



18 Government Center Ln, PO Box 859, Verona, VA 24482 Phone: (540) 245-5670 AugustaWater.com

**Request for Proposal (RFP) #2503
Engineering Services for Waste to Energy Feasibility Study
at the Stuarts Draft Wastewater Treatment Plant
Addendum #1**

To: Prospective Bidders
From: Kristen Desper, Augusta Water
Date: February 19, 2025

This addendum is being issued to change the electronic submittal process and to answer questions received from prospective bidders.

As noted in the request for proposal document, electronic submittals will be accepted, in addition to paper proposals. Instead of submitting these electronic proposals to Finance@Augustawater.com, please follow the instructions below to submit the proposal on eVA:

All bids must be submitted electronically online via eVA using the Bidder's established eVA Supplier Account. The entire bid response including any/all attachments and any/all addenda must be submitted electronically in eVA no later than the closing date and time stated on the electronic solicitation posting. Faxed or emailed bids will not be accepted. To learn how to submit an online bid in eVA please refer to the online supplier training page at: <https://eva.virginia.gov/supplier-training-materials.html>. The link to the video "Viewing and Responding to Solicitations" can be found on the Supplier Training Materials page. It is the responsibility of the Bidder to ensure the bid and all required attachments are properly completed, readable and uploaded to eVA by the date and time deadline stated on the electronic solicitation posting. Bidders should allow sufficient time to account for any technical difficulties they may encounter during online submission or uploading of documents. In the event of technical difficulties, suppliers should contact eVA Customer Care at 1-866-289-7367 or via email at eVACustomerCare@DGS.Virginia.gov.

Questions from Bidders:

1. What is the average flow at the Stuarts Draft WWTP?
 - a. The average flow at the Stuarts Draft WWTP is 1,234,000 gallons per day

2. Please provide information on significant industrial user process and non-process flows at the Stuarts Draft WWTP.
 - a. Of the five largest Significant Industrial Users discharging to the WWTP, the total flow is 276,597 gallons per day. Of that total, Non-Process flow (sanitary wastes, noncontact cooling water and boiler blowdown) is 72,091 gallons per day and Process Flow is 204,506 gallons per day.

In addition, please see the Stuarts Draft WWTP permit and the Stuarts Draft WWTP Local Limits, attached to this addendum.



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

VALLEY REGIONAL OFFICE

P.O. Box 3000, Harrisonburg, Virginia 22801

(540) 574-7800 Fax (804) 698-4178

Physical Address: 4411 Early Road, Harrisonburg, VA

www.deq.virginia.gov

Matthew J. Strickler
Secretary of Natural Resources

David K. Paylor
Director

Amy Thatcher Owens
Regional Director

April 1, 2021

Mr. Phil Martin
Augusta County Service Authority
Sent by Email (pmartin@co.augusta.va.us)

Re: Permit Reissuance – Stuart Draft WWTP, VPDES Permit No. VA0066877

Dear Mr. Martin:

The enclosed permit has been approved. This permit action involved reissuing an existing permit to discharge treated wastewater. Please continue to use the e-DMR program to submit the effluent data electronically.

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

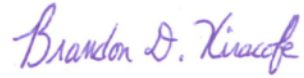
Alternatively, any owner under §§ 62.1 - 44.16, 62.1 - 44.17, and 62.1 - 44.19 of the State Water Control Law aggrieved by any action of the State Water Control Board taken without a formal hearing, or by inaction of the Board, may demand in writing a formal hearing of such owner's grievance, provided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

Please note that compliance with the permit's requirements for use and disposal of sewage sludge does not relieve you of your responsibility to comply with federal requirements set forth in 40 CFR Part 503. Until DEQ seeks and is granted authority to administer the Part 503 regulations by EPA, treatment works treating domestic sewage should continue to work directly with EPA to comply with these regulations. For more information, you can call the EPA Region III office in Philadelphia at 215-814-5769.

VPDES Permit No. VA0066877
Stuarts Draft WWTP
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If you have questions about this permit, please contact me at (540) 574-7892 or brandon.kiracofe@deq.virginia.gov.

Sincerely,



Brandon D. Kiracofe
Regional Water Permits & Compliance Manager

Enclosure: Permit No. VA0066877
c: Linda Ferguson-Davie – VRO (electronic)
Keith Showman – VRO (electronic)
Wendy Eikenberry (weikenberry@co.augusta.va.us)
ECM – VA0066877

Permit Required Special Condition and e-DMR Due Dates*

Facility Name: Stuarts Draft WWTP	Permit No: VA0066877
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Special Condition	Due Date
Submit Attachment A Water Quality Criteria Monitoring (Part.I.F.8)	6/30/2025
Submit Mercury Monitoring (Part.I.G.2)	12/2/2025
Submit VPDES Permit Application (Part II.M)	12/2/2025
PRETREATMENT (Part I.D)	
Submit Significant Discharger Waste Survey	11/28/2021
Submit Annual Pretreatment Report	1/31/2022
Submit Public Notice for SIUs in SNC	3/31/2022
Submit Annual Pretreatment Report	1/31/2023
Submit Public Notice for SIUs in SNC	3/31/2023
Submit Annual Pretreatment Report	1/31/2024
Submit Public Notice for SIUs in SNC	3/31/2024
Submit Annual Pretreatment Report	1/31/2025
Submit Public Notice for SIUs in SNC	3/31/2025
Submit Annual Pretreatment Report	1/31/2026
Submit Public Notice for SIUs in SNC	3/31/2026
WHOLE EFFLUENT TOXICITY (Part I.E)	
Submit Annual Chronic Toxicity Test	1/10/2022
Submit Annual Chronic Toxicity Test	1/10/2023
Submit Annual Chronic Toxicity Test	1/10/2024
Submit Annual Chronic Toxicity Test	1/10/2025
Submit Annual Chronic Toxicity Test	1/10/2026
BIOSOLIDS MANAGEMENT AND REPORTING	
Submit Annual Biosolids Management Report (Part III.B.2)	2/19/2022
Submit Annual Biosolids Management Report (Part III.B.2)	2/19/2023
Submit Annual Biosolids Management Report (Part III.B.2)	2/19/2024
Submit Annual Biosolids Management Report (Part III.B.2)	2/19/2025
Submit Annual Biosolids Management Report (Part III.B.2)	2/19/2026

*This list is intended to assist the permittee; however, it is not intended to supersede any permit requirements.

e-DMR Monitoring Periods and Due Dates Based on Calendar Reporting				
Permit Effective Date	Monitoring Start Date	Reporting Frequency	1st DMR Due Date	Monitoring Period Example
6/1/2021	4/1/2021	Monthly	7/10/2021	6/1/2021 - 6/30/2021
6/1/2021	1/1/2022	Annually	1/10/2023	1/1/2022 - 12/31/2022



COMMONWEALTH of VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No. VA0066877

Effective Date: June 1, 2021
Expiration Date: May 31, 2026

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, Part II - Conditions Applicable To All VPDES Permits, and Part III - Biosolids Limitations and Monitoring Requirements as set forth herein.

Owner: **Augusta County Service Authority**
Facility Name: **Stuarts Draft WWTP**
County: **Augusta**
Facility Location: **391 Wayne Avenue, Stuarts Draft**

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

Stream: **South River**
River Basin: **Potomac**
River Subbasin: **Shenandoah**
Section: **3**
Class: **IV**
Special Standards: **pH**

A handwritten signature in blue ink, appearing to read "B. Keith Fowler".

B. Keith Fowler, Deputy Regional Director
Valley Regional Office

Date: April 1, 2021

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. **Outfall 001** - During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from Outfall 001.

