This document gives pertinent information concerning the reissuance of the Virginia Pollutant Discharge Elimination System (VPDES) Permit listed below. This permit is being processed as a Minor, Industrial permit. The discharge results from the operation of a 510 megawatt (MW) simple-cycle combustion turbine electrical generating facility. This permit action consists of updating the proposed effluent limits to reflect the current Virginia Water Quality Standards (effective January 6, 2011) and updating permit language as appropriate. The effluent limitations and special conditions contained in this permit will maintain the Water Quality Standards (WQS) of 9VAC25-260 et seq.

1.	Facility Name and Mailing Address:	Old Dominion Electric Cooperative - Marsh Run Generation Facility 4201 Dominion Boulevard Glen Allen, VA 23060	SIC Code :	4911 – Electric Power Generation
	Facility Location:	12109 Lucky Hill Road Remington, VA 22734	County:	Fauquier
	Facility Contact Name:	Mr. Davis Phaup	Telephone Number:	(804) 290-2190
	Facility E-mail Address:	DPhaup@odec.com		
2.	Permit No.:	VA0091448	Expiration Date of Previous Permit:	April 19, 2014
	Other VPDES Permits associated with this facility:		None	
	Other Permits associated with this facility:		Air – Registration Number 40996 (Title V) Hazardous Waste – VAR000506477 AST - 3039160	
	E2/E3/E4 Status:	Not Applicable		
3.	Owner Name:	Old Dominion Electric Cooperative (ODEC)		
	Owner Contact/Title:	Mr. Davis Phaup / Environmental, Health and Safety Coordinator		
	Telephone Number:	(804) 290-2190		
	Owner E-mail Address:	DPhaup@odec.com		
4.	Application Complete Date:	August 12, 2013		
	Permit Drafted By:	Susan Mackert	Date Drafted:	October 18, 2013
	Draft Permit Reviewed By:	Alison Thompson	Date Reviewed:	November 4, 2013
	WPM Review By:	Bryant Thomas	Date Reviewed:	November 8, 2013
	Public Comment Period :	Start Date: January 16, 2014	End Date:	February 14, 2014

5. Receiving Waters Information:

Receiving Stream Name:	Marsh Run, UTs*	Stream Code:	3-XGM (Outfall 001) 3-XGL (Outfall 002)
Drainage Area at Outfalls:	0.03 square miles**	River Mile:	0.24 (Outfall 001) / 0.20 (Outfall 002)
Stream Basin:	Rappahannock River	Subbasin:	None
Section:	4	Stream Class:	III
Special Standards:	None	Waterbody ID:	VAN-E08R
7Q10 Low Flow:	0 MGD	7Q10 High Flow:	0 MGD
1Q10 Low Flow:	0 MGD	1Q10 High Flow:	0 MGD
30Q10 Low Flow:	0 MGD	30Q10 High Flow:	0 MGD
Harmonic Mean Flow:	0 MGD	30Q5 Flow:	0 MGD

*UT – Unnamed Tributary

**It is staff's best professional judgement that based on a drainage area of five square miles or less, critical flows will be equal to zero.

6. Statutory or Regulatory Basis for Special Conditions and Effluent Limitations:

✓ State Water Control Law
✓ Clean Water Act
✓ VPDES Permit Regulation
✓ EPA NPDES Regulation
___ EPA Guidelines
✓ Water Quality Standards
___ Other

7. Licensed Operator Requirements: Not applicable

8. Reliability Class: Not applicable

9. Permit Characterization:

✓ Private
___ Federal
___ State
___ WTP*
___ TMDL*
✓ Effluent Limited
✓ Water Quality Limited
___ Whole Effluent Toxicity Program Required
___ Pretreatment Program Required
___ Possible Interstate Effect
___ Compliance Schedule Required
___ Interim Limits in Permit
___ Interim Limits in Other Document

*WTP = Water Treatment Plant
*TMDL = Total Maximum Daily Load

10. Storm Water and Industrial Wastewater Sources and Treatment Description:

The Old Dominion Electric Cooperative – Marsh Run Generation Facility is an existing natural gas fired simple cycle power station. Simple cycle units are typically used for peak power generation and operate only during high energy demand periods. The facility utilizes three General Electric model 7FA combustion turbines generating a combined 510 MW. Water needed for facility operations is supplied as reclaimed wastewater from the Fauquier County Water and Sanitation Authority's Remington Wastewater Treatment Plant (VA0076805). All industrial process wastewater is returned to the Remington Wastewater Treatment Plant for treatment and discharge. A description of storm water and allowable non-storm water sources is provided in more detail below.

TABLE 1 – Generation Units

Generating Unit	Fuel Source*	MW Generation
Unit 1	Natural Gas	170 MW
Unit 2	Natural Gas	170 MW
Unit 3	Natural Gas	170 MW

*Fuel oil is utilized as a back-up.

North Storm Water Retention Pond / Outfall 001

This storm water retention pond is located in the northern portion of the facility. The retention pond receives storm water runoff from the onsite storm water system, as well as two internal outfalls located within the combustion turbine and fuel oil offloading and tank areas. These internal outfalls are discussed in more detail below. The total area drained is approximately 37 acres with approximately 18 acres of impervious surface. The retention pond discharges to an unnamed tributary to Marsh Run via Outfall 001.

South Storm Water Retention Pond / Outfall 002

This storm water retention pond is located in the southern portion of the facility. The retention pond receives storm water runoff from the facility switchyard and the fuel gas conditioning area. The total area drained is approximately 21 acres with approximately 11 acres of impervious surface. The retention pond discharges to a different unnamed tributary to Marsh Run via Outfall 002.

Internal Outfall 101

Potentially contaminated storm water runoff from the fuel oil offloading area and secondary containment surrounding the fuel oil tanks is routed through two oil-water separators prior to discharge to the northern storm water retention pond via Internal Outfall 101.

Internal Outfall 102

Potentially contaminated storm water runoff from the combustion turbine area is routed through three oil-water separators prior to discharge to the northern storm water retention pond via Internal Outfall 102.

Turbine Wash Water

Washing of combustion turbine compressor surfaces is done off-line only*. Off-line washing consists of injecting a solution of detergent and demineralized water into the turbines when they are not operating. Off-line washing is typically performed once per year and uses 2,500 gallons per turbine for a total of 12,500 gallons per year. Turbine wash water is collected and removed off site for disposal.

Demineralized Water

Final effluent from the Remington Wastewater Treatment Plant (VA0076805) requires chemical treatment with sodium hypochlorite to address any potential fecal coliform concentrations in the source water and is then stored in a 150,000 gallon surge tank. This water undergoes subsequent treatment by media filtration and reverse osmosis processes prior to use. Approximately six million gallons of storage is provided for treated (finished) water. Media filtration backwash and reverse osmosis reject water is pumped to and stored within a three million gallon wastewater holding tank that discharges back to the Remington Wastewater Treatment Plant.

Filtered water that is to be injected into the combustion turbines is further treated by demineralization. Demineralization is conducted on site within portable demineralization trailers. Storage capacity of approximately 2 million gallons is provided for demineralized water. Once the filtering capacity of each unit has been maximized, the trailer is removed and the waste is discharged off site.

The existing VPDES permit authorizes the discharge of filter prime water and residual water from the demineralization unit to the northern storm water retention pond during storage tank refill operations. Discharge would be via Outfall 001. This authorization shall be carried forward with this reissuance.

*The permit application states that both on-line and off-line washing of combustion turbine compressor surfaces takes place. ODEC staff has confirmed that only off-line washing takes place on site, which is reflected in the turbine wash water discussion above. Correspondence addressing this discrepancy can be found within the reissuance file.

Raw/Fire Water Storage Tank
The existing VPDES permit authorizes the discharge of drainage and overflow activities from the Raw/Fire Water Storage Tank. Approximately six million gallons of storage is provided for water that is used for facility operations and fire control. Discharge would be via Outfall 001. This authorization shall be carried forward with this reissuance.

Vehicle Wash Water
The existing VPDES permit authorizes the discharge of vehicle wash water. The facility originally requested this authorization in June 2005 and by letter dated June 21, 2005, DEQ authorized vehicle washing. Vehicle washing activities are infrequent and would utilize consumer-level quantities of soaps/detergents. Discharge of vehicle wash water would be via Outfall 001. This authorization shall be carried forward with this reissuance.

Pressure Washing Water
The existing VPDES permit authorizes the discharge of pressure washing water as well as the use of washing detergents. The primary focus of pressure washing activities is the outside of bulk storage tanks. The bulk storage tanks are on a gravel surface at a level grade which retards flows. Pressure washing activities may also occasionally include the outside of buildings located on site, but no equipment or combustion turbines will be pressure washed. Runoff from pressure washing activities would ultimately discharge via Outfall 001. Discharge of pressure washing water is estimated to be less than 1,000 gallons per discharge. This authorization shall be carried forward with this reissuance.

Fire Hydrant Flushing
With this reissuance the permit shall authorize the discharge of fire hydrant flushing waters. Per the National Fire Protection Association (NFPA), the facility is required to flush hydrants on an annual basis. Private contractors hired by the facility perform this work. Runoff from fire hydrant flushing activities would ultimately discharge via Outfall 001.

See Attachment 1 for the National Pollutant Discharge Elimination System (NPDES) Permit Rating Worksheet.

See Attachment 2 for a facility schematic/diagram.

TABLE 2 – Outfall Description

Outfall Number	Discharge Sources*	Treatment	Average Flow	Outfall Latitude and Longitude
001	Storm Water Internal Outfall 101 Internal Outfall 102	Sedimentation	33.4 MG (0.09 MGD)	38° 31′ 47″ N 77° 45′ 54″ W
101	Storm Water	Oil-Water Separator	Variable	38° 31′ 47″ N 77° 45′ 57″ W
102	Storm Water	Oil-Water Separator	Variable	38° 31′ 47″ N 77° 45′ 58″ W
002	Storm Water	Sedimentation	Variable	38° 31′ 37″ N 77° 46′ 04″ W

*Discharge sources as provided within the facility's Form 2C application. See Section 10 above for potential non-storm water sources that may also be present in the discharge.

See Attachment 3 for (Remington, DEQ #196D) topographic map.

11. Solids Treatment and Disposal Methods:

ODEC – Marsh Run Generation Facility is an existing industrial facility that does not treat domestic sewage and does not produce sewage sludge. All process wastewater is discharged to the Remington Wastewater Treatment Plant. All domestic wastewater is disposed of via an onsite leech field and Puraflo pretreatment septic system.

12. Discharges in Waterbody ID: VAN-E08R

TABLE 3	
VA0064726	Mary Walter Elementary School (Marsh Run, UT)
VA0068586	Culpeper County Industrial Airpark STP (Hubbard Run)
VA0076805	Remington Wastewater Treatment Plant (Rappahannock River)
VAG406023	Dixie M. Compton Residence (Hubbard Run, UT)
VAG406056	Mark E. Hanna Residence (Craig Run)
VAG406074	Martin D. Cogan Residence (Marsh Run)
VAG406084	Dorothy Coles and Jonathan Davis Residence (Marsh Run, UT)
VAG406119	James H. Weeks IV Residence (Brown's Run, UT)
VAG406145	William A. Bailey Residence (Brown's Run, UT)
VAG406201	James Woodson Residence (Brown's Run, UT)
VAG406232	Kastle Greens Golf Course (Brown's Run, UT)
VAG406311	Eastern Clearing, Incorporated (Marsh Run, UT)
VAG406312	John C. Kandl Residence (Brown's Run, UT)
VAG406358	Garret Street Property (Hubbard Run, UT)
VAG406365	Culpeper Farmers Cooperative, Incorporated (Harpers Run)
VAG406448	Family Worship Center (Brown's Run, UT)
VAG406542	Moo Thru (Tinpot Run, UT)
VAG840110	Luck Stone – Bealeton Plant (Craig Run, UT)
VAG110110	Crider and Shockey, Incorporated (Marsh Run)
VAR050905	Lane Enterprises, Incorporated – Lane Metal Product Division (Marsh Run)
VAR050920	Superior Paving Corporation - Bealeton Plant (Marsh Run)
VAR050984	Culpeper County Airport (Hubbard Run, UT)
VAR051665	U.S. Greenfiber, LLC (Hubbard Run, UT)
VAR052079	Remington Auto Parts, Incorporated (Marsh Run, UT)

13. Material Storage:

TABLE 4 - Material Storage		
Materials Description	Volume Stored	Spill/Storm Water Prevention Measures
Chemtreat CL-206	35 gallons	Service building spill containment pallet
Chemtreat BL-124	165 gallons	Service building berm
Chemtreat CT-9004	55 gallons	Service building berm
Chemtreat BL-1302	110 gallons	Service building berm
Chemtreat P-8285L	75 gallons	Service building berm
Chemtreat NaOCl	800 gallons	Service building berm
Chemtreat NaOCl	80 gallons	Service building spill containment pallet
Chemtreat CT-708	75 gallons	Service building spill containment pallet
Chemtreat RL-1500	55 gallons	Service building spill containment pallet
Chemtreat RL-2016	55 gallons	Service building spill containment pallet

14. Site Inspection:

Performed by Susan Mackert and Beth Biller on October 9, 2013. The site visit memo can be found as Attachment 4.

15. Receiving Stream Water Quality and Water Quality Standards:

a) Ambient Water Quality Data

This facility discharges into two different unnamed tributaries to Marsh Run. Outfall 001 discharges into unnamed tributary 3-XGM and Outfall 002 discharges into unnamed tributary 3-XGL. Neither of these unnamed tributaries have been monitored or assessed by DEQ. The nearest downstream monitoring station is 3-MAH004.18, located at the Route 668 bridge crossing on Marsh Run. This station is located approximately 1.7 miles downstream of Outfall 001 and 1.6 miles downstream of Outfall 002. The following is the water quality summary for this segment of Marsh Run, as taken from the Draft 2012 Integrated Report*:

Class III, Section 4.

