



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

### NORTHERN REGIONAL OFFICE

13901 Crown Court, Woodbridge, Virginia 22193

(703) 583-3800

[www.deq.virginia.gov](http://www.deq.virginia.gov)

Molly Joseph Ward  
Secretary of Natural Resources

David K. Paylor  
Director

Thomas A. Faha  
Regional Director

January 19, 2016

By Email ([cathy.c.taylor@dom.com](mailto:cathy.c.taylor@dom.com))

Ms. Cathy C. Taylor  
Director, Electric Environmental Services  
Dominion Resources Services, Inc.  
5000 Dominion Boulevard  
Glen Allen, VA 23060

Re: Modification of Virginia Pollutant Discharge Elimination System (VPDES) Permit No. VA0002071  
Dominion – Possum Point Power Station, Prince William County

Dear Ms. Taylor:

The Department of Environmental Quality (DEQ) has approved the enclosed effluent limitations and monitoring requirements for the above-referenced permit. Copies of your permit and fact sheet are enclosed.

A Discharge Monitoring Report (DMR) form is not included in this package since you are already enrolled in DEQ's electronic DMR (e-DMR) program. Please reference the effluent limits in your permit and report monitoring results in e-DMR to the same number of significant digits as are included in the permit limits for the parameter. The regional contact for e-DMR is Rebecca Vice; she can be reached at (703) 583-3922 or by e-mail at [Rebecca.Vice@deq.virginia.gov](mailto:Rebecca.Vice@deq.virginia.gov).

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 that period.

Alternately, 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 a 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 questions about the permit, please contact Susan Mackert at (703) 583-3853, or by E-mail at [susan.mackert@deq.virginia.gov](mailto:susan.mackert@deq.virginia.gov).

Respectfully,



Bryant Thomas  
Water Permit & Planning Manager

Enc.: Permit for VA0002071  
Fact Sheet for VA0002071

cc: Ken Roller ([kenneth.roller@dom.com](mailto:kenneth.roller@dom.com))  
Jason Williams ([jason.e.williams@dom.com](mailto:jason.e.williams@dom.com))  
DEQ-Water, OWPP  
EPA-Region III, 3WP12  
Department of Health, Culpeper/Lexington  
Water Compliance, NRO



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No. VA0002071  
 Effective Date: April 3, 2013  
 Minor Modification Date: May 30, 2013  
 Major Modification Date: January 14, 2016  
 Expiration Date: April 2, 2018

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, Part I – Effluent Limitations and Monitoring Requirements, and Part II – Conditions Applicable To All VPDES Permits, as set forth herein.

Owner Name: Virginia Electric and Power Company d/b/a Dominion Virginia Power  
 Facility Name: Dominion – Possum Point Power Station  
 County: Prince William  
 Facility Location: 19000 Possum Point Road, Dumfries, VA 22026

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

Outfalls:	<u>001/002, 003, 004</u>	<u>005, 010</u>	<u>007, 008, 009</u>
Stream Name:	Quantico Creek	Quantico Creek, UTs	Potomac River
River Basin:	Potomac River	Potomac River	Potomac River
River Subbasin:	Lower Potomac	Lower Potomac	Lower Potomac
Section:	6	6	Maryland Section 02140102
Class:	II	II	Maryland Designated II
Special Standards:	b (Not Applicable)	b (Not Applicable)	Maryland Designated Use II

Thomas A. Faha  
 Director, Northern Regional Office  
 Department of Environmental Quality

January 14, 2016  
 Date

**A. Effluent Limitations and Monitoring Requirements**

**1. Outfall 001/002 – Unit 3 Condenser Cooling Water, Unit 5 Cooling Tower Blowdown, Unit 6 Cooling Tower Blowdown, Internal Outfall 503 (Interim), and Stormwater**

- a. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- b. During the period beginning with the permit's major modification date and lasting until the expiration date, the permittee is authorized to discharge from Outfall Number 001/002. Such discharges shall be limited and monitored by the permittee as specified below.

Parameter	Discharge Limitations				Monitoring Requirements	
	Monthly Average <sup>(1)</sup>	Daily Maximum <sup>(1)</sup>	Minimum	Maximum <sup>(1)</sup>	Frequency	Sample Type
Flow <sup>(2)</sup> (MGD)	NL	NA	NA	NL	1/M	Estimate
pH	NA	NA	6.0 S.U.	9.0 S.U.	1/M	Grab
Heat Rejection (Unit 3) <sup>(3)</sup>	NA	NA	NA	5.58x10 <sup>8</sup> BTU/hr	Continuous	Calculated
Total Residual Chlorine (TRC) <sup>(4,9)</sup>	0.022 mg/L	NA	NA	0.032 mg/L	2/M	Grab
Total Nitrogen, Intake <sup>(5,6)</sup>	NL (mg/L)	NA	NA	NA	1/3M	Calculated
Total Nitrogen <sup>(5,6)</sup>	NL (mg/L)	NA	NA	NA	1/3M	Calculated
Total Phosphorus, Intake <sup>(6)</sup>	NL (mg/L)	NA	NA	NA	1/3M	Grab
Total Phosphorus <sup>(6)</sup>	NL (mg/L)	NA	NA	NA	1/3M	Grab
Temperature, Intake	NL (°C)	NA	NA	NL (°C)	1/D	IS
Temperature	NL (°C)	NA	NA	NL (°C)	1/D	IS
Dissolved Copper, Intake <sup>(7,9)</sup>	NL (µg/L)	NA	NA	NA	1/6M	Grab
Dissolved Copper <sup>(7,9)</sup>	NL (µg/L)	NA	NA	NA	1/6M	Grab
Total Hardness, Intake (as CaCO <sub>3</sub> ) <sup>(7)</sup>	NL (mg/L)	NA	NA	NA	1/6M	Grab
Total Hardness (as CaCO <sub>3</sub> ) <sup>(7)</sup>	NL (mg/L)	NA	NA	NA	1/6M	Grab
Chronic Toxicity – <i>C. dubia</i> (TU <sub>c</sub> ) <sup>(8)</sup>	NA	NA	NA	NL	1/YR	Grab
Chronic Toxicity – <i>P. promelas</i> (TU <sub>c</sub> ) <sup>(8)</sup>	NA	NA	NA	NL	1/YR	Grab

<sup>(1)</sup> See Part I.B.

MGD = Million gallons per day.

1/D = Once every day.

<sup>(2)</sup> Average flow is 86.38 MGD (does not include flows that may be contributed by Internal Outfall 503).

NA = Not applicable.

1/M = Once every month.

<sup>(3)</sup> Measured at the respective condenser units prior to discharge to the Seal Basin.

NL = No limit; monitor and report.

2/M = Twice every month.

<sup>(4)</sup> While chlorinating unit condensers. See Part I.B.1 for additional requirements.

S.U. = Standard units.

1/3M = Once every three months.

<sup>(5)</sup> Total Nitrogen is the sum of Total Kjeldahl Nitrogen and NO<sub>2</sub>+NO<sub>3</sub> and shall be calculated from the results of those tests.

IS = Immersion stabilization.

1/6M = Once every six months.

<sup>(6)</sup> Intake and discharge sampling for the parameter (Total Phosphorus or Total Nitrogen) shall be conducted on the same date. To the maximum extent practicable, discharge samples shall be collected in such a manner to account for pass through time of the system to allow for evaluation of nutrient additions from station operations.

1/YR = Once every year.

<sup>(7)</sup> Dissolved copper and hardness samples shall be collected concurrently. Intake and discharge samples collected to comply with Dissolved Copper and Hardness requirements shall be collected on the same date. To the maximum extent practicable, discharge samples shall be collected in such a manner to account for pass through time of the system to allow for evaluation of dissolved copper additions from station operations.

<sup>(8)</sup> See Part I.C for whole effluent toxicity requirements.

<sup>(9)</sup> The following Quantification Levels (QLs) are applicable: TRC – 0.10 mg/L; Copper - 5.4 µg/L.

1/3M=The quarterly monitoring periods shall be January 1 – March 31, April 1 – June 30, July 1 – September 30, and October 1 – December 31. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (April 10, July 10, October 10 and January 10, respectively).

1/6M=The semi-annual monitoring period shall be January 1 – June 30 and July 1 - December 31. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (July 10 and January 10, respectively).

1/YR=The annual monitoring period shall be January 1 - December 31. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (January 10).

Grab=An individual sample collected over a period of time not to exceed 15-minutes.

Estimate=Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

**A. Effluent Limitations and Monitoring Requirements**

**2. Outfall 003 – Unit 4 Condenser Cooling Water**

- a. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- b. During the period beginning with the permit’s effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall Number 003. Such discharges shall be limited and monitored by the permittee as specified below.

Parameter	Discharge Limitations				Monitoring Requirements	
	<u>Monthly Average</u> <sup>(1)</sup>	<u>Daily Maximum</u> <sup>(1)</sup>	<u>Minimum</u>	<u>Maximum</u> <sup>(1)</sup>	<u>Frequency</u>	<u>Sample Type</u>
Flow <sup>(2)</sup> (MGD)	NL	NA	NA	NL	1/M	Estimate
pH	NA	NA	6.0 S.U.	9.0 S.U.	1/M	Grab
Heat Rejection (Unit 4) <sup>(3)</sup>	NA	NA	NA	1.14x10 <sup>9</sup> BTU/hr	Continuous	Calculated
Total Residual Chlorine (TRC) <sup>(4,6)</sup>	0.022 mg/L	NA	NA	0.032 mg/L	2/M	Grab
Temperature	NL (°C)	NA	NA	NL (°C)	1/W	IS
Chronic Toxicity – <i>C. dubia</i> (TU <sub>c</sub> ) <sup>(5)</sup>	NA	NA	NA	NL	1/YR	Grab
Chronic Toxicity – <i>P. promelas</i> (TU <sub>c</sub> ) <sup>(5)</sup>	NA	NA	NA	NL	1/YR	Grab

<sup>(1)</sup> See Part I.B.

<sup>(2)</sup> Average flow is 82.55 MGD.

<sup>(3)</sup> Measured at the respective condenser unit.

<sup>(4)</sup> While chlorinating unit condensers. See Part I.B.1 for additional requirements.

<sup>(5)</sup> See Part I.C for whole effluent toxicity requirements.

<sup>(6)</sup> The following Quantification Level (QLs) is applicable: TRC – 0.10 mg/L.

MGD = Million gallons per day.

NA = Not applicable.

NL = No limit; monitor and report.

S.U. = Standard units.

IS = Immersion stabilization.

1/W = Once every week.

1/M = Once every month.

2/M = Twice every month.

1/YR = Once every year.

1/YR = The annual monitoring period shall be January 1 - December 31. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (January 10).

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

**A. Effluent Limitations and Monitoring Requirements**

**3. Outfall 004 – Low Volume Waste Settling Pond, Internal Outfall 502, and Internal Outfall 503 (Interim)**

- a. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- b. During the period beginning with the permit's major modification date and lasting until the expiration date, the permittee is authorized to discharge from Outfall Number 004. Such discharges shall be limited and monitored by the permittee as specified below.

Parameter	Discharge Limitations				Monitoring Requirements	
	Monthly Average <sup>(1)</sup>	Daily Maximum <sup>(1)</sup>	Minimum	Maximum <sup>(1)</sup>	Frequency	Sample Type
Flow <sup>(2)</sup> (MGD)	NL	NA	NA	NL	2/M	Estimate
pH	NA	NA	6.0 S.U.	9.0 S.U.	2/M	Grab
Heat Rejection (Unit 6) <sup>(3)</sup>	NA	NA	NA	1.9x10 <sup>8</sup> BTU/hr	2/M	Calculated
Total Residual Chlorine (TRC) <sup>(4,7)</sup>	0.026 mg/L	NA	NA	0.038 mg/L	1/W	Grab
Temperature	NL (°C)	NA	NA	NL (°C)	1/W	IS
Oil and Grease (O&G)	15 mg/L	NA	NA	20 mg/L	2/M	Grab
Total Suspended Solids (TSS) <sup>(7)</sup>	30 mg/L	NA	NA	100 mg/L	2/M	Grab
Total Nitrogen <sup>(5)</sup>	NL (mg/L)	NA	NA	NA	1/6M	Calculated
Total Kjeldahl Nitrogen (TKN)	NL (mg/L)	NA	NA	NA	1/6M	Grab
Nitrate+Nitrite (NO <sub>3</sub> + NO <sub>2</sub> ), as N	NL (mg/L)	NA	NA	NA	1/6M	Grab
Ammonia, as N <sup>(7)</sup>	NL (mg/L)	NA	NA	NA	1/6M	Grab
Total Phosphorus	NL (mg/L)	NA	NA	NA	1/6M	Grab
Chronic Toxicity – <i>C. dubia</i> (TU <sub>c</sub> ) <sup>(6)</sup>	NA	NA	NA	NL	1/YR	Grab
Chronic Toxicity – <i>P. promelas</i> (TU <sub>c</sub> ) <sup>(6)</sup>	NA	NA	NA	NL	1/YR	Grab

<sup>(1)</sup> See Part I.B.

<sup>(2)</sup> Average flow is 2.59 MGD (does not include flows that may be contributed by Internal Outfall 503).

<sup>(3)</sup> Calculated for the effluent at Outfall 004.

<sup>(4)</sup> While chlorinating unit condensers. See Part I.B.1 for additional requirements.

<sup>(5)</sup> Total Nitrogen is the sum of Total Kjeldahl Nitrogen and NO<sub>2</sub>+NO<sub>3</sub> and shall be calculated from the results of those tests.

<sup>(6)</sup> See Part I.C for whole effluent toxicity requirements.

<sup>(7)</sup> The following Quantification Levels (QLs) are applicable: TRC – 0.10 mg/L; TSS – 1.0 mg/L; Ammonia (as N) – 0.2 mg/L.

1/6M = The semi-annual monitoring period shall be January 1 – June 30 and July 1 - December 31. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (July 10 and January 10, respectively).

1/YR = The annual monitoring period shall be January 1 - December 31. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (January 10).

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

MGD = Million gallons per day.

NA = Not applicable.

NL = No limit; monitor and report.

S.U. = Standard units.

IS = Immersion stabilization.

1/W = Once every week.

1/M = Once every month.

2/M = Twice every month.

1/6M = Once every six months.

1/YR = Once every year.

**A. Effluent Limitations and Monitoring Requirements**

**4. Outfall 005 – Ash Pond Dewatering (Interim Configuration – Internal Outfall 503 and Discharge from Holding Basin)**

- a. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- b. During the period beginning with the commencement of facility dewatering activities and lasting until the expiration date the permittee is authorized to discharge from Outfall Number 005. Internal Outfall 503 is authorized to discharge through Outfall 005. When the Outfall 005 discharge is comprised of effluent directly from Internal Outfall 503, the monitoring results from Internal Outfall 503 may be used to satisfy effluent monitoring requirements for the respective parameters noted below. The effluent and monitoring requirements below apply to Outfall 005 discharges from the holding basin. Such discharges shall be limited and monitored by the permittee as specified below.

