COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
5636 Southern Boulevard, Virginia Beach, Virginia 23462
(757) 518-2000 Fax (757) 518-2009
www.deq.virginia.gov

Molly Joseph Ward
Secretary of Natural Resources

David K. Paylor
Director

Maria R. Nold
Regional Director

August 24, 2015

Ms. Leann Plagens
Regulatory Compliance Manager
IPGC Holdings, LLC
811 Main Street, Suite 3500
Houston, Texas 77002

Re: INGENCO Wholesale Power, LLC
INGENCO Virginia Beach Plant
Location: Virginia Beach
Registration No.: 61423

Dear Ms. Plagens:

Attached is a permit to operate INGENCO, an electrical power generation facility, located at the Virginia Beach Landfill II, pursuant to 9 VAC 5 Chapter 80 of the Virginia Regulations for the Control and Abatement of Air Pollution.

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 permit, the Department deemed the application complete on April 14, 2014, and solicited written public comments by placing a newspaper advertisement in the Norfolk Virginian-Pilot on Tuesday, July 1, 2014. The thirty-day comment period (provided for in 9 VAC 5-80-270) expired on Thursday, July 31, 2014, with no comments having been received in this office. In addition, the Department solicited EPA comments by submitting the proposed permit to EPA Region III for review on Monday, June 30, 2014. The forty-five day comment period (provided for in 9 VAC 5-80-210) expired on Friday, August 15, 2014, with no comments having been received in this office.

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

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:

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 Rule 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 regarding this matter, please contact James A. White, Jr. by phone at (757) 518-2180 or by e-mail at **james.white@deq.virginia.gov**.

Sincerely,

Troy D. Breathwaite
Regional Air Permits Manager

TDB/JIM/61423_015_15_T5admamd_cvrltr_Name Change_INGENCO-VABCH Landfill II.docx

Attachment: Permit

cc: Manager, Data Analysis (electronic file submission)
Manager/Inspector, Air Compliance
Chief, Air Enforcement Branch (3AP13), U.S. EPA, Region III (electronic file submission)
Mr. Brad Burmaster, Senior Vice President of IPGC Holdings, LLC

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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:	INGENCO Wholesale Power, LLC
Facility Name:	INGENCO Virginia Beach Plant
Facility Location:	1989 Jake Sears Road Virginia Beach, Virginia
Permit Number:	**TRO61423**

August 18, 2014
Effective Date

August 17, 2019
Expiration Date

Maria R. Nold

August 24, 2015
Signature Date

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act (Sections I through VI)
State Only Enforceable Requirements (Section VII)

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Facility Information

Permittee
INGENCO Wholesale Power, LLC (aka INGENCO)
811 Main Street, Suite 3500
Houston, Texas 77002-6225

Responsible Official
Brad Burmaster
IPGC Holdings, LLC
Phone: (281) 378-1190
Email: brad.burmaster@cci.com

Facility
INGENCO Virginia Beach Plant
1989 Jake Sears Road
Virginia Beach, Virginia 23464

Contact Person
Leann Plagens
IPGC Holdings, LLC
Phone: (281) 378-1257
Email: leann.plagens@cci.com

Identification Number: 51-810-00117

Facility Description:

NAICS 221119 - Other Electric Power Generation

This U.S. industry comprises establishments primarily engaged in operating electric power generation facilities (except hydroelectric, fossil fuel, nuclear). These facilities convert other forms of energy, such as solar, wind, or tidal power, into electrical energy. The electric energy produced by these establishments is provided to electric power transmission systems or to electric power distribution systems.

NAICS 221112 - Fossil Fuel Electric Power Generation

This U.S. industry comprises establishments primarily engaged in operating fossil fuel powered electric power generation facilities. These facilities use fossil fuels, such as coal, oil, or gas, in internal combustion or combustion turbine conventional steam process to produce electric energy. The electric energy produced in these establishments is provided to electric power transmission systems or to electric power distribution systems.

Specifically, this facility is an electrical power generation facility using 36 dual-fueled engines, each powering a 350 kilowatt (kW) electrical generator (non-emergency). The fuels used by the engines include No. 2 fuel oil, No. 4 fuel oil, mineral oil dielectric fluid (MODEF), biodiesel fuel oil, and treated landfill gas. As of the date of this Title V permit issuance, the facility has yet to combust No. 4 fuel oil in any of the engines. Because of this, Conditions 19 and 20 still remain as applicable requirements in the Title V permit.

Emission Units

Equipment to be operated at this facility consists of the following:

Emission Unit Ref. No. (URN)	Stack ID	Emission Unit Description	Size/Rated Capacity[(a)]	Applicable Permit Date
1 – 36[(b)]	1 - 6[(c)]	Detroit Diesel Series 60 inline 6 cylinder engines, each powering a 350 kW electric generator	550 hp, each engine	NSR permit amended December 16, 2011
T37 - 40		Fuel Oil Storage Tanks	(2) @ 20,000 gallons, each (2) @ 20,700 gallons, each	NSR permit amended December 16, 2011

(a) The Size/Rated Capacity is provided for informational purposes only, and is not an applicable requirement.

(b) The thirty-six (36) engines are divided into six (6) groups of six (6) engines.

(c) The stacks are designated by the engine group number description (engines 1 - 6 = stack 1; engines 7 - 12 = stack 2; engines 13 - 18 = stack 3; engines 19 - 24 = stack 4; engines 25 - 30 = stack 5; and engines 31 - 36 = stack 6).

