_{50} of 100% equivalent to a TU_a of 1.00
Outfall 002 – Acute LC_{50} of 2% equivalent to a TU_a of 50.00
Outfall 009 – Acute LC_{50} of 11% equivalent to a TU_a of 9.09

c. The test data will be evaluated for reasonable potential at the conclusion of the test period. The data may be evaluated sooner if requested by the permittee, or if toxicity has been noted. Should evaluation of the data indicate that a limit is needed, a WET limit and compliance schedule will be required and the toxicity tests of 1.a. may be discontinued.

d. All applicable data will be reevaluated for reasonable potential at the end of the permit term.

e. If, in the testing according to E.1., any toxicity tests are invalidated, the tests shall be repeated within the testing period that the original test was taken, or if already past that period, within thirty (30) days of notification. If there is no discharge during this period, a sample must be taken during the first discharge.

2. Reporting Schedule:

The permittee shall report the results as specified in this Toxics Management Program in accordance with the following schedule:

(a)	**Conduct first annual biological tests**	**Between February 1, 2011 and December 31, 2011**
(b)	**Submit results of all biological tests**	**With a Discharge Monitoring Report (DMR) by January 10, 2012**
(c)	**Conduct subsequent annual biological tests**	**By December 31, 2012, 2013, 2014**
(d)	**Submit results of all biological tests**	**With a DMR by January 10, 2013, 2014, 2015**

F. STORM WATER MANAGEMENT CONDITIONS

1. General Storm Water Special Conditions

a. Sample Type

For all storm water monitoring required in Part I.A or other applicable sections of this permit, a minimum of one grab sample shall be taken. Unless otherwise specified, all such samples shall be collected from the discharge resulting from a storm event that occurs at least 72 hours from the previously measurable storm event (a "measurable storm event" is defined as a storm event that results in an actual discharge from the site). The required 72-hour storm event interval is waived where the permittee documents that less than a 72-hour interval is representative for local storm events during the season when sampling is being conducted. The grab sample shall be taken during the first 30 minutes of the discharge. If the collection of a grab sample during the first 30 minutes is impracticable, a grab sample can be taken during the first hour of the discharge, and the permittee shall submit with the monitoring report a description of why a grab sample during the first 30 minutes was impracticable. If storm water discharges associated with industrial activity commingle with process or non-process water, then where practicable the permittee must attempt to sample the storm water discharge before it mixes with the non-storm water discharge.

b. Recording of Results

For each measurement or sample taken pursuant to the storm event monitoring requirements of this permit, the permittee shall record and report with the DMRs the following information:

(1) The date and duration (in hours) of the storm event(s) sampled;

(2) The rainfall total (in inches) of the storm event which generated the sampled discharge; and

(3) The duration between the storm event sampled and the end of the previous measurable storm event.

In addition, the permittee shall maintain a monthly log documenting the amount of rainfall received at this facility on a daily basis. A summarization of this information shall also be maintained at the site.

In the event that sampling of an outfall is not possible due to the absence of effluent flow during a particular testing period, the permittee shall provide written notification to DEQ with the DMR for the month following the period in which samples were to be collected.

c. Sampling Waiver

When a permittee is unable to collect storm water samples required in Part I.A or other applicable sections of this permit within a specified sampling period due to adverse climatic conditions, the permittee shall collect a substitute sample from a separate qualifying event in the next period and submit these data along with the data for the routine sample in that period. Adverse weather conditions that may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.).

d. Representative Discharges

When a facility has two or more outfalls that discharge substantially identical effluents, based on similarities of the industrial activities, significant materials, size of drainage areas, and storm water management practices occurring within the drainage areas of the outfalls, the permittee may test the effluent of one of such outfalls and report that the quantitative data also apply to the substantially identical outfall(s) provided that: (1) the representative outfall determination has been approved by DEQ prior to data submittal; and (2) the permittee includes in the SWPPP adescription of the location of the outfalls and explains in detail why the outfalls are expected to discharge substantially identical effluents.

e. Quarterly Visual Examination of Storm Water Quality

The permittee must perform and document a quarterly visual examination of a storm water discharge associated with industrial activity from each outfall, except discharges exempted below. The examination(s) must be made at least once in each of the following three-month periods: January through March, April through June, July through September, and October through December. The visual examination must be made during daylight hours (e.g., normal working hours). If no storm event resulted in runoff from the facility during a monitoring quarter, the permittee is excused from visual monitoring for that quarter provided that documentation is included with the monitoring records indicating that no runoff occurred. The documentation must be signed and certified in accordance with Part II.K. of this permit.

(1) Visual examinations must be made of samples collected within the first 30 minutes (or as soon thereafter as practical, but not to exceed one hour) of when the runoff or snowmelt begins discharging from the facility. The examination must document observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. The examination must be conducted in a well-lit area. No analytical tests are required to be performed on the samples. All samples (except snowmelt samples) must be collected from the discharge resulting from a storm event that results in an actual discharge from the site (defined as a "measurable storm event"), and that occurs at least 72 hours from the previously measurable storm event. The 72-hour storm interval is waived if the permittee is able to document that less than a 72-hour interval is representative for local storm events during the sampling period. Where practicable, the same individual should carry out the collection and examination of discharges for the entire permit term. If no qualifying storm event resulted in runoff during daylight hours from the facility during a monitoring quarter, the permittee is excused from visual monitoring for that quarter provided that documentation is included with the monitoring records indicating that no qualifying storm event occurred during daylight hours that resulted in storm water runoff during that quarter. The documentation must be signed and certified in accordance with Part II.K.

