

# COMMONWEALTH of VIRGINIA

# DEPARTMENT OF ENVIRONMENTAL QUALITY TIDEWATER REGIONAL OFFICE

Doug Domenech Secretary of Natural Resources 5636 Southern Boulevard, Virginia Beach, Virginia 23462 (757) 518-2000 Fax (757) 518-2009 www.deq.virginia.gov

David K. Paylor Director

April 11, 2011

Mr. Edward G. Henifin, P.E. General Manager Hampton Roads Sanitation District Williamsburg WWTP PO Box 5911 Virginia Beach, Virginia 23471-0911

> Location: Williamsburg Registration No.: 60355 AFS Id. No.: 51-095-00023

Dear Mr. Henifin:

Attached is a renewed Federal Operating Permit to operate the Williamsburg WWTP with sludge incineration pursuant to 9 VAC 5 Chapter 80 of the Virginia Regulations for the Control and Abatement of Air Pollution. This permit replaces your previous permit dated April 6, 2006.

The permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all permit conditions carefully.

In evaluating the application and arriving at a final decision to issue this renewal, the Department deemed the application complete on January 21, 2011 and solicited written public comments by placing a newspaper advertisement in the Daily Press on Wednesday, February 23, 2011. The thirty-day comment period (provided for in 9 VAC 5-80-270) expired on Friday, March 25, 2011, with no comments having been received in this office.

This approval to operate does not relieve HRSD of the responsibility to comply with all other local, state, and federal permit regulations.

Mr. Edward G. Henifin Hampton Roads Sanitation District Williamsburg WWTP April 11, 2011 Page 2

Issuance of this permit is a case decision. The Regulations, at 9 VAC 5-170-200, provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this permit is mailed or delivered to you. Please consult that and other relevant provisions for additional requirements for such requests.

Additionally, as provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal to court by filing a Notice of Appeal with:

Mr. David K. Paylor, Director Department of Environmental Quality PO Box 1105 Richmond, VA 23218-1105

In the event that you receive this permit by mail, three days are added to the period in which to file an appeal. Please refer to Part 2A of the Rules of the Supreme Court of Virginia for additional information including filing dates and the required content of the Notice of Appeal.

If you have any questions concerning this permit, please call Ms. Kelly Giles at (757) 518-2155.

Sincerely,

Jane A. Workman Air Permit Manager

JAW/KRG/60355\_003\_11\_T5Renewal cvrltr\_HRSD-Williamsburg.doc

Attachments: Permit

Statement of Legal and Factual Basis

cc: Director, OAPP (electronic file)

Manager, Data Analysis (electronic file)

Chief, Permits and Technical Assessment Branch (3AP12), U.S. EPA, Region III (electronic file)

Manager/Inspector, Air Compliance



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#### Federal Operating Permit Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300, of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:

Hampton Roads Sanitation District

Facility Name:

Williamsburg WWTP 300 Ron Springs Road

Facility Location:

Williamsburg, Virginia

Registration Number:

60355

Permit Number:

VA-60355

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act (Sections I through IX) State Only Enforceable Requirements (Section XI)