Parameter	Discharge Limitations				Monitoring Requirements <sup>(5,6)</sup>	
	Monthly Average <sup>(1,7)</sup>	Daily Maximum <sup>(1,7)</sup>	Minimum <sup>(7)</sup>	Maximum <sup>(1,7)</sup>	Frequency	Sample Type
Flow <sup>(2)</sup> (MGD)	NA	NA	NA	2.88	3/W	Estimate
pH	NA	NA	6.0 S.U.	9.0 S.U.	3/W	Grab
Total Suspended Solids (TSS) <sup>(4)</sup>	30 mg/L	100 mg/L	NA	NA	3/W	4H-C
Oil and Grease (O&G)	15 mg/L	20 mg/L	NA	NA	3/W	4H-C
Aluminum, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Antimony, Total Recoverable <sup>(4)</sup>	640 µg/L	640 µg/L	NA	NA	3/W	4H-C
Arsenic, Total Recoverable <sup>(4)</sup>	120 µg/L	220 µg/L	NA	NA	3/W	4H-C
Barium, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Beryllium, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Boron, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Cadmium, Total Recoverable <sup>(4)</sup>	0.88 µg/L	1.6 µg/L	NA	NA	3/W	4H-C
Chloride	180,000 µg/L	340,000 µg/L	NA	NA	3/W	4H-C
Chromium III, Total Recoverable <sup>(4)</sup>	59 µg/L	110 µg/L	NA	NA	3/W	4H-C
Chromium VI, Total Recoverable <sup>(4)</sup>	8.7 µg/L	16 µg/L	NA	NA	3/W	4H-C
Cobalt, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Copper, Total Recoverable <sup>(4)</sup>	7.1 µg/L	13 µg/L	NA	NA	3/W	4H-C
Iron, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Lead, Total Recoverable <sup>(4)</sup>	11 µg/L	20 µg/L	NA	NA	3/W	4H-C
Mercury, Total Recoverable <sup>(4)</sup>	0.61 µg/L	1.1 µg/L	NA	NA	3/W	4H-C
Molybdenum, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Nickel, Total Recoverable <sup>(4)</sup>	16 µg/L	29 µg/L	NA	NA	3/W	4H-C
Selenium, Total Recoverable <sup>(4)</sup>	4.0 µg/L	7.3 µg/L	NA	NA	3/W	4H-C
Silver, Total Recoverable <sup>(4)</sup>	1.8 µg/L	3.4 µg/L	NA	NA	3/W	4H-C
Thallium, Total Recoverable <sup>(4)</sup>	0.47 µg/L	0.47 µg/L	NA	NA	3/W	4H-C
Vanadium, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Zinc, Total Recoverable <sup>(4)</sup>	65 µg/L	120 µg/L	NA	NA	3/W	4H-C
Hardness, Total (as CaCO <sub>3</sub> )	NL (mg/L)	NL (mg/L)	NA	NA	3/W	4H-C
Total Nitrogen <sup>(8)</sup>	NL (mg/L)	NA	NA	NA	1/M	Calculation
Total Kjeldahl Nitrogen (TKN)	NL (mg/L)	NA	NA	NA	1/M	4H-C
Nitrate+Nitrite (NO <sub>3</sub> +NO <sub>2</sub> ), as N	NL (mg/L)	NA	NA	NA	1/M	4H-C
Ammonia, as N <sup>(4)</sup>	NL (mg/L)	NA	NA	NA	1/M	4H-C
Acute Toxicity – <i>C. dubia</i> (NOAEC) <sup>(3)</sup>	NA	NA	100%	NA	1/M	24H-C
Acute Toxicity – <i>P. promelas</i> (NOAEC) <sup>(3)</sup>	NA	NA	100%	NA	1/M	24H-C
Chronic Toxicity – <i>C. dubia</i> (TU <sub>c</sub> ) <sup>(3)</sup>	NA	NA	NA	1.44 TU <sub>c</sub>	1/M	24H-C
Chronic Toxicity – <i>P. promelas</i> (TU <sub>c</sub> ) <sup>(3)</sup>	NA	NA	NA	1.44 TU <sub>c</sub>	1/M	24H-C

**A. Effluent Limitations and Monitoring Requirements**

**4. Outfall 005 – Ash Pond E (Interim Configuration – Internal Outfall 503 and Discharge from Holding Basin) – Continued**

- |   |                                    |                            |
|---|------------------------------------|----------------------------|
| (1) See Part I.B.   | MGD = Million gallons per day.     | 3/W = Three days per week. |
| (2) Average flow is 2.53 MGD; Maximum flow is 2.88 MGD  | NA = Not applicable.               | 1/M = Once every month.    |
| (3) See Part I.C for whole effluent toxicity requirements.  | NL = No limit; monitor and report. |                            |
| (4) The following Quantification Levels (QLs) are applicable: TSS – 1.0 mg/L; Antimony – 5.0 µg/L; Arsenic – 5.0 µg/L; Cadmium – 0.88 µg/L; Chromium III – 5.0 µg/L; Chromium VI – 5.0 µg/L; Copper – 5.0 µg/L; Lead – 5.0 µg/L; Mercury – 0.1 µg/L; Nickel – 5.0 µg/L; Selenium – 5.0 µg/L; Silver – 0.4 µg/L; Thallium – 0.47 µg/L; Zinc – 25 µg/L. The permittee may provide documentation that demonstrates the QLs listed for Cadmium and Thallium are not achievable. Based upon review of this documentation the Department may establish higher QLs for Cadmium and Thallium in accordance with 40 CFR 122.44(i)(1)(iv).  | S.U. = Standard units.             |                            |
| (5) Sampling for the parameters identified with a monitoring frequency of “3/W” for Outfall 005 shall occur at least three (3) days per week with a minimum of 48 hours between sampling events. A sampling week extends Sunday through Saturday. The permittee shall contract to receive results for parameters identified with a monitoring frequency of “3/W” within four business days of taking the sample. Results of the weekly sampling shall be reported to DEQ no later than the close of business Friday of the week following sample collection. This reporting requirement does not substitute for, or alter, Part II.C concerning the monthly reporting of monitoring results with the Discharge Monitoring Report. |                                    |                            |
| (6) The composite period for all metals identified with a monitoring frequency of “1/M” shall occur within the composite period for the Whole Effluent Toxicity monitoring.   |                                    |                            |
| (7) The permittee shall immediately cease the discharge upon becoming aware of an exceedance of an established effluent limit and/or WET limit at Outfall 005. See Part I.F.20 for additional requirements.   |                                    |                            |
| (8) Total Nitrogen is the sum of Total Kjeldahl Nitrogen and NO <sub>2</sub> +NO <sub>3</sub> and shall be calculated from the results of those tests.  |                                    |                            |

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

**Metals and Total Hardness Requirements:**

Samples for all metals and total hardness shall be collected concurrently.

4H-C= A flow proportional composite sample collected manually or automatically, and discretely or continuously, for the entire discharge of the monitored 4 (four)-hour period. Where discrete sampling is employed, the permittee shall collect a minimum of 4 (four) aliquots for compositing. Discrete sampling may be flow proportioned either by varying the time interval between each aliquot or the volume of each aliquot. Time composite samples consisting of a minimum 4 (four) grab samples obtained at hourly or smaller intervals may be collected where the permittee demonstrates that the discharge flow rate (gallons per minute) does not vary by  $\geq 10\%$  or more during the monitored discharge.

24H-C= A flow proportional composite sample collected manually or automatically, and discretely or continuously, for the entire discharge of the monitored 24 (twenty-four)-hour period. Where discrete sampling is employed, the permittee shall collect a minimum of 24 (twenty-four) aliquots for compositing. Discrete sampling may be flow proportioned either by varying the time interval between each aliquot or the volume of each aliquot. Time composite samples consisting of a minimum 24 (twenty-four) grab samples obtained at hourly or smaller intervals may be collected where the permittee demonstrates that the discharge flow rate (gallons per minute) does not vary by  $\geq 10\%$  or more during the monitored discharge.

**A. Effluent Limitations and Monitoring Requirements**

**5. Outfall 007 – Intake Screen Backwash Water (Units 3, 4, 5, and 6)**

- a. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- b. During the period beginning with the permit’s effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall Number 007. Such discharges shall be limited and monitored by the permittee as specified below.

Parameter	Discharge Limitations				Monitoring Requirements	
	<u>Monthly Average</u> <sup>(1)</sup>	<u>Daily Maximum</u> <sup>(1)</sup>	<u>Minimum</u>	<u>Maximum</u> <sup>(1)</sup>	<u>Frequency</u>	<u>Sample Type</u>
Flow <sup>(2)</sup> (MGD)	NL	NA	NA	NL	1/3M	Measured

<sup>(1)</sup> See Part I.B.

<sup>(2)</sup> Average flow is 0.19 MGD.

MGD = Million gallons per day.

NA = Not applicable.

NL = No limit; monitor and report.

1/3M = Once every three months.

1/3M = The quarterly monitoring periods shall be January 1 – March 31, April 1 – June 30, July 1 – September 30, and October 1 – December 31. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (April 10, July 10, October 10 and January 10, respectively).

Measured = In lieu of providing measured flow at Outfall 007, the permittee may estimate flow and submit the following information with the DMR:

1. A description of the methodology used to estimate flow (based on the technical evaluation of the sources contributing to the discharge) where flow measurement equipment is not present;
2. Documentation appropriate to the methodology utilized which provides information necessary to support the validity of the reported flow estimate. If actual measurements or observations are made, a description of typical sampling times, locations, and persons performing the measurements/observations shall also be provided; and
3. A description of the factors (e.g., batch discharges, intermittent operation, etc.) which cause flow at the outfall to fluctuate significantly from the estimate provided.

**A. Effluent Limitations and Monitoring Requirements**

**6. Outfall 008 – Intake Screenwell Freeze Protection Water**

- a. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- b. During the period beginning with the permit’s effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall Number 008. Such discharges shall be limited and monitored by the permittee as specified below.

Parameter	Discharge Limitations				Monitoring Requirements	
	<u>Monthly Average</u> <sup>(1)</sup>	<u>Daily Maximum</u> <sup>(1)</sup>	<u>Minimum</u>	<u>Maximum</u> <sup>(1)</sup>	<u>Frequency</u>	<u>Sample Type</u>
Flow <sup>(2)</sup> (MGD)	NL	NA	NA	NL	1/3M	Measured

<sup>(1)</sup> See Part I.B.

<sup>(2)</sup> Average flow is 0.00 MGD.

MGD = Million gallons per day.

NA = Not applicable.

NL = No limit; monitor and report.

1/3M = Once every three months.

1/3M = The quarterly monitoring periods shall be January 1 – March 31, April 1 – June 30, July 1 – September 30, and October 1 – December 31. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (April 10, July 10, October 10 and January 10, respectively).

Measured = In lieu of providing measured flow at Outfall 008, the permittee may estimate flow and submit the following information with the DMR:

1. A description of the methodology used to estimate flow (based on the technical evaluation of the sources contributing to the discharge) where flow measurement equipment is not present;
2. Documentation appropriate to the methodology utilized which provides information necessary to support the validity of the reported flow estimate. If actual measurements or observations are made, a description of typical sampling times, locations, and persons performing the measurements/observations shall also be provided; and
3. A description of the factors (e.g., batch discharges, intermittent operation, etc.) which cause flow at the outfall to fluctuate significantly from the estimate provided.

**A. Effluent Limitations and Monitoring Requirements**

**7. Outfall 009 – Intake Screen Backwash Water (Units 3 and 4)**

- a. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- b. During the period beginning with the permit’s major modification date and lasting until the expiration date, the permittee is authorized to discharge from Outfall Number 009. Such discharges shall be limited and monitored by the permittee as specified below.

Parameter	Discharge Limitations				Monitoring Requirements	
	<u>Monthly Average</u> <sup>(1)</sup>	<u>Daily Maximum</u> <sup>(1)</sup>	<u>Minimum</u>	<u>Maximum</u> <sup>(1)</sup>	<u>Frequency</u>	<u>Sample Type</u>
Flow <sup>(2)</sup> (MGD)	NL	NA	NA	NL	1/3M	Measured

<sup>(1)</sup> See Part I.B.

<sup>(2)</sup> Average flow is variable.

MGD = Million gallons per day.

NA = Not applicable.

NL = No limit; monitor and report.

1/3M = Once every three months.

1/3M = The quarterly monitoring periods shall be January 1 – March 31, April 1 – June 30, July 1 – September 30, and October 1 – December 31. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (April 10, July 10, October 10 and January 10, respectively).

Measured = In lieu of providing measured flow at Outfall 009, the permittee may estimate flow and submit the following information with the DMR:

1. A description of the methodology used to estimate flow (based on the technical evaluation of the sources contributing to the discharge) where flow measurement equipment is not present;
2. Documentation appropriate to the methodology utilized which provides information necessary to support the validity of the reported flow estimate. If actual measurements or observations are made, a description of typical sampling times, locations, and persons performing the measurements/observations shall also be provided; and
3. A description of the factors (e.g., batch discharges, intermittent operation, etc.) which cause flow at the outfall to fluctuate significantly from the estimate provided.

**A. Effluent Limitations and Monitoring Requirements**

**8. Outfall 010 – Ash Pond D Toe Drain, Groundwater and Stormwater**

- a. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- b. During the period beginning with the permit's major modification date and lasting until the expiration date, the permittee is authorized to discharge from Outfall Number 010. Such discharges shall be limited and monitored by the permittee as specified below.
- c. The effluent limitations specified below become effective thirty (30) days after the major modification date of the permit. The monitoring requirements shall commence upon the major modification date of the permit.

Parameter	Discharge Limitations				Monitoring Requirements	
	Monthly Average <sup>(1)</sup>	Daily Maximum <sup>(1)</sup>	Minimum	Maximum <sup>(1)</sup>	Frequency	Sample Type
Flow <sup>(2)</sup> (MGD)	NL	NA	NA	NL	1/M	Estimate
pH	NA	NA	6.0 (S.U.)	9.0 (S.U.)	1/M	Grab
Total Suspended Solids (TSS) <sup>(4)</sup>	30 mg/L	100 mg/L	NA	NA	1/M	4H-C
Oil and Grease (O&G)	15 mg/L	20 mg/L	NA	NA	1/M	4H-C
Specific Conductivity	NA	NA	NA	NL (µhoms/cm)	1/M	Grab
Aluminum, Total Recoverable <sup>(5)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Antimony, Total Recoverable <sup>(4)</sup>	640 µg/L	640 µg/L	NA	NA	1/M	4H-C
Arsenic, Total Recoverable <sup>(4)</sup>	220 µg/L	220 µg/L	NA	NA	1/M	4H-C
Barium, Total Recoverable <sup>(4)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Beryllium, Total Recoverable <sup>(5)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Boron, Total Recoverable <sup>(5)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Cadmium, Total Recoverable <sup>(4)</sup>	1.1 µg/L	1.1 µg/L	NA	NA	1/M	4H-C
Chloride	340,000 µg/L	340,000 µg/L	NA	NA	1/M	4H-C
Chromium III, Total Recoverable <sup>(4)</sup>	73 µg/L	73 µg/L	NA	NA	1/M	4H-C
Chromium VI, Total Recoverable <sup>(4)</sup>	16 µg/L	16 µg/L	NA	NA	1/M	4H-C
Cobalt, Total Recoverable <sup>(5)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Copper, Total Recoverable <sup>(4)</sup>	8.4 µg/L	8.4 µg/L	NA	NA	1/M	4H-C
Iron, Total Recoverable <sup>(5)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Lead, Total Recoverable <sup>(4)</sup>	11 µg/L	11 µg/L	NA	NA	1/M	4H-C
Mercury, Total Recoverable <sup>(4)</sup>	1.1 µg/L	1.1 µg/L	NA	NA	1/M	4H-C
Molybdenum, Total Recoverable <sup>(5)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Nickel, Total Recoverable <sup>(4)</sup>	19 µg/L	19 µg/L	NA	NA	1/M	4H-C
Selenium, Total Recoverable <sup>(4)</sup>	7.3 µg/L	7.3 µg/L	NA	NA	1/M	4H-C
Silver, Total Recoverable <sup>(3)</sup>	1.5 µg/L	1.5 µg/L	NA	NA	1/M	4H-C
Thallium, Total Recoverable <sup>(4)</sup>	0.47 µg/L	0.47 µg/L	NA	NA	1/M	4H-C
Vanadium, Total Recoverable <sup>(5)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Zinc, Total Recoverable <sup>(4)</sup>	77 µg/L	77 µg/L	NA	NA	1/M	4H-C
Hardness, Total (as CaCO <sub>3</sub> )	NL (mg/L)	NL (mg/L)	NA	NA	1/M	4H-C
Acute Toxicity – <i>C. dubia</i> (NOAEC) <sup>(3)</sup>	NA	NA	100%	NA	1/M	24H-C
Acute Toxicity – <i>P. promelas</i> (NOAEC) <sup>(3)</sup>	NA	NA	100%	NA	1/M	24H-C
Chronic Toxicity – <i>C. dubia</i> (TU <sub>c</sub> ) <sup>(3)</sup>	NA	NA	NA	1.44 TU <sub>c</sub>	1/M	24H-C
Chronic Toxicity – <i>P. promelas</i> (TU <sub>c</sub> ) <sup>(3)</sup>	NA	NA	NA	1.44 TU <sub>c</sub>	1/M	24H-C

**A. Effluent Limitations and Monitoring Requirements**

**8. Outfall 010 – Ash Pond D Toe Drain – Continued**

- (1) See Part I.B. MGD = Million gallons per day. 1/M = Once every month.  
(2) Average flow is variable. NA = Not applicable.  
(3) See Part I.C for whole effluent toxicity requirements.  
(4) The following Quantification Levels (QLs) are applicable: TSS – 1.0 mg/L;  
Antimony – 5.0 µg/L; Arsenic – 5.0 µg/L; Cadmium – 0.88 µg/L; Chromium III – 5.0 µg/L;  
Chromium VI – 5.0 µg/L; Copper – 5.0 µg/L; Lead – 5.0 µg/L; Mercury – 0.1 µg/L;  
Nickel – 5.0 µg/L; Selenium – 5.0 µg/L; Silver – 0.4 µg/L; Thallium – 0.47 µg/L;  
Zinc – 25 µg/L. The permittee may provide documentation that demonstrates the QLs listed for  
Cadmium and Thallium are not achievable. Based upon review of this documentation the  
Department may establish higher QLs for Cadmium and Thallium in accordance with 40 CFR  
122.44(i)(1)(iv).  
(5) The composite period for the identified metals shall occur within the composite period for the Whole Effluent Toxicity monitoring.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Metals and Total Hardness Requirements:

Samples for all metals and total hardness shall be collected concurrently.

4H-C= A flow proportional composite sample collected manually or automatically, and discretely or continuously, for the entire discharge of the monitored 4 (four)-hour period. Where discrete sampling is employed, the permittee shall collect a minimum of 4 (four) aliquots for compositing. Discrete sampling may be flow proportioned either by varying the time interval between each aliquot or the volume of each aliquot. Time composite samples consisting of a minimum 4 (four) grab samples obtained at hourly or smaller intervals may be collected where the permittee demonstrates that the discharge flow rate (gallons per minute) does not vary by  $\geq 10\%$  or more during the monitored discharge.