(2) The visual examination reports must be maintained on-site with the Storm Water Pollution Prevention Plan (SWPPP). The report must include the outfall location, the examination date and time, examination personnel, the nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.

(3) If the facility has two or more outfalls that discharge substantially identical effluents, based on similarities of the industrial activities, significant materials, size of drainage areas, and storm water management practices occurring within the drainage areas of the outfalls, the permittee may conduct visual monitoring on the effluent of just one of the outfalls and report that the observations also apply to the substantially identical outfall(s), provided that the permittee includes in the SWPPP a description of the location of the outfalls and explains in detail why the outfalls are expected to discharge substantially identical effluents. In addition, for each outfall that the permittee believes is representative, an estimate of the size of the drainage area (in square feet) and an estimate of the runoff coefficient of the drainage area (i.e., low (under 40 percent), medium (40 to 65 percent), or high (above 65 percent)) shall be provided in the plan.

(4) When the permittee is unable to conduct the visual examination due to adverse climaticconditions, the permittee must document the reason for not performing the visual examination and retain this documentation onsite with the records of the visual examinations. Adverse weather conditions that may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.).

f. Allowable Non-Storm Water Discharges

(1) The following non-storm water discharges are authorized by this permit provided then on-storm water component of the discharge is in compliance with f.(2), below:

(a) Discharges from fire fighting activities;
(b) Fire hydrant flushings;
(c) Potable water including water line flushings;
(d) Uncontaminated air conditioning or compressor condensate;
(e) Irrigation drainage;
(f) Landscape watering provided all pesticides, herbicides, and fertilizer have been applied in accordance with manufacturer's instructions;
(g) Pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed);
(h) Routine external building wash down which does not use detergents;
(i) Uncontaminated ground water or spring water;
(j) Foundation or footing drains where flows are not contaminated with process materials;
(k) Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but NOT intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown or drains);
(l) Makeup water storage tank water (provided chlorine is non detectable); and
(m) Condensate storage tank water.

(2) Except for flows from fire fighting activities, the SWPPP must include:

(a) Identification of each allowable non-storm water source;
(b) The location where the non-storm water is likely to be discharged; and

(c) Descriptions of appropriate BMPs for each source.

(3) If mist blown from cooling towers is included as one of the allowable non-storm water discharges from the facility, the permittee must specifically evaluate the discharge for the presence of chemicals used in the cooling tower. The evaluation shall be included in the SWPPP.

g. Releases of Hazardous Substances or Oil in Excess of Reportable Quantities

The discharge of hazardous substances or oil in the storm water discharge(s) from the facility shall be prevented or minimized in accordance with the SWPPP for the facility. This permit does not authorize the discharge of hazardous substances or oil resulting from an on-site spill. This permit does not relieve the permittee of the reporting requirements of 40 CFR 110, 40 CFR 117 and 40 CFR 302 or § 62.1-44.34:19 of the Code of Virginia. Where a release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR 110, 40 CFR 117 or 40 CFR 302 occurs during a 24-hour period:

(1) The permittee is required to notify the Department in accordance with the requirements of Part II.G. as soon as he or she has knowledge of the discharge;

(2) Where a release enters a municipal separate storm sewer system (MS4), the permittee shall also notify the owner or the MS4; and

(3) The SWPPP required by this permit must be reviewed to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the plan must be modified where appropriate.

h. Additional Requirements for Salt Storage

Storage piles of salt or piles containing salt used for deicing or other commercial or industrial purposes shall be enclosed or covered to prevent exposure to precipitation. The permittee shall implement appropriate measures (e.g., good housekeeping, diversions, containment) to minimize exposure resulting from adding to or removing materials from the pile. All salt storage piles shall be located on an impervious surface. All runoff from the pile, and/or runoff that comes in contact with salt, including under drain systems, shall be collected and contained within a bermed basin lined with concrete or other impermeable materials, or within an underground storage tank(s), or within an above ground storage tank(s), or disposed of through a sanitary sewer (with the permission of the treatment facility). A combination of any or all of these methods may be used. In no case shall salt contaminated storm water be allowed to discharge directly to the ground or to state waters.

2. Storm Water Pollution Prevention Plan

A SWPPP is required to be maintained and implemented for the facility. The plan shall include Best Management Practices (BMPs) that are reasonable, economically practicable, and appropriate in light of current industry practices. The BMPs shall be selected, designed, installed, implemented and maintained in accordance with good engineering practices to eliminate or reduce the pollutants in all storm water discharges from the facility. The plan shall also include any control measures necessary for the storm water discharges to meet applicable water quality standards.

Permittees shall implement the provisions of the SWPPP as a condition of this permit.

The SWPPP requirements of this permit may be fulfilled, in part, by incorporating by reference other plans or documents such as a spill prevention control and countermeasure (SPCC) plan developed for the facility under Section 311 of the Clean Water Act, or best management practices (BMP) programs otherwise required for the facility, provided that the incorporated plan meets or exceeds the plan requirements of section b. below (Contents of the Plan). All plans incorporated by reference into the SWPPP become enforceable under this permit. If a plan incorporated by reference does not contain all of the required elements of the SWPPP of Part I.F.2.b. below, the permittee shall develop the missing SWPPP elements and include them in the required plan.

a. Deadlines for Plan Preparation and Compliance

(1) The facility shall review and implement the existing plan as expeditiously as practicable, but not later than 270 days from the effective date of the permit. Verification of compliance shall be provided, in writing, within 10 days of the above deadline.