Fuel Burning Equipment Requirements (Emission Units 1 - 36)

1. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Emission Controls** - Nitrogen Oxide emissions from the engines (URN 1 - 36) shall be controlled by the original equipment manufacturer's air-to-fuel ratio control, turbo-charging, and charge-air cooling systems. The air-to-fuel ratio shall be controlled by a separate engine control module for each engine.
(9 VAC 5-80-110 and Condition 3 of NSR permit issued December 16, 2011)

2. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Emission Controls** - Nitrogen Oxide (NOx) emissions from the engines (URN 1-36) shall also be controlled by supplementary inlet charge-air water-to-air cooling and oversized inlet charge and exhaust ducts. The cooling system shall be capable of maintaining, and shall maintain, an hourly average inlet charge-air temperature not greater than 140°F. Water shall be provided continuously to each engine inlet charge-air cooler and each engine shall have independent inlet charge-air temperature measurement and recording capabilities. Each inlet charge-air cooler shall be provided with adequate access for inspection and shall be in operation when any engine is operating.
(9 VAC 5-80-110 and Condition 4 of NSR permit issued December 16, 2011)

3. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Emission Controls** - NOx emissions from the engines (URN 1 - 36) shall be controlled by the combustion of treated landfill gas whenever any of the engines are operated in the dual-fuel mode. The extent to which the dual-fuel operations control NOx emissions is dependent upon the heat substitution rate supplied by the treated landfill gas. A stable supply of landfill gas shall be assured by proper operating procedures, and periodic inspection of pressure devices referenced in Condition 42. If landfill gas is diverted to the facility by automatic methods, rather than manually, to ensure the process of diverting the landfill gas is operating in accordance with the facility's standard operating procedures, and to ensure a stable supply of treated landfill gas is being diverted to the engines, the permittee shall install and operate, at the time of such change, a device to continuously monitor and record the process for diverting the collected treated landfill gas to the engines. Each monitoring device shall be installed, maintained, calibrated, and operated in accordance with approved procedures, which shall include, as a minimum, the manufacturer's written requirements or recommendations.
(9 VAC 5-80-110 and Condition 5 of NSR permit issued December 16, 2011)

4. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Emission Controls** - Carbon Monoxide (CO) emissions from the engines (URN 1 - 36) shall be controlled by limiting the treated landfill gas heat input ratio to less than or equal to 96 % treated landfill gas heat input to total fuel heat input for each period of continuous dual-fuel operations. An increase in the heat input ratio to the engines to greater than 96 % may require an amendment to this permit. The permittee may, on prior approval from the DEQ Tidewater Regional Office, operate for short periods at heat input ratios greater than 96 % for the purposes of research and development.
(9 VAC 5-80-110 and Condition 6 of NSR permit issued December 16, 2011)

5. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Emission Controls** - Particulate Matter (PM) and Volatile Organic Compound (VOC) emissions from the engines (URN 1 - 36) shall be controlled by proper engine maintenance practices. The engines shall be maintained and repaired to prevent excess emissions of PM (in the form of PM-10 and PM-2.5) and VOCs.
(9 VAC 5-80-110 and Condition 9 of NSR permit issued December 16, 2011)

6. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Monitoring** - The facility shall be equipped with devices to continuously measure and record the treated landfill gas consumption, MODEF consumption, Number 2 and 4 distillate oil consumptions, and biodiesel oil consumption by the engines (URN 1 - 36). Each device shall be installed, maintained, calibrated, and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each device shall be provided with adequate access for inspection and shall be in operation when the facility is operating.
(9 VAC 5-80-110 and Condition 11 of NSR permit issued December 16, 2011)

7. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Monitoring** - Each engine (URN 1 - 36) shall be equipped with devices to continuously measure engine inlet charge-air temperature. Each device shall be installed, maintained, calibrated, and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each device shall be provided with adequate access for inspection and shall be in operation when the engine is operating.
(9 VAC 5-80-110 and Condition 12 of NSR permit issued December 16, 2011)

8. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Monitoring Observations** - The devices used to measure treated landfill gas, distillate oil (Number 2 and 4), MODEF, and biodiesel oil consumption shall be observed by the permittee after each period of continuous operation, once the engines (URN 1 - 36) have ceased operation. In addition, whenever the engines are operated in the dual fuel mode, the devices used to measure each volume of fuel consumed by the engines shall be read each time controlled landfill gas is diverted from the utility flare to the facility and then again whenever the engines are returned to single fuel operations. The permittee shall maintain a daily log of the observations of each device, to include, at a minimum, each set of readings that define each period of dual fuel operations and the time the observation was recorded.
(9 VAC 5-80-110 and Condition 14 of NSR permit issued December 16, 2011)

9. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Monitoring Observations** - The devices used to measure inlet charge-air temperature shall be observed by the permittee with a frequency of not less than once per hour whenever the engines (URN 1 - 36) are operating. The permittee shall maintain a daily log of the temperature observations of the devices and the time the observation was recorded.
(9 VAC 5-80-110 and Condition 15 of NSR permit issued December 16, 2011)

10. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Limitations** - The approved fuels for the engines (URN 1 - 36) shall be treated landfill gas, distillate oil (Number 2 and 4), MODEF (mineral oil dielectric fluid), and biodiesel oil (B-5, B-20, or B-100 blends). A change in the fuels may require an amendment to this permit.
(9 VAC 5-80-110 and Condition 8 of NSR permit issued December 16, 2011)

11. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Limitations** - The distillate oil (Number 2 and 4), MODEF, treated landfill gas, and biodiesel oil (B-5, B-20, or B-100) fuels shall meet the specifications below:

    DISTILLATE OIL which meets the ASTM D396 specification for numbers 1 or 2 fuel oil:

Maximum sulfur content per shipment:	0.2 %
Minimum Heating Value:	137,000 Btu/gallon

    DISTILLATE OIL which meets the ASTM D396 specifications for number 4 fuel oil:

Maximum sulfur content per shipment:	0.5 %
Minimum Heating Value:	144,000 Btu/gallon

TREATED LANDFILL GAS:
Minimum heating value: 198 Btu/scf
Heating Value: analyzed for Gross Calorific Value using methods outlined in Condition 44.