The following area the DEQ monitoring stations located on Marsh Run:

- 3-MAH004.18, at Route 668 (ambient and biological)

E. coli monitoring finds a bacterial impairment, resulting in an impaired classification for the recreation use. The *E. coli* data collected by a citizen monitoring group indicates that a water quality issue may exist for the recreation use; however, the methodology and/or data quality has not been approved for such a determination. This impairment is nested within the downstream completed bacteria Total Maximum Daily Load (TMDL) for Marsh Run.

Biological monitoring finds benthic macroinvertebrate impairments, resulting in an impaired classification for the aquatic life use. Citizen monitoring also notes a high probability of adverse conditions for biota, as well as high dissolved oxygen values, the latter of which is noted by an observed effect for the aquatic life use.

The fish consumption and wildlife uses were not assessed.

*Virginia's Draft 2012 Integrated Report (IR) has been through the public comment period and reviewed by EPA. The 2012 IR is currently awaiting final approval.

b) 303(d) Listed Stream Segments and Total Maximum Daily Loads (TMDL)

TABLE 5 – 303(d) Impairment and TMDL Information (Downstream)							
Impairment Information in the Draft 2012 Integrated Report*							
Waterbody Name	**Impaired Use**	**Cause**	**Distance From Outfall**	**TMDL completed**	**WLA****	**Basis for WLA**	**TMDL Schedule**
Marsh Run	Recreation	*E. coli*	Outfall 001: 0.24 miles	Rappahannock River Basin Bacteria 01/23/2001	None	Not applicable to this facility	---
	Aquatic Life	Benthic Macroinvertebrates	Outfall 002: 0.5 miles	No	NA	N/A	2006

*Virginia's Draft 2012 Integrated Report (IR) has been through the public comment period and reviewed by EPA. The 2012 IR is currently awaiting final approval.

**WLA = Wasteload Allocation

The full planning statement is found in Attachment 5.

c) Receiving Stream Water Quality Criteria

Part IX of 9VAC25-260(360-550) designates classes and special standards applicable to defined Virginia river basins and sections. The receiving streams, unnamed tributaries to Marsh Run, are located within Section 4 of the Rappanannock River Basin, and classified as Class III waters.

At all times, Class III waters must achieve a dissolved oxygen (D.O.) of 4.0 mg/L or greater, a daily average D.O. of 5.0 mg/L or greater, a temperature that does not exceed 32°C, and maintain a pH of 6.0-9.0 standard units (S.U.).

Attachment 6 details other water quality criteria applicable to the receiving stream.

Ammonia:
The fresh water, aquatic life Water Quality Criteria for Ammonia are dependent on the instream temperature and pH. The 90th percentile temperature and pH values are used because they best represent the critical design conditions of the receiving stream.

The 7Q10 and 1Q10 of the receiving streams are 0.0 MGD. In cases such as this, effluent pH and temperature data may be used to establish the ammonia water quality standard. It is staff's best professional judgement that with this reissuance, monitoring data from only Outfall 001 be used to determine water quality criteria. As stated in Section 10 above, Outfall 001 receives storm water runoff from upstream sources associated with the industrial activity including two internal outfalls and as such best represents stream characteristics leaving the facility.

The 90th percentile pH value for Outfall 001 was derived from DMR submissions from 2010 through 2012. The 90th percentile pH was determined to be 7.6 S.U. (Attachment 6). Because the facility is not required to monitor effluent temperature, a default value of 25°C was used. The ammonia water quality standards calculations are shown in Attachment 6.

Ammonia, as N, is not a parameter of concern due to the fact the discharge is industrial in nature. As such, there is no reasonable potential to exceed the ammonia criteria and limit derivation is not warranted.

Metals Criteria:
The Water Quality Criteria for some metals are dependent on the receiving stream's hardness (expressed as mg/L calcium carbonate). The 7Q10 of the receiving streams are zero and no ambient data is available. In cases such as this, effluent data for hardness can be used to determine the metals criteria. As stated above, it is staff's best professional judgement that with this reissuance monitoring data from only Outfall 001 be used. Outfall 001 receives storm water runoff from upstream sources associated with the industrial activity including two internal outfalls and as such best represents stream characteristics leaving the facility. The hardness-dependent metals criteria in Attachment 6 are based on a single effluent value of 84 mg/L.

d) Receiving Stream Special Standards

The State Water Control Board's Water Quality Standards, River Basin Section Tables (9VAC25-260-360, 370 and 380) designates the river basins, sections, classes, and special standards for surface waters of the Commonwealth of Virginia. The receiving streams, unnamed tributaries to Marsh Run, are located within Section 4 of the Rappahannock River Basin. This section has not been designated with any special standards.

16. Antidegradation (9VAC25-260-30):

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

The receiving stream has been classified as Tier 1 based on the downstream impairments noted in Section 15.b.and the receiving stream having a 7Q10 and 1Q10 of zero. It is staff's best professional judgment that such streams are Tier 1. Permit limits proposed have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

17. Effluent Screening, Wasteload Allocation, and Effluent Limitation Development:

To determine water quality-based effluent limitations for a discharge, the suitability of data must first be determined. Data is suitable for analysis if one or more representative data points is equal to or above the quantification level ("QL") and the data represent the exact pollutant being evaluated.

Next, the appropriate Water Quality Standards (WQS) are determined for the pollutants in the effluent. Then, the Wasteload Allocations (WLA) are calculated. In this case since the critical flows 7Q10 and 1Q10 have been determined to be zero, the WLA's are equal to the WQS. The WLA values are then compared with available effluent data to determine the need for effluent limitations. Effluent limitations are needed if the 97th percentile of the daily effluent concentration values is greater than the acute wasteload allocation or if the 97th percentile of the four-day average effluent concentration values is greater than the chronic wasteload allocation. Effluent limitations are based on the most limiting WLA, the required sampling frequency, and statistical characteristics of the effluent data.

a) Effluent Screening:
Effluent data obtained from the permit application and Discharge Monitoring Report (DMR) forms from January 2010 through June 2013 has been reviewed and determined to be suitable for evaluation. The following pollutants require a wasteload allocation analysis: Antimony, Copper, Mercury, Lead, Nickel, Zinc, and Total Residual Chlorine. See Section 17.c.1 and Section 17.c.2 of the Fact Sheet for additional discussion on these specific pollutants.

b) Mixing Zones and Wasteload Allocations (WLAs):
Wasteload allocations (WLAs) are calculated for those parameters in the effluent with the reasonable potential to cause an exceedance of water quality criteria. The basic calculation for establishing a WLA is the steady state complete mix equation:

$$WLA = \frac{C_o[Q_e + (f)(Q_s)] - [(C_s)(f)(Q_s)]}{Q_e}$$

Where:
- WLA = Wasteload allocation
- C_o = In-stream water quality criteria
- Q_e = Design flow
- Q_s = Critical receiving stream flow (1Q10 for acute aquatic life criteria; 7Q10 for chronic aquatic life criteria; 30Q10 for ammonia criteria; harmonic mean for carcinogen-human health criteria; and 30Q5 for non-carcinogen human health criteria)
- f = Decimal fraction of critical flow
- C_s = Mean background concentration of parameter in the receiving stream.

The water segments receiving the discharge via Outfall 001 and Outfall 002 are considered to have a 7Q10 and 1Q10 of 0.0 MGD. As such, there are no mixing zones and the WLA is equal to the C_o.

c) Effluent Limitations and Monitoring - Toxic Pollutants

9VAC25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Those parameters with WLAs that are near effluent concentrations are evaluated for limits.

The VPDES Permit Regulation at 9VAC25-31-230.D requires that monthly and weekly average limitations be imposed for continuous discharges from Privately Owned Treatment Works (POTW) and monthly average and daily maximum limitations be imposed for all other continuous non-POTW discharges.

1. Outfall 001

Total Residual Chlorine (TRC):
TRC limitations are established to prevent acute and chronic impacts to aquatic organisms. The TRC limitation is only applicable if there is a discharge, defined as an overflow or drainage, from the demineralized water storage tank and / or from fire hydrant flushing activities.

In accordance with current DEQ guidance, staff used a default data point of 0.2 mg/L and the calculated WLAs to derive limits. The resulting water quality based derivation indicates a daily maximum limit of 0.016 mg/L is needed (Attachment 7a). This limit is the same as that which is currently found within the facility's existing permit. As such, the daily maximum limit of 0.016 mg/L shall be carried forward with this reissuance. The monitoring frequency of once per discharge shall also be carried forward.

Antimony:
An antimony value of 0.217 µg/L was reported as part of the Attachment A sampling required with the reissuance. While antimony was detected, it is staff's best professional judgement that there is no reasonable potential to exceed the human health criteria of 640 µg/L (see Attachment 7a). Therefore, no further evaluation or monitoring is required.

Copper:
An analysis of the data provided with this reissuance indicates no effluent limits are necessary (Attachment 7a). While limits are not warranted with this reissuance, it is staff's best professional judgement that monitoring for dissolved copper be implemented as it is noted as being present in the discharge. A monitoring frequency of once per year (1/YR) is proposed.

Nickel:
An analysis of the data provided with this reissuance indicates no effluent limits are necessary (Attachment 7a). While limits are not warranted with this reissuance, it is staff's best professional judgement that monitoring for dissolved nickel be implemented as it is noted as being present in the discharge. A monitoring frequency of once per year (1/YR) is proposed.

Zinc:
An analysis of the data provided with this reissuance indicates no effluent limits are necessary (Attachment 7a). While limits are not warranted with this reissuance, it is staff's best professional judgement that monitoring for dissolved zinc be implemented as it is noted as being present in the discharge. A monitoring frequency of once per year (1/YR) is proposed.

2. Outfall 002

Copper:
An analysis of the data provided with this reissuance indicates no effluent limits are necessary (Attachment 7b). While limits are not warranted with this reissuance, it is staff's best professional judgement that monitoring for dissolved copper be implemented as it is noted as being present in the discharge. A monitoring frequency of once per year (1/YR) is proposed.

Lead:
An analysis of the data provided with this reissuance indicates no effluent limits are necessary (Attachment 7b). While limits are not warranted with this reissuance, it is staff's best professional judgement that monitoring for dissolved lead be implemented as it is noted as being present in the discharge. A monitoring frequency of once per year (1/YR) is proposed.

Mercury:
An analysis of the data provided with this reissuance indicates no effluent limits are necessary (Attachment 7b). While limits are not warranted with this reissuance, it is staff's best professional judgement that monitoring for dissolved mercury be implemented as it is noted as being present in the discharge. A monitoring frequency of once per year (1/YR) is proposed.

Zinc:
An analysis of the data provided with this reissuance indicates no effluent limits are necessary (Attachment 7b). While limits are not warranted with this reissuance, it is staff's best professional judgement that monitoring for dissolved zinc be implemented as it is noted as being present in the discharge. A monitoring frequency of once per year (1/YR) is proposed.

d) Effluent Limitations and Monitoring – Conventional and Non-Conventional Pollutants

1. Outfall 001

Total Petroleum Hydrocarbons (TPH):
The technology-based monthly average limit of 15 mg/L and daily maximum limit of 30 mg/L shall be carried forward with this reissuance. The limits are based on the ability of simple oil-water separator technology to recover free product from water. Wastewater discharged without a visible sheen is generally expected to meet this effluent limitation. The annual monitoring frequency (1/YR) shall also be carried forward.

Total Suspended Solids (TSS):
A daily maximum limit of 60 mg/L shall be implemented with this reissuance. The limit is included to ensure proper operation and maintenance of the storm water retention pond as the pond has the potential to receive non-storm water discharges as described in Section 10 of the Fact Sheet. The limit was derived from requirements at other industrial facilities providing sedimentation of storm water runoff. The annual monitoring frequency (1/YR) shall be carried forward.

pH:
The minimum limit of 6.0 S.U. and the maximum limit of 9.0 S.U. shall be carried forward with this reissuance. Effluent pH limitations are set at the water quality criteria. The annual monitoring frequency (1/YR) shall also be carried forward.

Total Hardness:
The Water Quality Criteria for some metals are dependent on the effluent hardness (expressed as mg/L calcium carbonate). Because staff has proposed monitoring for dissolved copper, dissolved nickel, and dissolved zinc at Outfall 001, it is staff's best professional judgement that hardness monitoring also be implemented with this reissuance. A monitoring frequency of once per year (1/YR) is proposed.

2. Outfall 002

Total Petroleum Hydrocarbons (TPH):
The technology-based monthly average limit of 15 mg/L and daily maximum limit of 30 mg/L shall be carried forward with this reissuance. The limits are based on the ability of simple oil-water separator technology to recover free product from water. Wastewater discharged without a visible sheen is generally expected to meet this effluent limitation. Based on the compliance history at this outfall, a reduction in monitoring frequency from once every six months (1/6M) to once per year (1/YR) is proposed.

Total Suspended Solids (TSS):
A daily maximum limit of 60 mg/L shall be implemented with this reissuance. The limit is included to ensure proper operation and maintenance of the storm water retention pond as the pond has the potential to receive non-storm water discharges as described in Section 10 of the Fact Sheet. The limit was derived from requirements at other industrial facilities providing sedimentation of storm water runoff. A monitoring frequency of once per year (1/YR) is proposed.

pH:
The minimum limit of 6.0 S.U. and the maximum limit of 9.0 S.U. shall be carried forward with this reissuance. Effluent pH limitations are set at the water quality criteria. Based on the compliance history at this outfall, a reduction in monitoring frequency from once every six months (1/6M) to once per year (1/YR) is proposed.

Total Hardness:
The Water Quality Criteria for some metals are dependent on the effluent hardness (expressed as mg/L calcium carbonate). Because staff has proposed monitoring for dissolved copper, dissolved lead, dissolved mercury, and dissolved zinc at Outfall 002, it is staff's best professional judgement that hardness monitoring also be implemented with this reissuance. A monitoring frequency of once per year (1/YR) is proposed.

3. Internal Outfall 101

Total Petroleum Hydrocarbons (TPH):
The monthly average limit of 15 mg/L and daily maximum limit of 30 mg/L shall be carried forward with this reissuance. The limit is based on the ability of simple oil-water separator technology to recover free product from water. Wastewater discharged without a visible sheen is generally expected to meet this effluent limitation. The annual monitoring frequency (1/YR) shall be carried forward.