This discharge shall be limited and monitored as specified below:

	<u>EFFLUENT CHARACTERISTICS</u>		<u>DISCHARGE LIMITATIONS</u>				<u>MONITORING REQUIREMENTS</u>	
	<u>Monthly Average</u>		<u>Weekly Average</u>		<u>Minimum</u>	<u>Maximum</u>	<u>Frequency</u>	<u>Sample Type</u>
Flow (MGD) ^a	NL		NA		NA	NL	Continuous	TIRE
pH (standard units)	NA		NA		6.5	9.5	1/Day	Grab
BOD ₅ ^{c,d}	10 mg/L ^h	150 kg/d	15 mg/L	230 kg/d	NA	NA	1/Week	24 HC
Total Suspended Solids ^{c,d}	30 mg/L	450 kg/d	45 mg/L	680 kg/d	NA	NA	1/Month	24 HC
E. coli (N/100 mL) ^{b,e}	126 Geometric Mean		NA		NA	NA	3/Week 10 a.m. to 4 p.m.	Grab
Dissolved Oxygen (mg/L)	NA		NA		7.1	NA	1/Day	Grab
Ammonia-N (mg/L) ^{c,e}	2.0		2.6		NA	NA	1/Week	24 HC
Total Nitrogen – Year to Date (mg/L) ^{c,f,g}	NL		NA		NA	NA	1/Month	Calculated
Total Nitrogen – Calendar Year (mg/L) ^{c,f,g}	4.0		NA		NA	NA	1/Year	Calculated
Total Phosphorus – Year to Date (mg/L) ^{c,g}	NL		NA		NA	NA	1/Month	Calculated
Total Phosphorus – Calendar Year (mg/L) ^{c,g}	0.3		NA		NA	NA	1/Year	Calculated

NL = No Limitation, monitoring required NA = Not Applicable TIRE = Totalizing, Indicating, and Recording Equipment
3/Week = 3 samples taken during the calendar week, with no more than 2 samples taken on consecutive days
1/Year = Annual sampling with the results submitted no later than January 10th of each year

24 HC = 24-Hour Composite

- The design flow of this treatment facility is 4.0 MGD. See Part I.F.1 for additional requirements related to facility flows.
- See Part I.B for disinfection requirements.
- See Part I.C for additional monitoring and reporting instructions.
- At least 85% removal for BOD₅ and TSS shall be attained for this discharge.
- See Part I.F.12 for additional instructions regarding effluent monitoring frequencies.
- Total Nitrogen, which is the sum of TKN and Nitrite-N + Nitrate-N, shall be derived from the results of those tests.
- In addition to the Total Nitrogen or Total Phosphorus concentration limits listed above, 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 VAN010092, enforceable under the General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Watershed in Virginia.
- Limit given is expressed to two significant figures.
- There shall be no discharge of floating solids or visible foam in other than trace amounts.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - OUTFALL 999

2. **Outfall 999** - During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from Outfall 999 ^b.

This discharge shall be limited and monitored as specified below:

<u>EFFLUENT CHARACTERISTICS</u>	<u>DISCHARGE LIMITATIONS</u>				<u>MONITORING REQUIREMENTS</u>	
	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Frequency</u>	<u>Sample Type</u>
Total Phosphorus – Calendar Year (lb/yr)	NA	NA	NA	5,177	1/Year	Calculated ^a

NL = No Limitation, monitoring required NA = Not Applicable
1/Year = Annual sampling with the results submitted no later than January 10th of each year

- a. The maximum Total Phosphorus loading limit is a combined allocation for the following Augusta County Service Authority facilities: Stuarts Draft WWTP (VA0066877), Vesper View WWTP (VA0067962), and Harriston WWTP (VA0027901).
- b. Outfall 999 is not an existing discharge point. It is a means for reporting total loads of Total Phosphorus discharged.

B. TOTAL RESIDUAL CHLORINE (TRC) AND E. COLI LIMITATIONS AND MONITORING REQUIREMENTS

If chlorination is chosen as a disinfection method, the requirements in Part I.B.1-5 below shall substitute for the E. coli requirements specified in Part I.A.

1. Effluent TRC shall be monitored, following dechlorination, 12/Day by grab sample and limited as specified below. Samples shall be taken with a minimum time separation of 90 minutes and a maximum time separation of 150 minutes.

	<u>Monthly Average</u>	<u>Weekly Average</u>
TRC (mg/L)	0.010	0.011

2. TRC shall be monitored at the outlet of each operating chlorine contact tank, prior to dechlorination, 12/Day by grab sample with a minimum time separation of 90 minutes and a maximum time separation of 150 minutes.
3. No more than 36 samples for TRC taken after each operating chlorine contact tank, prior to dechlorination, shall be less than 1.0 mg/L for any one calendar month.
4. No TRC sample collected at the outlet of any operating chlorine contact tank, prior to dechlorination, shall be less than 0.6 mg/L.
5. E. coli limitations and monitoring:

	<u>Discharge Limit</u>	<u>Monitoring Requirements</u>	
	<u>Monthly Average</u>	<u>Frequency</u>	<u>Sample Type</u>
E. coli (N/100 mL)	126 (Geometric Mean)	4/Month in any month of each calendar quarter * 10 a.m. to 4 p.m.	Grab

* 4/Month in any month of each calendar quarter = 4 samples taken, with at least 1 sample taken each calendar week, in any calendar month of each quarter and reported no later than January 10th, April 10th, July 10th and October 10th of each year

C. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - ADDITIONAL INSTRUCTIONS

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

<u>Effluent Characteristic</u>	<u>QL</u>
BOD ₅	2 mg/L
Total Suspended Solids	1.0 mg/L
Chlorine	0.10 mg/L
Ammonia-N	0.20 mg/L

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

2. Compliance Reporting

- a. **Monthly Average** – Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in Part I.C.1 shall be determined as follows: All concentration data below the QL used for the analysis shall be treated as zero. All concentration data equal to or above the QL used for the analysis 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, 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. **Weekly Average** – Compliance with the weekly average limitations and/or reporting requirements for the parameters listed in Part I.C.1 shall be determined as follows: All concentration data below the QL used for the analysis shall be treated as zero. All concentration data equal to or above the QL used for the analysis 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, 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 for the analysis. Otherwise the numerical value shall be reported.
- d. 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.
- e. **Nutrient reporting calculations** – The reporting calculations below shall be performed using the concentration monitoring required by the general permit, VAN010092.

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

$$AC_{\text{avg}}\text{-YTD} = \left(\sum_{(\text{Jan-current month})} MC_{\text{avg}} \right) \div (\# \text{ of months })$$

where:

$$AC_{\text{avg}}\text{-YTD} = \text{calendar year-to-date average concentration (mg/L)}$$

$$MC_{\text{avg}} = \text{monthly average concentration (mg/L)}$$

The Total Nitrogen (TN) and Total Phosphorus (TP) 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 formula:

$$AC_{\text{avg}} = \left(\sum_{(\text{Jan-Dec})} MC_{\text{avg}} \right) \div 12$$

where:

AC_{avg} = calendar year average concentration (mg/L)

MC_{avg} = monthly average concentration (mg/L)

For TP, all daily concentration data below the QL for the analytical method used shall 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.

For 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.