BIODIESEL FUEL OIL:
Maximum sulfur content per shipment: 0.5%
Heating Value: 131,000 Btu/gallon

MINERAL OIL DIELECTRIC FLUID (MODEF):
Maximum sulfur content per shipment: 0.2 %
Minimum Heating Value: 145,000 Btu/gallon

The heating value of each fuel as listed shall be used to calculate the facility's emissions as defined by the emission factors, equations, and limits in Condition 13.

The permittee shall maintain records (supplier fuel analysis) of all oil shipments purchased. These records shall be available for inspection by the DEQ, and shall be current for the most recent five (5) years.
(9 VAC 5-80-110 and Condition 18 of NSR permit issued December 16, 2011)

12. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Limitations** - MODEF shall meet the specifications below; contaminants shall not exceed the limits specified below:

PCB	49 ppm, by weight
Arsenic	5 ppm, by weight
Cadmium	2 ppm, by weight
Chromium	10 ppm, by weight
Lead	25 ppm, by weight
Halogens (total)	1000 ppm, by weight
Flash Point	100 ^{o}F, minimum

(9 VAC 5-80-110 and Condition 20 of NSR permit issued December 16, 2011)

13. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Limitations** - The permittee shall limit the consumption of fuel such that neither the total NO_x nor total CO emissions exceed 240.0 tons, each, for any consecutive 12-month period. The emissions shall be calculated monthly as the sum of each consecutive 12-month period according to the following equations:

NO_x = [((('A' x 'CV_{DO}' x '1 MMBtu')/1,000,000 Btu) x 'ENO_x(l) lbs/MMBtu') +
((('B' x 'CV_{LFG}' x '1 MMBtu')/1,000,000 Btu) x ''ENO_x(LFG) lbs/MMBtu')] / 2,000 lbs/ton

CO = [((('A' x 'CV_{DO}' x '1 MMBtu')/1,000,000 Btu) x 'ECO(l) lbs/MMBtu') +
((('B' x 'CV_{LFG}' x '1 MMBtu')/1,000,000 Btu) x 'ECO(LFG) lbs/MMBtu')] / 2,000 lbs/ton

Where:

A =	gallons of liquid fuel consumed as No. 2 distillate oil, No. 4 distillate oil, MODEF, or biodiesel oil
B =	cubic feet of landfill gas consumed
CV_{DO} =	heating value of the corresponding liquid fuel as No. 2 distillate oil, No. 4 distillate oil, MODEF, or biodiesel oil as specified in Condition 11
CV_{LFG} =	heating value of treated landfill gas in Btu/cubic foot, as determined by Condition 44
ENO_x(l) =	Emission factor for NO_x from liquid fuel as shown in the table below
ENO_x(LFG) =	Emission factor for NO_x from landfill gas as shown in the table below
ECO(l) =	Emission factor for CO from liquid fuel as shown in the table below

ECO(LFG) = Emission factor for CO from landfill gas as shown in the table below

Emission Factors:

Landfill Gas Substitution Range (NO_X)	*$ENO_X(l)$*	*$ENO_X(LFG)$*
0 % - 50 %	1.8	-1.4
51 % - 80 %	1.50	1.50
81 % - 96 %	13.69	-1.31

Landfill Gas Substitution Range (CO)	*ECO(l)*	*ECO(LFG)*
0 % - 54 %	0.36	6.1
55 % - 96 %	13.38	-0.368

The calculated emissions of NO_x and CO, each, shall not exceed 240.0 tons per year, calculated as the sum of each consecutive 12-month period, as a product of the heat input contribution from each individual fuel source.

Each equation above is valid **only** if the total heat input contribution from treated landfill gas is less than or equal to 96 % of the total heat input for any period of continuous dual-fuel operation. The ratio (treated landfill gas heat input to total fuel heat input) for each period of continuous dual-fuel operation, shall be less than or equal to 96 % at all times, as determined by the following equation:

$$HI_{LFG} \leq [('B' \times 'CV_{LFG}') / (('A' \times 'CV_{DO}') + ('B' \times 'CV_{LFG}'))] \times (100)$$

Where:

$$HI_{LFG} \leq 96\ \%$$

The emission factors in the above equations may be modified on approval by the DEQ Tidewater Regional Office.
(9 VAC 5-80-110 and Condition 21 of the NSR permit issued December 16, 2011)

14. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Recordkeeping** - The permittee shall obtain a certification from the fuel supplier with each shipment of No. 2 distillate oil and each shipment of No. 4 distillate oil. Each fuel supplier certification shall include the following:

    a. The name of the fuel supplier;

    b. The date on which the No. 2 or No. 4 distillate oil was received;

    c. The volume of No. 2 or No. 4 distillate oil delivered in the shipment;

    d. A statement that the No. 2 distillate oil complies with the American Society for Testing and Materials specification D396 for numbers 1 or 2 fuel oil;

    e. A statement that the No. 4 distillate oil complies with the American Society for Testing and Materials specification D396 for number 4 fuel oil;

    f. A statement that the biodiesel fuel complies with the American Society for Testing and Materials specification D6751 for biodiesel fuel oil; and

    g. The sulfur content for each shipment of No. 2 and No. 4 distillate oils.

