



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

TIDEWATER REGIONAL OFFICE

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COMMONWEALTH OF VIRGINIA Department of Environmental Quality Tidewater Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

STIHL Incorporated
536 Viking Drive, Virginia Beach, Virginia 23452
Permit No. TRO60995

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, STIHL Incorporated has applied for a Title V Operating Permit for its Virginia Beach facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Air/Permit Writer :

James A. White Jr.
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Date: **April 3, 2014**

Regional Air Permits
Manager:

Troy D. Breathwaite

Date: **April 7, 2014**

Regional Director:

Maria R. Nold

Date: **April 7, 2014**

FACILITY INFORMATION

Permittee

STIHL Incorporated
536 Viking Drive
PO Box 2015
Virginia Beach, Virginia 23450-2015

Facility

STIHL Incorporated
536 Viking Drive
Virginia Beach, Virginia 23452

County-Plant Identification Number: 51-810-00044

SOURCE DESCRIPTION

NAICS 333991 - This U.S. industry comprises establishments primarily engaged in manufacturing power-driven (e.g., battery, corded, pneumatic) handtools, such as drills, screw guns, circular saws, chain saws, staplers, and nailers.

NAICS 333112 - This U.S. industry comprises establishments primarily engaged in manufacturing powered lawnmowers, lawn and garden tractors, and other home lawn and garden equipment, such as tillers, shredders, yard vacuums, and leaf blowers.

The facility is a Title V major source of carbon monoxide. This source is located in an attainment area for all pollutants. The facility is permitted under a Minor NSR Permit that was issued on January 10, 2007 and amended on October 11, 2013.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

EMISSIONS UNITS

The emissions units at this facility consist of the following:

Emission Unit ID	Emission Unit Description	Size/Rated Capacity*	Applicable Permit Date
Test Cells	Multiple test cells for engine testing. Each test cell is equipped with a 6-gallon portable fuel tank.	66,429 gallons/year of unleaded gasoline (not including 2-cycle lubricant oil)	01-10-2007
M1295 M1296	Aqueous washers (degreasers)	2,400 gallons/year of cleaning solution (combined)	01-10-2007
MS1	Mineral spirits for general cleaning	2,000 gallons per year	01-10-2007
TP1	Tampo printing operation	4,351 pounds VOC/year for inks, hardeners, thinners (combined total) and 900 gallons/year of ethyl alcohol	10-11-2013
TK1	Horizontal, fixed roof gasoline storage tank	12,000 gallons	05-27-2013
EG1	Emergency diesel powered generator	350 kW	05-27-2013
EG2	Emergency diesel powered generator (2004)	150 kW	10-11-2013
FWP1	Emergency diesel powered firewater pump	85 HP	05-27-2013

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

EMISSIONS INVENTORY

Emissions for calendar year 2011 are summarized in the following table:

Pollutants	VOC	CO	SO ₂	PM ₁₀	PM _{2.5}	NO _x
Total (tons/yr)	22.31	62.99	0.13	0.17	0.17	0.61

EMISSION UNIT APPLICABLE REQUIREMENTS

Limitations/Requirements

The applicable requirements included in the Title V operating permit are based on the requirements contained in the October 11, 2013 New Source Review (NSR) permit for the facility. A copy of the permit is attached to this Statement of Legal and Factual Basis. The October 11, 2013 NSR permit does not contain emission limits for the emergency diesel powered generators EG1 and EG2 or the emergency diesel powered firewater pump FWP1, as they were each exempted by their respective horsepower/kilowatt size per 9 VAC 5-80-1105. The emergency emission units are included in the Title V permit as significant emission sources due to applicability to 40 CFR Part 63, Subpart ZZZZ.

Periodic Monitoring

The New Source Review permit issued on October 11, 2013 does not contain specific monitoring requirements for opacity. Monitoring for opacity has been included in the Title V permit (Condition 9). Monthly visual emissions observations, visual emissions evaluations (if necessary), and corrective actions (if necessary), are required, with corresponding recordkeeping requirements.