D. PRETREATMENT PROGRAM REQUIREMENTS

1. The permittee's pretreatment program has been approved. The program is an enforceable part of this permit. The permittee shall:
 - a. Implement a pretreatment program that complies with the Clean Water Act, Water Control Law, State regulations and the approved program.
 - b. Submit to the DEQ-Valley Regional Office, an annual report that describes the permittee's program activities over the previous year. The annual report shall be submitted no later than January 31st of each year and shall include:
 - (1) An updated list of the Significant Industrial Users (SIUs)* noting all of the following:
 - (a) Facility address, phone number, and contact name;
 - (b) Explanation of SIUs deleted from the previous year's list;
 - (c) Identify which Industrial Users (IUs) are subject to Categorical Standards and note which Standard (e.g., metal finishing);
 - (d) Specify which 40 CFR Part(s) is/are applicable;
 - (e) Indicate which IUs are subject to local standards that are more stringent than Categorical Pretreatment Standards;
 - (f) Indicate which IUs are subject only to local requirements;
 - (g) Identify which IUs are subject to Categorical Pretreatment Standards that are subject to reduced reporting requirements under 9 VAC 25-31-840 E.3; and
 - (h) Identify which IUs are non-significant Categorical Industrial Users.
 - (2) A summary of the compliance status of each SIU with pretreatment standards and permit requirements;
 - (3) A summary of the number and types of SIU sampling and inspections performed by the POTW;
 - (4) All information concerning any interference, upset, VPDES permit or Water Quality Standards violations directly attributable to SIUs and enforcement actions taken to alleviate said events;
 - (5) A description of all enforcement actions taken against SIUs over the previous 12 months;
 - (6) A summary of any changes to the submitted pretreatment program that have not been previously reported to the DEQ-Valley Regional Office;
 - (7) A summary of the permits issued to SIUs since the last annual report;
 - (8) POTW and self-monitoring results for SIUs determined to be in significant non-compliance during the reporting period;
 - (9) Results of the POTW's influent/effluent/sludge sampling, not previously submitted to DEQ;
 - (10) Copies of newspaper publications of all SIUs in significant non-compliance during the reporting period. This is due no later than March 31st of each year; and
 - (11) Signature of an authorized representative.

- c. Within 180 days of the effective date of this permit, submit to the DEQ-Valley Regional Office a survey of all IUs discharging to the POTW. The DEQ Discharger Survey Form or an equivalent form that includes the quantity and quality of the wastewater shall be used. Survey results shall include the identification of SIUs of the POTW.

In lieu of the survey, the permittee may elect to develop, submit for approval and implement a plan to continuously survey the industrial community in their jurisdiction.

- d. Submit any changes to the approved pretreatment program to the DEQ-Valley Regional Office and obtain approval before implementation of the changes.
 - e. Ensure all SIUs' permits are issued and reissued in a timely manner and that the permits issued by the POTW are effective and enforceable.
 - f. Inspect and sample all SIUs at a minimum of once a year.
 - (1) Sampling shall include all regulated parameters, and shall be representative of the wastewater discharged.
 - (2) Inspection of the SIUs shall cover all areas which could result in wastewater discharge to the treatment works including manufacturing, chemical storage, pretreatment facilities, spill prevention and control procedures, hazardous waste generation and SIUs' self-monitoring and records.
 - g. Implement the reporting requirements of Part VII of the VPDES Permit Regulation.
 - h. Review the Enforcement Response Plan (ERP) and ensure it meets state and federal regulatory requirements. The approved ERP is an enforceable part of this permit and shall be implemented.
 - i. Develop local limits or reevaluate local limits using current influent, effluent and sludge monitoring data and submit the data and results of the evaluation to the DEQ-Valley Regional Office within one year of the effective date of this permit. All SIUs shall be sampled at the end of any categorical process and at the entrance to the treatment works.
 - j. Ensure that adequate resources are available to implement the approved program.
 - k. Meet all public participation requirements and annually public notice SIUs in significant non-compliance with pretreatment standards and requirements for the previous 12 months.
2. The DEQ may require the POTW to institute changes to its pretreatment program:
 - a. If the approved program is not implemented in a way satisfying the requirements of the Clean Water Act, Water Control Law or State regulations;
 - b. If problems such as pass-through, interference, water quality standards violations or sludge contamination develop or continue; or
 - c. If federal, state or local requirements change.

* A SIU is one that:

- (a) Has an average flow of 25,000 gallons or more per average day of process wastewater**;
- (b) Contributes a process wastestream which makes up 5% 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.

** Process wastewater excludes sanitary wastewater, noncontact cooling water and boiler blowdown.

E. WHOLE EFFLUENT TOXICITY (WET) REQUIREMENTS

1. In accordance with the schedule in Part I.E.7, the permittee shall conduct annual chronic toxicity tests using 24-hour flow-proportioned composite samples of final effluent collected from Outfall 001.

The chronic tests shall be a Chronic 3-Brood Static Renewal Survival and Reproduction Test using *Ceriodaphnia dubia* and a Chronic 7-Day Static Renewal Survival and Growth Test using *Pimephales promelas*. Each test shall be performed with a minimum of 5 dilutions, derived geometrically, in order to determine the No Observed Effect Concentration (NOEC) for survival and reproduction or growth. Results which cannot be determined (i.e. a "less than" or "zero" NOEC value) are not acceptable, and a retest requiring further dilution must be performed. Any retest of an unacceptable test must be performed within the same testing period as the unacceptable test. Such "less than" or "zero" results must be submitted and will be regarded as evidence of effluent toxicity. Express the results as chronic Toxicity Units (TU_c) by dividing 100/NOEC. Report the LC₅₀ for each chronic test at the 48-hour point, and the IC₂₅, if calculable, with the NOECs in the required test report. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3. Any retest of an unacceptable test must be performed within the same testing period as the unacceptable test.

2. Should chronic WET monitoring result in a 48-hour LC₅₀ ≤ 100%, the permittee shall commence acute toxicity tests using 24-hour flow-proportioned composite samples of final effluent collected from Outfall 001. This monitoring shall be in accordance with the acute toxicity WET test report schedule included in Part I.E.8. The acute tests shall be a 48-Hour Static Acute test using *Ceriodaphnia dubia* and a 48-Hour Static Acute test using *Pimephales promelas*. Each test shall be performed with a minimum of 5 dilutions, derived geometrically, with a minimum of 4 replicates per dilution and a minimum of 5 organisms per replicate for calculation of a valid No Observed Adverse Effect Concentration (NOAEC). The LC₅₀ should also be determined, noted, and submitted in the required test report. Tests in which control survival is less than 90% are not acceptable. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3. Any retest of an unacceptable test must be performed within the same testing period as the unacceptable test.
3. During the term of the permit, the permittee may provide additional samples to address data variability. These data shall be reported and may be included in the evaluation of effluent toxicity.
4. The test dilutions shall be able to determine compliance with the following endpoints:
 - a. Acute NOAEC of 100%
 - b. Chronic NOEC of 100%, equivalent to 1.0 TU_c
5. The test data will be evaluated for reasonable potential at the conclusion of the permit term. The data may be evaluated sooner if requested by the permittee, or if toxicity has been noted. Should evaluation of the data indicate that a limit is needed, a WET limit and compliance schedule may be required and the toxicity tests of Part I.E.1 may be discontinued. If the data indicate that no limit is needed, the permittee shall continue chronic toxicity testing of the outfall annually, as specified in Part I.E.7.
6. The permit may be modified or, alternatively, 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 limits must control the toxicity of the effluent.

7. The permittee shall submit a written report for the toxicity tests specified in Part I.E.1 in accordance with the following schedule:

<u>Monitoring Period</u>	<u>Testing Period</u>	<u>Report Submittal Dates</u>
1 st Annual	June 1 – December 31, 2021	January 10, 2022
2 nd Annual	January 1 – December 31, 2022	January 10, 2023
3 rd Annual	January 1 – December 31, 2023	January 10, 2024
4 th Annual	January 1 – December 31, 2024	January 10, 2025
5 th Annual	January 1 – December 31, 2025	January 10, 2026

8. The permittee shall submit a written report for the acute toxicity tests specified in Part I.E.2 in accordance with the following schedule:

<u>Monitoring Period</u>	<u>Testing Period</u>	<u>Report Submittal Dates</u>
1 st Quarter	The first full calendar quarter following a determination of a 48-Hour $LC_{50} \leq 100\%$ in the chronic test	By the 10 th day of the month following the testing period
Quarterly thereafter	Every calendar quarter following the previous quarter	By the 10 th day of the month following the testing period

F. 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-Valley Regional Office when the monthly average influent flow to the wastewater treatment facility 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-Valley Regional Office no later than 90 days from the third consecutive month for which the flow reached 95 percent of the design capacity. The plan shall include the necessary steps and a prompt schedule of implementation for controlling any current or reasonably anticipated problem resulting from high influent flows. Failure to submit an adequate plan in a timely manner shall be deemed a violation of this permit.
2. Indirect Dischargers – The permittee shall provide adequate notice to the DEQ-Valley Regional Office 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 the 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.