4. Internal Outfall 102

Total Petroleum Hydrocarbons (TPH):
The monthly average limit of 15 mg/L and daily maximum limit of 30 mg/L shall be carried forward with this reissuance. The limit is based on the ability of simple oil-water separator technology to recover free product from water. Wastewater discharged without a visible sheen is generally expected to meet this effluent limitation. The annual monitoring frequency (1/YR) shall be carried forward.

e) Effluent Limitations and Monitoring – Nutrients

1. Outfall 001

Total Nitrogen (TN) and Total Phosphorus (TP):
As noted in Section 15.a of the Fact Sheet biological monitoring finds benthic macroinvertebrate impairments in Marsh Run downstream of the facility. It is staff's best professional judgement that monitoring for TN and TP be implemented with this reissuance so information can be gathered from all dischargers upstream of the impairment for purposes of possible TMDL development. A monitoring frequency of once per year (1/YR) is proposed.

2. Outfall 002
Total Nitrogen (TN) and Total Phosphorus (TP):
As noted in Section 15.a of the Fact Sheet biological monitoring finds benthic macroinvertebrate impairments in Marsh Run downstream of the facility. It is staff's best professional judgement that monitoring for TN and TP be implemented with this reissuance so information can be gathered from all dischargers upstream of the impairment for purposes of possible TMDL development. A monitoring frequency of once per year (1/YR) is proposed.

f) Effluent Limitations – Federal Effluent Guidelines.

Effluent guidelines are technology-based regulations that have been developed by the Environmental Protection Agency (EPA) for a specific category of discharger. The regulations established in 40 CFR Part 423, Steam Electric Power Generating Point Source, are based on the performance of control and treatment technologies. Effluent limitations have been established using Best Available Technology (BAT), Best Practicable Control Technology (BPT), and New Source Performance Standards (NSPS) guidelines for this type of industry.

The Marsh Run Generation Facility utilizes simple cycle combustion turbines that do not have a steam process. As such, the Federal Effluent Guidelines in 40 CFR Part 423 are not applicable.

g) Effluent Limitations and Monitoring Summary.

Effluent limitations are presented in the following tables. Limits were established for Flow, Total Suspended Solids, Total Residual Chlorine, and Total Petroleum Hydrocarbons. Monitoring has been established for Dissolved Copper, Dissolved Lead, Dissolved Mercury, Dissolved Nickel, Dissolved Zinc, Total Hardness, Total Nitrogen and Total Phosphorus.

The limit for Total Suspended Solids is based on Best Professional Judgement.

Sample Type and Frequency are in accordance with the recommendations in the VPDES Permit Manual.

18. Antibacksliding:

All limits in this permit are at least as stringent as those previously established. Backsliding does not apply to this reissuance.

19a. Effluent Limitations/Monitoring Requirements: Outfall 001 (North Storm Water Retention Pond)

Average flow: 0.09 MGD

Sources contributing to the discharge from Outfall 001 include: Storm Water, Raw and Fire Water Storage Tank, Fire Hydrant Flushing, Vehicle Wash Water, Pressure Washing Water, Demineralized Water Storage Tank, Internal Outfall 101 and Internal Outfall 102.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/YR	Estimate
pH	2	NA	NA	6.0 S.U.	9.0 S.U.	1/YR	Grab
Total Suspended Solids (TSS)	1	NL (mg/L)	60 mg/L	NA	NA	1/YR	Grab
Total Petroleum Hydrocarbons (TPH)*	1	15 mg/L	30 mg/L	NA	NA	1/YR	Grab
Total Residual Chlorine (TRC)**	2	NL (mg/L)	0.016 mg/L	NA	NA	1/Dis	Grab
Copper, Dissolved***	1	NL (µg/L)	NA	NA	NA	1/YR	Grab
Nickel, Dissolved***	1	NL (µg/L)	NA	NA	NA	1/YR	Grab
Zinc, Dissolved***	1	NL (µg/L)	NA	NA	NA	1/YR	Grab
Hardness, Total (as $CaCO_3$)***	1	NL (mg/L)	NA	NA	NA	1/YR	Grab
Total Nitrogen****	1	NL (mg/L)	NA	NA	NA	1/YR	Calculated
Total Phosphorus	1	NL (mg/L)	NA	NA	NA	1/YR	Grab

The basis for the limitations codes are:
1. Best Professional Judgement
2. Water Quality Standards

MGD = Million gallons per day.
NA = Not applicable.
NL = No limit; monitor and report.
S.U. = Standard units.

1/YR = Once per year.
1/Dis = Once per discharge.

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

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

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

Total Petroleum Hydrocarbons Requirements:

*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.

Total Residual Chlorine Requirements:

**Monitoring is only required if a discharge occurs. Discharge is defined as an overflow or drainage from the filtered water storage tank and/or fire hydrant flushing activities that reaches Outfall 001. The TRC sample shall be collected during the first hour of discharge and before the second hour begins. The reporting frequency shall be on an annual basis (1/YR). The annual monitoring period is defined above.

Dissolved Metals and Total Hardness Requirements

*** Samples for dissolved metals and hardness shall be collected concurrently.

Total Nitrogen Requirements:

**** Total nitrogen is the sum of Total Kjeldahl Nitrogen (TKN) and Nitrate+Nitrite.

19b. Effluent Limitations/Monitoring Requirements: Outfall 002 (South Storm Water Retention Pond)

Average flow: Variable

Sources contributing to the discharge from Outfall 002 include: Storm Water, Switchyard, and Fuel Gas Conditioning Area.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/YR	Estimate
pH	2	NA	NA	6.0 S.U.	9.0 S.U.	1/YR	Grab
Total Suspended Solids (TSS)	1	NL (mg/L)	60 mg/L	NA	NA	1/YR	Grab
Total Petroleum Hydrocarbons (TPH)*	1	15 mg/L	30 mg/L	NA	NA	1/YR	Grab
Copper, Dissolved**	1	NL (µg/L)	NA	NA	NA	1/YR	Grab
Lead, Dissolved**	1	NL (µg/L)	NA	NA	NA	1/YR	Grab
Mercury, Dissolved**	1	NL (µg/L)	NA	NA	NA	1/YR	Grab
Zinc, Dissolved**	1	NL (µg/L)	NA	NA	NA	1/YR	Grab
Hardness, Total (as $CaCO_3$)**	1	NL (mg/L)	NA	NA	NA	1/YR	Grab
Total Nitrogen****	1	NL (mg/L)	NA	NA	NA	1/YR	Calculated
Total Phosphorus	1	NL (mg/L)	NA	NA	NA	1/YR	Grab

The basis for the limitations codes are:
1. Best Professional Judgement
2. Water Quality Standards

MGD = Million gallons per day.
NA = Not applicable.
NL = No limit; monitor and report.
S.U. = Standard units.
1/YR = Once per year.

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

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

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

Total Petroleum Hydrocarbons Requirements:

*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.

Dissolved Metals and Total Hardness Requirements

** Samples for dissolved metals and hardness shall be collected concurrently.

Total Nitrogen Requirements:

**** Total nitrogen is the sum of Total Kjeldahl Nitrogen (TKN) and Nitrate+Nitrite.

19c. Effluent Limitations/Monitoring Requirements: Outfall 101 (Oil-Water Separator)

Average flow: Variable

Sources contributing to the discharge from Outfall 101 include: Storm water from the fuel offloading area and fuel oil tank secondary containment.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/YR	Estimate
Total Petroleum Hydrocarbons (TPH)*	1	15 mg/L	30 mg/L	NA	NA	1/YR	Grab

The basis for the limitations codes are:
1. Best Professional Judgement

MGD = Million gallons per day.
NA = Not applicable.
NL = No limit; monitor and report.

1/YR = Once per year.

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

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

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

Total Petroleum Hydrocarbons Requirements:

* 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.

19d. Effluent Limitations/Monitoring Requirements: Outfall 102 (Oil-Water Separator)

Average flow: Variable

Sources contributing to the discharge from Outfall 102 include: Storm water from the combustion turbine area.

Effective Dates: During the period beginning with the permit's effective date and lasting until the expiration date.

PARAMETER	BASIS FOR LIMITS	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
		Monthly Average	Daily Maximum	Minimum	Maximum	Frequency	Sample Type
Flow (MGD)	NA	NL	NA	NA	NL	1/YR	Estimate
Total Petroleum Hydrocarbons (TPH)*	1	15 mg/L	30 mg/L	NA	NA	1/YR	Grab

The basis for the limitations codes are:
1. Best Professional Judgement

MGD = Million gallons per day.
NA = Not applicable.
NL = No limit; monitor and report.

1/YR = Once per year.

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

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

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

Total Petroleum Hydrocarbons Requirements:

- 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.

20. Other Permit Requirements:

a) Part I.B. of the permit contains quantification levels and compliance reporting instructions. 9VAC25-31-190.L.4.c. requires an arithmetic mean for measurement averaging and 9VAC25-31-220.D. requires limits be imposed where a discharge has a reasonable potential to cause or contribute to an in-stream excursion of water quality criteria. Specific analytical methodologies for toxics are listed in this permit section as well as quantification levels (QLs) necessary to demonstrate compliance with applicable permit limitations or for use in future evaluations to determine if the pollutant has reasonable potential to cause or contribute to a violation. Required averaging methodologies are also specified.

21. Other Special Conditions:

a) O&M Manual Requirement. Required by Code of Virginia §62.1-44.19; VPDES Permit Regulation, 9VAC25-31-190.E. The permittee shall maintain a current Operations and Maintenance (O&M) Manual. 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 upon request. 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. Non-compliance with the O&M Manual shall be deemed a violation of the permit.

b) 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.

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

d) Water Quality Criteria Reopener. The VPDES Permit Regulation at 9VAC25-31-220 D. requires establishment of effluent limitations to ensure attainment/maintenance of receiving stream water quality criteria. Should data collected and submitted for Attachment A of the permit, indicate the need for limits to ensure protection of water quality criteria, the permit may be modified or alternately revoked and reissued to impose such water quality-based limitations.

e) Water Quality Criteria Monitoring. State Water Control Law §62.1-44.21 authorizes the Board to request information needed to determine the discharge's impact on State waters. States are required to review data on discharges to identify actual or potential toxicity problems, or the attainment of water quality goals, according to 40 CFR Part 131, Water Quality Standards, subpart 131.11. To ensure that water quality criteria are maintained, the permittee is required to analyze the facility's effluent from Outfall 001 and Outfall 002 for the substances noted in Attachment A of this VPDES permit.

f) No Discharge of Detergents, Surfactants, or Solvents to the Oil-Water Separators. This special condition is necessary to ensure that the oil-water separators' performance is not impacted by compounds designed to emulsify oil. Detergents, surfactants, and some other solvents will prohibit oil recovery by physical means.

g) Deionized Water Trailer Unit Discharge. The discharge of filter prime water and residual water from the unit into the storm water retention pond during storage tank refill operations is authorized under this permit. Final discharge to Outfall 001 is authorized. There shall be no discharge of any filter backwash water.

h) Vehicle Wash Water Discharge. The discharge of vehicle wash water from Outfall 001 is authorized under this permit. The permittee shall use only consumer available soaps and/or detergents. The permittee shall use the products in accordance with manufacturer instructions and/or recommendations. Soaps containing phosphates are prohibited in Virginia. Should the use of soaps and/or detergents significantly alter the characteristics of the effluent, or if their usage becomes persistent or continuous, the permit may be modified or, alternatively, revoked and reissued to include appropriate limitations or conditions. There shall be no discharge of floating solids or visible foam in other than trace amounts.

i) Pressure Washing Discharge. The discharge of pressure washing water from Outfall 001is authorized under this permit. The permittee shall provide the Department of Environmental Quality – Northern Regional Office (DEQ-NRO) with a description of the pressure washing detergents to be used, the Material Safety Data Sheet (MSDS) and any available aquatic toxicity information thirty (30) days prior to use. The use of pressure washing detergents prior to approval by DEQ is prohibited under this permit. Prior approval shall be obtained from DEQ before any changes are made to the pressure washing detergents being used. Should the use of pressure washing detergents significantly alter the characteristics of the effluent, or if their usage becomes persistent or continuous, the permit may be modified or, alternatively, revoked and reissued to include appropriate limitations or conditions. There shall be no discharge of floating solids or visible foam in other than trace amounts.

j) Fire Hydrant Flushing Discharge. The discharge of fire hydrant flushing water from Outfall 001 is authorized under this permit. There shall be no discharge of floating solids or visible from in other than trace amounts.

k) Raw/Fire Water Storage Tank Discharge. The discharge of drainage and overflow activities from the Raw/Fire Water Storage Tank from Outfall 001 is authorized under this permit. There shall be no discharge of floating solids or visible from in other than trace amounts.

l) TMDL Reopener: This special condition is to allow the permit to reopened if necessary to bring it in compliance with any applicable TMDL that may be developed and approved for the receiving stream.

Permit Section Part II. Part II of the permit contains standard conditions that appear in all VPDES Permits. In general, these standard conditions address the responsibilities of the permittee, reporting requirements, testing procedures and records retention.

22. Changes to the Permit from the Previously Issued Permit:

a) Special Conditions:
1. The O&M special condition has been revised to be consistent with current agency practice.
2. A Fire Hydrant Flushing Discharge special condition has been added to the permit as it was omitted during the previous reissuance.
3. A Raw/Fire Water Storage Tank Discharge special condition has been added to the permit as it was omitted during the previous reissuance.
4. A No Discharge of Detergents, Surfactants, or Solvents to the Oil/Water Separators special condition has been added to the permit due to the use of oil-water separators at Internal Outfall 101 and Internal Outfall 102.

b) Monitoring and Effluent Limitations:
1. The TRC limitation was revised to reflect a daily maximum limit of 0.016 mg/L rather than a maximum limit of 0.016 mg/L for Outfall 001.
2. Monthly average reporting for TRC was implemented at Outfall 001.
3. A daily maximum TSS limit of 60 mg/L was added to Outfall 001 and Outfall 002 to reflect current agency practice and requirements at other similar industrial facilities that utilize storm water retention

ponds.