24H-C= A flow proportional composite sample collected manually or automatically, and discretely or continuously, for the entire discharge of the monitored 24 (twenty-four)-hour period. Where discrete sampling is employed, the permittee shall collect a minimum of 24 (twenty-four) aliquots for compositing. Discrete sampling may be flow proportioned either by varying the time interval between each aliquot or the volume of each aliquot. Time composite samples consisting of a minimum 24 (twenty-four) grab samples obtained at hourly or smaller intervals may be collected where the permittee demonstrates that the discharge flow rate (gallons per minute) does not vary by  $\geq 10\%$  or more during the monitored discharge.

**A. Effluent Limitations and Monitoring Requirements**

**9. Outfall 201 – Unit 5 Cooling Tower Blowdown**

- a. During the period beginning with the permit’s effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall Number 201. Such discharges shall be limited and monitored by the permittee as specified below.

Parameter	Discharge Limitations				Monitoring Requirements	
	<u>Monthly Average</u> <sup>(1)</sup>	<u>Daily Maximum</u> <sup>(1)</sup>	<u>Minimum</u>	<u>Maximum</u> <sup>(1)</sup>	<u>Frequency</u>	<u>Sample Type</u>
Flow <sup>(2)</sup> (MGD)	NL	NA	NA	NL	1/D-M	Estimate
pH	NA	NA	6.0 S.U.	9.0 S.U.	1/D-W	Grab
Free Available Chlorine <sup>(3)</sup>	0.2 mg/L	NA	NA	0.5 mg/L	1/D-W	Grab
Total Nitrogen <sup>(4,5)</sup>	NL (mg/L)	NA	NA	NA	1/3M	Calculated
Total Phosphorus <sup>(5)</sup>	NL (mg/L)	NA	NA	NA	1/3M	Grab
Total Chromium <sup>(7)</sup>	0.2 mg/L	NA	NA	0.2 mg/L	1/D-M	Grab
Total Zinc <sup>(7)</sup>	1.0 mg/L	NA	NA	1.0 mg/L	1/D-M	Grab
126 Priority Pollutants <sup>(6)</sup> (Appendix A of 40 CFR Part 423)	Non-Detectable	NA	NA	Non-Detectable	1/D-Y	Grab

- <sup>(1)</sup> See Part I.B. MGD = Million gallons per day. 1/D-W = Once per week in which there is a discharge.  
<sup>(2)</sup> Average flow is 1.48 MGD. NA = Not applicable. 1/D-M = Once per month in which there is a discharge.  
<sup>(3)</sup> While chlorinating the Unit 5 cooling tower. See Part I.B.1 for additional requirements. NL = No limit; monitor and report. 1/D-Y = Once per year in which there is a discharge.  
<sup>(4)</sup> Total Nitrogen is the sum of Total Kjeldahl Nitrogen and NO<sub>2</sub>+NO<sub>3</sub> and shall be calculated from the results of those tests. S.U. = Standard units. 1/3M = Once every three months in which there is a discharge.  
<sup>(5)</sup> Sampling of the parameter (either Total Nitrogen or Total Phosphorus) shall be conducted on the same date as sampling for the parameter at the intake and Outfall 001/002 locations.  
<sup>(6)</sup> See Part I.F.8.  
<sup>(7)</sup> The following Quantification Levels (QLs) are applicable: Chromium – 13 µg/L; Zinc - 50 µg/L.

1/3M = The quarterly monitoring periods shall be January 1 – March 31, April 1 – June 30, July 1 – September 30, and October 1 – December 31. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (April 10, July 10, October 10 and January 10, respectively).

1/D-Y = The annual monitoring period shall be January 1 - December 31. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (January 10).

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

**A. Effluent Limitations and Monitoring Requirements**

**10. Outfall 202 – Unit 6 Cooling Tower Blowdown**

- a. During the period beginning with the permit’s effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall Number 202. Such discharges shall be limited and monitored by the permittee as specified below.

Parameter	Discharge Limitations				Monitoring Requirements	
	<u>Monthly Average</u> <sup>(1)</sup>	<u>Daily Maximum</u> <sup>(1)</sup>	<u>Minimum</u>	<u>Maximum</u> <sup>(1)</sup>	<u>Frequency</u>	<u>Sample Type</u>
Flow <sup>(2)</sup> (MGD)	NL	NA	NA	NL	1/D-M	Estimate
pH	NA	NA	6.0 S.U.	9.0 S.U.	1/D-W	Grab
Free Available Chlorine <sup>(3)</sup>	0.2 mg/L	NA	NA	0.5 mg/L	1/D-W	Grab
Total Nitrogen <sup>(4,5)</sup>	NL (mg/L)	NA	NA	NA	1/3M	Calculated
Total Phosphorus <sup>(5)</sup>	NL (mg/L)	NA	NA	NA	1/3M	Grab
Total Chromium <sup>(7)</sup>	0.2 mg/L	NA	NA	0.2 mg/L	1/D-M	Grab
Total Zinc <sup>(7)</sup>	1.0 mg/L	NA	NA	1.0 mg/L	1/D-M	Grab
126 Priority Pollutants <sup>(6)</sup> (Appendix A of 40 CFR Part 423)	Non-Detectable	NA	NA	Non-Detectable	1/D-Y	Grab

- (1) See Part I.B. MGD = Million gallons per day. 1/D-W = Once per week in which there is a discharge.  
 (2) Average flow is 0.91 MGD. NA = Not applicable. 1/D-M = Once per month in which there is a discharge.  
 (3) While chlorinating the Unit 6 cooling tower. See Part I.B.1 for additional requirements. NL = No limit; monitor and report. 1/D-Y = Once per year in which there is a discharge.  
 (4) Total Nitrogen is the sum of Total Kjeldahl Nitrogen and NO<sub>2</sub>+NO<sub>3</sub> and shall be calculated from the results of those tests. S.U. = Standard units. 1/3M = Once every three months in which there is a discharge.  
 (5) Sampling of the parameter (either Total Nitrogen or Total Phosphorus) shall be conducted on the same date as sampling for the parameter at the intake and Outfall 001/002 locations.  
 (6) See Part I.F.8.  
 (7) The following Quantification Levels (QLs) are applicable: Chromium – 13 µg/L; Zinc - 50 µg/L.

1/3M = The quarterly monitoring periods shall be January 1 – March 31, April 1 – June 30, July 1 – September 30, and October 1 – December 31. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (April 10, July 10, October 10 and January 10, respectively).

1/D-Y = The annual monitoring period shall be January 1 - December 31. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (January 10).

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

**A. Effluent Limitations and Monitoring Requirements**

**11. Outfall 501 – Metals Cleaning Waste Treatment Basin**

- a. During the period beginning with the permit’s effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall Number 501. Such discharges shall be limited and monitored by the permittee as specified below.

Parameter	Discharge Limitations				Monitoring Requirements	
	<u>Monthly Average</u> <sup>(1)</sup>	<u>Daily Maximum</u> <sup>(1)</sup>	<u>Minimum</u>	<u>Maximum</u> <sup>(1)</sup>	<u>Frequency</u>	<u>Sample Type</u>
Flow <sup>(2)</sup> (MGD)	NL	NA	NA	NL	1/D-M	Estimate
Oil and Grease (O&G)	15 mg/L	NA	NA	20 mg/L	1/D-M	Grab
Total Suspended Solids (TSS) <sup>(3)</sup>	30 mg/L	NA	NA	100 mg/L	1/D-M	Grab
Total Iron <sup>(3)</sup>	1.0 mg/L	NA	NA	1.0 mg/L	1/D-M	Grab
Total Copper <sup>(3)</sup>	1.0 mg/L	NA	NA	1.0 mg/L	1/D-M	Grab

<sup>(1)</sup> See Part I.B.

<sup>(2)</sup> Average flow is 1.04 MGD.

<sup>(3)</sup> The following Quantification Levels (QLs) are applicable:  
 TSS – 1.0 mg/L; Iron – 1.0 µg/L; Copper – 5.4 µg/L.

MGD = Million gallons per day.

1/D-M = Once per month in which there is a discharge.

NA = Not applicable.

NL = No limit; monitor and report.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

**A. Effluent Limitations and Monitoring Requirements**

**12. Outfall 502 – Oily Waste Treatment Basin**

- a. During the period beginning with the permit’s effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall Number 502. Such discharges shall be limited and monitored by the permittee as specified below.

Parameter	Discharge Limitations				Monitoring Requirements	
	<u>Monthly Average</u> <sup>(1)</sup>	<u>Daily Maximum</u> <sup>(1)</sup>	<u>Minimum</u>	<u>Maximum</u> <sup>(1)</sup>	<u>Frequency</u>	<u>Sample Type</u>
Flow <sup>(2)</sup> (MGD)	NL	NA	NA	NL	2/M	Estimate
Oil and Grease (O&G)	15 mg/L	NA	NA	20 mg/L	2/M	Grab
Total Suspended Solids (TSS) <sup>(6)</sup>	30 mg/L	NA	NA	100 mg/L	2/M	Grab
Total Petroleum Hydrocarbons (TPH) <sup>(3)</sup>	NL (mg/L)	NA	NA	NL (mg/L)	2/M	Grab
Total Petroleum Hydrocarbons – Oil Range Organics (ORO) <sup>(4,5)</sup>	NL (mg/L)	NA	NA	NL (mg/L)	2/M	Grab

<sup>(1)</sup> See Part I.B. MGD = Million gallons per day. 2/M = Twice every month.

<sup>(2)</sup> Average flow is 0.57 MGD. NA = Not applicable.

<sup>(3)</sup> TPH is the sum of individual gasoline range organics and diesel range organics or TPH-GRO and TPH-DRO to be measured by EPA SW 846 Method 8015 for gasoline and diesel range organics, or by EPA SW 846 Methods 8260 Extended and 8270 Extended. NL = No limit; monitor and report.

<sup>(4)</sup> Total Petroleum Hydrocarbons – Oil Range Organics (ORO) shall be measured by EPA SW 846 Method 8015B or any other Virginia Environmental Laboratory Accreditation Program (VELAP) approved method.

<sup>(5)</sup> The permittee shall sample and submit TPH-ORO results at the frequency of twice per month for one year. If all reported results for TPH-ORO do not exceed the QL for TPH (0.50 mg/L), the permittee may submit a written request to DEQ-NRO for a reduction in the sampling frequency to once per quarter.

Upon approval, the permittee shall collect one (1) sample during one month within each quarterly monitoring period. The quarterly monitoring periods shall be January through March, April through June, July through September and October through December. The sample shall be analyzed for TPH-ORO and the results shall be submitted on the DMR no later than the 10<sup>th</sup> day of the month following the quarterly monitoring period.

Should any of the quarterly monitoring results for TPH-ORO exceed the QL for TPH (0.50 mg/L), the monitoring frequency shall revert to twice per month for the remainder of the permit term.

<sup>(6)</sup> The following Quantification Level (QLs) is applicable: TSS – 1.0 mg/L.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

**A. Effluent Limitations and Monitoring Requirements**

**13. Internal Outfall 503 – (Comingled Process Water, Ash Dewatering Water, Contact Water (Interim) / Ash Pond D Underdrain / Outfall 010 / Internal Outfall 501 (Final)) – When Routed to Outfall 001/002 or Outfall 004**

- a. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- b. During the period beginning with the commencement of facility dewatering activities and lasting until the completion of dewatering and/or installation of the underdrain, or the expiration date, whichever occurs first, the permittee is authorized to discharge from Internal Outfall Number 503. The limitations below are applicable when the discharge from Internal Outfall 503 is routed to Outfall 001/002 or Outfall 004. Such discharges shall be limited and monitored by the permittee as specified below.

Parameter	Discharge Limitations				Monitoring Requirements <sup>(5,6)</sup>	
	<u>Monthly Average</u> <sup>(1,7)</sup>	<u>Daily Maximum</u> <sup>(1,7)</sup>	<u>Minimum</u> <sup>(7)</sup>	<u>Maximum</u> <sup>(1,7)</sup>	<u>Frequency</u>	<u>Sample Type</u>
Flow <sup>(2)</sup> (MGD)	NA	NA	NA	2.88	3/W	Estimate
pH	NA	NA	6.0 S.U.	9.0 S.U.	3/W	Grab
Total Suspended Solids (TSS) <sup>(4)</sup>	30 mg/L	100 mg/L	NA	NA	3/W	4H-C
Oil and Grease (O&G)	15 mg/L	20 mg/L	NA	NA	3/W	4H-C
Aluminum, Dissolved	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Antimony, Total Recoverable <sup>(4)</sup>	1300 µg/L	1300 µg/L	NA	NA	3/W	4H-C
Arsenic, Total Recoverable <sup>(4)</sup>	240 µg/L	440 µg/L	NA	NA	3/W	4H-C
Barium, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Beryllium, Dissolved	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Boron, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Cadmium, Total Recoverable <sup>(4)</sup>	1.4 µg/L	2.6 µg/L	NA	NA	3/W	4H-C
Chloride	370,000 µg/L	670,000 µg/L	NA	NA	3/W	4H-C
Chromium III, Total Recoverable <sup>(4)</sup>	88 µg/L	160 µg/L	NA	NA	3/W	4H-C
Chromium VI, Total Recoverable <sup>(4)</sup>	17 µg/L	32 µg/L	NA	NA	3/W	4H-C
Cobalt, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Copper, Total Recoverable <sup>(4)</sup>	9.6 µg/L	18 µg/L	NA	NA	3/W	4H-C
Iron, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Lead, Total Recoverable <sup>(4)</sup>	14 µg/L	26 µg/L	NA	NA	3/W	4H-C
Mercury, Total Recoverable <sup>(4)</sup>	1.2 µg/L	2.2 µg/L	NA	NA	3/W	4H-C
Molybdenum, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Nickel, Total Recoverable <sup>(4)</sup>	24 µg/L	44 µg/L	NA	NA	3/W	4H-C
Selenium, Total Recoverable <sup>(4)</sup>	8.0 µg/L	15 µg/L	NA	NA	3/W	4H-C
Silver, Total Recoverable <sup>(4)</sup>	2.2 µg/L	4.0 µg/L	NA	NA	3/W	4H-C
Thallium, Total Recoverable <sup>(4)</sup>	0.94 µg/L	0.94 µg/L	NA	NA	3/W	4H-C
Vanadium, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Zinc, Total Recoverable <sup>(4)</sup>	98 µg/L	180 µg/L	NA	NA	3/W	4H-C
Hardness, Total (as CaCO <sub>3</sub> )	NL (mg/L)	NL (mg/L)	NA	NA	3/W	4H-C
Acute Toxicity – <i>C. dubia</i> (NOAEC) <sup>(3)</sup>	NA	NA	100%	NA	1/M	24H-C
Acute Toxicity – <i>P. promelas</i> (NOAEC) <sup>(3)</sup>	NA	NA	100%	NA	1/M	24H-C
Chronic Toxicity – <i>C. dubia</i> (TU <sub>c</sub> ) <sup>(3)</sup>	NA	NA	NA	2.85 TU <sub>c</sub>	1/M	24H-C
Chronic Toxicity – <i>P. promelas</i> (TU <sub>c</sub> ) <sup>(3)</sup>	NA	NA	NA	2.85 TU <sub>c</sub>	1/M	24H-C

**A. Effluent Limitations and Monitoring Requirements**

**13. Internal Outfall 503 – (Comingled Process Water, Ash Dewatering Water, Contact Water (Interim) / Ash Pond D Underdrain / Outfall 010 / Internal Outfall 501 (Final)) – When Routed to Outfall 001/002 or Outfall 004 – Continued**

- |  |                                    |                            |
|--|------------------------------------|----------------------------|
| (1) See Part I.B.  | MGD = Million gallons per day.     | 3/W = Three days per week. |
| (2) Average flow is 2.53 MGD; Maximum flow is 2.88 MGD   | NA = Not applicable.               | 1/M = Once every month.    |
| (3) See Part I.C for whole effluent toxicity requirements.   | NL = No limit; monitor and report. |                            |
| (4) The following Quantification Levels (QLs) are applicable: TSS – 1.0 mg/L; Antimony – 5.0 µg/L; Arsenic – 5.0 µg/L; Cadmium – 0.88 µg/L; Chromium III – 5.0 µg/L; Chromium VI – 5.0 µg/L; Copper – 5.0 µg/L; Lead – 5.0 µg/L; Mercury – 0.1 µg/L; Nickel – 5.0 µg/L; Selenium – 5.0 µg/L; Silver – 0.4 µg/L; Thallium – 0.47 µg/L; Zinc – 25 µg/L. The permittee may provide documentation that demonstrates the QLs listed for Cadmium and Thallium are not achievable. Based upon review of this documentation the Department may establish higher QLs for Cadmium and Thallium in accordance with 40 CFR 122.44(i)(1)(iv).   | S.U. = Standard units.             |                            |
| (5) Sampling for the parameters identified with a monitoring frequency of “3/W” for Internal Outfall 503 shall occur at least three (3) days per week with a minimum of 48 hours between sampling events. A sampling week extends Sunday through Saturday. The permittee shall contract to receive results for parameters identified with a monitoring frequency of “3/W” within four business days of taking the sample. Results of the weekly sampling shall be reported to DEQ no later than the close of business Friday of the week following sample collection. This reporting requirement does not substitute for, or alter, Part II.C concerning the monthly reporting of monitoring results with the Discharge Monitoring Report. |                                    |                            |
| (6) The composite period for the parameters identified with a monitoring frequency of “1/M” shall occur within the composite period for the Whole Effluent Toxicity monitoring.  |                                    |                            |
| (7) The permittee shall immediately cease the discharge upon becoming aware of an exceedance of an established effluent limit and/or WET limit at Internal Outfall 503. See Part I.F.20 for additional requirements.   |                                    |                            |

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

**Metals and Total Hardness Requirements:**

Samples for all metals and total hardness shall be collected concurrently.