Adequate notice shall include information on 1) the quality and quantity of effluent introduced into the treatment works, and 2) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the treatment works.

3. Materials Handling/Storage – Any and all product, materials, or wastes shall be handled, disposed of, and/or stored in such a manner and consistent with Best Management Practices, so as not to permit a discharge of such product, materials, or other wastes to State waters, except as expressly authorized.

4. Operation and Maintenance (O&M) Manual Requirement – The permittee shall maintain a current 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 DEQ 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-Valley Regional Office 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 characterized in Part I.F.3 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; procedures for reporting and responding to any spills/overflows/treatment works upsets; and
 - i. Procedures for documenting compliance with the permit requirement that there shall be no discharge of floating solids or visible foam in other than trace amounts.
5. Certificate to Construct (CTC) / Certificate to Operate (CTO) Requirement – The permittee shall, in accordance with the DEQ Sewage Collection and Treatment Regulation (9VAC25-790), obtain a CTC and a CTO prior to constructing and operating the wastewater treatment works. Noncompliance with the CTC or CTO shall be deemed a violation of the permit.
 6. 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 Board for Waterworks and Wastewater Works Operators and Onsite Sewage System Professionals Regulations. The permittee shall notify the DEQ-Valley Regional Office 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.
 7. Reliability Class – The permitted treatment works shall meet Reliability Class II.

8. Water Quality Criteria Monitoring – The permittee shall monitor the effluent at Outfall 001 for the substances noted in Attachment A of this permit according to the quantification level and sample type. Monitoring shall be performed once between June 1, 2024 and May 31, 2025. The data shall be submitted by June 30, 2025 using Attachment A or a form provided by DEQ. Quality control and quality assurance information (i.e. laboratory certificates of analysis) shall be submitted to document that the required quantification level has been attained. Monitoring and analyses shall be conducted in accordance with 40 CFR Part 136 or alternative EPA approved methods. Methods other than those specified in Attachment A may be used with prior notification to and approval from DEQ. It is the responsibility of the permittee to ensure that proper QA/QC protocols are followed during the sample gathering and analytical procedures. 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. Treatment Works Closure Plan – If the permittee plans an expansion or upgrade to replace the existing treatment works, or if the facility is permanently closed, the permittee shall submit to the DEQ-Valley Regional Office a closure plan for the existing treatment works. The plan shall address the following information as a minimum: Verification of elimination of sources and/or alternate treatment scheme; treatment, removal and final disposition of residual wastewater and solids; removal/demolition/disposal of structures, equipment, piping and appurtenances; site grading, and erosion and sediment control; restoration of site vegetation; access control; fill materials; and proposed land use (post-closure) of the site. The plan should contain proposed dates for beginning and completion of the work. The plan must be approved by the DEQ prior to implementation. Once approved, the plan shall become an enforceable part of this permit and closure shall be implemented in accordance with the approved plan. The permittee may continue discharging until the effluent no longer meets the permit limits or the permit expires, whichever occurs first. No later than 14 days following closure completion, the permittee shall submit to the DEQ-Valley Regional Office written notification of the closure completion date and a certification of closure in accordance with the approved plan.
10. Reopeners – This permit may be modified or, alternatively, revoked and reissued:
 - a. If any approved waste load allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes waste load allocations, limits or conditions on the facility that are not consistent with the permit requirements; or
 - 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 include new or alternative nutrient limitations and/or monitoring requirements, should:
 - (1) The State Water Control Board adopt nutrient standards for the water body receiving the discharge, or
 - (2) A future water quality regulation or statute require new or alternative nutrient control.
11. The annual average concentration limitations for TN and/or TP 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 TN and/or TP, 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 Part I.F.11.b.

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

<u>Parameter</u>	<u>Monitoring Frequency</u>
Ammonia-N	5/Week
E.coli	1/Day

5/Week = 5 samples taken, one per day, during the calendar week

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

G. MERCURY MONITORING REQUIREMENTS

1. In accordance with the approved South River Mercury TMDL the target Mercury concentration is:

<u>Outfall</u>	<u>Target Mercury</u>
001	3.8 ng/L

2. The permittee shall monitor the effluent at Outfall 001 for Total Recoverable Mercury (TRM), trace level. During term of the permit at least one composite sample shall be collected from Outfall 001. Sampling and analysis shall be conducted in accordance with the requirements specified below:
- a. Monitoring and analysis shall be conducted in accordance with the most current version of USEPA Method 1631E (Total Mercury, trace level) or equivalent. Samples should be collected via the USEPA Method 1669 protocol or equivalent. It is the responsibility of the permittee to ensure that proper QA/QC protocols are followed during the sample gathering and analytical procedures.
 - b. The data shall be submitted to DEQ-Valley Regional Office with the next permit reissuance application which is due at least 180 days prior to the expiration date of this permit. The submittal shall include the unadjusted and appropriately quantified TRM, trace level analytical results. Additionally, laboratory and field QA/QC documentation and results should be reported.
3. If the annual average of sample result(s) analyzed under Part I.G.2 exceeds the target mercury concentration of 3.8 ng/L, the permittee shall develop a Pollutant Minimization Plan (PMP) designed to locate and reduce sources of mercury in the collection system. This plan shall include a schedule for continued monitoring with a minimum sampling frequency of 1/Year. The plan may also include an evaluation of the mercury distribution in the initial source intake water to determine the net loadings of mercury from the facility. The PMP shall be submitted to DEQ-Valley Regional Office for approval within 9 months of any sample result(s) exceeding 3.8 ng/L. Upon approval, the PMP becomes an enforceable part of the permit.

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All analyses shall be in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.

A listing of Virginia Environmental Laboratory Accreditation Program (VELAP) certified and/or accredited laboratories can be found at the following website:

<http://dgs.virginia.gov/DivisionofConsolidatedLaboratoryServices/Services/EnvironmentalLaboratoryCertification2/tabid/1503/Default.aspx>

A specific analytical method is not specified; however, an appropriate method to meet the QL shall be selected from (i) any approved method presented in 40 CFR Part 136 or (ii) any alternative EPA approved method, provided that all analyses are in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.

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

Quality control and quality assurance information (i.e. laboratory certificates of analysis) shall be submitted to document that the required quantification level has been attained.

Please be advised that additional water quality analyses may be necessary and/or required for permitting purposes.