4. Monitoring for dissolved copper, dissolved nickel, and dissolved zinc, without effluent limitation, has been added to Outfall 001 with this reissuance based on data submitted with the reapplication package.
5. Monitoring for total nitrogen and total phosphorus have been added to both Outfall 001 and Outfall 002 based on the downstream benthic impairment.
6. Monitoring for dissolved copper, dissolved lead, dissolved mercury, and dissolved zinc, without effluent limitation, has been added to Outfall 002 with this reissuance based on data submitted with the reapplication package.
7. Monitoring for Total Hardness has been added to the permit for both Outfall 001 and Outfall 002.
8. The TPH footnote now specifies that both TPH-GRO and TPH-DRO are to be measured to calculate TPH.

c) Other:

1. The EPA checklist, found as an attachment to the Fact Sheet, is no longer required.
2. Part II.A (Monitoring) of the permit has been updated to incorporate the Virginia Environmental Laboratory Accreditation Program (VELAP) requirements for laboratory analysis.

23. Variances/Alternate Limits or Conditions: Not Applicable

24. Public Notice Information:

First Public Notice Date: January 15, 2014 Second Public Notice Date: January 22, 2014

Public Notice Information is required by 9VAC25-31-280 B. All pertinent information is on file and may be inspected, and copied by contacting the: DEQ Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193, Telephone No. (703) 583-3853, susan.mackert@deq.virginia.gov. See Attachment 8 for a copy of the public notice document.

Persons may comment in writing or by email to the DEQ on the proposed permit action, and may request a public hearing, during the comment period. Comments shall include the name, address, and telephone number of the writer and of all persons represented by the commenter/requester, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The DEQ may decide to hold a public hearing, including another comment period, if public response is significant and there are substantial, disputed issues relevant to the permit. Requests for public hearings shall state 1) the reason why a hearing is requested; 2) a brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit; and 3) specific references, where possible, to terms and conditions of the permit with suggested revisions. Following the comment period, the Board will make a determination regarding the proposed permit action. This determination will become effective, unless the DEQ grants a public hearing. Due notice of any public hearing will be given. The public may request an electronic copy of the draft permit and fact sheet or review the draft permit and application at the DEQ Northern Regional Office by appointment.

25. Reclamation and Reuse:

The Old Dominion Electric Cooperative (ODEC) Marsh Run Generation Station (VA0091448) receives effluent from the Remington WWTP. The effluent is further treated by ODEC using reverse osmosis prior to use within the generation station. The purified water is stored until used or is returned to the Remington WWTP as a wastewater return stream for treatment. Because ODEC is an off peak facility that generally operates during the winter months when additional electricity is needed for the power grid, effluent is periodically returned to the Remington WWTP during the cold weather months.

The Fauquier County Water and Sanitation Authority has a contract with ODEC to not exceed 37,500 gallons per day discharged to the Remington WWTP. The ODEC effluent reuse agreement requires ODEC to comply with applicable water quality standards as required by the VPDES permit for Remington WWTP.

The requirements of 9VAC25-740, Water Reclamation and Reuse Regulation, are not applicable as the reuse agreement was in place prior to October 1, 2008. Should any modification or upgrade of the Remington WWTP to produce Level 1 reclaimed water take place or more than 500,000 gallons of reclaimed water be sent to the ODEC – Marsh Run Generation Station the requirements of 9VAC25-740 will be applied to the Remington WWTP permit.

26. Additional Comments:

Previous Board Action(s): None

Staff Comments: ODEC requested either the removal of all monitoring requirements for Outfall 002 or a reduction in monitoring frequency from once every six months (1/6M) to once per year (1YR). If monitoring remains in place and a reduction in monitoring frequency is granted, ODEC further requested the removal of TPH monitoring and limitations. It is staff's best professional judgement that the monitoring requirements for Outfall 002 remain in the draft permit. However, based on the compliance history of the facility the monitoring frequency shall be reduced from once every six months (1/6M) to once per year (1/YR). It is staff's best professional judgement that the monitoring and effluent limitation for TPH remain in the permit at Outfall 002.

Public Comment: No comments were received during the public notice.

Fact Sheet Attachments – Table of Contents

Old Dominion Electric Cooperative – Marsh Run Generation Facility
VA0091448

2014 Reissuance

Attachment 1	NPDES Permit Rating Worksheet
Attachment 2	Facility Flow Diagram
Attachment 3	Topographic Map
Attachment 4	Site Memorandum
Attachment 5	Planning Statement
Attachment 6	Wasteload Allocation Analysis and Supporting Documentation
Attachment 7a	Reasonable Potential Analysis – Outfall 001
Attachment 7b	Reasonable Potential Analysis – Outfall 002
Attachment 8	Public Notice

NPDES PERMIT RATING WORK SHEET

- [X] Regular Addition
- [ ] Discretionary Addition
- [ ] Score change, but no status Change
- [ ] Deletion

VPDES NO. : VA0091448

Facility Name: ODEC – Marsh Run Generation Facility
City / County: Fauquier County
Receiving Water: Marsh Run, UTs
Waterbody ID: VAN-E08R

Is this facility a steam electric power plant (sic =4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (not using a cooling pond/lake)
2. A nuclear power Plant
3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rater

[ ] Yes; score is 600 (stop here) [X] NO; (continue)

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

[ ] YES; score is 700 (stop here)
[X] NO; (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: _____ Primary Sic Code: 4911 Other Sic Codes: _____ _____ _____

Industrial Subcategory Code: 000 (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. Be sure to use the TOTAL toxicity potential column and check one)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
[X] No process waste streams	0	0	[ ] 3.	3	15	[ ] 7.	7	35
[ ] 1.	1	5	[ ] 4.	4	20	[ ] 8.	8	40
[ ] 2.	2	10	[ ] 5.	5	25	[ ] 9.	9	45
			[ ] 6.	6	30	[ ] 10.	10	50

Code Number Checked: 0
Total Points Factor 1: 0

FACTOR 2: Flow/Stream Flow Volume (Complete either Section A or Section B; check only one)

Section A – Wastewater Flow Only considered

	Wastewater Type (see Instructions)		Code	Points
Type I:	Flow < 5 MGD	[ ]	11	0
	Flow 5 to 10 MGD	[ ]	12	10
	Flow > 10 to 50 MGD	[ ]	13	20
	Flow > 50 MGD	[ ]	14	30
Type II:	Flow < 1 MGD	[ ]	21	10
	Flow 1 to 5 MGD	[ ]	22	20
	Flow > 5 to 10 MGD	[ ]	23	30
	Flow > 10 MGD	[ ]	24	50
Type III:	Flow < 1 MGD	[ ]	31	0
	Flow 1 to 5 MGD	[ ]	32	10
	Flow > 5 to 10 MGD	[ ]	33	20
	Flow > 10 MGD	[ ]	34	30

Section B – Wastewater and Stream Flow Considered

Wastewater Type (see Instructions)	Percent of Instream Wastewater Concentration at Receiving Stream Low Flow		Code	Points
Type I/III:	< 10 %	[ ]	41	0
	10 % to < 50 %	[ ]	42	10
	> 50%	[X]	43	20
Type II:	< 10 %	[ ]	51	0
	10 % to < 50 %	[ ]	52	20
	> 50 %	[ ]	53	30

Code Checked from Section A or B: 43
Total Points Factor 2: 20

NPDES PERMIT RATING WORK SHEET

FACTOR 3: Conventional Pollutants

(only when limited by the permit)

A. Oxygen Demanding Pollutants: (check one) ☐ BOD ☐ COD ☐ Other: _____

Permit Limits: (check one)	Code	Points
☐ < 100 lbs/day	1	0
☐ 100 to 1000 lbs/day	2	5
☐ > 1000 to 3000 lbs/day	3	15
☐ > 3000 lbs/day	4	20

Code Number Checked: NA

Points Scored: 0

B. Total Suspended Solids (TSS)

Permit Limits: (check one)	Code	Points
☒ < 100 lbs/day	1	0
☐ 100 to 1000 lbs/day	2	5
☐ > 1000 to 5000 lbs/day	3	15
☐ > 5000 lbs/day	4	20

Code Number Checked: 1

Points Scored: 0

C. Nitrogen Pollutants: (check one) ☐ Ammonia ☐ Other: _____

Permit Limits: (check one)	*Nitrogen Equivalent*	Code	Points
☐	< 300 lbs/day	1	0
☐	300 to 1000 lbs/day	2	5
☐	> 1000 to 3000 lbs/day	3	15
☐	> 3000 lbs/day	4	20

Code Number Checked: NA

Points Scored: 0

Total Points Factor 3: 0

FACTOR 4: Public Health Impact

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this include any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above reference supply.

☐ YES; (If yes, check toxicity potential number below)

☒ NO; (If no, go to Factor 5)

Determine the *Human Health* potential from Appendix A. Use the same SIC doe and subcategory reference as in Factor 1. (Be sure to use the *Human Health* toxicity group column – check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
☐ No process waste streams	0	0	☐ 3.	3	0	☐ 7.	7	15
☐ 1.	1	0	☐ 4.	4	0	☐ 8.	8	20
☐ 2.	2	0	☐ 5.	5	5	☐ 9.	9	25
			☐ 6.	6	10	☐ 10.	10	30

Code Number Checked: NA

Total Points Factor 4: 0

NPDES PERMIT RATING WORK SHEET

FACTOR 5: Water Quality Factors

A. *Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-base federal effluent guidelines, or technology-base state effluent guidelines), or has a wasteload allocation been to the discharge*

		Code	Points
[X]	YES	1	10
[ ]	NO	2	0

B. *Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?*

		Code	Points
[X]	YES	1	0
[ ]	NO	2	5

C. *Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?*

		Code	Points
[ ]	YES	1	10
[X]	NO	2	0

Code Number Checked: A 1 B 1 C 2

Points Factor 5: A 10 + B 0 + C 0 = 10

FACTOR 6: Proximity to Near Coastal Waters

A. Base Score: Enter flow code here (from factor 2) 43

Check appropriate facility HPRI code (from PCS):

	HPRI#	Code	HPRI Score
[ ]	1	1	20
[ ]	2	2	0
[ ]	3	3	30
[X]	4	4	0
[ ]	5	5	20

Enter the multiplication factor that corresponds to the flow code: _____

Flow Code	Multiplication Factor
11, 31, or 41	0.00
12, 32, or 42	0.05
13, 33, or 43	0.10
14 or 34	0.15
21 or 51	0.10
22 or 52	0.30
23 or 53	0.60
24	1.00

HPRI code checked : 4

Base Score (HPRI Score): 0 X (Multiplication Factor) 0.6 = 0

B. Additional Points – NEP Program
For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay? **NA**

	Code	Points
[ ]	1	10
[ ]	2	0

C. Additional Points – Great Lakes Area of Concern
For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 area's of concern (see instructions)? **NA**

	Code	Points
[ ]	1	10
[ ]	2	0

Code Number Checked: A 4 B NA C NA

Points Factor 6: A 0 + B 0 + C 0 = 0

NPDES PERMIT RATING WORK SHEET

SCORE SUMMARY

Factor	Description	Total Points
1	Toxic Pollutant Potential	0
2	Flows / Streamflow Volume	20
3	Conventional Pollutants	0
4	Public Health Impacts	0
5	Water Quality Factors	10
6	Proximity to Near Coastal Waters	0
	TOTAL (Factors 1 through 6)	30

S1. Is the total score equal to or grater than 80 ☐ YES; (Facility is a Major) ☒ NO

S2. If the answer to the above questions is no, would you like this facility to be discretionary major?

☒ NO

☐ YES; (Add 500 points to the above score and provide reason below:

