COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
NORTHERN REGIONAL OFFICE
13901 Crown Court, Woodbridge, Virginia 22193
(703) 583-3800 Fax (703) 583-3821
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Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Thomas A. Faha
Regional Director

November 18, 2014

Mr. Christian Volk
Water Quality Manager
Virginia American Water
900 Industrial Street
PO Box 60
Hopewell, VA 23860

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: Minor Modification of VPDES Permit VA0024678 and VA0024724
Change of Ownership From Dale Service Corporation to Virginia American Water
Virginia American Water Prince William District – Section 8
Virginia American Water Prince William District – Section 1
Prince William County

Dear Mr. Volk:

Staff has reviewed your complete Transfer of Ownership request form for VPDES Permits VA0024678 and VA0024724. The permit name is Virginia American Water Prince William District – Section 8, and Virginia American Water Prince William District – Section 1, respectively. The new owners, as listed above, have been added to the permit cover page and added to DEQ's records. Please find copies of the permits enclosed. It is your responsibility to comply with all effluent limitations and conditions in this permit.

If you have questions about the permit, please contact Alison Thompson at (703) 583-3834, or by email at Alison.Thompson@deq.virginia.gov.

Sincerely,

Bryant H. Thomas
Water Permit & Planning Manager

Enc.: Permits No. VA0024678 and VA0024724

cc: DEQ-Water, OWP&CA
Nancy Ford, EPA Region III
VDH-Culpeper
Water Compliance, NRO – cover letter

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No.	**VA0024678**
Effective Date:	**November 15, 2013**
Modification Date:	**November 18, 2014**
Expiration Date:	**November 14, 2018**

AUTHORIZATION TO DISCHARGE UNDER THE
VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM
AND THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, the following owner is authorized to discharge in accordance with the information submitted with the permit application, and with this permit cover page, Part I – Effluent Limitations and Monitoring Requirements, and Part II – Conditions Applicable To All VPDES Permits, as set forth herein.

Owner Name:	Virginia American Water
Facility Name:	Virginia American Water Prince William District - Section 8
County:	Prince William
Facility Location:	14420 Delaney Road, Dale City, VA

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

Stream Name:	Neabsco Creek
River Basin:	Potomac River
River Subbasin:	Potomac River
Section:	7
Class:	III
Special Standards:	b

Thomas A. Faha

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

November 18, 2014
Date

A. Effluent Limitations and Monitoring Requirements

1. Outfall 001 – 4.6 MGD Facility

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

b. This facility has Total Nitrogen and Total Phosphorus calendar year load limits associated with this outfall included in the current Registration List under registration number VAN010058, enforceable under the General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Dischargers and Nutrient Trading in the Chesapeake Watershed in Virginia.

c. During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to discharge from Outfall Number 001. Such discharges shall be limited and monitored by the permittee as specified below.

Parameter	Discharge Limitations						Monitoring Requirements	
	Monthly Average[1]		Weekly Average[1]		Minimum	Maximum[1]	Frequency	Sample Type
Flow[2] (MGD)	NL		NA		NA	NL	Continuous	TIRE
pH	NA		NA		6.0 S.U.	9.0 S.U.	1/D	Grab
$CBOD_5$	5 mg/L	87 kg/day	8 mg/L	140 kg/day	NA	NA	1/D	24HC
Total Suspended Solids, TSS	6.0 mg/L	100 kg/day	9.0 mg/L	160 kg/day	NA	NA	1/D	24HC
Ammonia as Nitrogen (April-Oct)	1.0 mg/L	17 kg/day	1.5 mg/L	26 kg/day	NA	NA	1/D	24HC
Ammonia as Nitrogen (Nov-March)	6.7 mg/L		8.1 mg/L		NA	NA	1/D	24HC
Total Kjeldahl Nitrogen, TKN	NL mg/L	NA	NA	NA	NA	NA	1/W	24HC
Nitrate+Nitrite as Nitrogen	NL mg/L	NA	NA	NA	NA	NA	1/W	24HC
Total Nitrogen[4] - Monthly	NL mg/L	NA	NA	NA	NA	NA	1/W	Calculated
Total Nitrogen – Year to Date[5]	NL mg/L	NA	NA	NA	NA	NA	1/M	Calculated
Total Nitrogen – Calendar Year [5]	3.0 mg/L	NA	NA	NA	NA	NA	1/YR	Calculated
Dissolved Oxygen	NA		NA		6.0 mg/L	NA	1/D	Grab
E. coli (Geometric Mean)	126 n/100 mLs		NA		NA	NA	1/D	Grab
Total Phosphorus	0.18 mg/L	6.9 lb/day	0.27 mg/L	10 lb/day	NA	NA	1/D	24HC
Chronic Toxicity – *C. dubia* (TU_c) [3]	NA		NA		NA	NL	1/YR	24HC
Chronic Toxicity – *P. promelas* (TU_c) [3]	NA		NA		NA	NL	1/YR	24HC