4H-C= A flow proportional composite sample collected manually or automatically, and discretely or continuously, for the entire discharge of the monitored 4 (four)-hour period. Where discrete sampling is employed, the permittee shall collect a minimum of 4 (four) aliquots for compositing. Discrete sampling may be flow proportioned either by varying the time interval between each aliquot or the volume of each aliquot. Time composite samples consisting of a minimum 4 (four) grab samples obtained at hourly or smaller intervals may be collected where the permittee demonstrates that the discharge flow rate (gallons per minute) does not vary by  $\geq 10\%$  or more during the monitored discharge.

24H-C= A flow proportional composite sample collected manually or automatically, and discretely or continuously, for the entire discharge of the monitored 24 (twenty-four)-hour period. Where discrete sampling is employed, the permittee shall collect a minimum of 24 (twenty-four) aliquots for compositing. Discrete sampling may be flow proportioned either by varying the time interval between each aliquot or the volume of each aliquot. Time composite samples consisting of a minimum 24 (twenty-four) grab samples obtained at hourly or smaller intervals may be collected where the permittee demonstrates that the discharge flow rate (gallons per minute) does not vary by  $\geq 10\%$  or more during the monitored discharge.

**A. Effluent Limitations and Monitoring Requirements**

**14. Internal Outfall 503 – (Comingled Process Water, Ash Dewatering Water, Contact Water (Interim) / Ash Pond D Underdrain / Outfall 010 / Internal Outfall 501 (Final)) – When Routed to Outfall 005**

- a. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- b. During the period beginning with the commencement of facility dewatering activities and lasting until the completion of dewatering and/or installation of the underdrain, or the expiration date, whichever occurs first, the permittee is authorized to discharge from Internal Outfall Number 503. The limitations below are applicable when the discharge from Internal Outfall 503 is routed to Outfall 005. Such discharges shall be limited and monitored by the permittee as specified below.

Parameter	Discharge Limitations				Monitoring Requirements <sup>(5,6)</sup>	
	<u>Monthly Average</u> <sup>(1,7)</sup>	<u>Daily Maximum</u> <sup>(1,7)</sup>	<u>Minimum</u> <sup>(7)</sup>	<u>Maximum</u> <sup>(1,7)</sup>	<u>Frequency</u>	<u>Sample Type</u>
Flow <sup>(2)</sup> (MGD)	NA	NA	NA	2.88	3/W	Estimate
pH	NA	NA	6.0 S.U.	9.0 S.U.	3/W	Grab
Total Suspended Solids (TSS) <sup>(4)</sup>	30 mg/L	100 mg/L	NA	NA	3/W	4H-C
Oil and Grease (O&G)	15 mg/L	20 mg/L	NA	NA	3/W	4H-C
Aluminum, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Antimony, Total Recoverable <sup>(4)</sup>	640 µg/L	640µg/L	NA	NA	3/W	4H-C
Arsenic, Total Recoverable <sup>(4)</sup>	120 µg/L	220 µg/L	NA	NA	3/W	4H-C
Barium, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Beryllium, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Boron, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Cadmium, Total Recoverable <sup>(4)</sup>	0.88 µg/L	1.6 µg/L	NA	NA	3/W	4H-C
Chloride	180,000 µg/L	340,000 µg/L	NA	NA	3/W	4H-C
Chromium III, Total Recoverable <sup>(4)</sup>	59 µg/L	110 µg/L	NA	NA	3/W	4H-C
Chromium VI, Total Recoverable <sup>(4)</sup>	8.7 µg/L	16 µg/L	NA	NA	3/W	4H-C
Cobalt, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Copper, Total Recoverable <sup>(4)</sup>	7.1 µg/L	13 µg/L	NA	NA	3/W	4H-C
Iron, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Lead, Total Recoverable <sup>(4)</sup>	11 µg/L	20 µg/L	NA	NA	3/W	4H-C
Mercury, Total Recoverable <sup>(4)</sup>	0.61 µg/L	1.1 µg/L	NA	NA	3/W	4H-C
Molybdenum, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Nickel, Total Recoverable <sup>(4)</sup>	16 µg/L	29 µg/L	NA	NA	3/W	4H-C
Selenium, Total Recoverable <sup>(4)</sup>	4.0 µg/L	7.3 µg/L	NA	NA	3/W	4H-C
Silver, Total Recoverable <sup>(4)</sup>	1.8 µg/L	3.4 µg/L	NA	NA	3/W	4H-C
Thallium, Total Recoverable <sup>(4)</sup>	0.47 µg/L	0.47 µg/L	NA	NA	3/W	4H-C
Vanadium, Total Recoverable	NL (µg/L)	NL (µg/L)	NA	NA	1/M	4H-C
Zinc, Total Recoverable <sup>(4)</sup>	65 µg/L	120 µg/L	NA	NA	3/W	4H-C
Hardness, Total (as CaCO <sub>3</sub> )	NL (mg/L)	NL (mg/L)	NA	NA	3/W	4H-C
Acute Toxicity – <i>C. dubia</i> (NOAEC) <sup>(3)</sup>	NA	NA	100%	NA	1/M	24H-C
Acute Toxicity – <i>P. promelas</i> (NOAEC) <sup>(3)</sup>	NA	NA	100%	NA	1/M	24H-C
Chronic Toxicity – <i>C. dubia</i> (TU <sub>c</sub> ) <sup>(3)</sup>	NA	NA	NA	1.44 TU <sub>c</sub>	1/M	24H-C
Chronic Toxicity – <i>P. promelas</i> (TU <sub>c</sub> ) <sup>(3)</sup>	NA	NA	NA	1.44 TU <sub>c</sub>	1/M	24H-C

**A. Effluent Limitations and Monitoring Requirements**

**14. Internal Outfall 503 – (Comingled Process Water, Ash Dewatering Water, Contact Water (Interim) / Ash Pond D Underdrain / Outfall 010 / Internal Outfall 501 (Final)) – When Routed to Outfall 005 - Continued**

- |     |  |                                    |                            |
|-----|--|------------------------------------|----------------------------|
| (1) | See Part I.B.  | MGD = Million gallons per day.     | 3/W = Three days per week. |
| (2) | Average flow is 2.53 MGD; Maximum flow is 2.88 MGD   | NA = Not applicable.               | 1/M = Once every month.    |
| (3) | See Part I.C for whole effluent toxicity requirements.   | NL = No limit; monitor and report. |                            |
| (4) | The following Quantification Levels (QLs) are applicable: TSS – 1.0 mg/L; Antimony – 5.0 µg/L; Arsenic – 5.0 µg/L; Cadmium – 0.88 µg/L; Chromium III – 5.0 µg/L; Chromium VI – 5.0 µg/L; Copper – 5.0 µg/L; Lead – 5.0 µg/L; Mercury – 0.1 µg/L; Nickel – 5.0 µg/L; Selenium – 5.0 µg/L; Silver – 0.4 µg/L; Thallium – 0.47 µg/L; Zinc – 25 µg/L. The permittee may provide documentation that demonstrates the QLs listed for Cadmium and Thallium are not achievable. Based upon review of this documentation the Department may establish higher QLs for Cadmium and Thallium in accordance with 40 CFR 122.44(i)(1)(iv).   | S.U. = Standard units.             |                            |
| (5) | Sampling for the parameters identified with a monitoring frequency of “3/W” for Internal Outfall 503 shall occur at least three (3) days per week with a minimum of 48 hours between sampling events. A sampling week extends Sunday through Saturday. The permittee shall contract to receive results for parameters identified with a monitoring frequency of “3/W” within four business days of taking the sample. Results of the weekly sampling shall be reported to DEQ no later than the close of business Friday of the week following sample collection. This reporting requirement does not substitute for, or alter, Part II.C concerning the monthly reporting of monitoring results with the Discharge Monitoring Report. |                                    |                            |
| (6) | The composite period for the parameters identified with a monitoring frequency of “1/M” shall occur within the composite period for the Whole Effluent Toxicity monitoring.  |                                    |                            |
| (7) | The permittee shall immediately cease the discharge upon becoming aware of an exceedance of an established effluent limit and/or WET limit at Internal Outfall 503. See Part I.F.20 for additional requirements.   |                                    |                            |

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

**Metals and Total Hardness Requirements:**

Samples for all metals and total hardness shall be collected concurrently.

4H-C= A flow proportional composite sample collected manually or automatically, and discretely or continuously, for the entire discharge of the monitored 4 (four)-hour period. Where discrete sampling is employed, the permittee shall collect a minimum of 4 (four) aliquots for compositing. Discrete sampling may be flow proportioned either by varying the time interval between each aliquot or the volume of each aliquot. Time composite samples consisting of a minimum 4 (four) grab samples obtained at hourly or smaller intervals may be collected where the permittee demonstrates that the discharge flow rate (gallons per minute) does not vary by  $\geq 10\%$  or more during the monitored discharge.

24H-C= A flow proportional composite sample collected manually or automatically, and discretely or continuously, for the entire discharge of the monitored 24 (twenty-four)-hour period. Where discrete sampling is employed, the permittee shall collect a minimum of 24 (twenty-four) aliquots for compositing. Discrete sampling may be flow proportioned either by varying the time interval between each aliquot or the volume of each aliquot. Time composite samples consisting of a minimum 24 (twenty-four) grab samples obtained at hourly or smaller intervals may be collected where the permittee demonstrates that the discharge flow rate (gallons per minute) does not vary by  $\geq 10\%$  or more during the monitored discharge.

**A. Effluent Limitations and Monitoring Requirements**

**15. Outfall S107 –Stormwater from Base of Ash Pond D Impoundment**

- a. There shall be no discharge of floating solids or visible foam in other than trace amounts.
- b. During the period beginning with written approval from DEQ that Outfall 010 is comprised only of stormwater discharges in accordance with Part I.F.23, and lasting until the expiration date, the permittee is authorized to discharge from Outfall Number S107.
- c. Outfall S107 discharges shall be limited, monitored and managed by the permittee as specified below, and in accordance with Part I.E. and Part I.F.18 of this permit.

Parameter	Discharge Limitations				Monitoring Requirements	
	<u>Monthly Average</u> <sup>(1)</sup>	<u>Daily Maximum</u> <sup>(1)</sup>	<u>Minimum</u>	<u>Maximum</u> <sup>(1)</sup>	<u>Frequency</u>	<u>Sample Type</u>
Flow <sup>(2)</sup> (MGD)	NL	NA	NA	NL	1/3M	Estimate
pH	NA	NA	6.0 (S.U.)	9.0 (S.U.)	1/3M	Grab
Total Suspended Solids (TSS) <sup>(3)</sup>	NL	NL (mg/L)	NA	NA	1/3M	Grab
Oil and Grease (O&G)	NL	NL (mg/L)	NA	NA	1/3M	Grab
Specific Conductivity	NA	NA	NA	NL (µhoms/cm)	1/3M	Grab
Aluminum, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Antimony, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Arsenic, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Barium, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Beryllium, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Boron, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Cadmium, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Chloride	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Chromium III, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Chromium VI, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Cobalt, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Copper, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Iron, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Lead, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Mercury, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Molybdenum, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Nickel, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Selenium, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Silver, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Thallium, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Vanadium, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Zinc, Total Recoverable <sup>(3)</sup>	NL (µg/L)	NL (µg/L)	NA	NA	1/3M	Grab
Hardness, Total (as CaCO <sub>3</sub> )	NL (mg/L)	NL (mg/L)	NA	NA	1/3M	Grab

**A. Effluent Limitations and Monitoring Requirements**

**15. Outfall S107 –Stormwater from Base of Ash Pond D – Continued**

- (1) See Part I.B. MGD = Million gallons per day.  
NA = Not applicable.

(2) Average flow is variable.

(3) The following Quantification Levels (QLs) are applicable: TSS – 1.0 mg/L;  
Antimony – 5.0 µg/L; Arsenic – 5.0 µg/L; Cadmium – 0.88 µg/L; Chromium III – 5.0 µg/L;  
Chromium VI – 5.0 µg/L; Copper – 5.0 µg/L; Lead – 5.0 µg/L; Mercury – 0.1 µg/L;  
Nickel – 5.0 µg/L; Selenium – 5.0 µg/L; Silver – 0.4 µg/L; Thallium – 0.47 µg/L;  
Zinc – 25 µg/L. The permittee may provide documentation that demonstrates the QLs listed for  
Cadmium and Thallium are not achievable. Based upon review of this documentation the  
Department may establish higher QLs for Cadmium and Thallium in accordance with 40 CFR  
122.44(i)(1)(iv).

1/3M = Once every 3 months in which there is a discharge. The quarterly monitoring periods shall be January 1 – March 31, April 1 – June 30, July 1 – September 30, and  
October 1 – December 31. The DMR shall be submitted no later than the 10<sup>th</sup> day of the month following the monitoring period (April 10, July 10, October 10 and  
January 10, respectively).

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

Estimate = Reported flow is to be based on the technical evaluation of the sources contributing to the discharge.

Metals and Total Hardness Requirements:

Samples for all metals and total hardness shall be collected concurrently.

**A. Stormwater Monitoring Requirements**

**16. Outfalls S5, S31, S35, S36, S37, S42, S49, S61, S77, S78, S79, S80, S86, S94, S95, and S108 - Storm Water**

- a. During the period beginning with the permit's major modification date and lasting until the expiration date, the permittee is authorized to discharge storm water from Outfalls S5, S31, S35, S36, S37, S42, S49, S61, S77, S78, S79, S80, S86, S94, S95, and S108. Such discharges shall be monitored and managed in accordance with Part I.E.
- b. In addition to the requirements established in Part I.E of the permit, Outfall S108 shall be monitored and managed in accordance with Part I.F.18 of the permit.

Outfalls S78, S79, S80, S86, and S94 shall only contain stormwater not exposed to industrial activity.

Outfalls S5, S31, S35, S36, S37, S42, S49, S61, S77, S95, and S108 shall only contain stormwater influenced by industrial activity.

The following industrially influenced storm water outfalls have been deemed representative:

- Outfall S5 is deemed representative of Outfall S31 Outfall S35.
  - Outfall S42 is deemed representative of Outfalls S49 and S77.
  - Outfall S61 is deemed representative of Outfalls S36 and S37.
-

**A. Effluent Limitations and Monitoring Requirements**

**17. Groundwater Monitoring (Monitoring Wells ED-1, ED-3, ED-9R, ED-15, ED-24R, ED-32, ES-1, ES-3a, ES-4)**

- a. During the period beginning with the permit's major modification date, and lasting until the permit expiration date, the permittee is authorized to manage pollutants at Ash Pond D and Ash Pond E. The groundwater shall be monitored by the permittee as specified below except where groundwater monitoring is superseded pursuant to Part I.D. 5 of the permit.

Observation Wells				
Ash Pond D Stratum D ED-1, ED-3, ED-9R, ED-15, ED-24R, ED-32			Ash Pond E Stratum E ES-1, ES-3a, ES-4	
PARAMETER	GROUNDWATER MONITORING		MONITORING REQUIREMENTS	
	Limitations	Units	Frequency <sup>(1)</sup>	Sample Type
Static Water Level (mean sea level)	NL	Feet	Semi-Annual	Measurement
pH	NL	Standard Units	Semi-Annual	Grab
Conductivity	NL	µmhos/cm	Semi-Annual	Grab
Hardness (as CaCO <sub>3</sub> )	NL	mg/L	Semi-Annual	Grab
Chlorides	NL	mg/L	Semi-Annual	Grab
Fluoride	NL	mg/L	Semi-Annual	Grab
Sodium	NL	mg/L	Semi-Annual	Grab
Potassium	NL	mg/L	Semi-Annual	Grab
Sulfate	NL	mg/L	Semi-Annual	Grab
Total Organic Carbon	NL	mg/L	Semi-Annual	Grab
Temperature	NL	°C	Semi-Annual	Grab
Dissolved Arsenic	NL	µg/L	Semi-Annual	Grab
Dissolved Barium	NL	µg/L	Semi-Annual	Grab
Dissolved Cadmium	NL	µg/L	Semi-Annual	Grab
Dissolved Copper	NL	µg/L	Semi-Annual	Grab
Dissolved Iron	NL	µg/L	Semi-Annual	Grab
Dissolved Lead	NL	µg/L	Semi-Annual	Grab
Dissolved Manganese	NL	µg/L	Semi-Annual	Grab
Dissolved Mercury	NL	µg/L	Semi-Annual	Grab
Dissolved Nickel	NL	µg/L	Semi-Annual	Grab
Dissolved Selenium	NL	µg/L	Semi-Annual	Grab
Dissolved Silver	NL	µg/L	Semi-Annual	Grab
Dissolved Vanadium	NL	µg/L	Semi-Annual	Grab
Dissolved Zinc	NL	µg/L	Semi-Annual	Grab
Phenol	NL	mg/L	Semi-Annual	Grab

<sup>(1)</sup> The semi-annual monitoring period shall be January 1 – June 30 and July 1 - December 31.