CASRN	PARAMETER	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS ⁽²⁾	RESULTS UNIT	SAMPLE TYPE ⁽³⁾
METALS					
7440-36-0	Antimony, Dissolved	1000 ug/L			C
7440-38-2	Arsenic, Dissolved	100 ug/L			C
7440-43-9	Cadmium, Dissolved	0.5 ug/L			C
16065-83-1	Chromium III, Dissolved ⁽⁵⁾	75 ug/L			C
18540-29-9	Chromium VI, Dissolved ⁽⁵⁾	5.0 ug/L			C
7440-50-8	Copper, Dissolved	10 ug/L			C
7439-92-1	Lead, Dissolved	10 ug/L			C
7439-97-6	Mercury, Dissolved	0.5 ug/L			C
7440-02-0	Nickel, Dissolved	20 ug/L			C
7782-49-2	Selenium, Total Recoverable	3.0 ug/L			C
7440-22-4	Silver, Dissolved	3.0 ug/L			C
7440-28-0	Thallium, Dissolved	0.5 ug/L			C
7440-66-6	Zinc, Dissolved	75 ug/L			C
PESTICIDES/PCBs					
309-00-2	Aldrin	0.05 ug/L			G or C
63-25-2	Carbaryl ⁽⁹⁾	(4)			G or C
57-74-9	Chlordane	0.2 ug/L			G or C
2921-88-2	Chlorpyrifos (synonym = Dursban)	(4)			G or C
72-54-8	DDD	0.1 ug/L			G or C

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72-55-9	DDE	0.1 ug/L			G or C
50-29-3	DDT	0.1 ug/L			G or C
8065-48-3	Demeton (synonym = Dementon-O,S)	(4)			G or C
333-41-5	Diazinon	(4)			G or C
60-57-1	Dieldrin	0.1 ug/L			G or C
959-98-8	Alpha-Endosulfan (synonym = Endosulfan I)	0.1 ug/L			G or C
33213-65-9	Beta-Endosulfan (synonym = Endosulfan II)	0.1 ug/L			G or C
1031-07-8	Endosulfan Sulfate	0.1 ug/L			G or C
72-20-8	Endrin	0.1 ug/L			G or C
7421-93-4	Endrin Aldehyde	(4)			G or C
86-50-0	Guthion (synonym = Azinphos Methyl)	(4)			G or C
76-44-8	Heptachlor	0.05 ug/L			G or C
1024-57-3	Heptachlor Epoxide	(4)			G or C
319-84-6	Hexachlorocyclohexane Alpha-BHC	(4)			G or C
319-85-7	Hexachlorocyclohexane Beta-BHC	(4)			G or C
58-89-9	Hexachlorocyclohexane Gamma-BHC (syn. = Lindane)	(4)			G or C
608-73-1	Hexachlorocyclohexane (HCH) – Technical	(4)			G or C
143-50-0	Kepone	(4)			G or C
121-75-5	Malathion	(4)			G or C
72-43-5	Methoxychlor	(4)			G or C
2385-85-5	Mirex	(4)			G or C
56-38-2	Parathion (synonym = Parathion Ethyl)	(4)			G or C
1336-36-3	PCB, total	7.0 ug/L			G or C
8001-35-2	Toxaphene	5.0 ug/L			G or C
BASE NEUTRAL EXTRACTABLES					
83-32-9	Acenaphthene	10.0 ug/L			C
120-12-7	Anthracene	10.0 ug/L			C
92-87-5	Benzidine	(4)			C
56-55-3	Benzo(a)anthracene	10.0 ug/L			C
205-99-2	Benzo (b) fluoranthene (synonym = 3,4-Benzofluoranthene)	10.0 ug/L			C

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207-08-9	Benzo(k)fluoranthene	10.0 ug/L			C
50-32-8	Benzo(a)pyrene	10.0 ug/L			C
542-88-1	Bis (chloromethyl) Ether	(4)			C
111-44-4	Bis 2-Chloroethyl Ether	(4)			C
108-60-1	Bis 2-Chloroisopropyl Ether	(4)			C
117-81-7	Bis 2-Ethylhexyl Phthalate (syn. = Di-2-Ethylhexyl Phthalate)	10.0 ug/L			C
85-68-7	Butyl Benzyl Phthalate	10.0 ug/L			C
91-58-7	2-Chloronaphthalene	(4)			C
218-01-9	Chrysene	10.0 ug/L			C
53-70-3	Dibenzo(a,h)anthracene	20.0 ug/L			C
95-50-1	1,2-Dichlorobenzene	10.0 ug/L			C
541-73-1	1,3-Dichlorobenzene	10.0 ug/L			C
106-46-7	1,4-Dichlorobenzene	10.0 ug/L			C
91-94-1	3,3-Dichlorobenzidine	(4)			C
84-66-2	Diethyl Phthalate	10.0 ug/L			C
131-11-3	Dimethyl Phthalate	(4)			C
84-74-2	Di-n-butyl Phthalate (synonym = Dibutyl Phthalate)	10.0 ug/L			C
121-14-2	2,4-Dinitrotoluene	10.0 ug/L			C
122-66-7	1,2-Diphenylhydrazine	(4)			C
206-44-0	Fluoranthene	10.0 ug/L			C
86-73-7	Fluorene	10.0 ug/L			C
118-74-1	Hexachlorobenzene	(4)			C
87-68-3	Hexachlorobutadiene	(4)			C
77-47-4	Hexachlorocyclopentadiene	(4)			C
67-72-1	Hexachloroethane	(4)			C
193-39-5	Indeno(1,2,3-cd)pyrene	20.0 ug/L			C
78-59-1	Isophorone	10.0 ug/L			C
98-95-3	Nitrobenzene	10.0 ug/L			C
62-75-9	N-Nitrosodimethylamine	(4)			C
86-30-6	N-Nitrosodiphenylamine	(4)			C

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621-64-7	N-Nitrosodi-n-propylamine	(4)			C
608-93-5	Pentachlorobenzene	(4)			C
129-00-0	Pyrene	10.0 ug/L			C
95-94-3	1,2,4,5-Tetrachlorobenzene	(4)			C
120-82-1	1,2,4-Trichlorobenzene	10.0 ug/L			C
VOLATILES					
107-02-8	Acrolein	(4)			G
107-13-1	Acrylonitrile	(4)			G
71-43-2	Benzene	10.0 ug/L			G
75-25-2	Bromoform	10.0 ug/L			G
56-23-5	Carbon Tetrachloride	10.0 ug/L			G
108-90-7	Chlorobenzene (synonym = Monochlorobenzene)	50.0 ug/L			G
124-48-1	Chlorodibromomethane	10.0 ug/L			G
67-66-3	Chloroform	10.0 ug/L			G
75-27-4	Dichlorobromomethane	10.0 ug/L			G
107-06-2	1,2-Dichloroethane	10.0 ug/L			G
75-35-4	1,1-Dichloroethylene	10.0 ug/L			G
156-60-5	1,2-trans-dichloroethylene	(4)			G
78-87-5	1,2-Dichloropropane	(4)			G
542-75-6	1,3-Dichloropropene	(4)			G
100-41-4	Ethylbenzene	10.0 ug/L			G
74-83-9	Methyl Bromide (synonym = Bromomethane)	(4)			G
75-09-2	Methylene Chloride (synonym = Dichloromethane)	20.0 ug/L			G
79-34-5	1,1,2,2-Tetrachloroethane	(4)			G
127-18-4	Tetrachloroethylene (synonym = Tetrachloroethene)	10.0 ug/L			G
10-88-3	Toluene	10.0 ug/L			G
71-55-6	1,1,1-Trichloroethane	(4)			G
79-00-5	1,1,2-Trichloroethane	(4)			G
79-01-6	Trichloroethylene (synonym = Trichloroethene)	10.0 ug/L			G

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75-01-4	Vinyl Chloride	10.0 ug/L			G
ACID EXTRACTABLES					
95-57-8	2-Chlorophenol	10.0 ug/L			G or C
120-83-2	2,4 Dichlorophenol	10.0 ug/L			G or C
105-67-9	2,4 Dimethylphenol	10.0 ug/L			G or C
51-28-5	2,4-Dinitrophenol	(4)			G or C
25550-58-7	Dinitrophenols	(4)			G or C
534-52-1	2-Methyl-4,6-Dinitrophenol (synonym = 4,6-Dinitro-o-cresol)	(4)			G or C
59-50-7	3-Methyl-4-Chlorophenol	(4)			G or C
84852-15-3	Nonylphenol	(4)			G or C
87-86-5	Pentachlorophenol	50.0 ug/L			G or C
108-95-2	Phenol	10.0 ug/L			G or C
95-95-4	2,4,5-Trichlorophenol	(4)			G or C
88-06-2	2,4,6-Trichlorophenol	10.0 ug/L			G or C
MISCELLANEOUS					
16887-00-6	Chloride (mg/L)	(4)			C
57-12-5	Total Cyanide ⁽⁶⁾	10.0 ug/L			G
N/A	Foaming Agents (as MBAS) (PWS)	(4)			G or C
18496-25-8	Total Sulfide ⁽⁷⁾	100 ug/L			G or C
60-10-5	Tributyltin ⁽⁸⁾	(4)			G or C
471-34-1	Hardness (mg/L as CaCO ₃)	(4)			C

 Name of Principal Executive Officer or Authorized Agent/Title

 Signature of Principal Executive Officer or Authorized Agent/Date

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. Sec. 1001 and 33 U.S.C. Sec. 1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.)