Recordkeeping

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include fuel throughput and fuel certifications, unleaded gasoline to lubricant oil ratios, cleaning solution throughput, mineral spirits throughput, combined throughput (inks, hardeners, and thinners), ethyl alcohol throughput, monthly total gasoline storage tank throughput, Material Safety Data Sheets, visual emissions observations, visual emissions evaluations and any associated corrective actions taken, scheduled/unscheduled maintenance, and operator training. Recordkeeping for the stationary emergency RICEs includes documentation of the number of hours spent for emergency operations (including documentation as to what classified the operation as emergency) and the number of hours spent for non-emergency operations. Recordkeeping as required by 40 CFR Part 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines) for the operation of the stationary emergency RICEs has been incorporated into the permit as well.

Testing

The Title V operating permit does not require source tests. However, the Department and EPA have authority to require testing not included in the permit if necessary to determine compliance with an emission limit or standard.

Reporting

Reporting as required by 40 CFR Part 63, Subpart ZZZZ for the stationary emergency RICEs has been incorporated into the permit. The Title V operating permit's general conditions include general reporting requirements. Also see the NSR permit issued on October 11, 2013.

Streamlined Requirements

Condition 12 of the May 27, 2013 Title V operating permit has not been carried forward as the May 3, 2013 date for compliance with the applicable operating and maintenance requirements (work practices) of 40 CFR Part 63, Subpart ZZZZ has since expired.

CHANGES TO THE TITLE V PERMIT

The Title V operating permit was amended to include the following:

Emission Units table (page 4 of FOP)

A 150 kW diesel powered emergency generator has been added to the Emission Units table under the fuel burning equipment category;

The VOC throughput in inks, hardeners, and thinners (combined) and throughput of ethyl alcohol have been changed (increased) in the Emission Units table.

Condition 7 - Tampo Printing Operations - (emission unit ID# TP1) – Limitations

The VOC throughput in inks, hardeners, and thinners (combined) and throughput of ethyl alcohol have been changed (increased) to 4,351 lbs/yr VOCs and 900 gallons/yr, respectively.

Condition 11 through Condition 16 - Stationary Emergency Generators and Firewater Pump (emission unit ID#'s EG1, EG2, and FWP1) - MACT Subpart ZZZZ

These conditions in the FOP have been amended to include the 150 kW diesel powered emergency generator EG2 as an affected unit.

Condition 19 - Facility Wide Conditions - Facility Wide Emission - Limitations

The VOC emission limit for the Tampo Printing Operations and the total facility wide VOC emission limit were amended to reflect the changes to the VOC throughput from inks, hardeners, and thinners (combined) and the throughput of ethyl alcohol.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions incurred.

Comments on General Conditions

Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia*, and the “Department of Environmental Quality Agency Policy Statement No. 2-2003”.

Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four (4) daytime business hours of discovery of the malfunction.

Permit Modification

This general condition cites the sections that follow:

9 VAC 5-80-50. Applicability, Federal Operating Permit for Stationary Sources

9 VAC 5-80-190. Changes to Permits

9 VAC 5-80-260. Enforcement

9 VAC 5-80-1100. Applicability, Permits for New and Modified Stationary Sources

9 VAC 5-80-1790. Applicability, Permits for Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas

9 VAC 5-80-2000. Applicability, Permits for Major Stationary Sources and Major Modifications Locating in Nonattainment Areas

Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition 30 and General Conditions 48 - 51.

Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

STATE ONLY APPLICABLE REQUIREMENTS

The following Virginia Administrative Codes have specific requirements only enforceable by the State:

9 VAC 5, Chapter 50, Article 2 – Odorous Sources

9 VAC 5, Chapter 60, Article 5 – Toxic Pollutants from New and Modified Sources

FUTURE APPLICABLE REQUIREMENTS

There are no future applicable requirements for this facility.