NL = No limit; monitor and report.

Grab = An individual sample collected over a period of time not to exceed 15-minutes or time needed to collect proper sample amount.

**A. Effluent Limitations and Monitoring Requirements**

**18. Groundwater Monitoring (Monitoring Wells ED-4, ED-5, ED-17, ED-26, ED-31, ED-33)**

- a. During the period beginning with the permit's major modification date, and lasting until the permit expiration date, the permittee is authorized to manage pollutants at Ash Pond D and Ash Pond E. The groundwater shall be monitored by the permittee as specified below except where groundwater monitoring is superseded pursuant to Part I.D. 5 of the permit.

Observation Wells		
Ash Pond D and Ash Pond E	Stratum B	ED-4, ED-5, ED-17
	Stratum E	ED-31
	Stratum F	ED-26, ED-33

PARAMETER	GROUNDWATER MONITORING		MONITORING REQUIREMENTS	
	Limitations	Units	Frequency <sup>(1)</sup>	Sample Type
Static Water Level (mean sea level)	NL	Feet	Annual	Measurement
pH	NL	Standard Units	Annual	Grab
Conductivity	NL	µmhos/cm	Annual	Grab
Hardness (as CaCO <sub>3</sub> )	NL	mg/L	Annual	Grab
Chlorides	NL	mg/L	Annual	Grab
Fluoride	NL	mg/L	Annual	Grab
Sodium	NL	mg/L	Annual	Grab
Potassium	NL	mg/L	Annual	Grab
Sulfate	NL	mg/L	Annual	Grab
Total Organic Carbon	NL	mg/L	Annual	Grab
Temperature	NL	°C	Annual	Grab
Dissolved Arsenic	NL	µg/L	Annual	Grab
Dissolved Barium	NL	µg/L	Annual	Grab
Dissolved Cadmium	NL	µg/L	Annual	Grab
Dissolved Copper	NL	µg/L	Annual	Grab
Dissolved Iron	NL	µg/L	Annual	Grab
Dissolved Lead	NL	µg/L	Annual	Grab
Dissolved Manganese	NL	µg/L	Annual	Grab
Dissolved Mercury	NL	µg/L	Annual	Grab
Dissolved Nickel	NL	µg/L	Annual	Grab
Dissolved Selenium	NL	µg/L	Annual	Grab
Dissolved Silver	NL	µg/L	Annual	Grab
Dissolved Vanadium	NL	µg/L	Annual	Grab
Dissolved Zinc	NL	µg/L	Annual	Grab
Phenol	NL	mg/L	Annual	Grab

<sup>(1)</sup> The annual monitoring period shall be January 1 – December 31. NL = No limit; monitor and report.

Grab = An individual sample collected over a period of time not to exceed 15-minutes or time needed to collect proper sample amount.

**A. Effluent Limitations and Monitoring Requirements**

**19. Groundwater Monitoring (Monitoring Wells OWB-1, OWB-2, OWB-3, OWB-4, and OWB-5)**

a. During the period beginning with the permit's effective date and lasting until the permit expiration date, the permittee is authorized to manage pollutants at the Oily Waste Treatment Basin. The groundwater shall be monitored by the permittee as specified below.

Observation Wells				
Oily Waste Treatment Basin OWB-1, OWB-2, OWB-3, OWB-4, and OWB-5				
PARAMETER	GROUNDWATER MONITORING		MONITORING REQUIREMENTS	
	Limitations	Units	Frequency <sup>(1)</sup>	Sample Type
Static Water Level (mean sea level)	NL	Feet	Semi-Annual	Measurement
pH	NL	Standard Units	Semi-Annual	Grab
Conductivity	NL	µmhos/cm	Semi-Annual	Grab
Hardness (as CaCO <sub>3</sub> )	NL	mg/L	Semi-Annual	Grab
Chlorides	NL	mg/L	Semi-Annual	Grab
Fluoride	NL	mg/L	Semi-Annual	Grab
Sodium	NL	mg/L	Semi-Annual	Grab
Potassium	NL	mg/L	Semi-Annual	Grab
Sulfate	NL	mg/L	Semi-Annual	Grab
Total Organic Carbon	NL	mg/L	Semi-Annual	Grab
Temperature	NL	°C	Semi-Annual	Grab
Dissolved Arsenic	NL	µg/L	Semi-Annual	Grab
Dissolved Barium	NL	µg/L	Semi-Annual	Grab
Dissolved Cadmium	NL	µg/L	Semi-Annual	Grab
Dissolved Copper	NL	µg/L	Semi-Annual	Grab
Dissolved Iron	NL	µg/L	Semi-Annual	Grab
Dissolved Lead	NL	µg/L	Semi-Annual	Grab
Dissolved Manganese	NL	µg/L	Semi-Annual	Grab
Dissolved Mercury	NL	µg/L	Semi-Annual	Grab
Dissolved Nickel	NL	µg/L	Semi-Annual	Grab
Dissolved Selenium	NL	µg/L	Semi-Annual	Grab
Dissolved Silver	NL	µg/L	Semi-Annual	Grab
Dissolved Vanadium	NL	µg/L	Semi-Annual	Grab
Dissolved Zinc	NL	µg/L	Semi-Annual	Grab
Phenol	NL	mg/L	Semi-Annual	Grab
Total Petroleum Hydrocarbons - Diesel Range Organics <sup>(2)</sup>	NL	mg/L	Semi-Annual	Grab
Total Petroleum Hydrocarbons - Oil Range Organics <sup>(3)</sup>	NL	mg/L	Semi-Annual	Grab
Benzene	NL	mg/L	Semi-Annual	Grab
Ethylbenzene	NL	mg/L	Semi-Annual	Grab
Toluene	NL	mg/L	Semi-Annual	Grab
Total Xylenes	NL	mg/L	Semi-Annual	Grab

<sup>(1)</sup> The semi-annual monitoring period shall be January 1 – June 30 and July 1 - December 31.

NL = No limit; monitor and report.

<sup>(2)</sup> Total Petroleum Hydrocarbons (TPH) is the sum of individual gasoline range organics and diesel range organics or TPH-GRO and TPH-DRO to be measured by EPA SW 846 Method 8015 for gasoline and diesel range organics, or by EPA SW 846 Methods 8260 Extended and 8270 Extended.

<sup>(3)</sup> Total Petroleum Hydrocarbons – Oil Range Organics (ORO) shall be measured by EPA SW 846 Method 8015B or any other Virginia Environmental Laboratory Accreditation Program (VELAP) approved method.

Grab = An individual sample collected over a period of time not to exceed 15-minutes or time needed to collect proper sample amount.

## **B. Additional Monitoring Requirements, Quantification Levels and Compliance Reporting**

### **1. Additional Total Residual Chlorine (TRC) Limitations and Monitoring Requirements**

- a. Neither free available nor total residual chlorine may be discharged from Units 3, 4, 5, and 6 for more than two hours in any one day, unless the permittee demonstrates to the Department of Environmental Quality (DEQ) that discharge for more than two hours is required for macroinvertebrate control. If the permittee is dechlorinating, the two hour requirement is nullified.
- b. Simultaneous multi-unit chlorination is permitted.
- c. Monitoring for free available and/or total residual chlorine shall only be required when the permittee is chlorinating.

### **2. Quantification Levels**

- a. The quantification levels (QL) shall be less than or equal to those concentrations noted in Part I.A.1 through Part I.A.14 of this permit, respectively. For those parameters where a specific QL is not listed, the QL is at the discretion of the permittee. The selected QL shall be able to demonstrate compliance with established limitations.
- b. The QL is defined as the lowest concentration used to calibrate a measurement system in accordance with the procedures published for the method. The permittee shall use any method in accordance with Part II. A of this permit.
- c. It is the responsibility of the permittee to ensure that proper quality assurance/quality control (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.

### **3. Compliance Reporting for parameters in Part I.A.**

- a. Monthly Average – Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in Part I.B.2.a of this permit condition shall be determined as follows: All concentration data below the QL used for the analysis (QL must be less than or equal to the QL listed in Part I.B.2.a above) shall be treated as zero. All concentration data equal to or above the QL used for the analysis (QL must be less than or equal to the QL listed in Part I.B.2.a above) shall be treated as it is 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 Discharge Monitoring Report (DMR) as calculated. If all data are below the QL used for the analysis (QL must be less than or equal to the QL listed in Part I.B.2.a above), then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported monthly average concentration is <QL, then report "<QL" for the quantity. Otherwise use the reported concentration data (including the defined zeros) and flow data for each sample day to determine the daily quantity and report the monthly average of the calculated daily quantities.

- b. Daily Maximum - Compliance with the daily maximum limitations and/or reporting requirements for the parameters listed in Part I.B.2.a of this permit condition shall be determined as follows: All concentration data below the QL used for the analysis (QL must be less than or equal to the QL listed in Part I.B.2.a above) shall be treated as zero. All concentration data equal to or above the QL used for the analysis (QL must be less than or equal to the QL listed in Part I.B.2.a above) shall be treated as reported. An arithmetic average 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 are below the QL used for the analysis (QL must be less than or equal to the QL listed in Part I.B.2.a above), then the maximum value of the daily averages shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported daily maximum is <QL, then report "<QL" for the quantity. Otherwise use the reported daily average concentrations (including the defined zeros) and corresponding daily flows to determine daily average quantities and report the maximum of the daily average quantities during the reporting month.
- c. Single Datum - Any single datum required shall be reported as "<QL" if it is less than the QL used in the analysis (QL must be less than or equal to the QL listed in Part I.B.2.a above). Otherwise the numerical value shall be reported.
- d. Significant Digits - The permittee shall report at least the same number of significant digits as the permit limit for a given parameter. Regardless of the rounding convention used (i.e., 5 always rounding up or to the nearest even number) by the permittee, the permittee shall use the convention consistently, and shall ensure that consulting laboratories employed by the permittee use the same convention.

### C. Whole Effluent Toxicity Program Requirements

#### 1. Biological Monitoring for Outfall 001/Outfall 002, Outfall 003, and Outfall 004

- a. In accordance with the schedule in Part I.C.1.h. below, the permittee shall conduct annual chronic toxicity tests for the duration of the permit. The permittee shall collect grab samples of effluent from Outfall 001/002, Outfall 003, and Outfall 004 at each outfall's respective designated point of compliance.

The chronic tests to use are:

Chronic 3-Brood Static Renewal Survival and Reproduction Test using *Ceriodaphnia dubia*

Chronic 7-Day Static Renewal Survival and Growth Test using *Pimephales promelas*

These chronic tests shall be conducted in such a manner and at sufficient dilutions (minimum of five dilutions) to determine the "No Observed Effect Concentration" (NOEC) for survival and reproduction or growth. Results which cannot be quantified (i.e., a "less than" NOEC value) are not acceptable and a retest shall be performed. The NOEC as determined by hypothesis testing shall be converted to  $TU_c$  (Chronic Toxic Units) for DMR reporting where  $TU_c = 100/NOEC$ . Report the  $LC_{50}$  at 48 hours and the  $IC_{25}$  with the NOEC's in the test report.

- b. The permittee may provide additional samples to address data variability. These data shall be reported. Test procedures and reporting shall be in accordance with the Whole Effluent Toxicity (WET) testing methods cited in 40 CFR 136.3.

c. The test dilutions shall bracket and include the following endpoints:

Outfall 001/002, and Outfall 003: Chronic NOEC  $\geq$  35%; equivalent to a  $TU_c \leq 2.85$

Outfall 004: Chronic NOEC  $\geq$  17%; equivalent to a  $TU_c \leq 5.88$

- d. The test data will be evaluated statistically 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 warranted, a WET limit and compliance schedule will be required.
- e. The permit may be modified or revoked and reissued to include pollutant specific limits in lieu of a WET limit should it be demonstrated that toxicity is due to specific parameters. The pollutant specific limitation shall control the toxicity of the effluent.
- f. Should the results of any test exceed the endpoint cited above, the permittee shall conduct a retest of the effluent within 30 days.
- g. Should the permittee conduct toxicity testing of the effluent prior to the compliance date listed in the schedule in Part I.C.1.h. below, the results of the test and the test report shall be reported with the DMR for the month following the receipt of the testing results. In no case shall this exceed 45 days from the completion of the test or the report submission date below, whichever may occur first.
- h. Reporting Schedule

The permittee shall monitor during the specified period, shall report the results on the DMR, and shall supply one copy of the toxicity test report specified in this Whole Effluent Toxicity Program in accordance with the following schedule:

Period	Sampling Period	DMR/Report Submission Dates
Annual 1	January 1, 2013 – December 31, 2013	January 10, 2014
Annual 2	January 1, 2014 – December 31, 2014	January 10, 2015
Annual 3	January 1, 2015 – December 31, 2015	January 10, 2016
Annual 4	January 1, 2016 – December 31, 2016	January 10, 2017

2. Biological Monitoring for Internal Outfall 503, Outfall 005 (Interim Configuration) and Outfall 010

- a. The Whole Effluent Toxicity (WET) limitations as set forth in Part I.A. and within this section shall be effective immediately upon initiation of the discharge at Internal Outfall 503 as in Part I.A.13 and Part I.A.14 and 30 days after the major modification date for Outfall 010 as in Part I.A.8.
- b. In accordance with the schedule in Part I.C.2.d., the permittee shall conduct monthly acute and chronic toxicity tests using 24-hour flow-proportioned composite samples of final effluent from Internal Outfall 503 and Outfall 010.

The acute tests to use are:

48 Hour Static Acute test using *Ceriodaphnia dubia*

48 Hour Static Acute test using *Pimephales promelas*

These single dilution acute tests are to be conducted using a minimum of 4 replicates, with 5 organisms each, for the control and 100% effluent. The NOAEC (No Observed Adverse Effect Concentration) shall be reported as either = 100% or < 100% (less than 100%). The effluent will be in compliance if the survival of the test organisms in both the control and 100% effluent exposures equals or exceeds 90%. If the survival in the effluent is less than 90% and this value is significantly different from the control survival, as determined by hypothesis testing, the NOAEC is less than 100% and the effluent is not in compliance. Tests in which control survival is less than 90% are not acceptable. A retest of a non-acceptable test shall be performed during the same compliance period as the test it is replacing. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.

The chronic tests to use are:

Chronic 3-Brood Static Renewal Survival and Reproduction Test using *Ceriodaphnia dubia*

Chronic 7-Day Static Renewal Survival and Growth Test using *Pimephales promelas*

These chronic tests shall be conducted in such a manner and at sufficient dilutions (minimum of five dilutions) to determine the "No Observed Effect Concentration" (NOEC) for survival and reproduction or growth. Results which cannot be quantified (i.e., a "less than" NOEC value) are not acceptable and a retest shall be performed. The NOEC, as determined by hypothesis testing, shall be converted to TU<sub>c</sub> (Chronic Toxic Units) for DMR reporting where TU<sub>c</sub> = 100/NOEC. Report the LC<sub>50</sub> at 48 hours and the IC<sub>25</sub> with the NOEC's in the test report.

- c. The permit may be modified or revoked and reissued to include pollutant specific limits in lieu of a WET limit should it be demonstrated that toxicity is due to specific parameters. The pollutant specific limitation shall control the toxicity of the effluent.

d. Reporting Schedule

The permittee shall report the results on the DMR and shall supply one (1) copy of the toxicity test report as specified in this Whole Effluent Toxicity program in accordance with the following schedule:

<u>Monitoring Period</u>	<u>Testing Period</u>	<u>Report Submittal Dates</u>
1 <sup>st</sup> month	The first calendar month following the applicability as in Part I.A.13, Part I.A.14 and Part I.A.8.	By the 10 <sup>th</sup> day of the month following the testing period.
Monthly thereafter until discharge ceases	Every calendar month following the previous month.	By the 10 <sup>th</sup> day of the month following the testing period.

## **D. Groundwater Monitoring**

### **1. Groundwater Monitoring Requirements**

- a. The permittee shall continue sampling and reporting in accordance with Part I.A.17 through Part I.A.19 of the modified permit and the groundwater monitoring plan approved on April 9, 2012, by the DEQ Northern Regional Office. The purpose of this plan is to determine if the integrity of Ash Pond D, Ash Pond E, and the Oily Waste Treatment Basin is being maintained and to indicate if activities at the site are resulting in apparent violations or exceedances of the Board's Ground Water Standards. The permittee shall review the existing Groundwater Monitoring Plan and notify the DEQ Northern Regional Office, in writing, whether it is still accurate and complete by July 3, 2013. If the Groundwater Monitoring Plan is no longer accurate and complete, a revised Groundwater Monitoring Plan shall be submitted for approval to the DEQ Northern Regional Office by July 3, 2013. The approved plan is an enforceable part of the permit. Any future changes to the plan must be submitted for approval to the DEQ Northern Regional Office within 90 days of the changes.
- b. The permittee shall use any method in accordance with Part II. A of this permit.

### **2. Groundwater Reporting**

- a. The permittee shall submit a Groundwater Annual Report to the DEQ Northern Regional Office by April 30<sup>th</sup> of each year.
- b. The Annual Report shall include the annual and semi-annual sampling results for that year. The Annual Report shall also include a review of the groundwater quality on the basis of background quality, Water Quality Standards, and statistical deviation thereof, as applicable with the Anti-degradation Policy for Groundwater.