Reason: _____

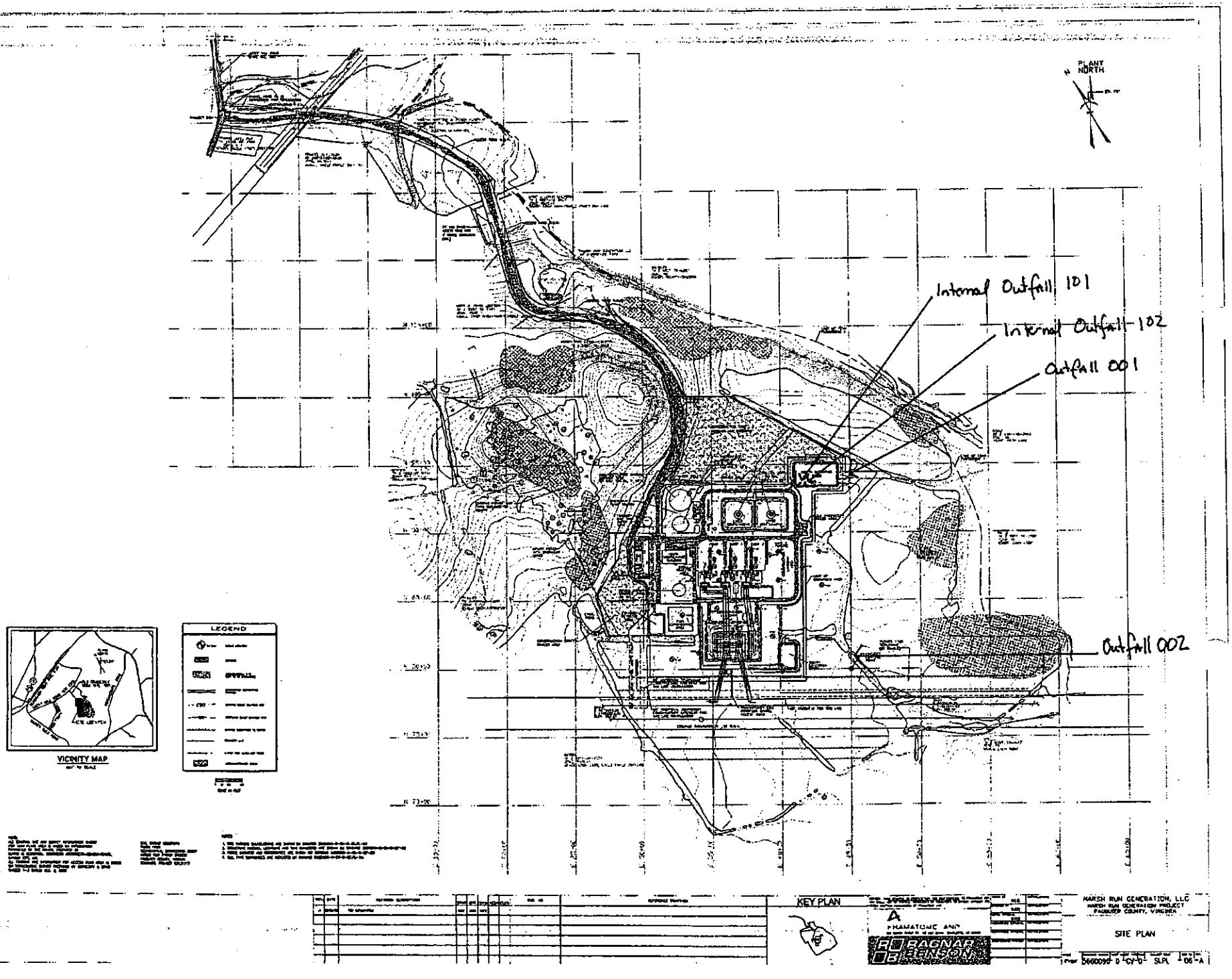
NEW SCORE : 30

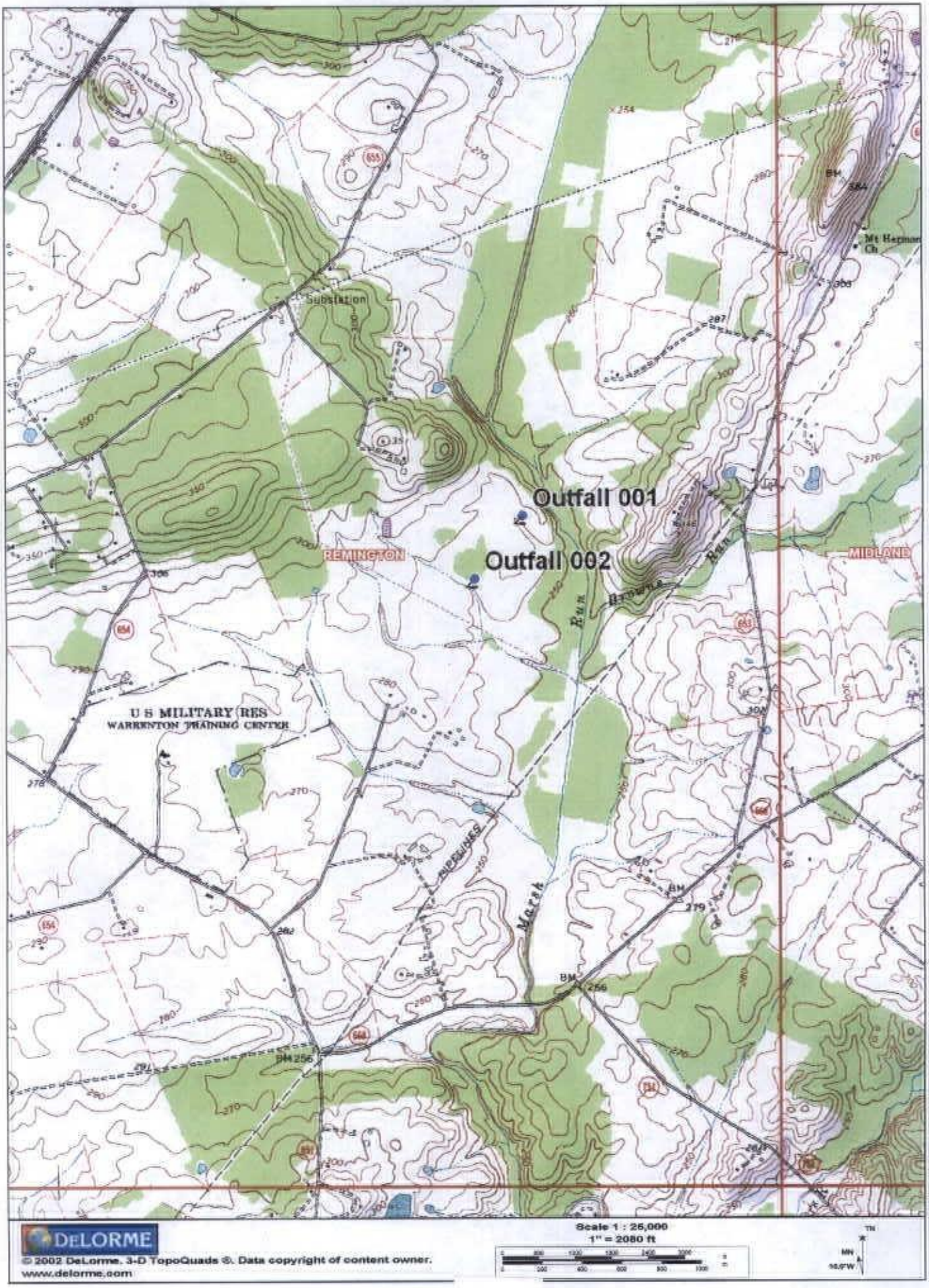
OLD SCORE : 30

Permit Reviewer's Name : Susan Mackert

Phone Number: (703) 583-3853

Date: October 7, 2013


PLANT NORTH
Internal Outfall 101
Internal Outfall 102
Outfall 001
Outfall 002
VICINITY MAP
LEGEND
KEY PLAN
FRAMATOME ANP
BAGNAR OBENSON
MARSH RUN GENERATION, LLC
MARSH RUN GENERATION PROJECT
FAUQUIER COUNTY, VIRGINIA
SITE PLAN


Outfall 001
Outfall 002
REMINGTON
MIDLAND
Substation
U S MILITARY RES
WARRENTON TRAINING CENTER
Marsh
Run
Browns
Mt Herman Ch
DELORME
© 2002 DeLorme. 3-D TopoQuads ®. Data copyright of content owner.
www.delorme.com
Scale 1 : 25,000
1" = 2080 ft

MEMORANDUM

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

NORTHERN REGIONAL OFFICE

13901 Crown Court Woodbridge, VA 22193

SUBJECT: Reissuance Site Visit
Old Dominion Electric Cooperative – Marsh Run Generation Facility (VA0091448)

TO: Permit Reissuance File

FROM: Susan Mackert

DATE: October 18, 2013

A reissuance site visit was performed on October 9, 2013. Information provided in the facility's permit reapplication package dated August 7, 2013, and received August 8, 2013, is representative of actual site conditions observed during the site visit.

General Site Observations

The Old Dominion Electric Cooperative – Marsh Run Generation Facility is an existing natural gas fired simple cycle power station. Simple cycle units are typically used for peak power generation and operate only during high energy demand periods. The facility utilizes three General Electric model 7FA combustion turbines (photo 1) generating a combined 510 MW. Water needed for facility operations is supplied as reclaimed wastewater from the Fauquier County Water and Sanitation Authority's Remington Wastewater Treatment Plant (VA0076805).

Outfall 001 (North Storm Water Retention Pond)

This storm water retention pond is located in the northern portion of the facility (photo 2). The retention pond receives storm water runoff from the onsite storm water system, as well as two internal outfalls located within the combustion turbine and fuel oil offloading and tank areas. The total area drained is approximately 37 acres with approximately 18 acres of impervious surface. The retention pond discharges to an unnamed tributary to Marsh Run via a slider gate (photo 3) to Outfall 001 (photo 4).

Outfall 002 (South Storm Water Retention Pond)

This storm water retention pond is located in the southern portion of the facility (photo 5). The retention pond receives storm water runoff from the facility switchyard (photo 6) and the fuel gas conditioning area (photo 7). The total area drained is approximately 21 acres with approximately 11 acres of impervious surface. The retention pond discharges to a different unnamed tributary to Marsh Run via Outfall 002 (photo 8).

Internal Outfall 101

Potentially contaminated storm water runoff from the fuel oil offloading area and secondary containment surrounding the fuel oil tanks is routed through two oil-water separators prior to discharge to the northern storm water retention pond via Internal Outfall 101 (photo 9).

Internal Outfall 102

Potentially contaminated storm water runoff from the combustion turbine area is routed through three oil-water separators prior to discharge to the northern storm water retention pond via Internal Outfall 102 (photo 10).

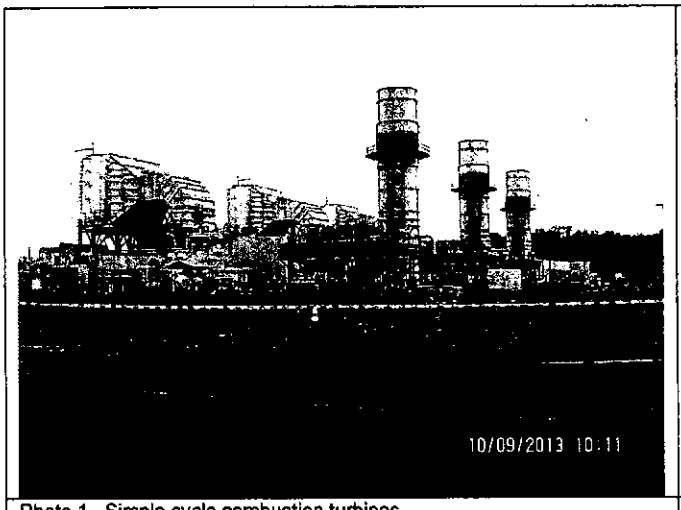


Photo 1. Simple cycle combustion turbines.

Photo 2. North storm water retention pond.

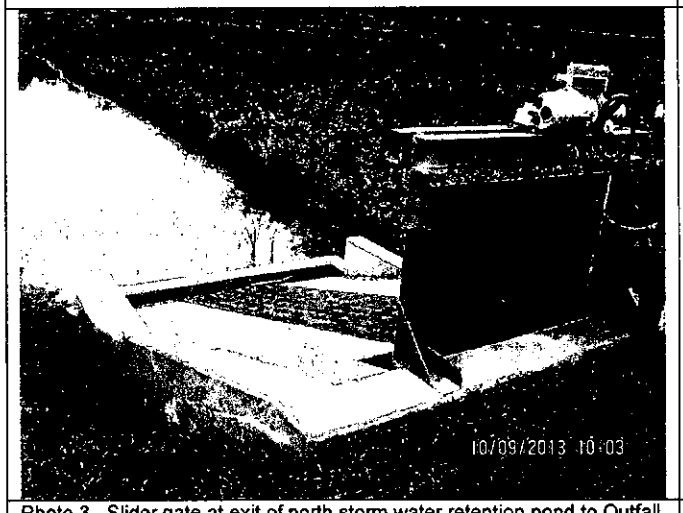


Photo 3. Slider gate at exit of north storm water retention pond to Outfall 001.

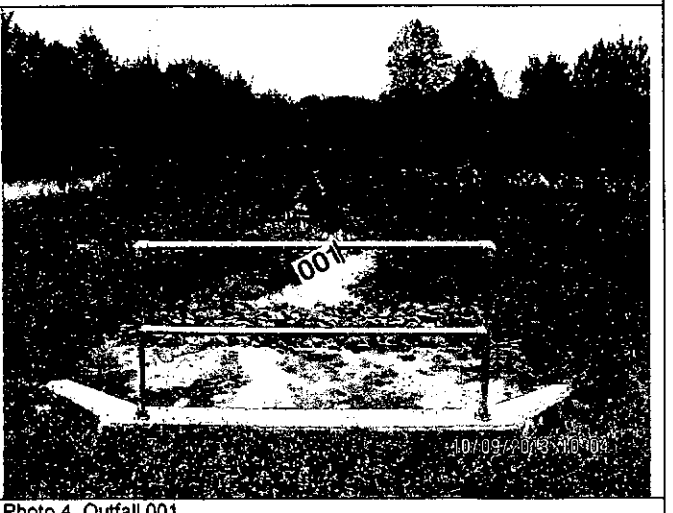


Photo 4. Outfall 001.

Photo 5. South storm water retention pond.

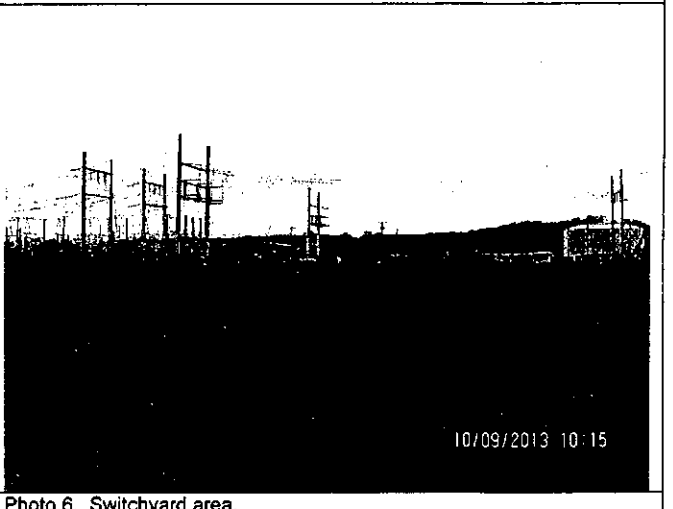


Photo 6. Switchyard area.

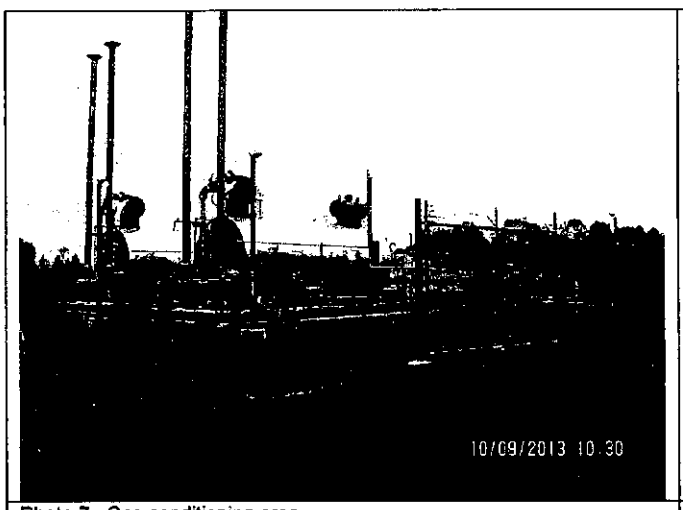


Photo 7. Gas conditioning area.