    These records shall be available for inspection by the DEQ, and shall be current for the most recent five (5) years.
    (9 VAC 5-80-110 and Condition 22 of NSR permit issued December 16, 2011)

15. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Limitations** - Emissions from the operation of any individual engine, or any group of six (6) engines, when the facility is operated in either the single fuel or the dual-fuel mode, shall not exceed the limits specified below:

Particulate Matter	0.11 lbs/MMBtu
PM-10	0.11 lbs/MMBtu
Sulfur Dioxide	0.202 lbs/MMBtu
Nitrogen Oxides	2.3 lbs/MMBtu
Carbon Monoxide	3.2 lbs/MMBtu
Volatile Organic Compounds	0.22 lbs/MMBtu

Compliance with the lbs/MMBtu limits for PM, PM-10, VOC, CO, and NO_x shall be determined by stack testing. All other emission limits are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of the emission limits. Compliance with these emission limits may be determined as stated in Conditions 1 - 5, 10 - 14, 38, and 40.
(9 VAC 5-80-110 and Condition 24 of NSR permit issued December 16, 2011)

16. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Visible Emission Limitations** - Visible emissions from each stack (URN S1 - S6) shall not exceed 10% opacity whenever the engines (URN 1 - 36) are operated in the single fuel mode, except during one six-minute period in any one hour in which visible emissions shall not exceed 20 % opacity. Visible emissions from each stack (URN S1 - S6) shall not exceed 20 % opacity whenever the engines are operated in a dual-fuel mode, except during one six-minute period in any one hour in which visible emissions shall not exceed 30 % opacity. All visible emissions rates shall be determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-110 and Condition 26 of NSR permit issued December 16, 2011)

17. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Visible Emission Monitoring** - The permittee shall perform a monthly visual emissions observation on each stack (URN S1 - S6) during normal operations. During months in which more than one mode of operation occurs, monthly visual emissions observations shall be performed during each mode. If such visual observation indicates any abnormal visible emissions, the permittee shall take corrective action to eliminate the visible emissions. Abnormal visible emissions shall be defined as any emissions exceeding 10 % opacity, except during startup. If such corrective action fails to eliminate the abnormal visible emissions, the permittee shall conduct a visible emissions evaluation (VEE) using 40 CFR Part 60, Appendix A, Method 9 for six (6) minutes. If the six-minute VEE opacity average exceeds 50 % of the standard for a specific unit, the VEE for that unit shall continue for an additional 12 minutes. If any of the six-minute averages during the 18 minutes exceeds the standard for a specific unit, the VEE for that unit shall continue for one hour from initiation on the stack to determine compliance with the opacity limit. The permittee shall record the mode of operation during the observations, the details of the visual emissions observations, VEE, and any corrective actions. The records shall be kept at the facility and made available for inspection by the DEQ for the most recent five (5) year period.
(9 VAC 5-80-110E)

18. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Testing** - The permittee shall, by laboratory analysis, verify that all parameters listed in Condition 12, do not exceed their respective limits. A MODEF sample shall be collected and analyzed once each calendar quarter from a randomly chosen, incoming shipment. A calendar quarter is defined as the periods January 1 through March 31, April 1 through June 30, July 1 through September 30, and October 1 through December 31. Each quarterly laboratory analysis shall include the following:

    a. The collection method(s) used to obtain the monthly sample of MODEF;

    b. The date of MODEF sample collection and MODEF sample analysis;

    c. The name and address of the MODEF supplier;

    d. The test methods used to determine the contaminant concentration in the MODEF;

    e. The concentration of each parameter detected in the analyzed sample; and

    f. The detection limit for each parameter listed in Condition 12, for the test method used.

    The permittee will not be required to analyze a quarterly MODEF sample during any calendar quarter when MODEF is not combusted in any of the engines (URN 1 - 36), or no shipments of MODEF were received. During those calendar quarters that MODEF is not combusted in any engine, or no shipments were received, the permittee shall record and maintain such information. All records required by this condition shall be available for inspection by the DEQ, and shall be current for the most recent five (5) years.
    (9 VAC 5-80-110 and Condition 23 of NSR permit issued December 16, 2011)

19. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Performance Testing** - Performance tests for NOx and CO shall be conducted on a 275-day cycle as defined in Condition 22 of this permit, starting from the completion date of the most recent performance testing. Each testing cycle shall evaluate the performance of a different set of six (6) engines (stack). Separate tests shall be made while operating in single-fuel mode using 100 % liquid fuel and also in dual-fuel mode using various quantities of landfill gas and liquid fuel. A sufficient number of data points shall be established to determine compliance with the emission limits using valid statistical analysis methods. At a minimum, tests in the dual-fuel mode shall be performed with the ratio of treated landfill gas heat input to total fuel heat input in the range of 81 % to 96 %. Tests in the dual-fuel mode shall be performed at no less than 80 % of the rated capacity and tests at the upper landfill gas substitution range shall be performed at no less than 65 % of the rated capacity of the electrical output, on the number of engines in one group of six (6) engines supported by landfill gas flow and methane content. Testing results shall verify ongoing compliance with the emission limits contained in Conditions 13, 15, and 32 of this permit. After a period of not less than two (2) consecutive test cycles, upon request by the permittee, the testing requirements shall be reviewed by the Director, Tidewater Regional Office, and a determination made by DEQ regarding continuation of the test program on a 275-day interval, or modification of the test program to some other time interval. Test results shall be reported, and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged in advance of the testing with the DEQ Tidewater Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. One (1) copy of the test results shall be submitted to the DEQ Tidewater Regional Office within 60 days after test completion, and shall conform to the test report format enclosed with this permit.
    (9 VAC 5-80-110 and Condition 32 of NSR permit issued December 16, 2011)

20. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Performance Testing** - In the event that No. 4 distillate oil fuel is used, and at such time of use, performance validation testing for No. 4 distillate oil fuel shall be performed in the same manner as described in Condition 19.
(9 VAC 5-80-110 and Condition 33 of NSR permit issued December 16, 2011)

21. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Performance Testing** - The permittee shall conduct performance testing for NOx and CO as referenced in Condition 19 of this permit for biodiesel fuel oil to verify compliance with the emission limits in Conditions 13, 15, and 32. The permittee shall conduct the initial performance tests within 180 calendar days of the initial use of biodiesel fuel in the engines. After a period of not less than two (2) consecutive test cycles, upon request by the permittee, the testing requirements shall be reviewed by the DEQ Tidewater Regional Office, and a determination shall be made by DEQ as to the continuation of the test program on a 275-day interval, or modification of the test program to some other time interval. Test results shall be reported, and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged in advance of the testing with the DEQ Tidewater Regional Office. The permittee shall submit a test protocol at least 30 calendar days prior to testing. One (1) copy of the test results shall be submitted to the DEQ Tidewater Regional Office within 60 calendar days after test completion, and shall conform to the test report format enclosed with this permit.
(9 VAC 5-80-110 and Condition 36 of NSR permit issued December 16, 2011)

22. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Performance Testing** - The testing referenced in Conditions 19 and 20 of this permit shall be performed during the two weeks preceding the 275th day. Testing shall not be performed on Saturdays or Sundays. In no event shall the time period between performance validation testing exceed 275 days. If higher gas fractions are utilized at more than two sets of engines (if the programming for more than two sets of engines is modified to allow higher gas fractions), then performance validation testing in accordance with Conditions 19 and 20 shall be conducted on the additional sets of engines.
(9 VAC 5-80-110 and Condition 34 of NSR permit issued December 16, 2011)

23. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Performance Testing** - On August 18, 2008, INGENCO requested a determination by DEQ that the performance testing referenced in Condition 19 be suspended due to satisfactory demonstration of compliance. No further testing in accordance with Condition 19 will be required unless higher gas fractions are utilized at additional engine groups other than the two sets currently equipped to operate at such gas fractions. In addition, testing may be reinstated if the engine groups are replaced or reconstructed. The permittee shall notify DEQ prior to additional engine groups operating at higher gas fractions, or the replacement or reconstruction of engine groups. At that particular time, DEQ will evaluate the need for reinstatement of the testing requirement in Condition 19 of this permit.
(9 VAC 5-80-110 and Condition 35 of the NSR permit issued December 16, 2011)

24. **Fuel Burning Equipment Requirements - (URN 1 - 36) - Performance Testing Notifications** - The permittee shall furnish written notification to the DEQ Tidewater Regional Office of the anticipated date of performance tests for the dual-fuel electrical power generating facility, postmarked at least 30 days prior to such date.
(9 VAC 5-80-110 and Condition 37 of NSR permit issued December 16, 2011)

25. **Fuel Burning Equipment Requirements - (URN 1 - 36) - MACT, Subpart ZZZZ** - The permittee shall comply with all applicable provisions of 40 CFR 63, Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines) regarding the operation, monitoring, and maintenance requirements of the engines (URN 1 - 36). The permittee shall refer to the most current version of the Federal regulations for additional or revised requirements not included in this permit.
(9 VAC 5-80-100, 9 VAC 5-80-110, and 40 CFR 63, Subpart ZZZZ)

26. **Fuel Burning Equipment Requirements - (URN 1 - 36) - MACT, Subpart ZZZZ** - The permittee shall operate and maintain the engines (URN 1 - 36) and after-treatment control devices (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engines, in a manner consistent with good air pollution control practice for minimizing emissions.
(9 VAC 5-60-100, 9 VAC 5-80-110, and 40 CFR 63.6625(e))

27. **Fuel Burning Equipment Requirements - (URN 1 - 36) - MACT, Subpart ZZZZ** - For the engines (URN 1 - 36) during periods of startup, the engine's time spent at idle must be minimized and the startup time be minimized to a period needed for appropriate and safe engine loading, not to exceed 30 minutes, after which time the applicable non-startup emission limitations shall apply.
(9 VAC 5-60-100, 9 VAC 5-80-110, and 40 CFR 63.6625(h))

28. **Fuel Burning Equipment Requirements - (URN 1 - 36) - MACT, Subpart ZZZZ** - The permittee shall perform the following maintenance practices on the engines (URN 1 - 36) in accordance with Table 2d of 40 CFR 63, Subpart ZZZZ:

    a. Change the oil and oil filter every 1,440 hours of operation or annually, whichever comes first, **<u>or</u>** utilize an oil analysis program as outlined in Condition 29 of this permit; and

    b. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.

    (9 VAC 5-60-100, 9 VAC 5-80-110, and Table 2d of 40 CFR 63, Subpart ZZZZ)

29. **Fuel Burning Equipment Requirements - (URN 1 - 36) - MACT, Subpart ZZZZ** - The permittee shall have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Condition 28 of this permit. The engine oil analysis shall be performed at the same frequency specified for changing the oil in Condition 28 of this permit. The oil analysis program shall at a minimum analyze the following three (3) parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee shall change the oil within two (2) business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee shall change the oil within two (2) business days or before commencing operation, whichever is later. The permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program shall be part of the maintenance plan for the engine.
(9 VAC 5-80-100, 9 VAC 5-80-110, and 40 CFR 63. 6625(i))

30. **Fuel Burning Equipment Requirements - (URN 1 - 36) - MACT, Subpart ZZZZ** - The permittee shall meet all applicable continuous compliance requirements contained in 40 CFR 63.6605 and 63.6640 of MACT, Subpart ZZZZ for the engines (URN 1 - 36).
(9 VAC 5-80-100, 9 VAC 5-80-110, and 40 CFR 63.6605 and 63.6640)