### **3. Site Characterization Report**

- a. Should data warrant, DEQ may require a Site Characterization Report for Ash Pond D, Ash Pond E and the Oily Waste Treatment Basin.
- b. The permittee shall submit the Site Characterization Report no later than three years after being notified by the regional office.
- c. The report shall include, at a minimum, an assessment of the following:
  1. The spatial extent and severity of the contamination with concentration depicted by isoconcentration maps;
  2. The cause of the contamination;
  3. Identification of both human health and environmental receptors;
  4. An assessment of risk to each receptor; and
  5. An analysis of remediation alternatives.

### **4. Corrective Action Plan**

- a. Following review and approval of a Site Characterization Report, a Corrective Action Plan may be required by DEQ-NRO. The plan shall be due within 180 days of being notified by the 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. The

permittee shall put into practice the corrective action plan within 180 days after it has been approved by the regional office.

5. Groundwater Monitoring-Units Subject to the Virginia Solid Waste Management Regulations Upon Closure or Post-Closure

- a. Existing groundwater monitoring, corrective action and/or risk assessment plans currently in effect under this VPDES permit will remain in effect until such time that they are superseded by a groundwater monitoring program issued pursuant to the Virginia Solid Waste Management Regulations (VSWMR) (9VAC20-81-10 et seq.). The permittee shall be notified when groundwater monitoring in accordance with this provision has been superseded and within 90 days of such notification, shall submit an updated groundwater monitoring plan to reflect groundwater monitoring that will continue in accordance with the paragraph below.

Where a unit will continue to operate and is not subject to the VSWMR for closure or post-closure, groundwater monitoring shall continue in accordance with this Permit and the approved groundwater monitoring plan.

**E. Storm Water Management**

1. General Storm Water Special Conditions

a. Quarterly Visual Examination of Storm Water Quality

1. The permittee shall perform and document a quarterly visual examination of a storm water discharge associated with industrial activity from the industrially influenced outfalls listed in Part I.A.15 and Part A.1.16, except discharges exempted below. The examination(s) shall 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 shall 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 shall be signed and certified in accordance with Part II.K (Signatory Requirements) of this permit.
2. Visual examinations shall 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 shall 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 shall be conducted in a well-lit area. No analytical tests are required to be performed on the samples. All samples (except snowmelt samples) shall 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 shall be signed and certified in accordance with Part II.K (Signatory Requirements) of this permit.

3. The visual examination reports shall be maintained on-site with the Storm Water Pollution Prevention Plan (SWPPP). The report shall 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.
4. 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 storm water pollution prevention plan 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.
5. When the permittee is unable to conduct the visual examination due to adverse climatic conditions, the permittee shall 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.).

b. Allowable Non-Storm Water Discharges

1. The following non-storm water discharges are authorized by this permit provided the non-storm water component of the discharge is in compliance with this VPDES permit:
  - 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 fertilizers 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) Demineralized water from storage tanks;

- l) 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); and
  - m) Uncontaminated river water.
2. Except for flows from fire fighting activities, the Storm Water Pollution Prevention Plan shall 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 shall specifically evaluate the discharge for the presence of chemicals used in the cooling tower. The evaluation shall be included in the SWPPP.

c. 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 storm water pollution prevention plan 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 (Reports of Unauthorized Discharges) of this permit 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 of the MS4; and
3. The storm water pollution prevention plan required by this permit shall be reviewed to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the plan shall be modified where appropriate.

d. 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 storm water pollution prevention plan (SWPPP) for the facility was required to be developed and implemented under the previous permit. The existing storm water pollution prevention plan shall be reviewed and modified, as appropriate, to conform to the requirements of this section. Permittees shall implement the provisions of the storm water pollution prevention plan as a condition of this permit.

The storm water pollution prevention plan 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 Part I.E.2.b (Contents of the Plan). All plans incorporated by reference into the storm water pollution prevention plan 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.E.2.b the permittee shall develop the missing SWPPP elements and include them in the required plan.

### a. Deadlines for Plan Preparation and Compliance

1. **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. 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 plan 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 Part I.E.2.b.3;
  - (vii) Locations where significant spills or leaks identified under Part I.E.2 b.4 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; 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;
  - (xii) Locations and sources of runoff to the site from adjacent property, where the runoff 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; and
  - (xiii) 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).
- 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 that have been exposed to storm water in the three years prior to the date this SWPPP was prepared or amended. 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 water conveyance during the three-year period prior to the date this SWPPP 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, and may also include releases of oil or hazardous substances that are not in excess of reporting requirements.
5. Sampling Data. The plan shall include a summary of existing storm water discharge sampling data taken at the facility. The summary shall include, at a minimum, any data collected during the previous permit term.
6. Storm Water Controls.
- a) BMPs shall be implemented for all the areas identified in Part I.E.2.b.3 (Summary of Potential Pollutant Sources) to prevent or control pollutants in storm water discharges from the facility. All reasonable steps shall be taken to control 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 shall 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 9VAC25-31-120 E, 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.E.2.c (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 for individuals and agencies that shall 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 regularly 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 Part I.E.2.d. 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 shall 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 30 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.

- (v) **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.
- (vi) **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 flows would otherwise create erosive conditions.
- (vii) **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.

## 7. Additional Storm Water Pollution Prevention Plan Requirements

In addition to the requirements found in Part I.E.2.b.1 through Part I.E.2.b.6, the SWPPP shall include the following items:

### a. Good housekeeping measures.

1. **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:

- a) Develop procedures for the inspection of delivery vehicles arriving on the plant site, and ensure overall integrity of the body or container; and
- b) Develop procedures to deal with leakage/spillage from vehicles or containers.
2. 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:
  - a) Use of containment curbs in unloading areas;
  - b) 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
  - c) 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).
3. 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):
  - a) Use of containment curbs at chemical loading/unloading areas to contain spills;
  - b) 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
  - c) Covering chemical loading/unloading areas, and storing chemicals indoors.
4. 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):
  - a) Covering the loading area;
  - b) Grading, berming, or curbing around the loading area to divert runoff; or
  - c) Locating the loading/unloading equipment and vehicles so that leaks are contained in existing containment and flow diversion systems.
5. 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):
  - a) Use of protective guards around tanks;
  - b) Use of containment curbs;
  - c) Use of spill and overflow protection; and
  - d) Use of dry cleanup methods.
6. 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).
7. 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 their 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 findings of the inspections shall be completed immediately to reduce the incidence of spills and leaks occurring from such faulty equipment.

8. 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.
9. 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.
10. 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.
11. 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:
  - a) Reduce ash residue which may be tracked on to access roads traveled by residue trucks or residue handling vehicles; and
  - b) Reduce ash residue on exit roads leading into and out of residue handling areas.
12. 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.
13. Vehicle maintenance activities. For vehicle maintenance activities performed on the plant site, the permittee shall use applicable BMPs.
14. 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 runoff may be minimized by constructing an enclosure or building a berm around the area.

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.E.2.b.6.b(v) (Routine Facility Inspections) or Part I.E.2.d (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 with 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.E.2.b.3. 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; and
  - 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.E.2.b.2.c; revise the description of controls required by Part I.E.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.E.2.d.1.a through Part I.E.2.d.1.f 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 (Signatory Requirements) of this permit and maintained with the SWPPP.

4. Where compliance evaluation schedules overlap with routine inspections required under Part I.E.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 (Signatory Requirements) of this permit, dated, and retained on-site at the facility covered by this permit in accordance with Part II.B.2 (Records) of this permit. All other changes to the SWPPP, and other permit compliance documentation, shall 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.E.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 (Reports of Unauthorized Discharges) of this permit.

## **F. Other Requirements and Special Conditions**

### **1. Operation and Maintenance (O&M) Manual Requirement**

The permittee shall maintain a current Operations and Maintenance (O&M) Manual for the facility that is in accordance with Virginia Pollutant Discharge Elimination System Regulations, 9VAC25-31.

The O&M Manual and subsequent revisions shall include the manual effective date and meet Part II.K.2 and Part II.K.4 Signatory Requirements of the permit. Any changes in the practices and procedures followed by the permittee shall be documented in the O&M Manual within 90 days of the effective date of the changes. The permittee shall operate the treatment works in accordance with the O&M Manual and shall make the O&M manual available to Department personnel for review during facility inspections. Within 30 days of a request by DEQ, the current O&M Manual shall be submitted to the DEQ-NRO for review and approval.

The O&M manual shall detail the practices and procedures which will be followed to ensure compliance with the requirements of this permit. This manual shall include, but not necessarily be limited to, the following items, as appropriate:

- a. Permitted outfall locations and techniques to be employed in the collection, preservation, and analysis of effluent, storm water and sludge samples;
- b. Procedures for measuring and recording the duration and volume of industrial wastewater discharged;
- c. Discussion of Best Management Practices, if applicable;
- d. Procedures for handling, storing, and disposing of all wastes, fluids, and pollutants that will prevent these materials from reaching state waters. List type and quantity of wastes, fluids, and pollutants (e.g. chemicals) stored at this facility;
- e. A plan for the management and/or disposal of waste solids and residues;
- f. List of facility, local and state emergency contacts; and
- g. Procedures for reporting and responding to any spills and/or overflows.

### **2. 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;
  - (2) Two hundred micrograms per liter for acrolein and acrylonitrile; five hundred micrograms per liter for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter for antimony;
  - (3) Five 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 nonroutine 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;

- (2) One milligram per liter for antimony;
- (3) Ten times the maximum concentration value reported for that pollutant in the permit application; or
- (4) The level established by the Board.

3. Materials Handling/Storage

Any and all product, materials, industrial wastes, and/or other wastes resulting from the purchase, sale, mining, extraction, transport, preparation, and/or storage of raw or intermediate materials, final product, by-product or wastes, shall be handled, disposed of, and/or stored in such a manner so as not to permit a discharge of such product, materials, industrial wastes, and/or other wastes to State waters, except as expressly authorized.

4. Prohibition of Chemical Additives

The permittee shall notify the Department of Environmental Quality Northern Regional Office, in writing at least thirty (30) days prior to the use of chemical additives in non-contact cooling water. The written notice shall contain the following:

- a. The name(s) of the proposed chemical additive(s) to be used and corresponding copies of their Material Safety Data Sheets (MSDS);
- b. The proposed schedule of chemical additive use; and
- c. A description of any proposed wastewater treatment and/or retention to be provided during the use of the chemical additive(s).

Should the use of chemical additives significantly alter the characteristics of the non-contact cooling water discharge or if the use of chemical additives becomes persistent or continuous, this permit may be modified or alternatively, revoked and reissued to include appropriate limitations and/or conditions.

5. Polychlorinated Biphenyl

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 test method 608 (as referenced in 40 CFR Part 136).

6. Water Quality Criteria Reopener

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

7. Water Quality Criteria Monitoring

In addition to the compliance monitoring required in Part I.A.3 of the permit, the permittee shall monitor the effluent at Outfall 004 for the substances noted in Attachment A, "Water Quality Criteria Monitoring" 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 application for reissuance, which is due at least 180 days prior to the expiration date of this permit. Monitoring and analysis shall be conducted in accordance with 40 CFR Part 136 or alternative EPA approved methods. 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.

8. 126 Priority Pollutants

In addition to the compliance monitoring required in Part I.A.9 and Part I.A.10 of the permit, the permittee shall monitor the effluent at Outfall 201 and Outfall 202 for the substances listed in Appendix A to 40 CFR Part 423. Any and all 126 priority pollutants listed in Appendix A to 40 CFR Part 423, contained in the chemicals added for cooling tower maintenance, shall be non-detectable in the blowdown discharge water. In accordance with Part I.A.9 and Part I.A.10 of the permit, sampling for these pollutants (except total chromium and total zinc) shall be conducted once per year when there is a discharge.

This monitoring requirement may be waived if the permittee submits engineering calculations which demonstrate that the regulated pollutants are not detectable in the final discharge by the analytical methods in 40 CFR Part 136.

The permittee shall notify the DEQ-Northern Regional Office of any process change in the cooling tower, which may affect the quality of the associated discharge water.

9. Instream Monitoring

Monitoring of the thermal mixing zone shall take place twice per year. Statistical analysis of the positions of the thermal plume during extreme summer and winter simulations indicates that ninety-nine (99) percent of the time the plume would remain within about 657 and 507 acres, respectively, in Quantico Creek and a part of the Potomac River.

The monitoring results shall be presented as a temperature plot with 3-degree Celcius isotherms and shall be taken as near to full plant operating conditions as reasonably possible. The permittee shall comply with the State Water Quality Criteria outside of the approved mixing zone. Monitoring and reporting shall be conducted in accordance with the following schedule:

Permit Year	Monitoring Period	Report Submission Dates
First	July 2013	October 31, 2013
Second	February 2014	May 31, 2014
Second	July 2014	October 31, 2014
Third	February 2015	May 31, 2015
Third	July 2015	October 31, 2015
Fourth	February 2016	May 31, 2016
Fourth	July 2016	October 31, 2016
Fifth	February 2017	May 31, 2017
Fifth	July 2017	October 31, 2017

10. Debris Collection

Wastes such as solids, sludges, or other pollutants removed from or resulting from treatment or control of wastewaters, or facility operations, including all debris collected on the intake trash racks, shall be disposed of in a manner to prevent any of the removed substances, or runoff from such substances, from entering waters of the State.

11. Solids in Ash Pond D

a. Ash Pond D may be used as a repository for dredge spoil material and residuals removed from facilities, areas, and systems related to operation and maintenance of Possum Point Power Station. These materials and residuals include:

- 1) Solids from VPDES treatment ponds and storm water management facilities;
- 2) Solids from old/closed VPDES treatment ponds (Ash Ponds A, B and C);
- 3) Solids from station floor drains, lift stations, and sumps;

- 4) Water treatment plant filter cake and cooling tower basin sludge;
  - 5) Soil and fines from station beautification and land restoration projects, including the coal pile area, deicing grit, abrasives, and inert cleanup debris such as surplus soil, rock, and gravel; and
  - 6) Sand/silt/sediment in the Potomac River and Quantico Creek within and adjacent to cooling water intake structures, outfall structures, oil barge berths, shoreline revetments, boat ramp, transportation structures, and navigation-related channels and structures.
- b. Ash Pond D may be used as a repository for dredge spoil material that is not related to operations at Possum Point Power Station provided the material originated from the Potomac River or Quantico Creek or public bodies of water in the Quantico Creek watershed meeting the definition of state waters in Virginia. The following guideline shall be followed:
- 1) Dominion shall provide written notice to the Department of Environmental Quality-Northern Regional Office (DEQ-NRO) at least 30 days prior to the placement of any dredge spoil material in Ash Pond D. This notice shall include as a minimum the following information:
    - a) Sampling tests and laboratory results (See 11.c. below);
    - b) Copies of all permits or regulatory authorizations required for the project;
    - c) Project schedule dates;
    - d) Method of placement;
    - e) Original location of material;
    - f) Type and volume of material; and
    - g) Name, address, and telephone number of dredging contractor (for placement of dredge spoil material) or station contact (for placement of station residuals).
  - 2) Specific approval by the DEQ-NRO is not required for a placement project but the DEQ-NRO shall have the right to request additional information or halt any noticed activity. If the placement project is not halted by the DEQ-NRO within 30 days of receipt of the above notice, the project is deemed authorized.

c. Sampling Requirements

- 1) A "sample" is defined as a Core Dredge sample, which will be a composite of dredge material from the river, stream or lake bottom to the depth of the intended dredge.
- 2) Number of Samples taken
  - a) >300,000 Cubic Yards of Material  
For every 100,000 cubic yards of material a representative sample shall be collected. These samples shall best represent the materials being placed in Ash Pond D from the dredge area.
  - b) <300,000 Cubic Yards, but >50,000 Cubic Yards of Material  
There shall be three representative samples of dredge area. These samples shall best represent the materials being placed in Ash Pond D from the dredge area.
  - c) <50,000 Cubic Yards, but >1,000 Cubic Yards of Material  
There shall be two representative samples of dredge area. These samples shall best represent the materials being placed in Ash Pond D from the dredge area.
  - d) <1,000 Cubic Yards of Material  
No sampling requirement shall apply to projects involving the placement of material less than 1,000 cubic yards with approval from Dominion (Virginia Power).
- 3) All parameters limited in Attachment B shall be sampled. The permittee shall use Attachment B as a reporting form which will be submitted to DEQ-NRO at least 30 days prior to placement in Ash Pond D. If the measured constituents in the sample exceed any respective threshold levels listed in Attachment B, the material shall not be placed in Ash Pond D.