(1) See Part I.B.
(2) The design flow is 4.6 MGD.
(3) See Part 1.C. for toxicity monitoring requirements.
(4) Total Nitrogen is the sum of Total Kjeldahl Nitrogen and NO_2+NO_3 Nitrogen and shall be calculated from the results of those tests.
(5) See Part I.B.4. for nutrient reporting calculations.

MGD = Million gallons per day.
NA = Not applicable.
NL = No limit; monitor and report.
S.U. = Standard units.
TIRE = Totalizing, indicating and recording equipment.

1/D = Once every day.
1/W = Once every week.
1/M = Once every month.
1/YR = Once every year.

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

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

A. Effluent Limitations and Monitoring Requirements

2. Sewage Sludge

During the period beginning with the permit's effective date and lasting until the permit expiration date, the permittee is authorized to manage sewage sludge according to the approved Sludge Management Plan. The pollutants in the sewage sludge shall be limited and monitored by the permittee as specified below. All samples shall be collected and analyzed in accordance with the approved O&M Manual.

a. Sewage Sludge Annual Production Monitoring (SP1).

The permittee shall report the annual total amount of sludge produced (in dry metric tons) and annual amount of sludge (in dry metric tons) land applied. Data shall be reported on the Discharge Monitoring Report (DMR) for discharge number SP1.

b. Sewage Sludge Chemical Limitations and Monitoring Requirement (S01).

1. *Chemical Pollutant Characteristics*[1]

SLUDGE CHARACTERISTIC	LIMITATIONS		MONITORING REQUIREMENTS	
	Ceiling Concentration Maximum (mg/kg)	Monthly Average (mg/kg)	Frequency	Sample Type
Percent Solids (%)	NA	NL	1/3M	Composite
Arsenic, Sludge	75	41	1/3M	Composite
Cadmium, Sludge	85	39	1/3M	Composite
Copper, Sludge	4300	1500	1/3M	Composite
Lead, Sludge	840	300	1/3M	Composite
Mercury, Sludge	57	17	1/3M	Composite
Molybdenum, Sludge	75	NA	1/3M	Composite
Nickel, Sludge	420	420	1/3M	Composite
Selenium, Sludge	100	100	1/3M	Composite
Zinc, Sludge	7500	2800	1/3M	Composite

[1] All samples shall be collected and analyzed in accordance With approved EPA procedures.

1/3M = Once every three months.
NA = Not applicable.
NL = No limit; monitor and report.
mg/kg = Milligrams per kilogram, dry weight

Pathogen Reduction Limitations. The permittee shall achieve pathogen reduction in accordance with the approved Sludge Management Plan through Class B, Alternative 2 (9 VAC 25-31-710): Aerobic Digestion. Sewage sludge is agitated with air or oxygen to maintain aerobic conditions for a specified mean cell residence time at a specific temperature. Values for the mean cell residence time and temperature shall be between 40 days at 20°C and 60 days at 15°C. The permittee shall verify in the annual report that the above pathogen reduction is achieved by means of appropriate documentation.

Vector Attraction Reduction Limitation. The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38 percent. The permittee shall perform monitoring and maintain bench sheets to insure that the vector attraction reduction requirements, specified in 9 VAC 25-31-720.B., are obtained. Copies of the bench sheets shall be submitted with the annual reports for sludge.

B. Quantification Levels and Compliance Reporting

1. Quantification Levels

a. The quantification levels (QL) shall be less than or equal to the following concentrations:

Characteristic	Quantification Level
TSS	1.0 mg/L
$CBOD_5$	2 mg/L
Ammonia	0.20 mg/L

b. The QL is defined as the lowest concentration used to calibrate a measurement system in accordance with the procedures published for the method. The permittee shall use any method in accordance with Part II A of this permit.