(2) Measures That Require Construction. In cases where construction is necessary to implement measures required by the plan, the plan shall contain a schedule that provides compliance with the plan as expeditiously as practicable, but no later than 3 years after the effective date of this permit. Where a construction compliance schedule is included in the plan, the schedule shall include appropriate nonstructural and/or temporary controls to be implemented in the affected portion(s) of the facility prior to completion of the permanent control measure.

b. Contents of the Plan

The contents of the SWPPP shall comply with the requirements listed below and those in Part I.F.3. below (Sector-Specific SWPPP Requirements). The plan shall include, at a minimum, the following items:

(1) Pollution Prevention Team. The plan shall identify the staff individuals by name or title that comprise the facility's storm water pollution prevention team. The pollution prevention team is responsible for assisting the facility or plant manager in developing, implementing, maintaining, revising, and ensuring compliance with the facility's SWPPP. Specific responsibilities of each staff individual on the team shall be identified and listed.

(2) Site Description.

The SWPPP shall include the following:

(a) Activities at the Facility.

A description of the nature of the industrial activities at the facility.

(b) General Location Map

A general location map (e.g., USGS quadrangle or other map) with enough detail to identify the location of the facility and the receiving waters within one mile of the facility.

(c) Site Map

A site map identifying the following:

(i) The size of the property (in acres);

(ii) The location and extent of significant structures and impervious surfaces (roofs, paved areas and other impervious areas);

(iii) Locations of all storm water conveyances including ditches, pipes, swales, and inlets, and the directions of storm water flow (use arrows to show which ways storm water will flow);

(iv) Locations of all existing structural and source control BMPs;

(v) Locations of all surface water bodies, including wetlands;

(vi) Locations of potential pollutant sources identified under in paragraph b.(3) below;

(vii) Locations where significant spills or leaks identified under paragraph b.(4) below, have occurred;

(viii) Locations of the following activities where such activities are exposed to precipitation: fueling stations; vehicle and equipment maintenance and/or cleaning areas; loading/unloading areas; locations used for the treatment, storage or disposal of wastes; liquid storage tanks; processing and storage areas; access roads, rail cars and tracks; t transfer areas for substances in bulk; and machinery;

(ix) Locations of storm water outfalls and an approximate outline of the area draining to each outfall, and location of municipal storm sewer systems, if the storm water from the facility discharges to them;

(x) Location and description of all non-storm water discharges;

(xi) Location of any storage piles containing salt used for deicing or other commercial or industrial purposes; and

(xii) Locations and sources of runon to the site from adjacent property where the runon contains significant quantities of pollutants. The permittee shall include an evaluation with the SWPPP of how the quality of the storm water running onto the facility impacts the facility's storm water discharges.

(d) Receiving Waters and Wetlands

The name of all surface waters receiving discharges from the site, including intermittent streams, dry sloughs, and arroyos. Provide a description of wetland sites that may receive discharges from the facility. If the facility discharges through a municipal separate storm sewer system (MS4), identify the MS4 operator, and the receiving water to which the MS4 discharges.

(3) Summary of Potential Pollutant Sources

The plan shall identify each separate area at the facility where industrial materials or activities are exposed to storm water. Industrial materials or activities include, but are not limited to: material handling equipment or activities, industrial machinery, raw materials, industrial production and processes, intermediate products, byproducts, final products, and waste products. Material handling activities include, but are not limited to: the storage, loading and unloading, transportation, disposal, or conveyance of any raw material, intermediate product, final product or waste product. For each separate area identified, the description shall include:

(a) Activities in Area

A list of the activities (e.g., material storage, equipment fueling and cleaning, cutting steel beams); and

(b) Pollutants

A list of the associated pollutant(s) or pollutant constituents (e.g. crankcase oil, zinc, sulfuric acid, cleaning solvents, etc.) for each activity. The pollutant list shall include all significant materials handled, treated, stored or disposed in a manner such that they are exposed to storm water. The list shall include any hazardous substances or oil at the facility.

(4) Spills and Leaks

The SWPPP shall clearly identify areas where potential spills and leaks that can contribute pollutants to storm water discharges can occur and their corresponding outfalls. The plan shall include a list of significant spills and leaks of toxic or hazardous pollutants that actually occurred at exposed areas, or that drained to a storm conveyance during the three-year period prior to the date this SWPP was prepared or amended. The list shall be updated if significant spills or leaks occur in exposed areas of the facility during the term of the permit. Significant spills and leaks include releases of oil or hazardous substances in excess of reportable quantities.

(5) Sampling Data

The plan shall include a summary of existing storm water discharge sampling data taken at the facility.