- 4) Materials and residuals related to routine station operations and dredge materials identified in Part I.F.11.a and Part I.F.11.b shall be tested prior to initial placement under this protocol and if station processes have not materially changed, further testing is not required.
  - 5) The above sampling requirements for any placement activity may be waived in the event of declared public emergency conditions or by consent of the DEQ-NRO.
  - 6) The placement of any material in Ash Pond D shall not be incompatible with the Ash Pond D liner system or cause a violation of the VPDES permit requirements applicable to Outfall 005 at Ash Pond E.
  - 7) Dominion shall retain records relating to the placement event for a minimum of three years and comply with the requirements of Part II.B.2 of the subject permit.
  - 8) Dredging shall be performed in accordance with all Federal and Virginia laws and regulations.
12. 316(b) Special Condition  
The facility includes a cooling water intake structure governed by §316(b) of the Clean Water Act which requires that the location, design, construction and capacity of the cooling water intake structures reflect the "best technology available (BTA) for minimizing adverse environmental impact". The Possum Point – December, 1976 environmental report on impingement and entrainment studies conducted at the facility indicated minimal or no adverse environmental impact. This permit may be reopened to address compliance with Clean Water Act §316(b) through requirements including but not limited to those specified in EPA regulations in 40 CFR Part 125 Subpart J when finalized.
13. Re-Evaluation of Stratum B  
Within 180 days of the permit reissuance (April 3, 2013), the permittee shall submit to the DEQ- Northern Regional Office for review and approval, a work plan to evaluate Stratum B monitoring network and propose any necessary changes for characterization of Stratum B water quality. Any well modifications, replacements or abandonments proposed in the approved plan must be completed within 180 days of the plan approval.
14. PCB Monitoring  
The permittee shall monitor the effluent at Outfall 005 for Polychlorinated Biphenyls (PCBs). 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 or other equivalent methods capable of providing low-detection level, congener specific results. Any equivalent method shall be submitted to DEQ-NRO for review and approval prior to sampling and analysis. It is the responsibility of the permittee to ensure that proper QA/QC protocols are followed during the sample gathering and analytical procedures. The sampling protocol shall be submitted to DEQ-NRO for review and approval prior to the first sample collection.
  - b. The permittee shall collect two (2) samples within the first three (3) years after the permit reissuance date of April 3, 2013.
  - c. Each effluent sample shall consist of a minimum 2 liter volume. The sample type, either a grab or automated composite, shall be at the discretion of the permittee.
  - d. The data shall be submitted to DEQ-NRO by the 10<sup>th</sup> day of the month following receipt of the results. The permittee shall submit the results electronically. The submittal shall include the

unadjusted and appropriately qualified individual PCB congener analytical results. Additionally, laboratory and field QA/QC documentation and results shall be reported. Total PCBs are to be computed as the summation of the reported, quantified congeners.

15. Total Maximum Daily Load (TMDL) Reopener

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

16. Ash Pond Dewatering

The permittee shall notify the DEQ - Northern Regional Office at least 72 hours prior to the planned commencement of the discharge to draw down the water elevation in Ash Pond D in preparation of pond closure. A second notification to the DEQ - Northern Regional Office shall be provided within 24 hours of initiating the discharge to draw down the water elevation in Ash Pond D.

17. Ash Pond Closure Stormwater Management.

Best management practices (BMPs), structural and/or non-structural, shall be utilized by the permittee to minimize the impact of ash pond closure activities on stormwater quality. Ash pond closure activities may include, but are not limited to, the process of ash movement for off-site disposal, ash loading and unloading areas, any area(s) associated with the storage of ash prior to transport off-site, and vehicle tracking associated with the movement of ash.

The facility's Stormwater Pollution Prevention Plan (SWPPP) shall include a description of the BMPs being implemented and a regular schedule for preventive maintenance of all BMPs where appropriate. All structural BMPs identified in the SWPPP shall be maintained in effective operating condition and shall be inspected for structural integrity and operational efficiency once per week during ash pond closure activities. Results of the weekly inspections and actions needed and performed in response to the weekly inspections shall be documented per the SWPPP.

18. Ash Handling Area Outfall Inspections.

Inspections of Outfall 010 and Stormwater Outfall S108, and Stormwater Outfall S107 in accordance with Part I.A.15, shall be conducted at a frequency of once every five business days and no later than forty-eight (48) hours following a measurable storm event. Corrective actions identified as a result of these inspections shall be implemented as soon as possible, but no later than seven (7) days after discovery. Results of these inspections and actions needed and performed in response to these inspections shall be documented per the SWPPP. Ash handling area outfall inspections shall be conducted as noted above until such time as the ash pond closure project is completed.

19. Weir Structure Discharge Prohibition.

Discharge from the weir structure associated with the Ash Pond A, B, and C complex is not authorized by this permit.

20. Limitation Exceedance for Internal Outfall 503 and Outfall 005.

The permittee shall immediately cease the discharge upon becoming aware of an exceedance of an established effluent limit and/or WET limit at Internal Outfall 503 or Outfall 005 (Interim Configuration Discharge from Holding Basin). The permittee shall promptly notify DEQ, in no case later than 24 hours, after discovery of the exceedance. Should an exceedance occur, the permittee shall initiate a review of the treatment operations and data to identify the cause(s) of the exceedance and initiate appropriate corrective action(s). Resumption of the discharge(s) shall not occur until such time as an evaluation report is provided to DEQ and written authorization to resume the discharge is granted.

21. Drawdown Rate Requirement.  
The drawdown rate of any pond or basin shall not exceed 6 inches/day to maintain the integrity of the dams, unless approved in writing by the Department of Conservation and Recreation Dam Safety Program.
22. Conceptual Engineering Report (CER) Requirement (Internal Outfall 503).  
Prior to constructing any wastewater treatment works, the permittee shall submit a final CER to the DEQ - Northern Regional Office. DEQ approval shall be secured prior to constructing any wastewater treatment works. The permittee shall construct the wastewater treatment works in accordance with the approved CER. No later than 14 days following completion of construction of any project for which a CER has been approved, written notification shall be submitted to the DEQ - Northern Regional Office certifying that, based on an inspection of the project, construction was completed in accordance with the approved CER. The written notification shall be certified by a professional engineer licensed in the Commonwealth of Virginia or signed in accordance with Part II.K of this permit. The installed wastewater treatment works shall be operated to achieve design treatment and effluent concentrations. Approval by DEQ does not relieve the owner of the responsibility for the correction of design and/or operational deficiencies. Noncompliance with the CER shall be deemed a violation of this permit.
23. Outfall 010 Groundwater (Toe Drain) Removal and Re-designation to S107.  
Upon successful demonstration to and written approval from DEQ confirming that all groundwater contributions to the Outfall 010 discharge have been removed, the requirements of Part I.A.15 of this permit shall become effective and supersede the requirements of Part 1.A.8. The groundwater contributions include both the infiltration through the earthen berm as well as groundwater diverted around the impoundment. Should the permittee separate and remove all groundwater contributions to the discharge, then the discharge would be comprised of only industrially influenced stormwater. Stormwater-only discharges from this outfall would be designated as Outfall S107 and governed by the requirements of Part 1.A.15, Part I.E and Part I.F18. Should the permittee pursue separation of the groundwater contributions to the discharge, a demonstration plan shall be submitted to DEQ for review and approval. This demonstration plan shall consider, at a minimum: observations of the outfall during dry-weather with variable antecedent precipitation conditions to confirm no discharge; seasonal wet-weather conditions to include potential inflow and infiltration contributions; other information as appropriate, such as design schematics, to support a conclusion that groundwater contributions have been removed from the discharge.

## 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.
4. Samples taken as required by this permit shall be analyzed in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.

### 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:

Department of Environmental Quality - Northern Regional Office (DEQ-NRO)  
13901 Crown Court  
Woodbridge, VA 22193

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

2. 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.

3. 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 this 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 effects 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 I.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 Northern Regional Office at (703) 583-3800 (voice) or (703) 583-3821 (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. 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:
    - 1) 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
    - 2) 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:
    - 1) The chief executive officer of the agency, or
    - 2) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. 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 K.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.

**VA0002071 ATTACHMENT A – Outfall 004**  
**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**WATER QUALITY CRITERIA MONITORING**

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL <sup>(1)</sup>	REPORTING RESULTS	SAMPLE TYPE <sup>(2)</sup>	SAMPLE FREQUENCY
<b>METALS</b>						
7440-36-0	Antimony, dissolved	(3)	1300		G or C	1/5YR
7440-38-2	Arsenic, dissolved	(3)	180		G or C	1/5YR
7440-43-9	Cadmium, dissolved	(3)	0.76		G or C	1/5YR
16065-83-1	Chromium III, dissolved <sup>(8)</sup>	(3)	49		G or C	1/5YR
18540-29-9	Chromium VI, dissolved <sup>(8)</sup>	(3)	13		G or C	1/5YR
7440-50-8	Copper, dissolved	(3)	5.4		G or C	1/5YR
7439-92-1	Lead, dissolved	(3)	6.4		G or C	1/5YR
7439-97-6	Mercury, dissolved	(3)	0.92		G or C	1/5YR
7782-49-2	Selenium, dissolved	(3)	6.0		G or C	1/5YR
7440-22-4	Silver, dissolved	(3)	0.78		G or C	1/5YR
7440-28-0	Thallium, dissolved	(4)	(5)		G or C	1/5YR
7440-66-6	Zinc, dissolved	(3)	50		G or C	1/5YR
<b>PESTICIDES/PCB'S</b>						
309-00-2	Aldrin	608	0.05		G or C	1/5YR
57-74-9	Chlordane	608	0.2		G or C	1/5YR
2921-88-2	Chlorpyrifos (synonym = Dursban)	(4)	(5)		G or C	1/5YR
72-54-8	DDD	608	0.1		G or C	1/5YR
72-55-9	DDE	608	0.1		G or C	1/5YR
50-29-3	DDT	608	0.1		G or C	1/5YR
8065-48-3	Demeton	(4)	(5)		G or C	1/5YR
333-41-5	Diazinon	(4)	(5)		G or C	1/5YR
60-57-1	Dieldrin	608	0.1		G or C	1/5YR
959-98-8	Alpha-Endosulfan	608	0.1		G or C	1/5YR
33213-65-9	Beta-Endosulfan	608	0.1		G or C	1/5YR
1031-07-8	Endosulfan Sulfate	608	0.1		G or C	1/5YR

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL <sup>(1)</sup>	REPORTING RESULTS	SAMPLE TYPE <sup>(2)</sup>	SAMPLE FREQUENCY
72-20-8	Endrin	608	0.1		G or C	1/5YR
7421-93-4	Endrin Aldehyde	(4)	(5)		G or C	1/5YR
86-50-0	Guthion	(4)	(5)		G or C	1/5YR
76-44-8	Heptachlor	608	0.05		G or C	1/5YR
1024-57-3	Heptachlor Epoxide	(4)	(5)		G or C	1/5YR
319-84-6	Hexachlorocyclohexane Alpha-BHC	608	(5)		G or C	1/5YR
319-85-7	Hexachlorocyclohexane Beta-BHC	608	(5)		G or C	1/5YR
58-89-9	Hexachlorocyclohexane Gamma-BHC or Lindane	608	(5)		G or C	1/5YR
143-50-0	Kepone	(9)	(5)		G or C	1/5YR
121-75-5	Malathion	(4)	(5)		G or C	1/5YR
72-43-5	Methoxychlor	(4)	(5)		G or C	1/5YR
2385-85-5	Mirex	(4)	(5)		G or C	1/5YR
56-38-2	Parathion	(4)	(5)		G or C	1/5YR
11096-82-5	PCB 1260	608	1.0		G or C	1/5YR
11097-69-1	PCB 1254	608	1.0		G or C	1/5YR
12672-29-6	PCB 1248	608	1.0		G or C	1/5YR
53469-21-9	PCB 1242	608	1.0		G or C	1/5YR
11141-16-5	PCB 1232	608	1.0		G or C	1/5YR
11104-28-2	PCB 1221	608	1.0		G or C	1/5YR
12674-11-2	PCB 1016	608	1.0		G or C	1/5YR
1336-36-3	PCB Total	608	7.0		G or C	1/5YR
8001-35-2	Toxaphene	608	5.0		G or C	1/5YR
<b>BASE NEUTRAL EXTRACTABLES</b>						
83-32-9	Acenaphthene	625	10.0		G or C	1/5YR
120-12-7	Anthracene	625	10.0		G or C	1/5YR
92-87-5	Benzidine	(4)	(5)		G or C	1/5YR
56-55-3	Benzo (a) anthracene	625	10.0		G or C	1/5YR
205-99-2	Benzo (b) fluoranthene	625	10.0		G or C	1/5YR
207-08-9	Benzo (k) fluoranthene	625	10.0		G or C	1/5YR

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL <sup>(1)</sup>	REPORTING RESULTS	SAMPLE TYPE <sup>(2)</sup>	SAMPLE FREQUENCY
50-32-8	Benzo (a) pyrene	625	10.0		G or C	1/5YR
111-44-4	Bis 2-Chloroethyl Ether	(4)	(5)		G or C	1/5YR
108-60-1	Bis 2-Chloroisopropyl Ether	(4)	(5)		G or C	1/5YR
117-81-7	Bis-2-ethylhexyl phthalate	625	10.0		G or C	1/5YR
85-68-7	Butyl benzyl phthalate	625	10.0		G or C	1/5YR
91-58-7	2-Chloronaphthalene	(4)	(5)		G or C	1/5YR
218-01-9	Chrysene	625	10.0		G or C	1/5YR
53-70-3	Dibenz(a,h)anthracene	625	20.0		G or C	1/5YR
84-74-2	Dibutyl phthalate (synonym = Di-n-Butyl Phthalate)	625	10.0		G or C	1/5YR
95-50-1	1,2-Dichlorobenzene	624	10.0		G or C	1/5YR
541-73-1	1,3-Dichlorobenzene	624	10.0		G or C	1/5YR
106-46-7	1,4-Dichlorobenzene	624	10.0		G or C	1/5YR
91-94-1	3,3-Dichlorobenzidine	(4)	(5)		G or C	1/5YR
84-66-2	Diethyl phthalate	625	10.0		G or C	1/5YR
131-11-3	Dimethyl phthalate	(4)	(5)		G or C	1/5YR
121-14-2	2,4-Dinitrotoluene	625	10.0		G or C	1/5YR
122-66-7	1,2-Diphenylhydrazine	(4)	(5)		G or C	1/5YR
206-44-0	Fluoranthene	625	10.0		G or C	1/5YR
86-73-7	Fluorene	625	10.0		G or C	1/5YR
118-74-1	Hexachlorobenzene	(4)	(5)		G or C	1/5YR
87-68-3	Hexachlorobutadiene	(4)	(5)		G or C	1/5YR
77-47-4	Hexachlorocyclopentadiene	(4)	(5)		G or C	1/5YR
67-72-1	Hexachloroethane	(4)	(5)		G or C	1/5YR
193-39-5	Indeno(1,2,3-cd)pyrene	625	20.0		G or C	1/5YR
78-59-1	Isophorone	625	10.0		G or C	1/5YR
98-95-3	Nitrobenzene	625	10.0		G or C	1/5YR
62-75-9	N-Nitrosodimethylamine	(4)	(5)		G or C	1/5YR
621-64-7	N-Nitrosodi-n-propylamine	(4)	(5)		G or C	1/5YR
86-30-6	N-Nitrosodiphenylamine	(4)	(5)		G or C	1/5YR
129-00-0	Pyrene	625	10.0		G or C	1/5YR

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL <sup>(1)</sup>	REPORTING RESULTS	SAMPLE TYPE <sup>(2)</sup>	SAMPLE FREQUENCY
120-82-1	1,2,4-Trichlorobenzene	625	10.0		G or C	1/5YR
<b>VOLATILES</b>						
107-02-8	Acrolein	(4)	(5)		G	1/5YR
107-13-1	Acrylonitrile	(4)	(5)		G	1/5YR
71-43-2	Benzene	624	10.0		G	1/5YR
75-25-2	Bromoform	624	10.0		G	1/5YR
56-23-5	Carbon Tetrachloride	624	10.0		G	1/5YR
108-90-7	Chlorobenzene (synonym = monochlorobenzene)	624	50.0		G	1/5YR
124-48-1	Chlorodibromomethane	624	10.0		G	1/5YR
67-66-3	Chloroform	624	10.0		G	1/5YR
75-09-2	Dichloromethane (synonym = methylene chloride)	624	20.0		G	1/5YR
75-27-4	Dichlorobromomethane	624	10.0		G	1/5YR
107-06-2	1,2-Dichloroethane	624	10.0		G	1/5YR
75-35-4	1,1-Dichloroethylene	624	10.0		G	1/5YR
156-60-5	1,2-trans-dichloroethylene	(4)	(5)		G	1/5YR
78-87-5	1,2-Dichloropropane	(4)	(5)		G	1/5YR
542-75-6	1,3-Dichloropropene	(4)	(5)		G	1/5YR
100-41-4	Ethylbenzene	624	10.0		G	1/5YR
74-83-9	Methyl Bromide	(4)	(5)		G	1/5YR
79-34-5	1,1,2,2-Tetrachloroethane	(4)	(5)		G	1/5YR
127-18-4	Tetrachloroethylene	624	10.0		G	1/5YR
10-88-3	Toluene	624	10.0		G	1/5YR
79-00-5	1,1,2-Trichloroethane	(4)	(5)		G	1/5YR
79-01-6	Trichloroethylene	624	10.0		G	1/5YR
75-01-4	Vinyl Chloride	624	10.0		G	1/5YR
<b>ACID EXTRACTABLES<sup>(6)</sup></b>						
95-57-8	2-Chlorophenol	625	10.0		G or C	1/5YR
120-83-2	2,4 Dichlorophenol	625	10.0		G or C	1/5YR
105-67-9	2,4 Dimethylphenol	625	10.0		G or C	1/5YR

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL <sup>(1)</sup>	REPORTING RESULTS	SAMPLE TYPE <sup>(2)</sup>	SAMPLE FREQUENCY
51-28-5	2,4-Dinitrophenol	(4)	(5)		G or C	1/5YR
534-52-1	2-Methyl-4,6-Dinitrophenol	(4)	(5)		G or C	1/5YR
25154-52-3	Nonylphenol	(4)	(5)		G or C	1/5YR
87-86-5	Pentachlorophenol	625	50.0		G or C	1/5YR
108-95-2	Phenol	625	10.0		G or C	1/5YR
88-06-2	2,4,6-Trichlorophenol	625	10.0		G or C	1/5YR
<b>MISCELLANEOUS</b>						
16887-00-6	Chlorides	(4)	(5)		G	1/5YR
57-12-5	Cyanide, Free	(4)	10.0		G	1/5YR
7783-06-4	Hydrogen Sulfide	(4)	(5)		G or C	1/5YR
471-34-1	Hardness (mg/L as CaCO <sub>3</sub> )	(4)	(5)		G or C	1/5YR

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Name of Principal Executive Officer or Authorized Agent/Title

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Signature of Principal Officer or Authorized Agent/Date

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. See 18 U.S.C. Sec. 1001 and 33 U.S.C. Sec. 1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.)