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

2. Compliance Reporting for parameters in Part I.A.

a. Monthly Average –Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in Part I.B.1.a of this permit condition shall be determined as follows: All concentration data below the QL used for the analysis (QL must be less than or equal to the QL listed in Part I.B.1.a above) shall be treated as zero. All concentration data equal to or above the QL used for the analysis (QL must be less than or equal to the QL listed in Part I.B.1.a above) shall be treated as it is reported. An arithmetic average shall be calculated using all reported data for the month, including the defined zeros. This arithmetic average shall be reported on the Discharge Monitoring Report (DMR) as calculated. If all data are below the QL used for the analysis (QL must be less than or equal to the QL listed in Part I.B.1.a above), then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported monthly average concentration is <QL, then report "<QL" for the quantity. Otherwise use the reported concentration data (including the defined zeros) and flow data for each sample day to determine the daily quantity and report the monthly average of the calculated daily quantities.

b. Maximum Weekly Average –Compliance with the weekly average limitations and/or reporting requirements for the parameters listed in Part I.B.1.a of this permit condition shall be determined as follows: All concentration data below the QL used for the analysis (QL must be less than or equal to the QL listed in Part I.B.1.a above) shall be treated as zero. All concentration data equal to or above the QL used for the analysis (QL must be less than or equal to the QL listed in Part I.B.1.a above) shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, collected within each complete calendar week and entirely contained within the reporting month. The maximum value of the weekly averages thus determined shall be reported on the DMR. If all data are below the QL used for the analysis (QL must be less than or equal to the QL listed in Part I.B.1.a above), then the weekly average shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported weekly average concentration is <QL, then report "<QL" for the quantity. Otherwise use the reported concentration data (including the defined zeros) and flow data for each sample day to determine the daily quantity and report the maximum weekly average of the calculated daily quantities.

c. Single Datum - Any single datum required shall be reported as "<QL" if it is less than the QL used in the analysis (QL must be less than or equal to the QL listed in Part I.B.1.a above). Otherwise the numerical value shall be reported.

d. Significant Digits - The permittee shall report at least the same number of significant digits as the permit limit for a given parameter. Regardless of the rounding convention used (i.e., 5 always rounding up or to the nearest even number) by the permittee, the permittee shall use the convention consistently, and shall ensure that consulting laboratories employed by the permittee use the same convention.

3. Nutrient Reporting Calculations for Part I. A.

a. For each calendar month, the DMR shall show the calendar year-to-date average concentration (mg/L) calculated in accordance with the following formulae:

MC_{avg}-YTD = ($\Sigma_{(\text{Jan-current month})}$ MC_{avg}) ÷ (# of months)

where:
MC_{avg}-YTD = calendar year-to-date average concentration (mg/L)
MC_{avg} = monthly average concentration (mg/L) as reported on DMR

b. The total nitrogen average concentrations (mg/L) for each calendar year (AC) shall be shown on the December DMR due January 10th of the following year. These values shall be calculated in accordance with the following formulae:

AC_{avg} = ($\Sigma_{(\text{Jan-Dec})}$ MC_{avg}) ÷ 12

where:
AC_{avg} = calendar year average concentration (mg/L)
MC_{avg} = monthly average concentration (mg/L) as reported on DMR

c. For Total Phosphorus, all daily concentration data below the quantification level (QL) for the analytical method used should be treated as half the QL. All daily concentration data equal to or above the QL for the analytical method used shall be treated as it is reported.

d. For Total Nitrogen (TN), if none of the daily concentration data for the respective species (i.e., TKN, Nitrates/Nitrites) are equal to or above the QL for the respective analytical methods used, the daily TN concentration value reported shall equal one half of the largest QL used for the respective species. If one of the data is equal to or above the QL, the daily TN concentration value shall be treated as that data point is reported. If more than one of the data is above the QL, the daily TN concentration value shall equal the sum of the data points as reported.

C. Whole Effluent Toxicity Program Requirements

1. Biological Monitoring for the 4.6 MGD Facility

a). In accordance with the schedule in Part I.C.2. below, the permittee shall conduct annual chronic toxicity tests during this permit term. The permittee shall collect 24-hour flow-proportioned composite samples of final effluent from Outfall 001.