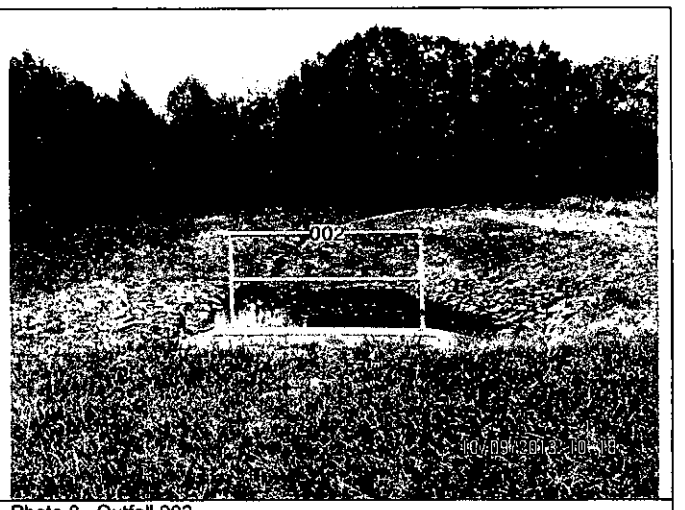


Photo 8. Outfall 002.

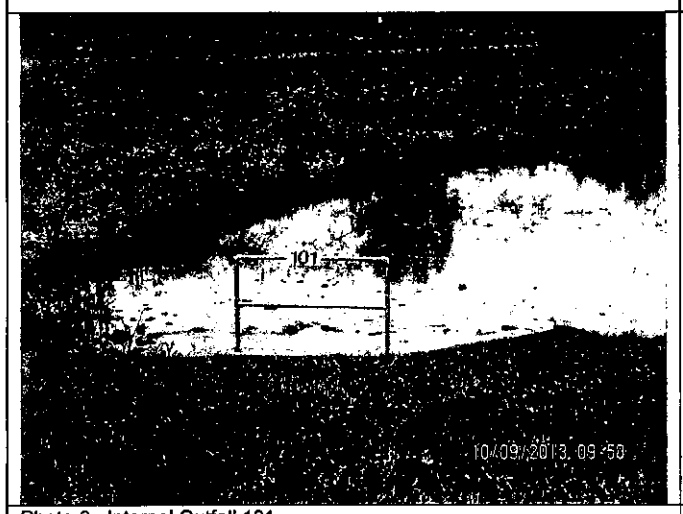


Photo 9. Internal Outfall 101.

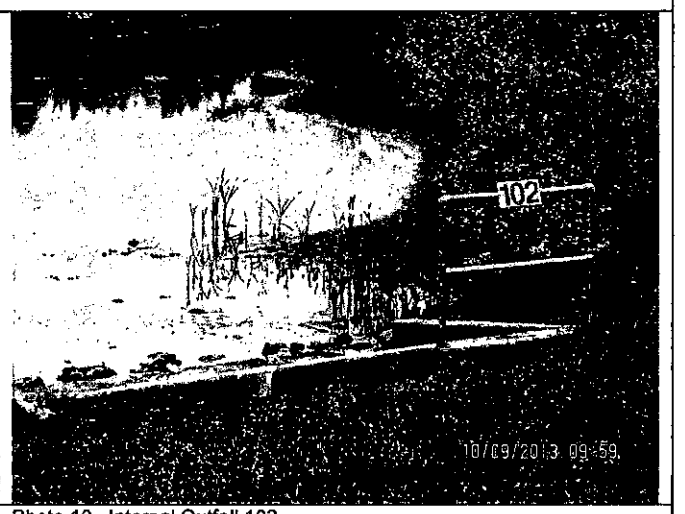


Photo 10. Internal Outfall 102.

Mackert, Susan (DEQ)

From: Carlson, Jennifer (DEQ)
Sent: Wednesday, August 21, 2013 8:44 AM
To: Mackert, Susan (DEQ)
Cc: Thomas, Bryant (DEQ)
Subject: RE: Planning Statement Request
Attachments: VA0091448 Planning Statement.docx

Good morning Susan,

Attached is the completed planning statement for ODEC – Marsh Run. Please let me know if you have any questions.

Jen

From: Mackert, Susan (DEQ)
Sent: Monday, August 12, 2013 1:40 PM
To: Carlson, Jennifer (DEQ)
Subject: Planning Statement Request

Hi Jen,

Please find attached a planning statement request for Old Dominion Electric Cooperative – Marsh Run Generation Facility (VA0091448). Please let me know if you have any questions or require anything additional.

Thanks,
Susan

To:	Susan Mackert
From:	Jennifer Carlson
Date:	August 21, 2013
Subject:	Planning Statement for ODEC – Marsh Run Generation Facility
Permit Number:	VA0091448

Information for Outfall 001 / Outfall 002:
Discharge Type: Industrial with Storm Water Component
Discharge Flow: Combined Outfall Flow 0.092 MGD
Receiving Stream: Marsh Run, UT (Outfall 001) Marsh Run, UT (Outfall 002)
Latitude / Longitude: 38° 31' 47"/ -77° 45' 54" (Outfall 001) 38° 31' 37"/ -77° 46' 04" (Outfall 002)
Rivermile: 0.24 (Outfall 001); 0.20 (Outfall 002)
Streamcode: 3-XGM (Outfall 001); 3-XGL (Outfall 002)
Waterbody: VAN-E08R
Water Quality Standards: Class III, Section 4
Drainage Area: Not needed

1. Please provide water quality monitoring information for the receiving stream segment. If there is not monitoring information for the receiving stream segment, please provide information on the nearest downstream monitoring station, including how far downstream the monitoring station is from the outfall.

   This facility discharges into two different unnamed tributaries to Marsh Run. Outfall 001 discharges into unnamed tributary 3-XGM and Outfall 002 discharges into unnamed tributary 3-XGL. Neither of these unnamed tributaries have not been monitored or assessed by DEQ. The nearest downstream monitoring station is 3-MAH004.18, located at the Route 668 bridge crossing on Marsh Run. This station is located approximately 1.7 miles downstream of Outfall 001 and 1.6 miles downstream of Outfall 002. The following is the water quality summary for this segment of Marsh Run, as taken from the Draft 2012 Integrated Report*:

   Class III, Section 4.

   The following area the DEQ monitoring stations located on Marsh Run:
   - *3-MAH004.18, at Route 668 (ambient and biological)*

   E. coli monitoring finds a bacterial impairment, resulting in an impaired classification for the recreation use. The E. coli data collected by the citizen monitoring group indicate that a water quality issue may exist for the recreation use; however, the methodology and/or data quality has not been approved for such a determination. This impairment is nested within the downstream completed bacteria TMDL for Marsh Run.

   Biological monitoring finds benthic macroinvertebrate impairments, resulting in an impaired classification for the aquatic life use. Citizen monitoring also notes a high probability of adverse conditions for biota, as well as high dissolved oxygen values, the latter of which is noted by an observed effect for the aquatic life use.

The fish consumption and wildlife uses were not assessed.

**Virginia's Draft 2012 Integrated Report (IR) has been through the public comment period and reviewed by EPA. The 2012 IR is currently awaiting final approval.*

2. Does this facility discharge to a stream segment on the 303(d) list? If yes, please fill out Table A.

   No.

3. Are there any downstream 303(d) listed impairments that are relevant to this discharge? If yes, please fill out Table B.

   Yes.

Table B. Information on Downstream 303(d) Impairments and TMDLs

Waterbody Name	Impaired Use	Cause	Distance From Outfall	TMDL completed	WLA	Basis for WLA	TMDL Schedule
Impairment Information in the Draft 2012 Integrated Report*							
Marsh Run	Recreation	*E. coli*	Outfall 001: 0.24 miles	Rappahannock River Basin Bacteria 01/23/2008	None	Not applicable to this facility	---
	Aquatic Life	Benthic Macroinvertebrates	Outfall 002: 0.5 miles	No	n/a	n/a	2024

**Virginia's Draft 2012 Integrated Report (IR) has been through the public comment period and reviewed by EPA. The 2012 IR is currently awaiting final approval.*

4. Is there monitoring or other conditions that Planning/Assessment needs in the permit?

   The tidal Rappahannock River, which is located approximately 34 miles downstream of this facility, is listed with a PCB impairment. In support for the PCB TMDL that is scheduled for development by 2016 for the tidal Rappahannock River, this facility is a candidate for low-level PCB monitoring, based upon its designation as an industrial discharger with stormwater. Low-level PCB analysis uses EPA Method 1668, which is capable of detecting low-level concentrations for all 209 PCB congeners. DEQ staff has concluded that low-level PCB monitoring is not warranted for this facility, as this facility is not expected to be a source of, or discharge PCBs. Based upon this information, this facility will not be requested to monitor for low-level PCBs.

   There is a completed downstream TMDL for the aquatic life use impairment for the Chesapeake Bay. However, the Bay TMDL and the WLAs contained within the TMDL are not addressed in this planning statement.

5. Fact Sheet Requirements – Please provide information regarding any drinking water intakes located within a 5 mile radius of the discharge point.

   There are no public water supply intakes located within 5 miles of this discharge.

FRESHWATER
WATER QUALITY CRITERIA / WASTELOAD ALLOCATION ANALYSIS

Facility Name: ODEC - Marsh Run

Permit No.: VA0091448

Receiving Stream: Marsh Run, UT

Version: OWP Guidance Memo 00-2011 (8/24/00)

Stream Information

Mean Hardness (as CaCO3) =		mg/L
90% Temperature (Annual) =		deg C
90% Temperature (Wet season) =		deg C
90% Maximum pH =		SU
10% Maximum pH =		SU
Tier Designation (1 or 2) =	1	
Public Water Supply (PWS) Y/N? =	n	
Trout Present Y/N? =	n	
Early Life Stages Present Y/N? =	y	

Stream Flows

1Q10 (Annual) =	0	MGD
7Q10 (Annual) =	0	MGD
30Q10 (Annual) =	0	MGD
1Q10 (Wet season) =	0	MGD
30Q10 (Wet season)	0	MGD
30Q5 =	0	MGD
Harmonic Mean =	0	MGD

Mixing Information

Annual - 1Q10 Mix =	100	%
- 7Q10 Mix =	100	%
- 30Q10 Mix =	100	%
Wet Season - 1Q10 Mix =	100	%
- 30Q10 Mix =	100	%

Effluent Information

Mean Hardness (as CaCO3) =	84	mg/L
90% Temp (Annual) =	25	deg C
90% Temp (Wet season) =		deg C
90% Maximum pH =	7.6	SU
10% Maximum pH =		SU
Discharge Flow =	0.09	MGD

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Acenapthene	0	--	--	na	9.9E+02	--	--	na	9.9E+02	--	--	--	--	--	--	--	--	--	--	na	9.9E+02
Acrolein	0	--	--	na	9.3E+00	--	--	na	9.3E+00	--	--	--	--	--	--	--	--	--	--	na	9.3E+00
Acrylonitrile[c]	0	--	--	na	2.5E+00	--	--	na	2.5E+00	--	--	--	--	--	--	--	--	--	--	na	2.5E+00
Aldrin [c]	0	3.0E+00	--	na	5.0E-04	3.0E+00	--	na	5.0E-04	--	--	--	--	--	--	--	--	3.0E+00	--	na	5.0E-04
Ammonia-N (mg/l) (Yearly)	0	1.70E+01	2.02E+00	na	--	1.70E+01	2.02E+00	na	--	--	--	--	--	--	--	--	--	1.70E+01	2.02E+00	na	--
Ammonia-N (mg/l) (High Flow)	0	1.70E+01	3.98E+00	na	--	1.70E+01	3.98E+00	na	--	--	--	--	--	--	--	--	--	1.70E+01	3.98E+00	na	--
Anthracene	0	--	--	na	4.0E+04	--	--	na	4.0E+04	--	--	--	--	--	--	--	--	--	--	na	4.0E+04
Antimony	0	--	--	na	6.4E+02	--	--	na	6.4E+02	--	--	--	--	--	--	--	--	--	--	na	6.4E+02
Arsenic	0	3.4E+02	1.5E+02	na	--	3.4E+02	1.5E+02	na	--	--	--	--	--	--	--	--	--	3.4E+02	1.5E+02	na	--
Barium	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Benzene [c]	0	--	--	na	5.1E+02	--	--	na	5.1E+02	--	--	--	--	--	--	--	--	--	--	na	5.1E+02
Benzidine[c]	0	--	--	na	2.0E-03	--	--	na	2.0E-03	--	--	--	--	--	--	--	--	--	--	na	2.0E-03
Benzo (a) anthracene [c]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (b) fluoranthene [c]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (k) fluoranthene [c]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Benzo (a) pyrene [c]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Bis2-Chloroethyl Ether [c]	0	--	--	na	5.3E+00	--	--	na	5.3E+00	--	--	--	--	--	--	--	--	--	--	na	5.3E+00
Bis2-Chloroisopropyl Ether	0	--	--	na	6.5E+04	--	--	na	6.5E+04	--	--	--	--	--	--	--	--	--	--	na	6.5E+04
Bis 2-Ethylhexyl Phthalate [c]	0	--	--	na	2.2E+01	--	--	na	2.2E+01	--	--	--	--	--	--	--	--	--	--	na	2.2E+01
Bromoform [c]	0	--	--	na	1.4E+03	--	--	na	1.4E+03	--	--	--	--	--	--	--	--	--	--	na	1.4E+03
Butylbenzylphthalate	0	--	--	na	1.9E+03	--	--	na	1.9E+03	--	--	--	--	--	--	--	--	--	--	na	1.9E+03
Cadmium	0	3.2E+00	9.9E-01	na	--	3.2E+00	9.9E-01	na	--	--	--	--	--	--	--	--	--	3.2E+00	9.9E-01	na	--
Carbon Tetrachloride [c]	0	--	--	na	1.6E+01	--	--	na	1.6E+01	--	--	--	--	--	--	--	--	--	--	na	1.6E+01
Chlordane [c]	0	2.4E+00	4.3E-03	na	8.1E-03	2.4E+00	4.3E-03	na	8.1E-03	--	--	--	--	--	--	--	--	2.4E+00	4.3E-03	na	8.1E-03
Chloride	0	8.6E+05	2.3E+05	na	--	8.6E+05	2.3E+05	na	--	--	--	--	--	--	--	--	--	8.6E+05	2.3E+05	na	--
TRC	0	1.9E+01	1.1E+01	na	--	1.9E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.9E+01	1.1E+01	na	--
Chlorobenzene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	--	--	na	1.6E+03