(6) Storm Water Controls

(a) BMPs shall be implemented for all the areas identified in Part I.F.2.b.(3) above (Summary of Potential Pollutant Sources) to prevent or control pollutants in storm water discharges from the facility. All reasonable steps

shall be taken tocontrol or address the quality of discharges from the site that may not originate at the facility. The SWPPP shall describe the type, location and implementation of all BMPs for each area where industrial materials or activities are exposed to storm water. Selection of BMPs shall take into consideration:

(i) That preventing storm water from coming into contact with polluting materials is generally more effective, and less costly, than trying to remove pollutants from storm water;

(ii) BMPs generally shall be used in combination with each other for most effective water quality protection;

(iii) Assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to designing effective control measures;

(iv) That minimizing impervious areas at the facility can reduce runoff and improve groundwater recharge and stream base flows in local streams (however, care must be taken to avoid ground water contamination);

(v) Flow attenuation by use of open vegetated swales and natural depressions can reduce in-stream impacts of erosive flows;

(vi) Conservation or restoration of riparian buffers will help protect streams from storm water runoff and improve water quality; and

(vii) Treatment interceptors (e.g., swirl separators and sand filters) may be appropriate in some instances to minimize the discharge of pollutants.

(b) Control Measures

The permittee shall implement the following types of BMPs to prevent and control pollutants in the storm water discharges from the facility, unless it can be demonstrated and documented that such controls are not relevant to the discharges (e.g., there are no storage piles containing salt).

(i) Good Housekeeping

The permittee shall keep clean all exposed areas of the facility that are potential sources of pollutants to storm water discharges. Typical problem areas include areas around trash containers, storage areas, loading docks, and vehicle fueling and maintenance areas. The plan shall include a schedule for regular pickup and disposal of waste materials, along with routine inspections for leaks and conditions of drums, tanks and Containers. The introduction of raw, final or waste materials to exposed areas of the facility shall be minimized to the maximum extent practicable. The generation of dust, along with off-

site vehicle tracking of raw, final or waste materials, or sediments, shall be minimized to the maximum extent practicable.

(ii) Eliminating and Minimizing Exposure

To the extent practicable, industrial materials and activities shall be located inside, or protected by a storm-resistant covering to prevent exposure to rain, snow, snowmelt, and runoff. Note: Eliminating exposure at all industrial areas may make the facility eligible for the "Conditional Exclusion for No Exposure" provision of 9 VAC 25-31-120E, thereby eliminating the need to have a permit.

(iii) Preventive Maintenance

The permittee shall have a preventive maintenance program that includes regular inspection, testing, maintenance and repairing of all industrial equipment and systems to avoid breakdowns or failures that could result in leaks, spill and other releases. This program is in addition to the specific BMP maintenance required under Part I.F.2.c. below (Maintenance of BMPs).

(iv) Spill Prevention and Response Procedures

The plan shall describe the procedures that will be followed for preventing and responding to spills and leaks.

(A) Preventive measures include barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling.

(B) Response procedures shall include notification of appropriate facility personnel, emergency agencies, and regulatory agencies, and procedures for stopping, containing and cleaning up spills. Measures for cleaning up hazardous material spills or leaks shall be consistent with applicable RCRA regulations at 40 CFR Part 264 and 40 CFR Part 265. Employees who may cause, detect or respond to a spill or leak shall be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals shall be a member of the Pollution Prevention Team.

(C) Contact information, or the location of contact information, for individuals and agencies that must be notified in the event of a spill shall be included in the SWPPP, and in other locations where it will be readily available.

(v) Routine Facility Inspections

Facility personnel who possess the knowledge and skills to assess conditions and activities that could impact storm water quality at the facility, and who

can also evaluate the effectiveness of BMPs shall quarterly inspect all areas of the facility where industrial materials or activities are exposed to storm water. These inspections are in addition to, or as part of, the comprehensive site evaluation required under section d. below (Comprehensive Site Compliance Evaluation). At least one member of the Pollution Prevention Team shall participate in the routine facility inspections.

The inspection frequency shall be specified in the plan based upon a consideration of the level of industrial activity at the facility, but shall be a minimum of quarterly unless more frequent intervals are specified elsewhere in the permit or written approval is received from the department for less frequent intervals. At least once each calendar year, the routine facility inspection must be conducted during a period when a storm water discharge is occurring.

Any deficiencies in the implementation of the SWPPP that are found shall be corrected as soon as practicable, but not later than within 90 days of the inspection, unless permission for a later date is granted in writing by the director. The results of the inspections shall be documented in the SWPPP, along with the date(s) and description(s) of any corrective actions that were taken in response to any deficiencies or opportunities for improvement that were identified.

(vi) Employee Training

The permittee shall implement a storm water employee training program for the facility. The SWPPP shall include a schedule for all types of necessary training, and shall document all training sessions and the employees who received the training. Training shall be provided for all employees who work in areas where industrial materials or activities are exposed to storm water, and for employees who are responsible for implementing activities identified in the SWPPP (e.g., inspectors, maintenance personnel, etc.). The training shall cover the components and goals of the SWPPP, and include such topics as spill response, good housekeeping, material management practices, BMP operation and maintenance, etc. The SWPPP shall include a summary of any training performed.

(vii) Sediment and Erosion Control

The plan shall identify areas at the facility that, due to topography, land disturbance (e.g., construction, landscaping, site grading), or other factors, have a potential for soil erosion. The permittee shall identify and implement structural, vegetative, and/or stabilization BMPs to prevent or control on-site and off-site erosion and sedimentation. Flow velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel if the flowswould otherwise create erosive conditions.