The chronic tests to use are:

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

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

These chronic tests shall be conducted in such a manner and at sufficient dilutions (minimum of five dilutions) to determine the "No Observed Effect Concentration" (NOEC) for survival and reproduction or

growth. Results which cannot be quantified (i.e., a "less than" NOEC value) are not acceptable and a retest shall be performed. The NOEC, as determined by hypothesis testing, shall be converted to TU_c (Chronic Toxic Units) for Discharge Monitoring Report (DMR) reporting where $TU_c = 100/NOEC$. Report the LC_{50} at 48 hours and the IC_{25} with the NOEC's in the test report.

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

c). The test dilutions shall be able to determine compliance with the following endpoints:

Chronic NOEC $\geq$ 69%; equivalent to a $TU_c \leq 1.44$

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

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

f). Should the permittee conduct toxicity testing of the effluent prior to the compliance date listed in the schedule in Part I.C.2. below, the results of the test and the test report shall be reported with the DMR for the month following the receipt of the testing results. In no case shall this exceed 45 days from the completion of the test or the report submission date below, whichever may occur first.

2. Reporting Schedule

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

Period	Sampling Period	DMR/Report Submission Dates
Annual 1	January 1, 2014 – December 31, 2014	January 10, 2015
Annual 2	January 1, 2015 – December 31, 2015	January 10, 2016
Annual 3	January 1, 2016 – December 31, 2016	January 10, 2017
Annual 4	January 1, 2017 – December 31, 2017	January 10, 2018

D. Sludge Management and Reporting Requirements

1. Sludge Reopener
The Board may promptly modify or revoke and reissue this permit if any applicable standard for sewage sludge use or disposal promulgated under Section 405(d) of the Clean Water Act is more stringent than any requirements for sludge use or disposal in this permit, or controls a pollutant or practice not limited in this permit.

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

3. Sludge Monitoring Frequency and Reporting Requirements.
a. Monitoring Frequency.
After sewage sludge has been monitored for two years at the monitoring frequency specified in Part I.A.2, the required sewage sludge monitoring frequency shall be reduced to once a year provided the results of sludge monitoring for all limited pollutants is less than 75% of the monthly average concentration limitation listed in Part I.A.2 in each monitoring event. Should the pollutant concentration in a sludge monitoring event exceed 75% of the monthly average concentration limitation specified for any pollutant in Part I.A.3, the monitoring frequency of once per three months shall become effective and remain in effect until the permit's expiration date. No other effluent limitations or monitoring requirements are affected by this special condition.

b. Reporting Requirements.
1. Reporting Responsibilities:
The permittee shall provide the results of all monitoring performed in accordance with Part I.A.2., and information on management practices, land application sites, site restrictions (if applicable), and appropriate certifications not later than February 19 of each year to the DEQ_NRO. Each report is for the previous calendar year's activity. If no sewage sludge was applied to the land during the reporting period, "no sewage sludge applied" shall be reported.

2. Record Keeping:
The permittee is required to retain the following information for at least five years:

a) The concentrations of each pollutant in Part I. A.2.
b) A description of how the pathogen reduction requirements in Part I.A.2. are met;
c) A description of how the vector attraction reduction requirements in Part I.A.2. are met;
d) A description of how the management practices specified in the approved Sludge Management Plan and/or this permit are met;
e) A description of how the site restrictions specified in the approved Sludge Management Plan and/or this permit are met;
f) The following certification statement:

"I certify, under penalty of law, that the information that will be used to determine compliance with the pathogen requirements in 9VAC25-31-710 B, vector attraction reduction requirements in [permittee shall insert one of the vector attraction reduction requirements in 9VAC25-31-720 B 1 through B 10], the management practices in 9VAC25-31-550, and the site restrictions in 9VAC25-31-710 B 5 was

prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

E. Other Requirements and Special Conditions

1. 95% Capacity Reopener
A written notice and a plan of action for ensuring continued compliance with the terms of this permit shall be submitted to the DEQ-Northern Regional Office (DEQ-NRO) when the monthly average flow influent to the sewage treatment plant reaches 95 percent of the design capacity authorized in this permit for each month of any three consecutive month period. The written notice shall be submitted within 30 days and the plan of action shall be received at the DEQ-NRO no later than 90 days from the third consecutive month for which the flow reached 95 percent of the design capacity. The plan shall include the necessary steps and a prompt schedule of implementation for controlling any current or reasonably anticipated problem resulting from high influent flows. Failure to submit an adequate plan in a timely manner shall be deemed a violation of this permit.