Footnotes to Water Quality Monitoring Attachment A

- (1) Quantification level (QL) means the minimum levels, concentrations, or quantities of a target variable (e.g. target analyte) that can be reported with a specified degree of confidence in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.

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

- (2) If the reporting result is greater than or equal to the QL, then include the reporting result. If the reporting result is less than the QL, then report "< [lab QL]". For example, if the reporting result is below the QL with a QL of 25 micrograms/liter, then report "<25".

- (3) Sample Type

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

C = Composite = A 24-hour composite unless otherwise specified. The composite shall be a combination of individual samples, taken proportional to flow, obtained at hourly or smaller time intervals. The individual samples may be of equal volume for flows that do not vary by +/- 10 percent over a 24-hour period. For dissolved metals, the sample must be filtered within 15 minutes after completion of collection and before adding preservatives. If it is known or suspected that dissolved sample integrity will be compromised during collection of a composite sample collected automatically over time (e.g., by interchange of a metal between dissolved and suspended forms), collect and filter grab samples to be composited in place of a composite sample collected automatically.

- (4) The QL is at the discretion of the permittee.
- (5) Both Chromium III and Chromium VI may be measured by the total chromium analysis. The total chromium analytical test QL shall be less than or equal to the lesser of the Chromium III or Chromium VI method QL listed above. If the result of the total chromium analysis is less than the analytical test QL, both Chromium III and Chromium VI can be reported as "<[QL]", where the actual analytical test QL is substituted for [QL].
- (6) The total cyanide analytical test QL shall be less than or equal to the QL listed above. If the result of the total cyanide analysis is greater than the analytical test QL, then the effluent must be retested for free cyanide with an analytical test QL less than or equal to the total cyanide QL listed above.
- (7) The total sulfide analytical test QL shall be less than or equal to the QL listed above. If the result of the total sulfide analysis is greater than the analytical test QL, then the effluent must be retested for dissolved sulfide with an analytical test QL less than or equal to the total sulfide QL listed above.
- (8) Analytical Methods: Analysis of Butyltins in Environmental Systems by the Virginia Institute of Marine Science, dated November 1996 (currently the only Virginia Environmental Laboratory Accreditation Program (VELAP) accredited method).
- (9) If a VELAP certified laboratory does not exist for a required parameter or method, then the responsible party should consider use of an alternative method under the regulatory requirements if applicable and they should request that a laboratory obtain VELAP accreditation for the required parameter or method, but can continue to use a non-VELAP certified laboratory until a laboratory is certified for the required parameter or method. The responsible party should ensure prior to each sampling event that a VELAP-certified laboratory is not available prior to using a non-VELAP certified laboratory.

CONDITIONS APPLICABLE TO ALL VPDES PERMITS

A. Monitoring

1. Samples and measurements taken as required by this permit shall be taken at the permit designated or approved location and be representative of the monitored activity.
 - a. 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.
 - b. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will insure accuracy of measurements.
 - c. Samples taken shall be analyzed in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.
2. Any pollutant specifically addressed by this permit that is sampled or measured at the permit designated or approved location more frequently than required by this permit shall meet the requirements in Part II.A.1.a through c above and the results of this monitoring shall be included in the calculations and reporting required by this permit.
3. Operational or process control samples or measurements shall not be taken at the designated permit sampling or measurement locations. Operational or process control samples or measurements do not need to follow procedures approved under Title 40 Code of Federal Regulations Part 136 or 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 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 the required monitoring period, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to:

Department of Environmental Quality
Valley Regional Office
P.O. Box 3000
Harrisonburg, Virginia 22801

2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or on forms provided, approved or 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 his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

E. Compliance Schedule Reports

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

F. Unauthorized Discharges

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

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

G. Reports of Unauthorized Discharges

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

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

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

H. Reports of Unusual or Extraordinary Discharges

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

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

I. Reports of Noncompliance

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

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this paragraph:
 - a. Any unanticipated bypass; and
 - b. Any upset which causes a discharge to surface waters.
2. A written report shall be submitted within 5 days and shall contain:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
 - c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

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

3. The permittee shall report all instances of noncompliance not reported under Parts II.I.1 or 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 shall be made to the Department's Valley Regional Office at VRO.SSO-UD@deq.virginia.gov. During normal working hours (8:30 am to 4:30 pm Monday through Friday), if email is unavailable, the reports may be made at 540-574-7800. Outside normal working hours, if email is unavailable, the reports may be made at 540-820-3449. For emergencies, the Virginia Department of Emergency Services maintains a 24-hour telephone service at 800-468-8892.

J. Notice of Planned Changes

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
 - (1) After promulgation of standards of performance under Section 306 of Clean Water Act which are applicable to such source; or
 - (2) After proposal of standards of performance in accordance with Section 306 of Clean Water Act which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal;
 - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or
 - c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
2. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. Signatory Requirements

1. Applications. All permit applications shall be signed as follows:
 - a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - c. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
2. Reports, etc. All reports required by permits, and other information requested by the Board shall be signed by a person described in Part II.K.1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Part II.K.1;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
 - c. The written authorization is submitted to the Department.
3. Changes to authorization. If an authorization under Part II.K.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II.K.2 shall be submitted to the Department prior to or together with any reports, or information to be signed by an authorized representative.
4. Certification. Any person signing a document under Parts II.K.1 or 2 shall make the following certification: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to Comply

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to Reapply

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

N. Effect of a Permit

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

O. State Law

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

P. Oil and Hazardous Substance Liability

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

Q. Proper Operation and Maintenance

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

R. Disposal of solids or sludges

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

S. Duty to Mitigate

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

T. Need to Halt or Reduce Activity not a Defense

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

U. Bypass

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II.U.2 and U.3.
2. Notice
 - a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.
 - b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II.I.

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

V. Upset

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II.V.2 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.
2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated;
 - c. The permittee submitted notice of the upset as required in Part II.I; and
 - d. The permittee complied with any remedial measures required under Part II.S.
3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and Entry

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

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the State Water Control Law, any substances or parameters at any location.

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

X. Permit Actions

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

Y. Transfer of Permits

1. Permits are not transferable to any person except after notice to the Department. Except as provided in Part II.Y.2, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as may be necessary under the State Water Control Law and the Clean Water Act.
2. As an alternative to transfers under Part II.Y.1, this permit may be automatically transferred to a new permittee if:
 - a. The current permittee notifies the Department at least 30 days in advance of the proposed transfer of the title to the facility or property;
 - b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
 - c. The Board does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part II.Y.2.b.

Z. Severability

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

A. BIOSOLIDS LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning with the permit's effective date and lasting until the permit expiration date, the permittee is authorized to manage Class B biosolids in accordance with 9VAC25-31-420 through 720 and 9VAC25-32-303 through 358, the limitations, conditions and requirements set forth in this permit and the approved Biosolids Management Plan (BSMP).

All biosolids samples shall be collected and analyzed in accordance with Title 40 of the Code of Federal Regulations, Part 503 and 136, and the approved BSMP. Analyses shall be conducted by a VELAP accredited environmental laboratory. The permittee shall ensure that all biosolids generated under authority of this permit and provided to other persons, for the purpose of land application or further treatment, are monitored in accordance with the monitoring requirements as specified below in Part III.A.