31. **Fuel Burning Equipment Requirements - (URN 1 - 36) - MACT, Subpart ZZZZ** - The permittee shall comply with the applicable recordkeeping requirements contained in 40 CFR 63.6655, except for 63.6655(c) and (f) of MACT, Subpart ZZZZ for the engines (URN 1 - 36).
(9 VAC 5-60-100, 9 VAC 5-80-110, and 40 CFR 63.6655)

Facility Wide Conditions

32. **Facility Wide Conditions - Limitations** - Total emissions from the electrical power generating facility, whether the facility is operated in the single fuel mode or in the dual-fuel mode, shall not exceed the limits specified below, calculated monthly as the sum of each consecutive 12-month period:

Particulate Matter	17.6 tons/yr
PM-10	17.6 tons/yr
Sulfur Dioxide	29.1 tons/yr
Nitrogen Oxides	240.0 tons/yr
Carbon Monoxide	240.0 tons/yr
Volatile Organic Compounds	35.2 tons/yr

The emission limits are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of the emission limits. Compliance with these emission limits may be determined as stated in Conditions 1 - 5, 10 - 14, 38, and 40.
(9 VAC 5-80-110 and Condition 25 of NSR permit issued December 16, 2011)

33. **Facility Wide Conditions - Recordkeeping** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged, in advance, with the DEQ Tidewater Regional Office. These records shall include, but are not limited to:

a. Annual consumption of treated landfill gas, No. 2 distillate oil fuel, No. 4 distillate oil fuel, MODEF, and biodiesel oil fuel, each calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;

b. All fuel supplier certifications;

c. All landfill gas gross calorific value testing results;

d. All MODEF sample collection and analysis information, as required by Condition 18;

e. Annual emissions calculations, in tons, to verify compliance with the emission limits in Conditions 13, 15, and 32. Annual emissions shall be calculated monthly, as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month the individual monthly totals for the preceding 11 months. Calculation methods and emission factors shall be approved by the DEQ Tidewater Regional Office;

f. Daily records of fuel consumption, for each fuel, and for every period of operation, to verify compliance with the Conditions 4, 6, 8, and 13;

g. Daily records of treated landfill gas heat input as the ratio of total heat input for every period of continuous operation to verify compliance with Conditions 4 and 13. Heat input calculations shall be based on the data required by Conditions 11 and 44;

h. Hourly records of average engine charge-air temperature readings to verify compliance with Conditions 2 and 9;

i. Treated landfill gas transport system pressure readings to verify compliance with Condition 43;

j. All 1-hour periods of operation during which the charge-air temperature, as described in Condition 2, exceeds the average charge-air temperature limit of 140°F;

k. Results of all stack tests, visible emission evaluations, and performance evaluations. At a minimum, these records shall include all treated landfill gas moisture content monitoring results and landfill gas heat content monitoring results;

l. Records of scheduled and unscheduled maintenance, maintenance schedules, and service records for all air pollution related equipment;

m. Operating procedures and operator training records for all air pollution related equipment;

n. All records generated by the device installed for the purpose of continuously monitoring and recording the status of the device used to divert the collected landfill gas from the utility flare to the landfill gas treatment system, and then to the engines, as required by Condition 3;

o. All operational certifications, as required by Condition 37;

p. Records of the VEE observations required by Condition 17;

q. Records indicating the dates that landfill gas was sent through the treatment system and the heating value for the landfill gas on those dates;

r. The DEQ-approved, pollutant-specific emission factors and equations used to determine compliance with the emission limits;

s. Records, including, but not limited to, date, time of day, mode of operation, and results of visual evaluations and visible emissions evaluations conducted, and any corrective action taken; and

t. All records and reports as required to demonstrate compliance with 40 CFR 63, Subpart ZZZZ.

These records shall be available for inspection by the DEQ, and shall be current for the most recent five (5) years.
(9 VAC 5-80-110 and Condition 27 of NSR permit issued December 16, 2011)

34. **Facility Wide Conditions - Test / Monitoring Ports** - The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. This includes constructing the facility such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods, and providing stacks or ducts that are free from cyclonic flow. Test ports shall be provided when requested at the appropriate locations.
(9 VAC 5-80-110 and Condition 28 of NSR permit issued December 16, 2011)

35. **Facility Wide Conditions - Testing** - If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate methods in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)

36. **Facility Wide Conditions - Notifications** - The permittee shall furnish written notification to the DEQ Tidewater Regional Office prior to the removal, or cessation of operation, of control equipment, postmarked at least 30 days prior to such date.
(9 VAC 5-80-110 and Condition 39 of NSR permit issued December 16, 2011)

Landfill Gas Treatment System Requirements

37. **Landfill Gas Treatment System Requirements** - The entire landfill gas treatment system, as specified in Condition 38, is required to comply with 40 CFR 60.752(b)(2)(iii)(C), and shall be installed and operational whenever landfill gas is being transferred to any of the engines (URN 1 - 36). Verification of satisfactory operation of treatment equipment shall, at a minimum, include certification that the permittee is following the manufacturer's written requirements or recommendations for installation, operation, and maintenance of the devices. This certification shall be performed at any time in the future should the facility be modified.
(9 VAC 5-80-110 and Condition 17 of NSR permit issued December 16, 2011)

38. **Treated Landfill Gas Treatment System Requirements** - The treated Landfill gas shall be that which is produced by the Virginia Beach Landfill II as that facility is permitted by the Virginia Department of Environmental Quality, and has been processed in accordance with 40 CFR 60.752(b)(2)(iii)(C). The landfill gas treatment system, at a minimum, shall be composed of, in any order, a dewatering process, filtration through a 10-micron filter, and compression. The primary knockout tanks are located at the Virginia Beach Landfill II (Registration Number 61322). The facility's dewatering process shall consist of a tertiary or polishing tank. All landfill gas consumed at the permitted facility shall pass through each component of the landfill gas treatment process prior to combustion in the engines (URN 1 - 36). Venting of landfill gas to the atmosphere from any component of the landfill gas treatment or transport system is prohibited.
(9 VAC 5-80-110 and Condition 19 of NSR permit issued December 16, 2011)