<u>April 6, 2011</u>

Effective Date

April 5, 2016

Expiration Date

Maria R. Nold, Acting Regional Director

Signature Date

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# I. Facility Information

Permittee

Hampton Roads Sanitation District PO Box 5911 Virginia Beach, Virginia 23471

Responsible Official
Mr. Edward G. Henifin, P.E.
General Manager

Facility
Williamsburg WWTP
300 Ron Springs Road
Williamsburg, VA 23185

Contact Person Mr. Mark Feltner Environmental Scientist 757-460-4254

County-Plant Identification Number: 51-095-00023

Facility Description: NAICS 221320, 562219 and 562213

The Hampton Roads Sanitation District (HRSD) is a political subdivision of the Commonwealth of Virginia and was established as a governmental instrument to provide for the public health and welfare by abating water pollution in the Hampton Roads area through the interception of wastewater outfalls and providing wastewater treatment plants. All of the HRSD treatment plants are interconnected for diverting wastewater flow to alternate treatment locations as the area's daily amount of generated wastewater flow varies along with the operational capabilities of each plant. The Williamsburg plant provides both primary and secondary municipal wastewater treatment for the Hampton Roads area, serving mainly Williamsburg and James City County clients. The Williamsburg Plant is rated to treat a design maximum average dry weather flow rate of 22.5 million gallons per day (mgd) and sized to accommodate an instantaneous wet weather peak hour flow rate of 50 mgd. The facility process units are grouped into four main functions: liquids management, solids handling, sludge incineration, and other combustion units.

Liquids Management – all of the unit processes that treat the received wastewater prior to discharge to the James River. These unit processes include the septic tank truck unloading, headworks (influent screening and pumping), aerated grit removal chamber, primary clarification, intermediate oxidation towers, intermediate clarification, activated biosolids treatment, secondary clarification, chlorine contact basin and sodium bisulfate injection.

Solids Handling – unit processes that treat liquid treatment by-product streams before disposal. These unit processes include screenings and grit handling, primary scum holding tank/concentrator, gravity thickener, belt thickener, biosolids holding tank, dewatering centrifuges, biosolids screw conveyors, and ash storage/disposal.

Sludge Incineration – two identical multi-hearth incinerators are used to dispose of dewatered solids from the solids handling sections. Each incinerator has nine hearths, a dedicated induced-draft fan and an air-pollution control train consisting of a precooler, venture, and an impingement scrubber. The incinerators use either natural gas or fuel oil to supplement combustion.

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Other Combustion Units – a plant electrical generator, a small heating boiler for the dewatering building, and building space heaters. All these units burn diesel or natural gas. The electrical generator is used mainly for occurrences of normal power losses, and is also a part of an Emergency Load Response Program (ELRP) administered by EnergyConnect as part of the Pennsylvania New Jersey Maryland Interconnection, LLC (PJM).

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# II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD)  Description	Pollutant Controlled	Applicable Permit Date
Incinerators	_					
I-1/I-2	2	Multi hearth sludge incinerators(natural gas or distillate oil as backup), 1973	12 burners rated at 2.7 MMBTU//hr each per incinerator. 47 dry tons/day (sludge) per incinerator	Pre-cooler with Venturi scrubber followed by impingement (tray) scrubber (water only). (Pre-cooler - TCR, Venturi – Airpol#7539-D2-2, Tray – Envirotech V5-JS). 1999.	PM/PM-10 (Odor)	04/04/73
Liquids Manag	gement					
L-1	3a 3b 4a 4b	Liquids Management, 1971	22.5 mgd (dry) (wastewater)	Packed tower scrubber (water plus NaOCl and NaOH). (Ceilcote - or Delta Environmental Systems)	(Odor)	N/A
Plant Emerger	cy Genera	ators				
G-1	1	Plant diesel engine electrical generator, 1971. MACT Subpart ZZZZ	17.45 MMBTU/hr (3200 kW)	N/A	N/A	N/A
Solids Handlii	ng					
S-1	5a 5b	Solids Handling, 1973	22.5 mgd (dry) (wastewater)	Single stage packed tower scrubber (water plus NaOCl and NaOH) Ceilcote. 1990.	(Odor)	N/A

<sup>\*</sup>The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

## III. INCINERATOR REQUIREMENTS – (I-1/I-2)

#### A. Limitations

	Table III.A Emission Limitations for Each Incinerator, I-1/I-2				
Regulated Pollutant	Limitation/Standard	Applicable Requirement	Reference EPA Test Method		
Hg	3200 grams/24-hour period	40 CFR 61, Subpart E, Para 61.52 (b)	Method 101A, 105, or 29		
$\mathrm{PM}_{\mathrm{total}}$	Less than 0.14 grains/dscf at 12% C02	NSR permit condition 4.iii issued 04/04/1973	Method 5 and 202		

1. Fuel - The approved fuels for the incinerators are natural gas and distillate oil. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials, ASTM D396-78 "Standard Specification for Fuel Oils." A change in the fuels may require a permit to modify and operate.