1. Annual Production Monitoring

The permittee shall report the annual total amount of sludge produced (in dry metric tons) and annual amount of Class B biosolids (in dry metric tons) distributed for land application.

2. Metals Limitations and Monitoring Requirements

Pollutants in Class B biosolids that are generated and provided to a land applier under the authority of this permit shall be monitored and limited as specified below. Biosolids shall not be provided for land application if the concentration of any pollutant in the biosolids exceeds the ceiling limitation of that pollutant.

PARAMETERS	PC / CPLR LIMITATIONS	CEILING LIMITATIONS	MONITORING REQUIREMENTS	
	Monthly Average (mg/kg) ⁽¹⁾⁽²⁾⁽³⁾	Maximum (mg/kg) ⁽¹⁾⁽²⁾⁽⁴⁾	Frequency ⁽⁵⁾	Sample Type
Arsenic	41	75	1/Year	Composite
Cadmium	39	85	1/Year	Composite
Copper	1,500	4,300	1/Year	Composite
Lead	300	840	1/Year	Composite
Mercury	17	57	1/Year	Composite
Molybdenum	NL ⁽⁶⁾	75	1/Year	Composite
Nickel	420	420	1/Year	Composite
Selenium	100	100	1/Year	Composite
Zinc	2,800	7,500	1/Year	Composite

NL = No Limit, monitoring required

- (1) All parameters are subject to pollutant concentrations (PC), cumulative pollutant loading rates (CPLR), and ceiling limitations. PC biosolids contain the constituents identified above at concentrations below the monthly average specified in Part III.A.2. CPLR biosolids contain the constituents identified above at concentrations above the monthly average and each sample must be below the ceiling limitations specified in Part III.A.2.
- (2) All limits and criteria are expressed on a dry weight basis.
- (3) Monthly average shall be reported as the average of the results of all samples collected within a calendar month and analyzed using an approved method, in accordance with Part II.A.1-2 of this permit. For monitoring periods which include multiple months, if one sample is collected during the monitoring period, that result shall be reported as the monthly average. If samples are collected in multiple months during the monitoring period, a monthly average shall be calculated for each month in which samples were collected during the monitoring period and the highest monthly average reported. Individual results and calculations shall be submitted with the report.
- (4) The maximum concentration shall be reported as the highest single result from all samples collected and analyzed during a monitoring period.
- (5) The monitoring frequency may be increased during this permit term if DEQ deems it necessary.
- (6) The monthly average concentration for molybdenum is currently under study by USEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals.

3. Pathogen Reduction Requirements – Biosolids generated and provided to a land applier under this permit shall be treated to meet at least one Pathogen Reduction Alternative as identified in the table below prior to delivery to the land application site. The biosolids shall be monitored and limited in accordance with the treatment options selected and used by the permittee. The permittee will have a system in place to verify that all biosolids land applied under this permit meet at least one of these pathogen reduction standards and treatment requirements.

PATHOGEN REDUCTION ALTERNATIVE	PROCESS TO SIGNIFICANTLY REDUCE PATHOGENS (PSRP) OPTION	CLASS B PATHOGEN REDUCTION TREATMENT & STANDARDS	MONITORING REQUIREMENTS ⁽¹⁾
1	NA	Fecal coliform monitoring: <2,000,000 MPN/gm or <2,000,000 CFU/gm, geometric mean of 7 samples (9VAC25-31-710.B.3)	1/Year ⁽²⁾
2	1	PSRP: Aerobic Digestion: Sludge mean cell residence time from 40 days at 20°C to 60 days at 15°C (9VAC25-31-710.D.1)	(3)
2	2	PSRP: Air dry in a drying bed for three months. Ambient average daily temperature must be above 0°C for 2 of the 3 months (9VAC25-31-710.D.2)	(3)
2	3	PSRP: Anaerobic digestion for a mean cell residence time between 15 days at 35°C - 55°C up to 60 days at 20°C (9VAC25-31-710.D.3)	(3)
2	4	PSRP: Composting at 40°C or above for 5 or more days, maintaining > 55°C for 4 consecutive hours during the 5 days (9VAC25-31-710.D.4)	(3)
2	5	PSRP: Sufficient lime is added to the sewage sludge to raise the pH of the sewage sludge to 12 S.U. after two hours of contact (9VAC25-31-710.D.5)	(3)
3	PROCESS AS APPROVED	Process equivalent to PSRP: PROCESS AS APPROVED (9VAC25-31-710.B.4)	(3)

NA = Not applicable

- (1) The monitoring frequency may be increased during this permit term if DEQ deems it necessary.
- (2) Maintain operating records to demonstrate that the facility is operating at a performance level known to meet pathogen reduction standards at the time fecal coliform monitoring was conducted, or conduct fecal coliform monitoring no more than 60 days prior to providing biosolids to a land applier.
- (3) Process monitoring must be sufficient to demonstrate compliance with PSRP treatment requirements.

4. Vector Attraction Reduction (VAR) Requirements – Biosolids generated and provided to a land applier under this permit shall be treated to meet at least one VAR Option 1 - 8 as identified in the table below prior to delivery to the land application site or VAR Option 9 or 10 must be performed at the land application site. The biosolids shall be monitored and limited in accordance with the treatment options selected and used by the permittee.

VAR OPTION	VECTOR ATTRACTION REDUCTION TREATMENT STANDARD	MONITORING REQUIREMENTS ⁽¹⁾
1	38% Reduction of volatile solids by digestion (9VAC25-31-720.B.1)	1/Year ⁽²⁾⁽³⁾
2	When 38% reduction is not achieved by anaerobic digestion, 40 day bench study at temperatures between 30°C and 37°C to demonstrate further reduction of volatile solids <17% (9VAC25-31-720.B.2)	1/Year ⁽²⁾⁽³⁾
3	When 38% reduction is not achieved by aerobic digestion, 30 day bench study at 20°C to demonstrate further reduction of volatile solids <15% (9VAC25-31-720.B.3)	1/Year ⁽²⁾⁽³⁾
4	Specific Oxygen Uptake Rate of ≤ 1.5 mg O ₂ /hour/gram total solids at 20°C (aerobically processed sludge) (9VAC25-31-720.B.4)	1/Year ⁽²⁾⁽³⁾
5	14 day aerobic process, temperatures above 40°C with an average temperature of >45°C (9VAC25-31-720.B.5)	(3)
6	Sufficient alkali is added to the sewage sludge to raise the pH of the sewage sludge to 12 or higher, and without the addition of more alkali, maintain the pH at 12 S.U. for two hours and then at 11.5 S.U. or higher for an additional 22 hours (9VAC25-31-720.B.6)	(3)
7	Where biosolids do not contain unstabilized solids from primary wastewater treatment, the percent solids of the biosolids shall be ≥ 75% (9VAC25-31-720.B.7)	1/Year ⁽²⁾⁽³⁾
8	Where biosolids contain unstabilized solids from primary wastewater treatment, the percent solids of the biosolids shall be ≥ 90% (9VAC25-31-720.B.8)	1/Year ⁽²⁾⁽³⁾
9	Sewage sludge shall be injected below the surface of the land (9VAC25-31-720.B.9)	NA ⁽⁴⁾
10	Sewage sludge land applied shall be incorporated into the soil within 6 hours after application (9VAC25-31-720.B.10)	NA ⁽⁴⁾

NA = Not applicable

- (1) The monitoring frequency may be increased during this permit term if DEQ deems it necessary.
- (2) Maintain operating records to demonstrate that the facility is operating at a performance level known to meet VAR standards at the time VAR monitoring was conducted, or determine Specific Oxygen Uptake Rate no more than 60 days prior to providing biosolids to a land applier.
- (3) Process monitoring must be sufficient to demonstrate compliance with VAR treatment requirements.
- (4) If the selected VAR option 1- 8 is not met, the permittee shall provide notification to the land applier at the time the biosolids are delivered that the biosolids did not meet VAR at the treatment facility and that the biosolids must be injected or incorporated. The permittee shall obtain verification from the land applier that injection or incorporation occurred.