39. **Treated Landfill Gas Treatment System Requirements - Emission Controls** - Any uncontrolled venting of landfill gas from the engines (URN 1 - 36), the landfill gas treatment system, or the treated landfill gas transport system, is prohibited. All treated landfill gas shall be purged from the treated landfill gas transport system prior to shutting down any engine after operating in the dual-fuel mode. All atmospheric vents in the treated landfill gas transport system shall be controlled by either removing each vent as of the effective date of the permit, **or** by installing and operating a device to divert the emissions from all vents to an approved landfill gas control system.
(9 VAC 5-80-110, 40 CFR 60.752(b)(2)(iii)(d), and Condition 7 of NSR permit issued December 16, 2011)

40. **Treated Landfill Gas Treatment System Requirements - Emission Controls** - All components of the treated landfill gas control system, which consists of each engine (URN 1 - 36), the treated landfill gas transport system, and the landfill gas treatment system, as specified in Condition 38, shall be in operation whenever the permittee is operating the engines in a dual-fuel mode. If any components of the landfill gas treatment system or treated landfill gas transport system malfunctions, the treated landfill gas transport system shall be shut down and all untreated landfill gas shall be diverted to the Virginia Beach Landfill II utility flare. If any engine or set of engines, malfunctions, that portion of treated landfill gas shall be diverted to the remaining engines, or to the Virginia Beach Landfill II utility flare.
(9 VAC 5-80-110, 40 CFR 60.752(b)(2)(iii)(c), and Condition 10 of NSR permit issued December 16, 2011)

41. **Treated Landfill Gas Treatment System Requirements** - **Gas Moisture Content** - The permittee shall drain the polishing tank referenced in Condition 38, at least once each day that landfill gas is consumed by the facility, and observe the presence or absence of any water collected in the tank. The permittee shall maintain a daily log of these observations, which shall include the date and time of each observation.
(9 VAC 5-80-110 and Condition 29 of NSR permit issued December 16, 2011)

42. **Treated Landfill Gas Transport System - Monitoring** - The facility shall be equipped with a device to continuously measure the pressure within the treated landfill gas transport system. At a minimum, devices shall be located just before and just after the 10-micron filter, and after the completed treatment process. Each device shall be installed, maintained, calibrated, and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each device shall be provided with adequate access for inspection and shall be in operation whenever the engines (URN 1 - 36) are operating.
(9 VAC 5-80-110 and Condition 13 of NSR permit issued December 16, 2011)

43. **Treated Landfill Gas Transport System - Monitoring Observations** - The devices used to measure the pressure in the treated landfill gas transport system shall be observed by the permittee with a frequency of not less than once per day whenever treated landfill gas is combusted in the engines (URN 1 - 36). The permittee shall maintain a daily log of the observations of the devices, to include the change in pressure across the 10-micron filter, and the date and time of each observation. Minimum and maximum pressure specifications indicating improper operation of the system shall be determined for all pressure-measuring devices. These specifications shall be determined, and included, in the written operating procedures for the treatment and transport system.
(9 VAC 5-80-110 and Condition 16 of NSR permit issued December 16, 2011)

44. **Treated Landfill Gas Gross Calorific Value Testing** - The permittee shall conduct tests to determine the treated landfill gas gross calorific value in Btu/scf (referred to as Treated Landfill Gas in Conditions 38 and 39) in order to demonstrate compliance with both the fuel throughput limits and the emission limits contained in this permit. The treated landfill gas gross calorific value tests shall be performed and recorded no less than once every 90 calendar days, with the first test conducted within 30 days of the issuance of this permit. The most recent gross calorific value shall be substituted in the equations in Condition 13, for the purpose of calculating the facility's monthly emissions. All testing shall be performed in accordance with EPA reference methods **or** equivalent methods as approved in advance of the testing by the Director, Tidewater Regional Office.
(9 VAC 5-80-110 and Condition 30 of NSR permit issued December 16, 2011)

45. **Treated Landfill Gas Gross Calorific Value Testing** - If landfill gas below the limit of 198 Btu/scf has been used by the INGENCO facility or INGENCO has reason to believe that landfill gas below the limit of 198 Btu/scf may have been used, the permittee shall:

    a. Notify the Tidewater Regional Office in accordance with Condition 64;

    b. Cease all dual-fuel operations. The facility shall only be operated in the single-fuel mode using 100 % liquid fuel until such time that the permittee can evaluate the integrity of the landfill gas treatment and transport systems for the purpose of identifying potential excess ambient air infiltration into the gas transport system. If excess air infiltration has occurred, the permittee shall document the resulting findings and the corrective actions taken; and

    c. Re-test the treated landfill gas for gross calorific value prior to resuming dual-fuel operations. Re-testing shall be performed at 4-hour intervals. Dual-fuel operations may be resumed at such time that two (2) consecutive gross calorific value tests, conducted at 4-hour intervals, have produced results exceeding the minimum heating value **or** the permittee provides the Director, Tidewater Regional Office, with performance testing capable of verifying that treated landfill gas with a reduced heating value is capable of producing emission rates not exceeding the limits specified in Condition 13.