(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 4 of NSR permit issued 04/04/73)

2. **Emissions** - Emissions from the operation of each incinerator (I-1/I-2) shall not exceed the limits specified in Table III.A.

(9 VAC 5-80-110, 9 VAC 5-40-750, Condition 4.iii of NSR permit issued 04/04/73, and 40 CFR 61 Subpart E, Para. 61.52 (b))

- 3. Visible Emission Limit Visible Emissions from the incinerator stack shall be less than 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction. "Startup" means the setting in operation of an affected facility for any purpose. "Shutdown" means the cessation of operation of an affected facility for any purpose. "Malfunction" means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner that (i) arises from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, (ii) causes an exceedance of a technology based emission limitation under the permit due to unavoidable increases in emissions attributable to the failure and (iii) requires immediate corrective action to restore normal operation. Failures that are caused entirely or in part by improperly designed equipment, lack of or poor preventative maintenance, careless or improper operation, operator error, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.
  - (9 VAC 5-80-110, 9 VAC 5-50-80 and Condition 4.ii of NSR permit issued 04/04/73)
- 4. **Plant Changes** No changes shall be made to the plant operations, after a stack test or sludge test has been conducted which would potentially increases mercury emissions above the level determined by the most recent test, until the new emission level has been estimated by calculations and the results reported to EPA and DEQ.

(9 VAC 5-80-110, 9 VAC 5-60-70, and 40 CFR 61 Subpart E, Para. 61.53(d)(4) and 61.54(e))

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#### B. Monitoring

- 1. **Fuel Certification** The permittee shall obtain a certification from the fuel supplier for each shipment of distillate oil. Each fuel supplier certification shall include the following:
  - a. The name of the fuel supplier;
  - b. The date on which the oil was received;
  - c. The volume of distillate oil delivered in the shipment; and
  - d. A statement that the oil complies with the American Society for Testing and materials specifications for fuel oil/diesel oil numbers 1 or 2.
  - (9 VAC 5-80-110 and Condition 4 of NSR permit issued 04/04/73)
- 2. Visible Emissions Evaluations The permittee shall observe the incinerator stack for the operating incinerator (I-1/I-2) one day during daylight normal operations within the first seven operating days of each month. If visible emissions are noted, the permittee shall take immediate appropriate action to correct the cause of the opacity. If such corrective action fails to correct the problem, a visible emissions evaluation (VEE) shall be conducted for at least six (6) minutes in accordance with Method 9 (40 CFR 60, Appendix A). If the VEE average for the six (6) minute period exceeds ten (10) percent, the VEE shall continue for one hour from initiation. All periodic visual evaluations, visible emission evaluations and corrective actions necessary shall be recorded in a logbook. The log book shall be kept at the facility and made available for inspection by the DEQ for the most recent five (5) year period.
  (9 VAC 5-80-110)

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3. Compliance Assurance Monitoring (CAM) for PM - The permittee shall monitor, operate, calibrate and maintain scrubber system for the control of PM from the incinerators (I-1/I-2) according to the following:

CAM PLAN			
Indicator	Minimum water flow rates for precooler, venturi and impingement wet scrubber.		
Measurement Approach	Water flow rate is continuously measured via roto/vortex/mag meters.		
	An excursion is defined as any average water flow rate below the following:		
Indicator Ranges	Precooler 38 gallons per minute (gpm) Venturi 114 gpm Impingement 190 gpm		
Performance Criteria: Data Representativeness	Inflow water meters are installed for each component of the scrubber system (precooler, venturi and impingement wet scrubber).		
Response to Excursions	Maintenance will respond within two hours to make adjustments/repairs		
Verification of Operational Status	N/A		
QA/QC Practices and Criteria	Zero flow checks on incinerator water flow meters for each incinerator cold start-up.		
Monitoring Frequency and Data Collection Procedure	Water flow rates are continuously measured by each meter; scale range is appropriate for each water flow meter as designated by the manufacturer.  Water flow rates are recorded hourly (clock) for each meter.		
Averaging Period	Three (clock) hours average for each water flow meter (up to eight 3-hour averages per calendar day).		