5. Biosolids Characteristics – Biosolids generated and provided to a land applier under this permit shall be monitored and limited as specified below:

PARAMETERS	LIMITATIONS		MONITORING REQUIREMENTS	
	Monthly Average	Minimum and Maximum	Frequency	Sample Type
Percent Solids (%)	NL	NA	Part III.A.6	Composite
Volatile Solids (%)	NL	NA	Part III.A.6	Composite
Total Kjeldahl Nitrogen (mg/kg) ⁽¹⁾	NL	NA	Part III.A.6	Composite
Ammonia Nitrogen (mg/kg) ⁽¹⁾	NL	NA	Part III.A.6	Composite
Nitrate Nitrogen (mg/kg) ⁽¹⁾	NL	NA	Part III.A.6	Composite
Total Phosphorus (mg/kg) ⁽¹⁾	NL	NA	Part III.A.6	Composite
Total Potassium (mg/kg) ⁽¹⁾	NL	NA	Part III.A.6	Composite
pH (S.U.)	NA	NL	Part III.A.6	Composite
Alkalinity as CaCO ₃ (mg/kg) ⁽²⁾	NL	NA	Part III.A.6	Composite

NL = No limitations, monitor and report

NA = Not applicable

(1) Expressed on a dry weight basis.

(2) Lime treated biosolids (10% or more lime by weight) shall be analyzed for percent CaCO₃.

6. Frequency of Monitoring – The frequency of monitoring is based on the amount of bulk biosolids from that source applied to the land, as indicated in the table below:

Amount of biosolids land applied (dry tons per 365-day period)	Frequency
Greater than zero but less than 290	Once per year
Equal to or greater than 290 but less than 1,500	Once per quarter (four times per year)
Equal to or greater than 1,500 but less than 15,000	Once per 60 days (six times per year)
Equal to or greater than 15,000	Once per month (12 times per year)

B. BIOSOLIDS MANAGEMENT AND REPORTING REQUIREMENTS

1. Biosolids from this facility shall be provided to a permitted land applier for the purpose of land application only if this facility is identified as an approved source on DEQ's *Sources of Biosolids, Industrial Sludges, WTP Residuals* list and if the biosolids are treated to meet the metals limits in Parts III.A.2 and the pathogen reduction and VAR standards in Parts III.A.3 and 4.
2. Annual Report – The permittee shall submit an Annual Report not later than February 19th of each year to the DEQ-Valley Regional Office. Each report is for the previous calendar year's activity. If no biosolids were generated and provided to a land applier under this permit during the reporting year, a report shall be submitted stating that no biosolids were generated and provided to a land applier during the year. The annual report shall be certified and signed in accordance with Part II.K. The report shall include at minimum:
 - a. Part III.A.1 Annual Production Monitoring;
 - b. Biosolids Monitoring Data;
 - (1) Part III.A.2 Metals Limitations Monitoring;
 - (2) Part III.A.3 Pathogen Reduction Alternative;
 - (3) Part III.A.4 VAR Option;
 - (4) Part III.A.5 Biosolids Characteristics; and
 - (5) Supporting documentation, including laboratory chain of custody forms and certificates of analyses;
 - c. A summary of biosolids disposal contracts, if any, currently held with other generators, as well as any other biosolids or sludges currently being handled through subcontracts or other agreements. Include biosolids or sludges given to other generators, contractors or land filled, and biosolids or sludges accepted from other generators for treatment or land application; and
 - d. Identification of other methods used to dispose of or use biosolids or sludge produced during the previous calendar year, including the annual total amount of biosolids or sludge (in dry metric tons) disposed of or used by each method identified.
3. Recordkeeping – The permittee is required to retain the following information for at least five years:
 - a. The concentration of each pollutant in Part III.A.2;
 - b. A description of how the Class B pathogen reduction requirements in Part III.A.3 are met;
 - c. When one of the vector attraction reduction requirements 9VAC25-31-720.B is met, a description of how the VAR requirement is met;
 - d. A description of how the management practices specified in the approved Biosolids Management Plan and this permit are met;
 - e. The reports required in Part III.B.2;
 - f. The NANIs required in Part III.B.4; and
 - g. The following certification statement(s) as applicable:

"I certify, under penalty of law, that the information that will be used to determine compliance with the Class B pathogen requirements in 9VAC25-31-710.B and the VAR requirement in (insert one of the vector attraction reduction requirements in 9VAC25-31-720.B.1 through B.8, if one of those requirements is met) 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."

4. Notice and Necessary Information (NANI) – A NANI shall be provided to any person to whom biosolids are provided for the purpose of land application. The NANI shall be provided at the time the biosolids are provided if available, but no later than 45 days after the last day of the month in which biosolids were provided. The NANI shall represent the most recent monitoring period.

The NANI shall be on the form provided with this permit and include at minimum:

- a. A statement that Class B pathogen requirements in 9VAC25-31-710.B were met and the alternative used;
- b. A statement that one of the VAR requirements in 9VAC25-31-720.B.1 through B.8 was met and the alternative used; or
- c. A statement that one of the VAR requirements in 9VAC25-31-720.B.1 through B.8 was not met and incorporation or injection was required;
- d. The notice(s) provided to the land applier when biosolids provided did not meet VAR and required incorporation or injection;
- e. The concentration of total nitrogen and total phosphorus (as N and P on a dry weight basis) of the biosolids; and
- f. The following certification statement:
"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."

5. Biosolids Management Plan

- a. The permittee shall conduct all biosolids/sewage sludge use or disposal activities in accordance with a BSMP. The permittee shall maintain the BSMP which consists of the following components:
 - (1) The materials developed and submitted at the time of permit application or permit modification in accordance with 9VAC25-31-100.Q;
 - (2) The O&M Manual (Sections regarding solids handling and biosolids production and management, etc); and
 - (3) The Odor Control Plan.
 - b. Odor Control Plan (OCP) Requirement – If an OCP is not on file at DEQ, an OCP shall be submitted to DEQ within 90 days of the effective date of this permit. The OCP shall include at a minimum:
 - (1) Methods used to minimize odor in producing biosolids;
 - (2) Methods used to identify malodorous biosolids before delivery to the land applier (at the generating facility);
 - (3) Methods used to identify and abate malodorous biosolids if delivered to the field, prior to land application; and
 - (4) Methods used to abate malodor from biosolids if land applied.
 - c. The BSMP and all of its components are an enforceable part of the permit.
 - d. Any proposed changes in the biosolids/sewage sludge use or disposal practices or procedures followed by the permittee shall be documented and submitted for DEQ approval prior to the effective date of the changes. Upon approval, the revised BSMP becomes an enforceable part of the permit. This permit may be modified or, alternatively, revoked and reissued to incorporate limitations or conditions necessitated by substantive changes in biosolids/sewage sludge use or disposal practices.
6. Reopener – This permit may be modified or, alternatively, revoked and reissued if any applicable standard for biosolids/sewage sludge use or disposal promulgated under Section 405(d) of the Clean Water Act is more stringent than any requirements for biosolids/sludge use or disposal in this permit, or controls a pollutant or practice not limited in this permit.

STUARTS DRAFT WWTP LOCAL LIMITS (mg/L)	
Pollutant	Current Limit
BOD	250
Oil and Grease	100
pH (Standard Units)	5.0 – 11.0
TSS	250
Arsenic	0.20
Cadmium	0.04
Chromium	1.67
Copper	1.43
Cyanide	0.70
Lead	0.38
Mercury	0.0007
Nickel	0.18
Silver	0.23
Zinc	1.16

Effective Date: 7/13/2020