(viii) Management of Runoff

The plan shall describe the storm water runoff management practices (i.e., permanent structural BMPs) for the facility. These types of BMPs

are typically used to divert, infiltrate, reuse, or otherwise reduce pollutants in storm water discharges from the site.

Structural BMPs may require a separate permit under § 404 of the CWA and the Virginia Water Protection Permit Program Regulation (9VAC25-210) before installation begins.

c. Maintenance

All BMPs identified in the SWPPP shall be maintained in effective operating condition. Storm water BMPs identified in the SWPPP shall be observed during active operation (i.e., during a storm water runoff event) to ensure that they are functioning correctly. Where discharge locations are inaccessible, nearby downstream locations shall be observed. The observations shall be documented in the SWPPP.

The SWPPP shall include a description of procedures and a regular schedule for preventive maintenance of all BMPs, and shall include a description of the back-up practices that are in place should a runoff event occur while a BMP is off-line. The effectiveness of nonstructural BMPs shall also be maintained by appropriate means (e.g., spill response supplies available and personnel trained, etc.).

If site inspections required by Part I.F.2.b.(6)(b)(v) above (Routine Facility Inspections) and Part I.F.2.d. below (Comprehensive Site Compliance Evaluation) identify BMPs that are not operating effectively, repairs or maintenance shall be performed before the next anticipated storm event. If maintenance prior to the next anticipated storm event is not possible, maintenance shall be scheduled and accomplished as soon as practicable. In the interim, back-up measures shall be employed and documented in the SWPPP until repairs or maintenance is complete. Documentation shall be kept in a location specified in the SWPPP, of maintenance and repairs of BMPs, including the date(s) of regular maintenance, date(s) of discovery of areas in need of repair or replacement, and for repairs, date(s) that the BMP(s) returned to full function, and the justification for any extended maintenance or repair schedules.

d. Comprehensive Site Compliance Evaluation

The permittee shall conduct comprehensive site compliance evaluations at least once a year. The evaluations shall be done by qualified personnel who possess the knowledge and skills to assess conditions and activities that could impact storm water quality at the facility, and who can also evaluate the effectiveness of BMPs. The personnel conducting the evaluations may be either facility employees or outside constituents hired by the facility.

(1) Scope of the Compliance Evaluation

Evaluations shall include all areas where industrial materials or activities are exposed to storm water, as identified in Part I.F.2.b.(3) above. The personnel shall evaluate:

(a) Industrial materials, residue or trash that may have or could come into contact with storm water;

(b) Leaks or spills from industrial equipment, drums, barrels, tanks or other containers that have occurred within the past three years;

(c) Off-site tracking of industrial or waste materials or sediment where vehicles enter or exit the site;

(d) Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas;

(e) Evidence of, or the potential for, pollutants entering the drainage system;

(f) Evidence of pollutants discharging to surface waters at all facility outfalls, and the condition of and around the outfall, including flow dissipation measures to prevent scouring;

(g) Review of training performed, inspections completed, maintenance performed, quarterly visual examinations, and effective operation of BMPs;

(h) Results of both visual and any analytical monitoring done during the past year shall be taken into consideration during the evaluation.

(2) Based on the results of the evaluation, the SWPPP shall be modified as necessary (e.g., show additional controls on the map required by Part I.F.2.b.(2)(c); revise the description of controls required by Part I.F.2.b(6) to include additional or modified BMPs designed to correct problems identified). Revisions to the SWPPP shall be completed within 30 days following the evaluation, unless permission for a later date is granted in writing by the director. If existing BMPs need to be modified or if additional BMPs are necessary, implementation shall be completed before the next anticipated storm event, if practicable, but not more than 60 days after completion of the comprehensive site evaluation, unless permission for a later date is granted in writing by the Department;

(3) Compliance Evaluation Report

A report shall be written summarizing the scope of the evaluation, name(s) of personnel making the evaluation, the date of the evaluation, and all observations relating to the implementation of the SWPPP, including elements stipulated in Part I.F.2.d.(1) (a) through (h) above. Observations shall include such things as: the location(s) of discharges of pollutants from the site; location(s) of previously unidentified sources of pollutants; location(s) of BMPs that need to be maintained or repaired; location(s) of failed BMPs that need replacement; and location(s) where additional BMPs are needed. The report shall identify any incidents of noncompliance that were observed. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the SWPPP and this permit. The report shall be signed in accordance with Part II.K. and maintained with the SWPPP.

(4) Where compliance evaluation schedules overlap with routine inspections required under Part I.F.2.b(6)(b)(v), the annual compliance evaluation may be used as one of the routine inspections.

e. Signature and Plan Review

(1) Signature/Location

The SWPPP shall be signed in accordance with Part II.K., dated, and retained on-site at the facility covered by this permit in accordance with Part II.B.2. All other changes to the SWPPP, and other permit compliance documentation, must be signed and dated by the person preparing the change or documentation.

(2) Availability

The permittee shall make the SWPPP, annual site compliance evaluation report, and other information available to the Department upon request.