(9 VAC 5-80-110 and 40 CFR 64)

- 4. **Compliance Assurance Monitoring (CAM)** The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9. (9 VAC 5-80-110 E and 40 CFR 64.6 (c))
- 5. Compliance Assurance Monitoring (CAM) At all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(9 VAC 5-80-110 E and 40 CFR 64.7 (b))

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- 6. Compliance Assurance Monitoring (CAM) Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the [CAM-affected unit] is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.

  (9 VAC 5-80-110 E and 40 CFR 64.7 (c))
- 7. Compliance Assurance Monitoring (CAM) Upon detecting an excursion or exceedance, the permittee shall restore operation of the incinerators (I-1/I-2) (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable. (9 VAC 5-80-110 E and 40 CFR 64.7 (d)(1))
- 8. Compliance Assurance Monitoring (CAM) Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

  (9 VAC 5-80-110 E and 40 CFR 64.7(d)(2))
- 9. Compliance Assurance Monitoring (CAM) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the Director, Tidewater Regional Office and, if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

  (9 VAC 5-80-110 E and 40 CFR 64.7(e))
- 10. Compliance Assurance Monitoring (CAM) If the number of exceedances or excursions exceeds 5 percent duration of the operating time for the incinerators (I-1/I-2) for a semiannual reporting period, the permittee shall develop, implement and maintain a Quality Improvement Plan (QIP) in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection. The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the permittee shall modify the plan to include procedures for conducting one or more of the following, as appropriate:
  - a. Improved preventative maintenance practices;
  - b. Process operation changes;
  - c. Appropriate improvements to control methods;

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- d. Other steps appropriate to correct control performance; and
- e. More frequent or improved monitoring.
- (9 VAC 5-80-110 E and 40 CFR 64.8(a) and (b))

#### C. Testing

1. PM Stack Testing – A stack test for particulate matter emissions shall be conducted on one incinerator (I-1 or I-2) within 60 days after either incinerator exceeds a 43 dry ton/day (the calendar monthly average) biosolids feed rate to determine compliance with the permit emission limits (Table III.A). If the stack test results for I-1 or I-2 show that PM emissions exceed 0.11 grains/dscf, the second incinerator must be stack tested within 12 months of the initial stack test. The test(s) shall be conducted, reported, and data reduced as set forth in 9 VAC 5-50-30, and test methods and procedures contained in EPA Method 5 and 202. The details of the test(s) are to be arranged with and approve prior to testing by the Director, Tidewater Regional Office.

(9 VAC 5-80-110)

- 2. Mercury Testing For Plant Changes If plant changes project mercury emissions to exceed 1,600 grams/24-hr period, a test for the level of mercury emissions from one incinerator (I-1 or I-2) shall be conducted within 60 days after the changes have been implemented. The sludge shall be tested for mercury levels using Method 105 of 40 CFR 61, Appendix B and following the requirements of 40 CFR 60.54(c) through 60.54(d), or an incinerator stack test performed using Method 101 A of 40 CFR 61, Appendix B and following the requirements of 40 CFR 60.53(d)(4) or Method 29 of 40 CFR 60, Appendix A. The details of the test(s) are to be arranged with and approved prior to testing by the Director, Tidewater Regional Office. (9 VAC 5-80-110 and 40 CFR 60, Para. 61.55(a))
- 3. Additional Testing Methods If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ. (9 VAC 5-80-110)