INAPPLICABLE REQUIREMENTS

The following inapplicable requirements have been identified:

Citation	Title of Citation	Description of Inapplicability
40 CFR 60 Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	The stationary diesel powered emergency generators and diesel powered firewater pump were installed prior to the applicability date of the regulation. The portable diesel-fired standby units meet the definition of non-road under 40 CFR 1068.30 and are not considered to be a stationary source.
40 CFR 60 Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	The portable 5.5 HP gasoline-fired pump meets the definition of non-road under 40 CFR 1068.30 is not considered a stationary source.
40 CFR 63 Subpart JJJJJ	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers at Area Sources	All boilers operated at the facility combust only gaseous fuel (NG) and therefore are not subject to the MACT.
40 CFR 60 Subpart Dc	Standards of Performance for Industrial, Commercial, and Institutional Steam Generating Units	All boilers operated at the facility have maximum rated heat input capacities less than 10 MMBtu/hr each and therefore are not subject to the NSPS.
40 CFR 63 Subpart P PPPP	National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Stand	The engine test cells operated at the facility are not subject to the MACT as they are located at an area source for HAPs.

The startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A 3 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of startup, shutdown, 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."

COMPLIANCE PLAN

There is no compliance plan required for this facility.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the 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.

Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity 9 VAC 5-80-720 C)
Brazing furnace (NG and hydrogen)	9 VAC 5-80-720 C	N/A	0.18 MMBtu/hr
Brazing furnace (electric)	9 VAC 5-80-720 B	NO _x , CO	N/A
NG/propane heat treating furnaces	9 VAC 5-80-720 C	N/A	118 - 600 cf/hr
NG-fired boiler	9 VAC 5-80-720 C	N/A	5.055 MMBtu/hr
NG-fired hot water heaters (2)	9 VAC 5-80-720 C	N/A	0.33 MMBtu/hr (each)
Gasoline loading rack	9 VAC 5-80-720 B	VOC	N/A
Ink-jet printer	9 VAC 5-80-720 B	VOC	140 gallons/yr
Durr closed-loop degreaser	9 VAC 5-80-720 B	VOC	N/A
Portable generator (diesel ICE)	9 VAC 5-80-720 C	N/A	20 kW
Portable generator (diesel ICE)	9 VAC 5-80-720 B	NO _x , SO ₂ , CO, PM10, PM2.5, VOC	50.4 kW
Portable water pump (gasoline ICE)	9 VAC 5-80-720 B	NO _x , SO ₂ , CO, PM10, PM2.5, VOC	5.5 HP
NG-fired pyrolysis furnace	9 VAC 5-80-720 C.2.a	VOC	0.325 MMBtu/hr

The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application

9 VAC 5-80-720 B - Insignificant due to emission levels

9 VAC 5-80-720 C - Insignificant due to size or production rate

MANDATORY GREENHOUSE GAS REPORTING

40 CFR Part 98 - Mandatory Greenhouse Gas Reporting: The provisions of the Final Rule for the Mandatory Reporting of Greenhouse Gases (GHG) (40 CFR Part 98) require owners and operators of general stationary fuel combustion sources that emit 25,000 metric tons (27,558 short tons) or more per year of CO₂ equivalent (CO₂e) in combined emissions from such units, to address the combined emissions of these GHGs annually. The definition of "applicable requirement" in 40 CFR 70.2 and 71.2 does not include requirements such as those included in Part 98, promulgated under Clean Air Act (CAA) section 114(a)(1) and 208. Therefore, the requirements of 40 CFR Part 98 are not applicable under the Title V permitting program.

As a result of several EPA actions regarding GHG under the CAA, emissions of GHG must be addressed for a Title V permit renewed after January 1, 2011. Potential annual CO₂e emissions were calculated for the STIHL Virginia Beach facility pursuant to the procedures in 40 CFR Part 98, Subpart C for the stationary fuel combustion sources at the facility and were determined to be 4,166 metric tons (4,592 short tons). The current state major NSR permit for the facility contains no GHG-specific applicable requirements and there have been no modifications to the facility that would have resulted in the issuance of a PSD permit. Therefore, there are no applicable requirements for the facility specific to GHG at this time.

CONFIDENTIAL INFORMATION

All sections of the application and permit are suitable for viewing by the public. The source has not claimed confidentiality for any information.

PUBLIC PARTICIPATION

The proposed permit will be placed on public notice in The Virginian-Pilot from **Thursday, February 20, 2014** to **Monday, March 24, 2014**.