All records required by this condition shall be available for inspection by the DEQ, and shall be current for the most recent five (5) years.
(9 VAC 5-80-110 and Condition 31 of NSR permit issued December 16, 2011)

New Source Review Permit General Conditions

46. **Notification for Control Equipment Maintenance** - The permittee shall furnish notification to the DEQ Tidewater Regional Office of the intention to shut down or bypass, or both, air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour, at least 24 hours prior to the shutdown. The notification shall include, but is not limited to, the following information:
    a. Identification of the air pollution control equipment to be taken out of service, as well as its location, and registration number;
    b. The expected length of time that the air pollution control equipment will be out of service;
    c. The nature and quantity of emissions of air pollutants likely to occur during the shutdown period; and
    d. Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage.

    (9 VAC 5-80-110 and Condition 43 of NSR permit issued December 16, 2011)

47. **Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
    (9 VAC 5-80-110 and Condition 44 of NSR permit issued December 16, 2011)

48. **Maintenance/Operating Procedures** - At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.
    (9 VAC 5-80-110 and Condition 41 of NSR permit issued December 16, 2011)

49. **Records of Malfunction** - The permittee shall maintain records of the occurrence and duration of any bypass, malfunction, shutdown or failure of the facility or its associated air pollution control equipment that results in excess emissions for more than one hour. Records shall include the date, time, duration, description (emission unit, pollutant affected, and cause), corrective action preventive measures taken, and name of person generating the record.
    (9 VAC 5-80-110 and Condition 42 of NSR permit issued December 16, 2011)

Insignificant Emission Units

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

Emission URN	Emission Unit Description	Citation	Rated Capacity (9 VAC 5-80-720)
T37 - T40	Fuel Oil Storage Tanks	9 VAC 5-80-720 B.2	(2) @ 20,000 gallons, each (2) @ 20,700 gallons, each

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, reporting, or recordkeeping is required for these emission units in accordance with 9 VAC 5-80-110.
(9 VAC 5-80-110)

Permit Shield & Inapplicable Requirements

51. 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 WWW	Landfill NSPS NMOC reduction	The INGENCO facility uses landfill gas that has been treated as provided in 40 CFR 60.752(b)(2)(iii)(C), and is exempt from NMOC reduction requirements.
40 CFR 60 Subpart IIII	NSPS for CI ICEs	The INGENCO engines were manufactured prior to the 4/1/2006 NSPS applicability date

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)

General Conditions

52. **General Conditions - 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)

53. **General Conditions - Permit Expiration** - This permit has a fixed term of five (5) years. The expiration date shall be the date five (5) 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.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

54. **General Conditions - Permit Expiration** - 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.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

55. **General Conditions - Permit Expiration** - 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.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

56. **General Conditions - Permit Expiration** - 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.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

57. **General Conditions - Permit Expiration** - 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.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

58. **General Conditions - Permit Expiration** - 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)

59. **General Conditions - Recordkeeping and Reporting** - 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; and

f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

60. **General Conditions - Recordkeeping and Reporting** - Records of all monitoring data and support information shall be retained for at least five (5) 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)

61. **General Conditions - Recordkeeping and Reporting** - 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 purposes of this permit, deviations include, but are not limited to:

(1) Exceedance of emissions limitations or operational restrictions;

(2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or

(3) 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)

62. **General Conditions - 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:

a. The time period included in the certification. The time period to be addressed is January 1 to December 31;

b. The identification of each term or condition of the permit that is the basis of the certification;

c. The compliance status;

d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance;

e. 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; and

f. Such other facts as the permit may require to determine the compliance status of the source.

g. One copy of the annual compliance certification shall be sent to EPA at the following address:

R3_APD_Permits@epa.gov

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

63. **General Conditions - 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 Condition 61 of this permit.
(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

64. **General Conditions - 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 (4) daytime business hours after the malfunction is discovered, notify the Director, Tidewater Regional Office, by facsimile transmission, telephone or electronic mail 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)

65. **General Conditions - 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)

66. **General Conditions - 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 grounds 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)

67. **General Conditions - 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)

68. **General Conditions - 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 5-80-1790, 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)

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

70. **General Conditions - Duty to Submit Information** - 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)

71. **General Conditions - Duty to Submit Information** - 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)

72. **General Conditions - 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)

73. **General Conditions - 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:

    a. 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;

    b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

    c. 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 other similar operations;

    d. 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

e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-50-90)

74. **General Conditions - Startup, Shutdown, and Malfunction** - 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. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the 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)

75. **General Conditions - 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)

76. **General Conditions - 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:

a. 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;

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

c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

d. 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)

77. **General Conditions - 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. The conditions for reopening a permit are as follows:

a. 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.

b. 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.

c. 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)

78. **General Conditions - Permit Availability** - Within five (5) 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)

79. **General Conditions - 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)

80. **General Conditions - Transfer of Permits -** 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)

81. **General Conditions - Transfer of Permits -** 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)

82. **General Conditions - Malfunction as an Affirmative Defense** - A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of Condition 83 are met.
(9 VAC 5-80-250)

83. **General Conditions - Malfunction as an Affirmative Defense** - 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; and

    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.

    (9 VAC 5-80-250)

84. **General Conditions - Malfunction as an Affirmative Defense** - In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.
(9 VAC 5-80-250)

85. **General Conditions - Malfunction as an Affirmative Defense** - 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)

86. **General Conditions - 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 of the 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)

87. **General Conditions - 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)

88. **General Conditions - 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)

89. **General Conditions - Asbestos Requirements** - The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emissions 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)

90. **General Conditions - 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)

91. **General Conditions - 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)

92. **General Conditions - 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:

    a. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.

b. 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.

c. 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)

State-Only Enforceable Requirements

93. 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.

    a. 9 VAC 5-50-140 Standard for Odorous Emissions

    b. 9 VAC 5-60-320 Standard for Toxic Pollutants

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