#### D. Reporting

- 1. Stack Test Protocol- Submission of the test protocol for the proposed incinerator particulate matter stack test shall be sent to the Director, Tidewater Regional Office at least 30 days prior to the test date. (9 VAC 5-80-110)
- Stack Testing Date Notification of proposed stack test date(s) for particulate matter shall be sent to the Director, Tidewater Regional Office at least 30 days prior to testing date(s). (9 VAC 5-80-110)
- Stack Test Results Report One copy of the particulate matter test results report for the incinerator shall be sent to the Director, Tidewater Regional Office within 45 days of test completion. (9 VAC 5-80-110)
- 4. **Proposed Plant Changes -** Notification of proposed changes to the plant operations which would potentially increase mercury emissions above the level determined by the most recent test under 40 CFR 61, Subpart E shall be sent at least 30 days prior to implementing such changes along with the new calculated mercury emissions to the Director, Tidewater Regional Office and EPA.

  (9 VAC 5-80-110 and 40 CFR 61, Subpart E, Para 61.53(d)(4) & 61.54(e))
- 5. Any Mercury Tests Conducted for 40 CFR 61, Subpart E Notification of proposed stack test date(s) or sludge sampling date(s) for mercury emissions shall be sent to the Director, Tidewater Regional Office and EPA at least 30 days prior to testing dates.

(9 VAC 5-80-110 and 40 CFR 61, Subpart E, Para 61.53(d) and 61.54(b))

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6. Any Mercury Tests Conducted for 40 CFR 61, Subpart E -The stack test determination or sludge test determination for mercury emissions shall be completed within 30 days of sample collection. Each mercury emissions determination shall be dispatched within 15 calendar days of determination via registered letter to Director, Tidewater Regional Office and EPA.

(9 VAC 5-80-110 and 40 CFR 61, Subpart E, Para 61.53(d) and 61.54(f))

7. Notices for EPA – Notices for EPA will be sent to:

U.S. EPA, Region III Air Protection (3AP12) Attn: 40 CFR 61 Subpart (E) Coordinator 1650 Arch Street Philadelphia, PA 19103-2029 (9 VAC 5-80-110)

- 8. Compliance Assurance Monitoring (CAM) Reporting The permittee shall submit CAM reports as part of the Title V semi-annual monitoring reports required by General Condition C.3 of this permit to the Director, Tidewater Regional Office. Such reports shall include at a minimum:
  - a. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedance, as applicable, and the corrective actions taken;
  - Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
  - c. A description of the actions taken to implement a quality improvement plan (QIP) during the reporting period as specified in §64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.
    (9 VAC 5-80-110 and 40 CFR 64.9(a))

#### E. Recordkeeping

- 1. **Records** The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:
  - a. All fuel supplier certifications;
  - b. Any sludge test or stack test results for mercury emissions;
  - c. Any stack test results for PM emissions from the tested incinerator with those PM emission factors used for making emission estimates from both incinerators unless emission factors are established for each incinerator by its own stack test;
  - d. Incinerator visible emissions observations, VEE records and any necessary corrective action taken as required by Condition III.B.2;
  - e. Operating procedures, maintenance records, and operator training records; and
  - f. Daily (monthly average) dry ton biosolids feed rate to active incinerator(s) used to determine if a stack test for PM is needed per Condition III.D.1.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-50-50, 9 VAC 5-80-110, and 40 CFR 61 Subpart E, Para. 61.53(d) and 61.54(g))

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2. Compliance Assurance Monitoring (CAM) Recordkeeping – The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan (QIP) required pursuant to §64.8 and any activities undertaken to implement a quality improvement plan (QIP), and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). (9 VAC 5-80-110 and 40 CFR 64.9(b))

# IV. LIQUIDS MANAGEMENT – (L-1)

#### A. Limitations

1. Visible Emission Limit - Visible emissions from each scrubber stack (stacks 3a, 3b, 4a and 4b) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.