(3) Required Modifications

The director may notify the permittee at any time that the SWPPP, BMPs, or other components of the facility's storm water program do not meet one or more of the requirements of this permit. The notification shall identify specific provisions of the permit that are not being met, and may include required modifications to the storm water program, additional monitoring requirements, and special reporting requirements. The permittee shall make any required changes to the SWPPP within 60 days of receipt of such notification, unless permission for a later date is granted in writing by the director, and shall submit a written certification to the director that the requested changes have been made.

f. Maintaining an Updated SWPPP

(1) The permittee shall review and amend the SWPPP as appropriate whenever:

(a) There is construction or a change in design, operation, or maintenance at the facility that has a significant effect on the discharge, or the potential for the discharge, of pollutants from the facility;

(b) Routine inspections or compliance evaluations determine that there are deficiencies in the BMPs;

(c) Inspections by local, state, or federal officials determine that modifications to the SWPPP are necessary;

(d) There is a spill, leak or other release at the facility; or

(e) There is an unauthorized discharge from the facility.

(2) SWPPP modifications shall be made within 30 calendar days after discovery, observation or event requiring a SWPPP modification. Implementation of new or modified BMPs (distinct from regular preventive maintenance of existing BMPs described in Part I.F.2.b(6)(b)(iii)) shall be initiated before the next storm event if possible, but no later than 60 days after discovery, or as otherwise provided or approved by the Director. The amount of time taken to modify a BMP or implement additional BMPs shall be documented in the SWPPP.

(3) If the SWPPP modification is based on a release or unauthorized discharge, include a description and date of the release, the circumstances leading to the release, actions taken in response to the release, and measures to prevent the recurrence of such releases. Unauthorized releases and discharges are subject to the reporting requirements of Part II.G. of this permit.

4. SECTOR-SPECIFIC STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

The requirements listed under this section apply to storm water discharges associated with industrial activity from steam electric power generating facilities using coal, natural gas, oil, nuclear energy, etc. to produce a steam source, including coal handling areas (Industrial Activity Code "O").

Storm water discharges from ancillary facilities (e.g., fleet centers, gas turbine stations, and substations) that are not contiguous to a steam electric power generating facility are not covered by this permit. Heat capture/heat recovery combined cycle generation facilities are also not covered by this permit; however, dual fuel co-generation facilities that generate electric power are included.

In addition to the requirements of Part I.F.2., the SWPPP shall include, at a minimum, the following items:

a. Site Description

(1) Site Map

The site map shall identify the locations of any of the following activities or sources that may be exposed to precipitation/surface runoff: storage tanks, scrap yards, general refuse areas; short and long term storage of general materials (including, but not limited to: supplies, construction materials, paint equipment, oils, fuels, used and unused solvents, cleaning materials, paint, water treatment chemicals, fertilizer, and pesticides); landfills; construction sites; and stock pile areas (such as coal or limestone piles).

(2) Storm Water Controls

(a) Good Housekeeping Measures

(i) Fugitive Dust Emissions

The permittee shall describe and implement measures that prevent or minimize fugitive dust emissions from coal handling areas. The permittee shall consider establishing procedures to minimize off-site tracking of coal dust such as installing specially designed tires, or

washing vehicles in a designated area before they leave the site, and controlling wash water.

(ii) Delivery Vehicles

The plan shall describe measures that prevent or minimize contamination of storm water runoff from delivery vehicles arriving on the plant site. At a minimum the permittee shall consider the following:

i. Develop procedures for the inspection of delivery vehicles arriving on the plant site, and ensure overall integrity of the body or container; and

ii. Develop procedures to deal with leakage/spillage from vehicles or containers.

(iii) Fuel Oil Unloading Areas

The plan shall describe measures that prevent or minimize contamination of precipitation/surface runoff from fuel oil unloading areas. At a minimum the permittee shall consider using the following measures, or an equivalent:

i. Use of containment curbs in unloading areas;

ii. During deliveries, having station personnel familiar with spill prevention and response procedures present to ensure that any leaks/spills are immediately contained and cleaned up; and

iii. Use of spill and overflow protection (e.g., drip pans, drip diapers, and/or other containment devices placed beneath fuel oil connectors to contain potential spillage during deliveries or from leaks at the connectors).

(iv) Chemical Loading/Unloading Areas

The permittee shall describe and implement measures that prevent or minimize the contamination of precipitation/surface runoff from chemical loading/unloading areas. At a minimum the permittee shall consider using the following measures (or their equivalents):

i. Use of containment curbs at chemical loading/unloading areas to contain spills;

ii. During deliveries, having station personnel familiar with spill prevention and response procedures present to ensure that any leaks/spills are immediately contained and cleaned up; and

iii. Covering chemical loading/unloading areas, and storing chemicals indoors.

(v) Miscellaneous Loading/Unloading Areas

The permittee shall describe and implement measures that prevent or minimize the contamination of storm water runoff from loading and unloading areas. The permittee shall consider the following, at a minimum (or their equivalents):

i. Covering the loading area;

ii. Grading, berming or curbing around the loading areas to divert runon; or

iii. Locating the loading/unloading equipment and vehicles so that leaks are contained in existing containment and flow diversion systems.

(vi) Liquid Storage Tanks

The permittee shall describe and implement measures that prevent or minimize contamination of storm water runoff from aboveground liquid storage tanks. At a minimum the permittee shall consider employing the following measures (or their equivalents):

i. Use of protective guards around tanks;

ii. Use of containment curbs;

iii. Use of spill and overflow protection; and

iv. Use of dry cleanup methods

(vii) Large Bulk Fuel Storage Tanks

The permittee shall describe and implement measures that prevent or minimize contamination of storm water runoff from large bulk fuel storage tanks. At a minimum the permittee shall consider employing containment berms (or its equivalent). The permittee shall also comply with applicable state and federal laws, including Spill Prevention Control and Countermeasures (SPCC).