2. Indirect Dischargers
The permittee shall submit to the DEQ – NRO, a survey of all Indirect Dischargers to the treatment works with the application for reissuance of the VPDES permit at least 180 days prior to the expiration date of this permit. The information shall be submitted on the DEQ Discharger Survey form or an equivalent form that includes the quantity and quality of the wastewater. Survey results shall include the identification of Significant Indirect Dischargers of the treatment works. This permit may be modified or alternatively revoked and reissued to incorporate appropriate limitations if dischargers are identified that would be subject to Section 301 or 306 of the Clean Water Act and the State Water Control Law if it were directly discharging those pollutants.

A Significant Indirect Discharger is one that:

a) Has a process wastewater, excluding sanitary, non-contact cooling water, and boiler blowdown, flow of 25,000 gallons or more per average workday;

b) Contibutes a process wastestream which makes up 5-percent or more of the average dry weather hydraulic or organic capacity of the POTW;

c) Is subject to the categorical pretreatment standards; or

d) Has significant impact, either singularly or in combination with other Significant Dischargers, on the treatment works or the quality of its effluent.

The permittee shall provide, on a continuing basis thereafter, adequate notice to the Department of the following:

a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Section 301 or 306 of Clean Water Act and the State Water Control Law if it were directly discharging those pollutants; and

b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of this permit.

3. Operation and Maintenance (O&M) Manual Requirement
The permittee shall maintain a current Operations and Maintenance (O&M) Manual for the treatment works that is in accordance with Virginia Pollutant Discharge Elimination System Regulations, 9VAC25-31 and (for sewage treatment plants) Sewage Collection and Treatment Regulations, 9VAC25-790.

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

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

a. Permitted outfall locations and techniques to be employed in the collection, preservation, and analysis of effluent, storm water and sludge samples;
b. Procedures for measuring and recording the duration and volume of treated wastewater discharged;
c. Discussion of Best Management Practices, if applicable;
d. Procedures for handling, storing, and disposing of all wastes, fluids, and pollutants that will prevent these materials from reaching state waters. List type and quantity of wastes, fluids, and pollutants (e.g. chemicals) stored at this facility;
e. Discussion of treatment works design, treatment works operation, routine preventative maintenance of units within the treatment works, critical spare parts inventory and record keeping;
f. Plan for the management and/or disposal of waste solids and residues;
g. Hours of operation and staffing requirements for the plant to ensure effective operation of the treatment works and maintain permit compliance;
h. List of facility, local and state emergency contacts; and
i. Procedures for reporting and responding to any spills/overflows/ treatment works upsets.

4. Licensed Operator Requirement
The permittee shall employ or contract at least one Class I licensed wastewater works operator for this facility. The license shall be issued in accordance with Title 54.1 of the Code of Virginia and the regulations of the Board for Waterworks and Wastewater Works Operators. The permittee shall notify the Department in writing whenever he is not complying, or has grounds for anticipating he will not comply with this requirement. The notification shall include a statement of reasons and a prompt schedule for achieving compliance.

5. Reliability Class
The permitted treatment works shall meet Reliability Class I.

6. CTC and CTO Requirement
In accordance with *Sewage Collection and Treatment* regulation (9VAC25-790), the permittee shall obtain a Certificate to Construct (CTC) and a Certificate to Operate (CTO) from the Department of Environmental Quality prior to constructing wastewater treatment works and operating the treatment works, respectively. Non-compliance with the CTC or CTO shall be deemed a violation of the permit.

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

8. Water Quality Criteria Monitoring
The permittee shall monitor the effluent at Outfall 001 for the substances noted in Attachment A, "Water Quality Criteria Monitoring" according to the indicated analysis number, quantification level, sample type and frequency. Monitoring shall be initiated after the start of the third year from the permit's effective date. Using Attachment A as the reporting form, the data shall be submitted with the next application for reissuance, which is due at least 180 days prior to the expiration date of this permit. Monitoring and analysis shall be conducted in accordance with 40 CFR Part 136 or alternative EPA approved methods. It is the responsibility of the permittee to ensure that proper QA/QC protocols are followed during the sample gathering and analytical procedures. The DEQ will use these data for making specific permit decisions in the future. This permit may be modified or, alternatively, revoked and reissued to incorporate limits for any of the substances listed in Attachment A.