(9 VAC 5-50-80 and 9 VAC 5-80-110)

## V. SOLIDS HANDLING - (S-1)

#### A. Limitations

1. Visible Emission Limit - Visible emissions from each scrubber stack (stacks 5a and 5b) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction. (9 VAC 5-50-80 and 9 VAC 5-80-110)

# VI. ELECTRICAL GENERATOR - (G-1)

#### A. Limitations

Fuel - The approved fuel for the diesel engine electrical generator is distillate oil. Distillate oil is defined as
fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and
Materials, ASTM D396-78 "Standard Specification for Fuel Oils." A change in the fuels may require a
permit to modify and operate.

Maximum sulfur content per shipment: 0.5%. (9 VAC 5-80-110)

2. Visible Emission Limit - Visible emissions from the diesel engine electrical generator stack, shall not each exceed 20 % opacity except during one six (6) minute period in any one hour in which visible emissions shall not exceed 60 % opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction. (9 VAC 5-80-110)

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#### B. Monitoring

- 1. **Fuel Certification** The permittee shall obtain a certification from the fuel supplier for each shipment of distillate oil. Each fuel supplier certification shall include the following:
  - a. The name of the fuel supplier;
  - b. The date on which the distillate oil was received;
  - c. The volume of distillate oil delivered in the shipment; and
  - d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications for fuel oils/diesel fuels numbers 1 or 2.

(9 VAC 5-80-110)

2. Visible Emissions - The permittee shall observe the generator stack for visible emissions when the generator is under full plant load during the time period of the first routine maintenance that is performed after each 500 hours of operations for each generator. If visible emissions are noted, a visible emissions evaluation (VEE) shall be conducted for at least six (6) minutes in accordance with Method 9 (40 CFR 60, Appendix A). If the VEE opacity average for the initial six (6) minutes exceeds ten (10) percent, the VEE shall continue for one hour from initiation.

(9 VAC 5-80-110)

#### C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to:

- 1. The annual amount of distillate fuel for the diesel engine generator, calculated monthly as the sum of each consecutive 12-month period;
- 2. All fuel supplier certifications;
- 3. Visible emissions checks and visible emissions evaluations for each generator;
- 4. Operating procedures, maintenance records, and operator training records; and
- 5. Operating hours of the electrical generator (G-1) to determine when the required VEE in Condition VI.B.2 should be conducted.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110)

# VII. PETROLEUM LIQUID UST FOR SOLIDS HANDLING - (T-22)

#### A. Recordkeeping

1. **Tank Records** - The permittee shall maintain records of fuel type stored, dimensions of tank T-22, and the storage capacity of tank T-22.

(9 VAC 5-80-110 and 40 CFR 60 Subpart Kb, Para. 60.116(b))

#### VIII. INSIGNIFICANT EMISSION UNITS

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
ISU-CB-20	Dewatering Bldg. Heating Boiler	5-80-720 C.2.a	N/A	2.4 MMBTU/hr
ISU-T-22	Solids Handling distillate oil UST	5-80-720 B.2	voc	20,000 gal.
ISU-T-24	Liquids Management distillate UST	5-80-720 B.2	voc	6,000 gal.
ISU-T-25	Liquids Management gasoline UST	5-80-720 B.2	VOC	1,000 gal.
ISU-MFS-34	Parts Cleaners and Degreasers	5-80-720 B.2	voc	N/A

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

# IX. PERMIT SHIELD & INAPPLICABLE REQUIREMENTS

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR 60 Subpart O	NSPS for Sewage Treatment Plants	Incinerator that charges more than 2,205 lb/day of municipal sewage sludge (dry basis)
40 CFR 61 Subpart C	NESHAPS for Beryllium	Incineration of Beryllium wastes
40 CFR 63 Subpart VVV	NESHAPS for POTWs	New and reconstructed major HAPs POTWs
9 VAC 5 Chapter 40, Article 8	Emission Standards for Fuel Burning Equipment	Standards for PM and SO <sub>2</sub> for fuel burning equipment
9 VAC 5 Chapter 40, Article 4	Emission Standards for General Process Operations	Standards for PM from any process unit and SO <sub>2</sub> standard for combustion equipment

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.