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Chlorodibromomethane[C]	0	--	--	na	1.3E+02	--	--	na	1.3E+02	--	--	--	--	--	--	--	--	--	--	na	1.3E+02
Chloroform	0	--	--	na	1.1E+04	--	--	na	1.1E+04	--	--	--	--	--	--	--	--	--	--	na	1.1E+04
2-Chloronaphthalene	0	--	--	na	1.6E+03	--	--	na	1.6E+03	--	--	--	--	--	--	--	--	--	--	na	1.6E+03
2-Chlorophenol	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+02
Chlorpyrifos	0	8.3E-02	4.1E-02	na	--	8.3E-02	4.1E-02	na	--	--	--	--	--	--	--	--	--	8.3E-02	4.1E-02	na	--
Chromium III	0	4.9E+02	6.4E+01	na	--	4.9E+02	6.4E+01	na	--	--	--	--	--	--	--	--	--	4.9E+02	6.4E+01	na	--
Chromium VI	0	1.6E+01	1.1E+01	na	--	1.6E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	1.6E+01	1.1E+01	na	--
Chromium, Total	0	--	--	1.0E+02	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Chrysene[C]	0	--	--	na	1.8E-02	--	--	na	1.8E-02	--	--	--	--	--	--	--	--	--	--	na	1.8E-02
Copper	0	1.1E+01	7.7E+00	na	--	1.1E+01	7.7E+00	na	--	--	--	--	--	--	--	--	--	1.1E+01	7.7E+00	na	--
Cyanide, Free	0	2.2E+01	5.2E+00	na	1.6E+04	2.2E+01	5.2E+00	na	1.6E+04	--	--	--	--	--	--	--	--	2.2E+01	5.2E+00	na	1.6E+04
DDD[C]	0	--	--	na	3.1E-03	--	--	na	3.1E-03	--	--	--	--	--	--	--	--	--	--	na	3.1E-03
DDE[C]	0	--	--	na	2.2E-03	--	--	na	2.2E-03	--	--	--	--	--	--	--	--	--	--	na	2.2E-03
DDT[C]	0	1.1E+00	1.0E-03	na	2.2E-03	1.1E+00	1.0E-03	na	2.2E-03	--	--	--	--	--	--	--	--	1.1E+00	1.0E-03	na	2.2E-03
Demeton	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Diazinon	0	1.7E-01	1.7E-01	na	--	1.7E-01	1.7E-01	na	--	--	--	--	--	--	--	--	--	1.7E-01	1.7E-01	na	--
Dibenz(a,h)anthracene[C]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
1,2-Dichlorobenzene	0	--	--	na	1.3E+03	--	--	na	1.3E+03	--	--	--	--	--	--	--	--	--	--	na	1.3E+03
1,3-Dichlorobenzene	0	--	--	na	9.6E+02	--	--	na	9.6E+02	--	--	--	--	--	--	--	--	--	--	na	9.6E+02
1,4-Dichlorobenzene	0	--	--	na	1.9E+02	--	--	na	1.9E+02	--	--	--	--	--	--	--	--	--	--	na	1.9E+02
3,3-Dichlorobenzidine[C]	0	--	--	na	2.8E-01	--	--	na	2.8E-01	--	--	--	--	--	--	--	--	--	--	na	2.8E-01
Dichlorobromomethane[C]	0	--	--	na	1.7E+02	--	--	na	1.7E+02	--	--	--	--	--	--	--	--	--	--	na	1.7E+02
1,2-Dichloroethane[C]	0	--	--	na	3.7E+02	--	--	na	3.7E+02	--	--	--	--	--	--	--	--	--	--	na	3.7E+02
1,1-Dichloroethylene	0	--	--	na	7.1E+03	--	--	na	7.1E+03	--	--	--	--	--	--	--	--	--	--	na	7.1E+03
1,2-trans-dichloroethylene	0	--	--	na	1.0E+04	--	--	na	1.0E+04	--	--	--	--	--	--	--	--	--	--	na	1.0E+04
2,4-Dichlorophenol	0	--	--	na	2.9E+02	--	--	na	2.9E+02	--	--	--	--	--	--	--	--	--	--	na	2.9E+02
2,4-Dichlorophenoxy acetic acid (2,4-D)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,2-Dichloropropane[C]	0	--	--	na	1.5E+02	--	--	na	1.5E+02	--	--	--	--	--	--	--	--	--	--	na	1.5E+02
1,3-Dichloropropene[C]	0	--	--	na	2.1E+02	--	--	na	2.1E+02	--	--	--	--	--	--	--	--	--	--	na	2.1E+02
Dieldrin[C]	0	2.4E-01	5.6E-02	na	5.4E-04	2.4E-01	5.6E-02	na	5.4E-04	--	--	--	--	--	--	--	--	2.4E-01	5.6E-02	na	5.4E-04
Diethyl Phthalate	0	--	--	na	4.4E+04	--	--	na	4.4E+04	--	--	--	--	--	--	--	--	--	--	na	4.4E+04
2,4-Dimethylphenol	0	--	--	na	8.5E+02	--	--	na	8.5E+02	--	--	--	--	--	--	--	--	--	--	na	8.5E+02
Dimethyl Phthalate	0	--	--	na	1.1E+06	--	--	na	1.1E+06	--	--	--	--	--	--	--	--	--	--	na	1.1E+06
Di-n-Butyl Phthalate	0	--	--	na	4.5E+03	--	--	na	4.5E+03	--	--	--	--	--	--	--	--	--	--	na	4.5E+03
2,4 Dinitrophenol	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
2-Methyl-4,6-Dinitrophenol	0	--	--	na	2.8E+02	--	--	na	2.8E+02	--	--	--	--	--	--	--	--	--	--	na	2.8E+02
2,4-Dinitrotoluene[C]	0	--	--	na	3.4E+01	--	--	na	3.4E+01	--	--	--	--	--	--	--	--	--	--	na	3.4E+01
Dioxin 2,3,7,8-tetrachlorodibenzo-p-dioxin	0	--	--	na	5.1E-08	--	--	na	5.1E-08	--	--	--	--	--	--	--	--	--	--	na	5.1E-08
1,2-Diphenylhydrazine[C]	0	--	--	na	2.0E+00	--	--	na	2.0E+00	--	--	--	--	--	--	--	--	--	--	na	2.0E+00
Alpha-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	8.9E+01
Beta-Endosulfan	0	2.2E-01	5.6E-02	na	8.9E+01	2.2E-01	5.6E-02	na	8.9E+01	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	na	8.9E+01
Alpha + Beta Endosulfan	0	2.2E-01	5.6E-02	--	--	2.2E-01	5.6E-02	--	--	--	--	--	--	--	--	--	--	2.2E-01	5.6E-02	--	--
Endosulfan Sulfate	0	--	--	na	8.9E+01	--	--	na	8.9E+01	--	--	--	--	--	--	--	--	--	--	na	8.9E+01
Endrin	0	8.6E-02	3.6E-02	na	6.0E-02	8.6E-02	3.6E-02	na	6.0E-02	--	--	--	--	--	--	--	--	8.6E-02	3.6E-02	na	6.0E-02
Endrin Aldehyde	0	--	--	na	3.0E-01	--	--	na	3.0E-01	--	--	--	--	--	--	--	--	--	--	na	3.0E-01

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Ethylbenzene	0	--	--	na	2.1E+03	--	--	na	2.1E+03	--	--	--	--	--	--	--	--	--	--	na	2.1E+03
Fluoranthene	0	--	--	na	1.4E+02	--	--	na	1.4E+02	--	--	--	--	--	--	--	--	--	--	na	1.4E+02
Fluorene	0	--	--	na	5.3E+03	--	--	na	5.3E+03	--	--	--	--	--	--	--	--	--	--	na	5.3E+03
Foaming Agents	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Guthion	0	--	1.0E-02	na	--	--	1.0E-02	na	--	--	--	--	--	--	--	--	--	--	1.0E-02	na	--
Heptachlor [c]	0	5.2E-01	3.8E-03	na	7.9E-04	5.2E-01	3.8E-03	na	7.9E-04	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	7.9E-04
Heptachlor Epoxide[c]	0	5.2E-01	3.8E-03	na	3.9E-04	5.2E-01	3.8E-03	na	3.9E-04	--	--	--	--	--	--	--	--	5.2E-01	3.8E-03	na	3.9E-04
Hexachlorobenzene[c]	0	--	--	na	2.9E-03	--	--	na	2.9E-03	--	--	--	--	--	--	--	--	--	--	na	2.9E-03
Hexachlorobutadiene[c]	0	--	--	na	1.8E+02	--	--	na	1.8E+02	--	--	--	--	--	--	--	--	--	--	na	1.8E+02
Hexachlorocyclohexane Alpha-BHC[c]	0	--	--	na	4.9E-02	--	--	na	4.9E-02	--	--	--	--	--	--	--	--	--	--	na	4.9E-02
Hexachlorocyclohexane Beta-BHC[c]	0	--	--	na	1.7E-01	--	--	na	1.7E-01	--	--	--	--	--	--	--	--	--	--	na	1.7E-01
Hexachlorocyclohexane Gamma-BHC[c] (Lindane)	0	9.5E-01	na	na	1.8E+00	9.5E-01	--	na	1.8E+00	--	--	--	--	--	--	--	--	9.5E-01	--	na	1.8E+00
Hexachlorocyclopentadiene	0	--	--	na	1.1E+03	--	--	na	1.1E+03	--	--	--	--	--	--	--	--	--	--	na	1.1E+03
Hexachloroethane[c]	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	--	--	na	3.3E+01
Hydrogen Sulfide	0	--	2.0E+00	na	--	--	2.0E+00	na	--	--	--	--	--	--	--	--	--	--	2.0E+00	na	--
Indeno (1,2,3-cd) pyrene [c]	0	--	--	na	1.8E-01	--	--	na	1.8E-01	--	--	--	--	--	--	--	--	--	--	na	1.8E-01
Iron	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Isophorone[c]	0	--	--	na	9.6E+03	--	--	na	9.6E+03	--	--	--	--	--	--	--	--	--	--	na	9.6E+03
Kepone	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Lead	0	9.5E+01	1.1E+01	na	--	9.5E+01	1.1E+01	na	--	--	--	--	--	--	--	--	--	9.5E+01	1.1E+01	na	--
Malathion	0	--	1.0E-01	na	--	--	1.0E-01	na	--	--	--	--	--	--	--	--	--	--	1.0E-01	na	--
Manganese	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Mercury	0	1.4E+00	7.7E-01	--	--	1.4E+00	7.7E-01	--	--	--	--	--	--	--	--	--	--	1.4E+00	7.7E-01	--	--
Methyl Bromide	0	--	--	na	1.5E+03	--	--	na	1.5E+03	--	--	--	--	--	--	--	--	--	--	na	1.5E+03
Methylene Chloride [c]	0	--	--	na	5.9E+03	--	--	na	5.9E+03	--	--	--	--	--	--	--	--	--	--	na	5.9E+03
Methoxychlor	0	--	3.0E-02	na	--	--	3.0E-02	na	--	--	--	--	--	--	--	--	--	--	3.0E-02	na	--
Mirex	0	--	0.0E+00	na	--	--	0.0E+00	na	--	--	--	--	--	--	--	--	--	--	0.0E+00	na	--
Nickel	0	1.6E+02	1.7E+01	na	4.6E+03	1.6E+02	1.7E+01	na	4.6E+03	--	--	--	--	--	--	--	--	1.6E+02	1.7E+01	na	4.6E+03
Nitrate (as N)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Nitrobenzene	0	--	--	na	6.9E+02	--	--	na	6.9E+02	--	--	--	--	--	--	--	--	--	--	na	6.9E+02
N-Nitrosodimethylamine[c]	0	--	--	na	3.0E+01	--	--	na	3.0E+01	--	--	--	--	--	--	--	--	--	--	na	3.0E+01
N-Nitrosodiphenylamine[c]	0	--	--	na	6.0E+01	--	--	na	6.0E+01	--	--	--	--	--	--	--	--	--	--	na	6.0E+01
N-Nitrosodi-n-propylamine[c]	0	--	--	na	5.1E+00	--	--	na	5.1E+00	--	--	--	--	--	--	--	--	--	--	na	5.1E+00
Nonylphenol	0	2.8E+01	6.6E+00	--	--	2.8E+01	6.6E+00	na	--	--	--	--	--	--	--	--	--	2.8E+01	6.6E+00	na	--
Parathion	0	6.5E-02	1.3E-02	na	--	6.5E-02	1.3E-02	na	--	--	--	--	--	--	--	--	--	6.5E-02	1.3E-02	na	--
PCB Total[c]	0	--	1.4E-02	na	6.4E-04	--	1.4E-02	na	6.4E-04	--	--	--	--	--	--	--	--	--	1.4E-02	na	6.4E-04
Pentachlorophenol [c]	0	7.7E-03	5.9E-03	na	3.0E+01	7.7E-03	5.9E-03	na	3.0E+01	--	--	--	--	--	--	--	--	7.7E-03	5.9E-03	na	3.0E+01
Phenol	0	--	--	na	8.6E+05	--	--	na	8.6E+05	--	--	--	--	--	--	--	--	--	--	na	8.6E+05
Pyrene	0	--	--	na	4.0E+03	--	--	na	4.0E+03	--	--	--	--	--	--	--	--	--	--	na	4.0E+03
Radionuclides	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Gross Alpha Activity (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Beta and Photon Activity (mrem/yr)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Radium 226 + 228 (pCi/L)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Uranium (ug/l)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--