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

10. E3/E4
The annual average concentration limitations for Total Nitrogen and/or Total Phosphorus are suspended during any calendar year in which the facility is considered by DEQ to be a participant in the Virginia Environmental Excellence Program in good standing at either the Exemplary Environmental Enterprise (E3) level or the Extraordinary Environmental Enterprise (E4) level, provided that the following conditions have also been met:

a. The facility has applied for (or renewed) participation, been accepted, maintained a record of sustained compliance and submitted an annual report according to the program guidelines;
b. The facility has demonstrated that they have in place a fully implemented environmental management system (EMS) with an alternative compliance method that includes operation of installed nutrient removal technologies to achieve the annual average concentration limitations; and
c. The E3/E4 designation from DEQ and implementation of the EMS has been in effect for the full calendar year.

The annual average concentration limitations for Total Nitrogen and/or Total Phosphorus, as applicable, are not suspended in any calendar year following a year in which the facility failed to achieve the annual average concentration limitations as required by b. above.

11. Nutrient Reopener
This permit may be modified or, alternatively, revoked and reissued:

a. If any approved wasteload allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes wasteload allocations, limits or conditions on the facility that are not consistent with the permit requirements;

b. To incorporate technology-based effluent concentration limitations for nutrients in conjunction with the installation of nutrient control technology, whether by new construction, expansion or upgrade, or

c. To incorporate alternative nutrient limitations and/or monitoring requirements, should:
   i. the State Water Control Board adopt new nutrient standards for the water body receiving the discharge, including the Chesapeake Bay or its tributaries, or
   ii. a future water quality regulation or statute require new or alternative nutrient control.

12. PCB Pollutant Minimization Plan

The permittee has completed low-detection level, congener specific monitoring of the effluent for PCBs.

a. Pollutant Minimization Plan (PMP)

Upon notification from DEQ-NRO that the PCB monitoring results for the effluent indicate a reasonable potential to exceed the water quality criterion or an actual exceedance of the Wasteload Allocation specified in the PCB TMDL for the Tidal Portions of the Potomac and Anacostia Rivers in the District of Columbia, Maryland, and Virginia (approved October 31, 2007 by EPA), the permittee shall submit to DEQ-NRO for review and approval a Pollutant Minimization Plan (PMP) designed to investigate the location and potential reduction of sources of PCBs in the collection system. The PMP shall be submitted within 180 days of the date of the notification letter.

The PMP shall detail the practices and procedures which will be followed to investigate the location and potential reduction of sources of PCBs. This PMP shall include, but not necessarily be limited to, the following items, as appropriate:

1) Provide a facility contact for the contents of the PMP and any activities associated with the PMP;
2) Provide a proposed implementation schedule for minimization activities and prospective milestones;
3) Propose actions for known or probable sources;
4) Propose actions to find and control unknown sources;
5) Summarize any previous minimization activities;
6) Present methods for measuring, demonstrating, and reporting progress;
   i) May include an evaluation of the total PCBs and/or PCB congener distribution in the initial source intake water to determine the net contributions of PCBs introduced to the treatment works.
   ii) May include raw influent testing using either grab or composite samples as well as sampling upstream in the collection system. Screening methods may be utilized to target specific areas of interest.
   iii) Alternative PCB test methods are acceptable provided analytical sensitivity is sufficient for detection and quantification.
   iv) May perform further monitoring of the final effluent to determine effectiveness of the reduction efforts and to reestablish a new baseline for PCBs in the final effluent.
7) Estimate the PCB load reduction provided by treatment; and
8) Provide information on continuing assessment of progress, which may include establishment of criteria to evaluate whether the location and potential reduction of PCB sources has been addressed, and whether a more routine follow-up awareness, education, and inspection approach is appropriate.

b. Pollutant Minimization Plan (PMP) Annual Report

If the permittee is required to implement a PMP in accordance with this special condition, an Annual Report shall be submitted to DEQ-NRO for review and approval by February 10th for the previous year's PMP activities.

The Annual Report shall:

1) Summarize PMP Achievement for investigating the location and potential reduction of sources of PCBs in the collection system during the past calendar year;
2) Address any revisions needed for the PMP for the coming year;
3) Address material and process modifications, if applicable;
4) Summarize measures taken to address known, probable and potential sources; and
5) Discuss incremental and cumulative changes from the baseline loading.