(9 VAC 5-80-140)

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### X. GENERAL CONDITIONS

#### A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.

(9 VAC 5-80-110 N)

### **B.** Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

- 1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
- 2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
- 3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
- 4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
- 5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

#### C. Recordkeeping and Reporting

- 1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
  - a. The date, place as defined in the permit, and time of sampling or measurements.
  - b. The date(s) analyses were performed.
  - c. The company or entity that performed the analyses.
  - d. The analytical techniques or methods used.
  - e. The results of such analyses.
  - f. The operating conditions existing at the time of sampling or measurement.
  - (9 VAC 5-80-110 F)

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- 2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. (9 VAC 5-80-110 F)
- 3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:
  - a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
  - b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:
    - (i) Exceedance of emissions limitations or operational restrictions;
    - (ii) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions, or,
    - (iii) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
  - c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-110 F)

#### D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- 1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
- 2. The identification of each term or condition of the permit that is the basis of the certification.
- 3. The compliance status.
- 4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
- 5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
- 6. Such other facts as the permit may require to determine the compliance status of the source.
- 7. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3\_APD\_Permits@epa.gov

(9 VAC 5-80-110 K.5)

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### E. Permit Deviation Reporting

The permittee shall notify the Director, Tidewater Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition IX.C.3 of this permit.

(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

#### F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, Tidewater Regional Office by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Tidewater Regional Office.

(9 VAC 5-20-180 C)

#### G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.

(9 VAC 5-80-110 G.1)

#### H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.

(9 VAC 5-80-110 G.2)

#### I. 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.

(9 VAC 5-80-110 G.3)

#### J. Permit Modification

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.

(9 VAC 5-80-190 and 9 VAC 5-80-260)

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#### K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. (9 VAC 5-80-110 G.5)

#### L. Duty to Submit Information

- 1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality. (9 VAC 5-80-110 G.6)
- 2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G: (9 VAC 5-80-110 K.1)

### M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.

(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

#### N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

- 1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
- 2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paying of roadways and the maintaining of them in a clean condition;
- 3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;
- 4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
- 5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

#### O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the

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Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-50-20 E and 9 VAC 5-40-20 E)

#### P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.

(9 VAC 5-80-110 J)

#### Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

- 1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
- 2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
- 3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
- 4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

#### R. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

- 1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- 2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- 3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

#### S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request. (9 VAC 5-80-150 E)

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#### T. Transfer of Permits

 No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another. (9 VAC 5-80-160)

- 2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200. (9 VAC 5-80-160)
- 3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200. (9 VAC 5-80-160)

#### U. Malfunction as an Affirmative Defense

- 1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.
- 2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
  - a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
  - b. The permitted facility was at the time being properly operated.
  - c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.
  - d. The permittee notified the Board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F.2.b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.
- 3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.
- 4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

#### V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.

(9 VAC 5-80-190 C and 9 VAC 5-80-260)

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#### W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.

(9 VAC 5-80-80 E)

#### X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.

(40 CFR Part 82, Subparts A-F)

#### Y. Asbestos Requirements

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).

(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

#### Z. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68. (40 CFR Part 68)

### AA. Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

(9 VAC 5-80-110 I)

#### **BB.** Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

- 1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
- 2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
- 3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

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# XI. STATE-ONLY ENFORCEABLE REQUIREMENTS

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.

Odor - 9 VAC 5-40-140 and 9 VAC 5-50-140

State toxics rule - 9 VAC 5-60-220 and 9 VAC 5-60-320

Existing Source Standards for Hydrogen Sulfide - 9 VAC 5-40-290

(9 VAC 5-80-110 N and 9 VAC 5-80-300)