Parameter	Background	Water Quality Criteria				Wasteload Allocations				Antidegradation Baseline				Antidegradation Allocations				Most Limiting Allocations			
(ug/l unless noted)	Conc.	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH	Acute	Chronic	HH (PWS)	HH
Selenium, Total Recoverable	0	2.0E+01	5.0E+00	na	4.2E+03	2.0E+01	5.0E+00	na	4.2E+03	--	--	--	--	--	--	--	--	2.0E+01	5.0E+00	na	4.2E+03
Silver	0	2.6E+00	--	na	--	2.6E+00	--	na	--	--	--	--	--	--	--	--	--	2.6E+00	--	na	--
Sulfate	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
1,1,2,2-Tetrachloroethane[C]	0	--	--	na	4.0E+01	--	--	na	4.0E+01	--	--	--	--	--	--	--	--	--	--	na	4.0E+01
Tetrachloroethylene[C]	0	--	--	na	3.3E+01	--	--	na	3.3E+01	--	--	--	--	--	--	--	--	--	--	na	3.3E+01
Thallium	0	--	--	na	4.7E-01	--	--	na	4.7E-01	--	--	--	--	--	--	--	--	--	--	na	4.7E-01
Toluene	0	--	--	na	6.0E+03	--	--	na	6.0E+03	--	--	--	--	--	--	--	--	--	--	na	6.0E+03
Total dissolved solids	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Toxaphene [C]	0	7.3E-01	2.0E-04	na	2.8E-03	7.3E-01	2.0E-04	na	2.8E-03	--	--	--	--	--	--	--	--	7.3E-01	2.0E-04	na	2.8E-03
Tributyltin	0	4.6E-01	7.2E-02	na	--	4.6E-01	7.2E-02	na	--	--	--	--	--	--	--	--	--	4.6E-01	7.2E-02	na	--
1,2,4-Trichlorobenzene	0	--	--	na	7.0E+01	--	--	na	7.0E+01	--	--	--	--	--	--	--	--	--	--	na	7.0E+01
1,1,2-Trichloroethane[C]	0	--	--	na	1.6E+02	--	--	na	1.6E+02	--	--	--	--	--	--	--	--	--	--	na	1.6E+02
Trichloroethylene [C]	0	--	--	na	3.0E+02	--	--	na	3.0E+02	--	--	--	--	--	--	--	--	--	--	na	3.0E+02
2,4,6-Trichlorophenol [C]	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	--	--	na	2.4E+01
2-(2,4,5-Trichlorophenoxy) propionic acid (Silvex)	0	--	--	na	--	--	--	na	--	--	--	--	--	--	--	--	--	--	--	na	--
Vinyl Chloride[C]	0	--	--	na	2.4E+01	--	--	na	2.4E+01	--	--	--	--	--	--	--	--	--	--	na	2.4E+01
Zinc	0	1.0E+02	1.0E+02	na	2.6E+04	1.0E+02	1.0E+02	na	2.6E+04	--	--	--	--	--	--	--	--	1.0E+02	1.0E+02	na	2.6E+04

Notes:

1. All concentrations expressed as micrograms/liter (ug/l), unless noted otherwise
2. Discharge flow is highest monthly average or Form 2C maximum for Industries and design flow for Municipals
3. Metals measured as Dissolved, unless specified otherwise
4. "C" indicates a carcinogenic parameter
5. Regular WLAs are mass balances (minus background concentration) using the % of stream flow entered above under Mixing Information.
   Antidegradation WLAs are based upon a complete mix.
6. Antideg. Baseline = (0.25(WQC - background conc.) + background conc.) for acute and chronic
   = (0.1(WQC - background conc.) + background conc.) for human health
7. WLAs established at the following stream flows: 1Q10 for Acute, 30Q10 for Chronic Ammonia, 7Q10 for Other Chronic, 30Q5 for Non-carcinogens and Harmonic Mean for Carcinogens. To apply mixing ratios from a model set the stream flow equal to (mixing ratio - 1), effluent flow equal to 1 and 100% mix.

Metal	Target Value (SSTV)
Antimony	6.4E+02
Arsenic	9.0E+01
Barium	na
Cadmium	5.9E-01
Chromium III	3.9E+01
Chromium VI	6.4E+00
Copper	4.6E+00
Iron	na
Lead	6.5E+00
Manganese	na
Mercury	4.6E-01
Nickel	1.0E+01
Selenium	3.0E+00
Silver	1.0E+00
Zinc	4.0E+01

Note: do not use QL's lower than the minimum QL's provided in agency guidance

VA0091448 ODEC - Marsh Run Generation Effluent pH Data (Outfall 001)

Due*	Outfall	Parameter Description	Concentration Minimum	Limit Minimum	Concentration Maximum	Limit Maximum	Comments
1/10/11	001	pH (S.U.)	7.3	6.0	7.3	9.0	DMR
1/10/12	001	pH (S.U.)	7.7	6.0	7.7	9.0	DMR
1/10/13	001	pH (S.U.)	6.39	6.0	6.39	9.0	DMR

90% pH = 7.6 S.U.

*DMR reporting is required on an annual basis. The sample due date reflects the pH sample collected during the previous year. Because only one sample is required per year, only the concentration maximum value was used to calculate the 90% pH.

10/18/2013 12:48:13 PM

Facility = ODEC - Marsh Run (Outfall 001)
Chemical = Chlorine
Chronic averaging period = 4
WLAa = 0.019
WLAc = 0.011
Q.L. = 0.1
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 1
Expected Value = .2
Variance = .0144
C.V. = 0.6
97th percentile daily values = .486683
97th percentile 4 day average = .332758
97th percentile 30 day average= .241210
< Q.L. = 0
Model used = BPJ Assumptions, type 2 data

A limit is needed based on Chronic Toxicity
Maximum Daily Limit = 1.60883226245855E-02
Average Weekly limit = 1.60883226245855E-02
Average Monthly LImit = 1.60883226245855E-02

The data are:

0.2

10/18/2013 12:48:48 PM

Facility = ODEC - Marsh Run (Outfall 001)
Chemical = Copper
Chronic averaging period = 4
WLAa = 11
WLAc = 7.7
Q.L. = 4.6
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 1
Expected Value =
Variance =
C.V. =
97th percentile daily values =
97th percentile 4 day average = .332758
97th percentile 30 day average= .241210
< Q.L. = 1
Model used =

No Limit is required for this material

The data are:

1.15

VA0091448 ODEC Marsh Run - Effluent Data (Copper - 001)

Due	Outfall	Parameter Description	CONC AVG	Lim Avg	Comments
NA	001	Copper (µg/L)	1.15	NA	Attachment A

10/18/2013 12:49:22 PM

Facility = ODEC - Marsh Run (Outfall 001)
Chemical = Nickel
Chronic averaging period = 4
WLAa = 160
WLAc = 17
Q.L. = 10
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 1
Expected Value =
Variance =
C.V. =
97th percentile daily values =
97th percentile 4 day average = .332758
97th percentile 30 day average= .241210
< Q.L. = 1
Model used =

No Limit is required for this material

The data are:

1.15

VA0091448 ODEC Marsh Run - Effluent Data (Nickel - 001)

Due	Outfall	Parameter Description	CONC AVG	Lim Avg	Comments
NA	001	Nickel (µg/L)	1.15	NA	Attachment A

10/18/2013 12:50:04 PM

Facility = ODEC - Marsh Run (Outfall 001)
Chemical = Zinc
Chronic averaging period = 4
WLAa = 100
WLAc = 100
Q.L. = 40
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 1
Expected Value =
Variance =
C.V. =
97th percentile daily values =
97th percentile 4 day average = .332758
97th percentile 30 day average= .241210
< Q.L. = 1
Model used =

No Limit is required for this material

The data are:

1.5

VA0091448 ODEC Marsh Run - Effluent Data (Zinc - 001)

Due	Outfall	Parameter Description	CONC AVG	Lim Avg	Comments
NA	001	Zinc (µg/L)	1.5	NA	Attachment A

10/18/2013 12:51:50 PM

Facility = ODEC - Marsh Run (Outfall 002)
Chemical = Copper
Chronic averaging period = 4
WLAa = 11
WLAc = 7.7
Q.L. = 4.6
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 1
Expected Value =
Variance =
C.V. =
97th percentile daily values =
97th percentile 4 day average = .332758
97th percentile 30 day average= .241210
< Q.L. = 1
Model used =

No Limit is required for this material

The data are:

1.13

VA0091448 ODEC Marsh Run - Effluent Data (Copper - 002)

Due	Outfall	Parameter Description	CONC AVG	Lim Avg	Comments
NA	002	Copper (µg/L)	1.13	NA	Attachment A

10/18/2013 12:52:53 PM

Facility = ODEC - Marsh Run (Outfall 002)
Chemical = Lead
Chronic averaging period = 4
WLAa = 95
WLAc = 11
Q.L. = 6.5
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 1
Expected Value =
Variance =
C.V. =
97th percentile daily values =
97th percentile 4 day average = .332758
97th percentile 30 day average= .241210
< Q.L. = 1
Model used =

No Limit is required for this material

The data are:

0.087

VA0091448 ODEC Marsh Run - Effluent Data (Lead - 002)

Due	Outfall	Parameter Description	CONC AVG	Lim Avg	Comments
NA	002	Lead (µg/L)	0.0087	NA	Attachment A

10/18/2013 12:53:39 PM

Facility = ODEC - Marsh Run (Outfall 002)
Chemical = Mercury
Chronic averaging period = 4
WLAa = 1.4
WLAc = 0.77
Q.L. = 1
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 1
Expected Value =
Variance =
C.V. =
97th percentile daily values =
97th percentile 4 day average = .332758
97th percentile 30 day average= .241210
< Q.L. = 1
Model used =

No Limit is required for this material

The data are:

0.000801

VA0091448 ODEC Marsh Run - Effluent Data (Mercury - 002)

Due	Outfall	Parameter Description	CONC AVG	Lim Avg	Comments
NA	002	Mercury (µg/L)	0.000801	NA	Attachment A

10/18/2013 12:54:13 PM

Facility = ODEC - Marsh Run (Outfall 002)
Chemical = Zinc
Chronic averaging period = 4
WLAa = 100
WLAc = 100
Q.L. = 40
# samples/mo. = 1
# samples/wk. = 1

Summary of Statistics:

observations = 1
Expected Value =
Variance =
C.V. =
97th percentile daily values =
97th percentile 4 day average = .332758
97th percentile 30 day average= .241210
< Q.L. = 1
Model used =

No Limit is required for this material

The data are:

30.9

VA0091448 ODEC Marsh Run - Effluent Data (Zinc - 002)

Due	Outfall	Parameter Description	CONC AVG	Lim Avg	Comments
NA	002	Zinc (µg/L)	30.9	NA	Attachment A

Public Notice – Environmental Permit

PURPOSE OF NOTICE: To seek public comment on a draft permit from the Department of Environmental Quality that will allow the release of treated industrial wastewater and storm water into a water body in Fauquier County, Virginia.

PUBLIC COMMENT PERIOD: January 16, 2014 to February 14, 2014

PERMIT NAME: Virginia Pollutant Discharge Elimination System Permit – Industrial Storm Water issued by DEQ, under the authority of the State Water Control Board

APPLICANT NAME, ADDRESS AND PERMIT NUMBER: Old Dominion Electric Cooperative, 4201 Dominion Boulevard, Glen Allen, VA 23060, VA0091448

NAME AND ADDRESS OF FACILITY: Old Dominion Electric Cooperative – Marsh Run Generation Facility, 12109 Lucky Hill Road, Remington, VA 22734

PROJECT DESCRIPTION: Old Dominion Electric Cooperative has applied for a reissuance of a permit for the private Old Dominion Electric Cooperative – Marsh Run Generation Facility. The applicant proposes to release treated industrial wastewaters and storm water at a rate of 0.090 million gallons per day into a water body. The facility proposes to release the treated industrial wastewaters and storm water in to two unnamed tributaries to Marsh Run in Fauquier County in the Rappahannock River watershed. A watershed is the land area drained by a river and its incoming streams. The permit will limit the following pollutants to amounts that protect water quality: pH, Total Suspended Solids, Total Petroleum Hydrocarbons, and Total Residual Chlorine. The permit will also monitor the following pollutants to protect water quality: Dissolved Copper, Dissolved Lead, Dissolved Mercury, Dissolved Nickel, Dissolved Zinc, Total Hardness, Total Nitrogen and Total Phosphorus.

HOW TO COMMENT AND/OR REQUEST A PUBLIC HEARING: DEQ accepts comments and requests for public hearing by hand-delivery, e-mail, fax or postal mail. All comments and requests must be in writing and be received by DEQ during the comment period. Submittals must include the names, mailing addresses and telephone numbers of the commenter/requester and of all persons represented by the commenter/requester. A request for public hearing must also include: 1) The reason why a public hearing is requested. 2) A brief, informal statement regarding the nature and extent of the interest of the requester or of those represented by the requester, including how and to what extent such interest would be directly and adversely affected by the permit. 3) Specific references, where possible, to terms and conditions of the permit with suggested revisions. A public hearing may be held, including another comment period, if public response is significant, based on individual requests for a public hearing, and there are substantial, disputed issues relevant to the permit.

CONTACT FOR PUBLIC COMMENTS, DOCUMENT REQUESTS AND ADDITIONAL INFORMATION: The public may review the draft permit and application at the DEQ-Northern Regional Office by appointment, or may request electronic copies of the draft permit and fact sheet.
Name: Susan Mackert
Address: DEQ-Northern Regional Office, 13901 Crown Court, Woodbridge, VA 22193
Phone: (703) 583-3853 E-mail: susan.mackert@deq.virginia.gov Fax: (703) 583-3821