FOOTNOTES:

- (1) Quantification level (QL) is defined as the lowest concentration used for the calibration of a measurement system when the calibration is in accordance with the procedures published for the required method.

The quantification levels indicated for the metals are actually Specific Target Values developed for this permit. The Specific Target Value is the approximate value that may initiate a wasteload allocation analysis. Target values are not wasteload allocations or effluent limitations. The Specific Target Values are subject to change based on additional information such as hardness data, receiving stream flow, and design flows. Any QL that is less than the Specific Target Value may be used.

Units for the quantification level are micrograms/liter unless otherwise specified.

Quality control and quality assurance information shall be submitted to document that the required quantification level has been attained.

- (2) Sample Type

G = Grab = An individual sample collected in less than 15 minutes. Substances specified with "grab" sample type shall only be collected as grabs. The permittee may analyze multiple grabs and report the average results provided that the individual grab results are also reported. For grab metals samples, the individual samples shall be filtered and preserved immediately upon collection.

C = Composite = A 24-hour composite unless otherwise specified. The composite shall be a combination of individual samples, taken proportional to flow, obtained at hourly or smaller time intervals. The individual samples may be of equal volume for flows that do not vary by +/- 10 percent over a 24-hour period.

- (3) A specific analytical method is not specified; however a target value for each metal has been established. An appropriate method to meet the target value shall be selected from the following list of EPA methods (or any approved method presented in 40 CFR Part 136). If the test result is less than the method QL, a "<[QL]" shall be reported where the actual analytical test QL is substituted for [QL].

<u>Metal</u>	<u>Analytical Method</u>
Antimony	1638; 1639
Arsenic	1632; 206.5
Chromium <sup>(8)</sup>	1639
Cadmium	1637; 1638; 1639; 1640
Chromium VI	1639; 218.6 Rev 3.3
Copper	1638; 1640
Lead	1637; 1638; 1640
Mercury	1631; 245.7 Rev 2.0
Nickel	1638; 1639; 1640
Selenium	1638; 1639
Silver	1638
Zinc	1638; 1639

- (4) Any approved method presented in 40 CFR Part 136.
- (5) The QL is at the discretion of the permittee. For any substances addressed in 40 CFR Part 136, the permittee shall use one of the approved methods in 40 CFR Part 136.
- (6) Testing for phenols requires continuous extraction.
- (7) Analytical Methods: NBSR 85-3295 or DEQ's approved analysis for Tributyltin may also be used [See A Manual for the Analysis of Butyltins in Environmental Systems by the Virginia Institute of Marine Science, dated November 1996].
- (8) Both Chromium III and Chromium VI may be measured by the total chromium analysis. If the result of the total chromium analysis is less than or equal to the lesser of the Chromium III or Chromium VI method QL, the results for both Chromium III and Chromium VI can be reported as "<[QL]", where the actual analytical test QL is substituted for [QL].
- (9) The lab may use SW846 Method 8270D provided the lab has an Initial Demonstration of Capability, has passed a PT for Kepone, and meets the acceptance criteria for Kepone as given in Method 8270D

**DEPARTMENT OF ENVIRONMENTAL QUALITY**

Dredge Spoils Monitoring  
ATTACHMENT B, Page 1 of 4

FACILITY NAME: Dominion – Possum Point Power Station

VPDES PERMIT NO. : VA0002071

DATE:

PROJECT:

DEQ Parameter No.	EPA CAS Number	Parameter	EPA Analysis No.	Quantification Level <sup>(1)</sup> (mg/l)	Reporting Results <sup>(1)</sup> (mg/l)	Sample Type <sup>(2)</sup>	Threshold Levels (mg/l)
<b>Toxicity Characteristic Leaching Procedure Parameters with Threshold Levels (Part A)</b>							
033	7440-38-2	Arsenic	1311			G	5.0
151	7440-39-3	Barium	1311			G	100.0
216	71-43-2	Benzene	1311			G	3.0
096	7440-43-9	Cadmium	1311			G	1.0
236	56-23-5	Carbon Tetrachloride	1311			G	0.5
333	57-74-9	Chlordane	1311			G	0.03
280	108-90-7	Chlorobenzene	1311			G	100.0
223	67-66-3	Chloroform	1311			G	6.0
016	7440-47-3	Chromium	1311			G	5.0
510	95-48-7	o-Cresol *	1311			G	200.0
509	108-39-4	m-Cresol *	1311			G	200.0
511	106-44-5	p-Cresol *	1311			G	200.0
512		Cresols, Total	1311			G	200.0
266	106-46-7	1,4-Dichlorobenzene	1311			G	7.5
260	107-06-2	1,2-Dichloroethane	1311			G	0.5
258	75-35-4	1,1-Dichloroethylene	1311			G	0.7
239	121-14-2	2,4-Dinitrotoluene	1311			G	0.13
339	72-20-8	Endrin	1311			G	0.02
341	76-44-8	Heptachlor	1311			G	0.008
289	118-74-1	Hexachlorobenzene	1311			G	0.13
290	87-68-3	Hexachlorobutadiene	1311			G	0.5
291	67-72-1	Hexachloroethane	1311			G	5.0
034	7439-92-1	Lead	1311			G	5.0
342	58-89-9	Hexachlorocyclohexane (Lindane)	1311			G	0.4
042	7439-97-6	Mercury	1311			G	0.2
344	72-43-5	Methoxychlor	1311			G	10.0
	78-93-3	Methyl Ethyl Ketone	1311			G	200.0
294	98-95-3	Nitrobenzene	1311			G	2.0
210	87-86-5	Pentachlorophenol	1311			G	100.0
	110-86-1	Pyridine	1311			G	5.0
152	7782-49-2	Selenium	1311			G	1.0
037	7440-22-4	Silver	1311			G	5.0
220	127-18-4	Tetrachloroethylene	1311			G	0.7
349	8001-35-2	Toxaphene	1311			G	0.5
602	79-01-6	Trichloroethylene	1311			G	0.5
601	95-95-4	2,4,5-Trichlorophenol	1311			G	400
602	88-06-2	2,4,6-Trichlorophenol	1311			G	2.0
173	75-01-4	Vinyl Chloride	1311			G	0.2

\* If o-, m- and p-Cresol concentrations cannot be differentiated, the total cresol concentration is used.

**DEPARTMENT OF ENVIRONMENTAL QUALITY**

Dredge Spoils Monitoring  
ATTACHMENT B, Page 2 of 4

FACILITY NAME: Dominion – Possum Point Power Station

VPDES PERMIT NO. : VA0002071

DATE:

PROJECT:

DEQ Parameter No.	EPA CAS Number	Parameter	EPA Analysis No.	Quantification Level <sup>(1)</sup> (mg/kg)	Reporting Results <sup>(1)</sup> (mg/kg)	Sample Type <sup>(2)</sup>
<b>Metals (Part B.1.)</b>						
178	7429-90-5	Antimony	(3)	(4)		G
457		Arsenic III	(3)	(4)		G
441	16055-83-1	Chromium III	(3)	(4)		G
231	18540-29-9	Chromium VI	(3)	(4)		G
442	744-50-8	Copper	(3)	(4)		G
445	7440-02-0	Nickel	(3)	(4)		G
	7440-28-0	Thallium	(3)	(4)		G
448	7440-66-6	Zinc	(3)	(4)		G
<b>Pesticides/PCB'S (Part B.2.)</b>						
332	309-00-2	Aldrin	(3)	(4)		G
334		Chlorpyrifos Dursban	(3)	(4)		G
--	72-54-8	DDD	(3)	(4)		G
--	72-55-9	DDE	(3)	(4)		G
335	50-29-3	DDT	(3)	(4)		G
336	8065-48-3	Demeton	(3)	(4)		G
337	60-57-1	Dieldrin	(3)	(4)		G
746	959-98-8	Alpha-Endosulfan	(3)	(4)		G
640	33213-65-9	Alpha-Endosulfan	(3)	(4)		G
617	1031-07-8	Endosulfan Sulfate	(3)	(4)		G
--	7421-93-4	Endrin Aldehyde	(3)	(4)		G
340	86-50-0	Guthion	(3)	(4)		G
--	1024-57-3	Heptachlor Epoxide	(3)	(4)		G
--	319-84-6	Hexachlorocyclohexane (Alpha-BHC)	(3)	(4)		G
--	319-85-7	Hexachlorocyclohexane (Beta-BHC)	(3)	(4)		G
--	143-50-0	Kepone	(3)	(4)		G
343	121-75-5	Malathion	(3)	(4)		G
345	2385-85-5	Mirex	(3)	(4)		G
346	56-38-2	Parathion	(3)	(4)		G
--	1336-36-3	Total PCB	(3)	(4)		G
641	53469-21-9	PCB-1242	(3)	(4)		G
642	11097-69-1	PCB-1254	(3)	(4)		G
643	11104-28-2	PCB-1221	(3)	(4)		G
644	11141-16-5	PCB-1232	(3)	(4)		G
645	12672-29-6	PCB-1248	(3)	(4)		G
618	11096-82-5	PCB-1260	(3)	(4)		G
646	12674-11-2	PCB-1016	(3)	(4)		G
<b>Base Neutral Extractable (Part B.3.)</b>						
273	208-96-8	Acenaphthene	(3)	(4)		G
275	120-12-7	Anthracene	(3)	(4)		G
--	92-87-5	Benzidine	(3)	(4)		G
276	56-55-3	Benzo(a) anthracene	(3)	(4)		G

**DEPARTMENT OF ENVIRONMENTAL QUALITY**

Dredge Spoils Monitoring  
ATTACHMENT B, Page 3 of 4

FACILITY NAME: Dominion – Possum Point Power Station

VPDES PERMIT NO. : VA0002071

DATE:

PROJECT:

DEQ Parameter No.	EPA CAS Number	Parameter	EPA Analysis No.	Quantification Level <sup>(1)</sup> (mg/kg)	Reporting Results <sup>(1)</sup> (mg/kg)	Sample Type <sup>(2)</sup>
648	50-32-8	Benzo(b) fluoranthene (3,4-Bensofluoranthene)	(3)	(4)		G
278	207-08-9	Benzo(k) fluoranthene	(3)	(4)		G
277	50-32-8	Benzo(a)pyrene	(3)	(4)		G
--	111-44-4	Bis 2-Chloroethyl Ether	(3)	(4)		G
279	102-60-1	Bis 2-Chloroiso-Propyl Ether	(3)	(4)		G
486	85-68-7	Butyl benzyl phthalate	(3)	(4)		G
--	91-58-7	2-Chloronaphthalene	(3)	(4)		G
282	218-01-9	Chrysene	(3)	(4)		G
654	53-70-3	Dibenz(a,h) anthracene	(3)	(4)		G
206	84-74-2	Dibutyl phthalate	(3)	(4)		G
259	95-50-1	1,2-Dichlorobenzene	(3)	(4)		G
264	541-73-1	1,3-Dichlorobenzene	(3)	(4)		G
527	91-94-1	3,3-Dichlorobenzidine	(3)	(4)		G
285	84-66-2	Diethyl phthalate	(3)	(4)		G
170	117-81-7	Di-2-Ethylhexyl Phthalate (Bis (2-Ethylhexyl) Phthalate)	(3)	(4)		G
286	131-11-3	Dimethyl Phthalate	(3)	(4)		G
535	122-66-7	1,2-Dihenyhydrazine	(3)	(4)		G
287	206-44-0	Fluoranthene	(3)	(4)		G
288	86-73-7	Fluorene	(3)	(4)		G
538	77-47-4	Hexachlorocyclopentadiene	(3)	(4)		G
651	193-39-5	Indeno(1,2,3-cd) pyrene	(3)	(4)		G
650	78-59-1	Isophorone	(3)	(4)		G
293	91-20-3	Naphthalene	(3)	(4)		G
573	62-75-9	N-Nitrosodimethylamine	(3)	(4)		G
574	86-30-6	N-Nitrosodiphenylamine	(3)	(4)		G
575	621-64-7	N-Nitrosodi-n-propylamine	(3)	(4)		G
296	129-00-0	Pyrene	(3)	(4)		G
263	129-82-1	1,2,4 Trichlorobenzene	(3)	(4)		G
<b>Volatiles (Part B.4.)</b>						
171	107-02-8	Acrolein	(3)	(4)		G
204	107-13-1	Acrylonitrile (Vinyl cyanide)	(3)	(4)		G
484	75-25-2	Bromoform	(3)	(4)		G
652	124-48-1	Chlorodibromomethane	(3)	(4)		G
649	75-09-2	Dichloromethane (Methylene chloride)	(3)	(4)		G
244	75-27-4	Dichlorobromomethane	(3)	(4)		G
262	156-60-5	Trans 1,2-Dichloroethylene	(3)	(4)		G
261	78-87-5	1,2-Dichloropropane	(3)	(4)		G
265	542-75-6	1,3-Dichloropropene (1,3-Dichlorpropylene)	(3)	(4)		G
172	100-41-4	Ethylbenzene	(3)	(4)		G
--	74-83-9	Methyl Bromide	(3)	(4)		G
--	78-93-3	2-Butanone (Methyl Ethyl Ketone (MEK))	(3)	(4)		G
596	79-34-5	1,1,2,2-Tetrachloroethane	(3)	(4)		G

**DEPARTMENT OF ENVIRONMENTAL QUALITY**

Dredge Spoils Monitoring  
ATTACHMENT B, Page 4 of 4

FACILITY NAME: Dominion – Possum Point Power Station

VPDES PERMIT NO. : VA0002071

DATE:

PROJECT:

DEQ Parameter No.	EPA CAS Number	Parameter	EPA Analysis No.	Quantification Level <sup>(1)</sup> (mg/kg)	Reporting Results <sup>(1)</sup> (mg/kg)	Sample Type <sup>(2)</sup>
222	108-88-3	Toluene	(3)	(4)		G
373	79-00-5	1,1,2-Trichloroethane	(3)	(4)		G
155	79-01-6	Trichloroethylene	(3)	(4)		G
<b>Acids Extratables (Part B.5.)</b>						
267	95-57-8	2-Chlorophenol	(3)	(4)		G
268	120-83-2	2,4 Dichlorophenol	(3)	(4)		G
269	105-67-9	2,4 Dimethylphenol	(3)	(4)		G
--	534-52-1	2-Methyl-2,4-Dinitrophenol (4,6-Dinitro-O-Cresol)	(3)	(4)		G
270	51-28-5	2,4-Dinitrophenol	(3)	(4)		G
175	108-95-2	Phenol	(3)	(4)		G
<b>Miscellaneous (Part B.6.)</b>						
018		Cyanide, Total	(3)	(4)		G
350		Tributyltin	(3)	(4)		G
257		TPH (Total Petroleum Hydrocarbons)	(3)	(4)		G

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. See 18 U.S.C. §1001 and 33 U.S.C. §1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.)

\_\_\_\_\_  
Name of Principal Executive Officer or Authorized Agent

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature of Principal Executive Officer or Authorized Agent

\_\_\_\_\_  
Date

**Footnotes to Water Quality Monitoring Attachment B**

- (1) Quantification level (QL) is defined as the lowest concentration used for the calibration of a measurement system when the calibration is in accordance with the procedures published for the required method.  
Units for the quantification level and the specific target value are micrograms/liter (mg/l) or micrograms/kilograms (mg/kg) unless otherwise specified. Quality control and quality assurance information shall be submitted to document that the required quantification level has been attained. Data reported by the lab as less than the test method QL shall be reported as "<[QL]" on the Attachment B form, where the actual test method QL shall be substituted for "[QL]".
- (2) Sample Type:  
G = Grab - An individual sample collected in less than fifteen (15) minutes. Substances specified with "grab" sample type shall only be collected as grabs. The permittee may analyze multiple grabs and report the average results provided that the individual grab results are also reported.
- (3) Any approved method presented in 40 CFR Part 136.
- (4) The QL is at the discretion of the permittee. For any substances addressed in 40 CFR Part 136, the permittee shall use one of the approved methods in 40 CFR Part 136.