(viii) Spill Reduction Measures

The permittee shall describe and implement measures to reduce the potential for an oil/chemical spill, or reference the appropriate section of the SPCC plan. At a minimum the structural integrity of all aboveground tanks, pipelines, pumps and other related equipment shall be visually inspected on a weekly basis. All repairs deemed necessary based on the finding of the inspections shall be completed immediately to reduce the incidence of spills and leaks occurring from such faulty equipment.

(ix) Oil Bearing Equipment in Switchyards

The permittee shall describe and implement measures to prevent or minimize contamination of surface runoff from oil bearing equipment in switchyard areas. The permittee shall consider the use of level grades and gravel surfaces to retard flows and limit the spread of spills, and the collection of storm water runoff in perimeter ditches.

(x) Residue Hauling Vehicles

All residue hauling vehicles shall be inspected for proper covering over the load, adequate gate sealing and overall integrity of the container body. Vehicles without load coverings or adequate gate sealing, or with leaking containers or beds shall be repaired as soon as practicable.

(xi) Ash Loading Areas

The permittee shall describe and implement procedures to reduce or control the tracking of ash/residue from ash loading areas where practicable, clear the ash building floor and immediately adjacent roadways of spillage, debris and excess water before departure of each loaded vehicle.

(xii) Areas Adjacent to Disposal Ponds or Landfills

The permittee shall describe and implement measures that prevent or minimize contamination of storm water runoff from areas adjacent to disposal ponds or landfills. The permittee shall develop procedures to:

i. Reduce ash residue which may be tracked on to access roads traveled by residue trucks or residue handling vehicles; and

ii. Reduce ash residue on exit roads leading into and out of residue handling areas

(xiii) Landfills, Scrapyards, Surface Impoundments, Open Dumps, General Refuse Sites

The plan shall address and include appropriate BMPs for landfills, scrapyards, surface impoundments, open dumps and general refuse sites.

(xiv) Vehicle Maintenance Activities

i. Vehicle and Equipment Storage Areas

The storage of vehicles and equipment awaiting maintenance with actual or potential fluid leaks shall be confined to designated areas (delineated on the site map). The permittee shall consider the following measures (or their equivalents):

the use of drip pans under vehicles and equipment; indoor storage of vehicles and equipment; installation of berms or dikes; use of absorbents; roofing or covering storage areas; and cleaning pavement surface or remove oil and grease.

ii. Fueling Areas

The permittee shall describe and implement measures that prevent or minimize contamination of the storm water runoff from fueling areas. The permittee shall consider the following measures (or their equivalents): covering the fueling area; using spill/overflow protection and cleanup equipment; minimizing storm water runon/runoff to the fueling area; using dry cleanup methods; and treating and/or recycling collected storm water runoff.

iii. Material Storage Areas

Storage vessels of all materials (e.g., for used oil/oil filters, spent solvents, paint wastes, hydraulic fluids) shall be maintained in good condition, so as to prevent contamination of storm water, and plainly labeled (e.g., "used oil", "spent solvents", etc.). The permittee shall consider the following measures (or their equivalents): indoor storage of the materials; installation of berms/dikes around the areas, minimizing runoff of storm water to the areas; minimizing runoff of storm water to the areas; using dry cleanup methods and treating and/or recycling the collected storm water runoff.

iv. Vehicle and Equipment Cleaning Areas

The permittee shall describe and implement measures that prevent or minimize contamination of storm water runoff from all areas used for vehicle/equipment cleaning. The permittee shall consider the following measures (or their equivalents): performing all cleaning operations indoors; covering the cleaning operation; ensuring that all washwaters drain to a proper collection system (i.e., not the storm water drainage system unless VPDES permitted); and treating and/or recycling the collected storm water runoff.

v. Vehicle and Equipment Maintenance Areas

The permittee shall describe and implement measures that prevent or minimize contamination of storm water runoff from all areas used for vehicle/equipment maintenance. The permittee shall consider the following measures (or their equivalents): performing maintenance activities indoors; using drip pans; keeping an organized inventory of materials used in the shop; draining all parts of fluids prior to disposal; prohibiting wet clean up practices where the practices would

result in the discharge of pollutants to storm water drainage systems; using dry cleanup methods; treating and/or recycling collected storm water runoff; and minimizing runon/runoff of storm water to maintenance areas.

vii. Locomotive Sanding (Loading Sand for Traction) Areas

The plan shall describe measures that prevent or minimize contamination of the storm water runoff from areas used for locomotive sanding. The permittee shall consider the following measures (or their equivalents): covering sanding areas; minimizing storm water runon/runoff; or appropriate sediment removal practices to minimize the off-site transport of sanding material by storm water.

(xv) Material Storage Areas

The permittee shall describe and implement measures that prevent or minimize contamination of storm water runoff from material storage areas (including areas used for temporary storage of miscellaneous products, and construction materials stored in lay-down areas). The permittee shall consider the use of the following measures (or their equivalents): flat yard grades; runoff collection in graded swales or ditches; erosion protection measures at steep outfall sites (e.g., concrete chutes, riprap, stilling basins); covering lay-down areas; storing materials indoors; and covering materials temporarily with polyethylene, polyurethane, polypropylene, or hypalon. Storm water runon may be minimized by constructing an enclosure or building a berm around the area.