CONDITIONS APPLICABLE TO ALL VPDES PERMITS

A. Monitoring

1. Samples and measurements taken as required by this permit shall be representative of the monitored activity.
2. Monitoring shall be conducted according to procedures approved under Title 40 Code of Federal Regulations Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.
3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will insure accuracy of measurements.
4. Samples taken as required by this permit shall be analyzed in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.

B. Records

1. Records of monitoring information shall include:
   a. The date, exact place, and time of sampling or measurements;
   b. The individual(s) who performed the sampling or measurements;
   c. The date(s) and time(s) analyses were performed;
   d. The individual(s) who performed the analyses;
   e. The analytical techniques or methods used; and
   f. The results of such analyses.

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

C. Reporting Monitoring Results

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

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

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

2. If the permittee monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under Title 40 of the Code of Federal Regulations Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using

procedures specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Department.

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

D. Duty to Provide Information.

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

E. Compliance Schedule Reports

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

F. Unauthorized Discharges

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

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or
2. Otherwise alter the physical, chemical or biological properties of such state waters and make them detrimental to the public health, or to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, or for recreation, or for other uses.

G. Reports of Unauthorized Discharges.

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

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

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

H. Reports of Unusual or Extraordinary Discharges.

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

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

I. Reports of Noncompliance

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

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this paragraph:
   a. Any unanticipated bypass; and
   b. Any upset which causes a discharge to surface waters.

2. A written report shall be submitted within 5 days and shall contain:
   a. A description of the noncompliance and its cause;
   b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
   c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

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

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

NOTE: The immediate (within 24 hours) reports required in Parts II, G., H. and I. may be made to the Department's Northern Regional Office at (703) 583-3800 (voice) or (703) 583-3821 (fax). For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Services maintains a 24-hour telephone service at 1-800-468-8892.

J. Notice of Planned Changes.

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

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

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

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

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

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

K. Signatory Requirements.

1. All permit applications shall be signed as follows:

   a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
      1) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or

      2) The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

   b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

   c. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes:

      1) The chief executive officer of the agency, or
      2) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. All reports required by permits, and other information requested by the Board shall be signed by a person described in Part II.K.1., or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described in Part II.K.1.;

   b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

   c. The written authorization is submitted to the Department.

3. Changes to authorization. If an authorization under Part II.K.2. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II.K.2. shall be submitted to the Department prior to or together with any reports, or information to be signed by an authorized representative.

4. Certification. Any person signing a document under Parts II, K.1. or K.2. shall make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to Comply.

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to Reapply.

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. All permittees with a currently effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Board. The Board shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

N. Effect of a Permit.

This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State Law.

Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by Section 510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" (Part II.U.), and "upset" (Part II.V.) nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and Hazardous Substance Liability.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Proper Operation and Maintenance.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of solids or sludges.

Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters.

S. Duty to Mitigate.

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to Halt or Reduce Activity not a Defense.

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass.

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II, U.2. and U.3.

2. Notice
   a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.
   b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II.I.

3. Prohibition of bypass.
   a. Bypass is prohibited, and the Board may take enforcement action against a permittee for bypass, unless:
      1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
      2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
      3) The permittee submitted notices as required under Part II.U.2.

   b. The Board may approve an anticipated bypass, after considering its adverse effects, if the Board determines that it will meet the three conditions listed above in Part II.U.3.a.

V. Upset.

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II.V.2. are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.

2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

   a. An upset occurred and that the permittee can identify the cause(s) of the upset;
   b. The permitted facility was at the time being properly operated;
   c. The permittee submitted notice of the upset as required in Part II.I.; and
   d. The permittee complied with any remedial measures required under Part II.S.

3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. **Inspection and Entry**

The permittee shall allow the Director, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the State Water Control Law, any substances or parameters at any location.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit Actions.

Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of permits

1. Permits are not transferable to any person except after notice to the Department. Except as provided in Part II.Y.2., a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as may be necessary under the State Water Control Law and the Clean Water Act.

2. As an alternative to transfers under Part II.Y.1., this permit may be automatically transferred to a new permittee if:
   a. The current permittee notifies the Department at least 30 days in advance of the proposed transfer of the title to the facility or property;
   b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
   c. The Board does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part II.Y.2.b.

Z. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.