(xvi) Comprehensive Site Compliance Evaluation

As part of the evaluation, qualified facility personnel shall inspect the following areas on a monthly basis: coal handling areas, loading/ unloading areas, switchyards, fueling areas, bulk storage areas, ash handling areas, areas adjacent to disposal ponds and landfills, maintenance areas, liquid storage tanks, and Long term and short term material storage areas.

CONDITIONS APPLICABLE TO ALL VPDES PERMITS

A. Monitoring

1. Samples and measurements taken as required by this permit shall be representative of the monitored activity.

2. Monitoring shall be conducted according to procedures approved under Title 40 Code of Federal Regulations Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.

3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will insure accuracy of measurements.

B. Records

1. Records of monitoring information shall include:

   a. The date, exact place, and time of sampling or measurements;

   b. The individual(s) who performed the sampling or measurements;

   c. The date(s) and time(s) analyses were performed;

   d. The individual(s) who performed the analyses;

   e. The analytical techniques or methods used; and

   f. The results of such analyses.

2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Board.

C. Reporting Monitoring Results

1. The permittee shall submit the results of the monitoring required by this permit not later than the 10th day of the month after monitoring takes place, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to:

   Virginia Department of Environmental Quality
   Blue Ridge Regional Office
   7705 Timberlake Road
   Lynchburg, Virginia 24502

2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or on forms provided, approved or specified by the Department.

3. If the permittee monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under Title 40 of the Code of Federal Regulations Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Department.

4. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

E. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized Discharges

Except in compliance with this permit, or another permit issued by the Board, it shall be unlawful for any person to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or

2. Otherwise alter the physical, chemical or biological properties of such state waters and make them detrimental to the public health, or to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, or for recreation, or for other uses.

G. Reports of Unauthorized Discharges

Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon state waters in violation of Part II F; or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters in violation of Part II F, shall notify the Department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the Department, within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and

8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

Discharges reportable to the Department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of Unusual or Extraordinary Discharges

If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the permittee shall promptly notify, in no case later than 24 hours, the Department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse affects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the Department within five days of discovery of the discharge in accordance with Part II I 2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the treatment works; and
4. Flooding or other acts of nature.

I. Reports of Noncompliance

The permittee shall report any noncompliance which may adversely affect state waters or may endanger public health.

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this paragraph:

   a. Any unanticipated bypass; and
   b. Any upset which causes a discharge to surface waters.

2. A written report shall be submitted within 5 days and shall contain:

   a. A description of the noncompliance and its cause;
   b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
   c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

   The Board may waive the written report on a case-by-case basis for reports of noncompliance under Part II I if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.

3. The permittee shall report all instances of noncompliance not reported under Parts II I 1 or 2, in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II I 2.

NOTE: The immediate (within 24 hours) reports required in Parts II G, H and I may be made to the Department's Regional Office at (434) 582-5120 (voice) or (434) 582-5125 (fax). For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Services maintains a 24 hour telephone service at 1-800-468-8892.

J. Notice of Planned Changes

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

   a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:

      (1) After promulgation of standards of performance under Section 306 of Clean Water Act which are applicable to such source; or

      (2) After proposal of standards of performance in accordance with Section 306 of Clean Water Act which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal;

   b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or

   c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

2. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. Signatory Requirements

1. Applications. All permit applications shall be signed as follows:

   a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

   b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

   c. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. Reports, etc. All reports required by permits, and other information requested by the Board shall be signed by a person described in Part II K 1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described in Part II K 1;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

c. The written authorization is submitted to the Department.

3. Changes to authorization. If an authorization under Part II K 2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II K 2 shall be submitted to the Department prior to or together with any reports, or information to be signed by an authorized representative.

4. Certification. Any person signing a document under Parts II K 1 or 2 shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to Comply

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. All permittees with a currently effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Board. The Board shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

N. Effect of a Permit

This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State Law

Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by Section 510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" (Part II U), and "upset" (Part II V) nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of solids or sludges

Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters.

S. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II U 2 and U 3.

2. Notice
   a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.
   b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II I.

3. Prohibition of bypass.
   a. Bypass is prohibited, and the Board may take enforcement action against a permittee for bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submitted notices as required under Part II U 2.

b. The Board may approve an anticipated bypass, after considering its adverse effects, if the Board determines that it will meet the three conditions listed above in Part II U 3 a.

V. Upset

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II V 2 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.

2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An upset occurred and that the permittee can identify the cause(s) of the upset;

b. The permitted facility was at the time being properly operated;

c. The permittee submitted notice of the upset as required in Part II I; and

d. The permittee complied with any remedial measures required under Part II S.

3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and Entry

The permittee shall allow the Director, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the State Water Control Law, any substances or parameters at any location.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit Actions

Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of permits

1. Permits are not transferable to any person except after notice to the Department. Except as provided in Part II Y 2, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as may be necessary under the State Water Control Law and the Clean Water Act.

2. As an alternative to transfers under Part II Y 1, this permit may be automatically transferred to a new permittee if:

   a. The current permittee notifies the Department at least 30 days in advance of the proposed transfer of the title to the facility or property;

   b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and

   c. The Board does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part II Y 2 b.

Z. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.