



# **COMMONWEALTH of VIRGINIA**

## **DEPARTMENT OF ENVIRONMENTAL QUALITY**

TIDEWATER REGIONAL OFFICE

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Molly Joseph Ward  
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## **STATEMENT OF LEGAL AND FACTUAL BASIS**

INGENCO Wholesale Power, LLC (aka INGENCO)  
Virginia Beach, Virginia  
Permit No. TRO-61423

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, INGENCO Wholesale Power, LLC (aka INGENCO) has applied for a Title V Operating Permit for its Virginia Beach, Virginia electric power generating facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Permit Writer:

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Date: August 24, 2015

Regional Air Permits  
Manager:

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Troy D. Breathwaite

Date: August 24, 2015

Regional Director:

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Maria R. Nold

Date: August 24, 2015

## **FACILITY INFORMATION**

### Permittee

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

### Facility

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

County-Plant Identification Number: 51-810-00117

## **SOURCE 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 in 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 that uses 36 dual-fueled engines (URN 1 - 36), each powering a 350 kilowatt (kW) non-emergency electrical generator. 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.

On May 27, 2015, a change in ownership of the facility occurred, whereby 100% of the equity interests in Industrial Power Generating Company, LLC (the "Permittee") were purchased by Castleton Commodities International LLC, through one of its indirect subsidiaries. The Permittee (INGENCO) will continue to hold the Title V permit and remain responsible for the operations of the Virginia Beach facility. Personnel changes have also occurred, namely, for the "Responsible Official" and "Contact Person" and these changes have been incorporated within the updated Facility Information on page 3 in the Title V permit.

The facility is a Title V major source of carbon monoxide and nitrogen oxides. This source is located in an attainment area for all pollutants. The facility was previously permitted under a state major permit issued on September 17, 2008, which was incorporated into the Title V permit as a significant amendment on November 18, 2008. The Title V significant amendment was for the inclusion of Condition 37 from the September 17, 2008 NSR permit, which suspended the required testing as contained in Condition 34 of the NSR permit. The 2008 NSR permit was amended on December 16, 2011 to include the use of biodiesel fuel oil (B-5, B-20, and/or B-100 blends) as an approved fuel in the engines (URN 1 - 36). Use of biodiesel fuel oil in the engines necessitated a change in the short-term permitted emission limits for NOx from 2.1 lbs/MMBtu to 2.3 lbs/MMBtu; however, there was no change to the annual NOx emission limit. A condition was also added to the permit requiring NOx and CO compliance testing be performed using biodiesel fuel oil in the engines to verify the revised emission limit. Use of this additional biodiesel fuel oil and the associated NOx and CO compliance testing for the fuel has been incorporated into the Title V permit renewal.

Each of the 36 stationary engines (URN 1 - 36) became subject to the requirements of 40 CFR 63, Subpart ZZZZ with the March 2010 amendment to the MACT which, in part, affects existing non-emergency stationary RICEs > 500 HP located at area sources of HAPs that combust landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. The applicable MACT, Subpart ZZZZ requirements for the engines have been included in this Title V permit renewal.

## COMPLIANCE STATUS

A full compliance evaluation of this facility, including a May 16, 2012 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.

## EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units operated at this facility consist of the following:

| Emission Unit Ref. No. (URN) | Stack ID  | Emission Unit Description   | Size/Rated Capacity <sup>(a)</sup>                       | Applicable Permit Date               |
|------------------------------|---|---|--|--------------------------------------|
| 1 - 36 <sup>(b)</sup>        | 1 - 6 <sup>(c)</sup>  | Detroit Diesel Series 60 inline 6 dual-fired engines, each powering a 350 kW electric generator. Each of the 36 engines is subject to the applicable standards of 40 CFR 63, Subpart ZZZZ for existing landfill gas-fired engines located at area sources of HAPs | 550 hp, each engine                                      | NSR permit amended December 16, 2011 |
| T37 - 40                     |  | Fuel Oil Storage Tanks  | (2) @ 20,000 gallons, each<br>(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) RICEs are divided into six (6) groups of six (6) RICEs.
- (c) The stacks are designated by the engine group number description (RICEs 1 - 6 = stack 1; RICEs 7 - 12 = stack 2; RICEs 13 - 18 = stack 3; RICEs 19 - 24 = stack 4; RICEs 25 - 30 = stack 5; and RICEs 31 - 36 = stack 6).

## EMISSIONS INVENTORY

A copy of the 2012 annual emission inventory statement is attached. Emissions are summarized in the following table.

### 2012 Actual Emissions

| 2012 Criteria Pollutant Emissions in Tons/Year |      |                 |                  |                   |                 |     |
|--|------|-----------------|------------------|-------------------|-----------------|-----|
| Pollutant                                      | CO   | NO <sub>x</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> | SO <sub>2</sub> | VOC |
| <b>Total</b>                                   | 15.4 | 5.6             | 0.8              | 0.8               | 0.3             | 1.7 |

## EMISSION UNIT APPLICABLE REQUIREMENTS - (Emission Units 1 - 36)

The following Title V requirements are derived from the previously issued NSR permit indicated below:

December 16, 2011 NSR permit:

Conditions 1 - 16, 18 - 24, 32 - 34, and 36 - 49

Compliance with the emission limitations in the permit is determined through use of a calculation (Title V condition 13). The calculation is dependent on the type of fuel used, and the specifications for that fuel type.

## 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.

Comments on General Conditions:

Conditions 53 through 58. 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 §2.2-604 and §10.1-1185 of the *Code of Virginia*, and the "Department of Environmental Quality Agency Policy Statement No. 3-2006".

Condition 64. 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.

Condition 68. 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

Conditions 82 through 85. 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 Conditions 82 through 85 and General Condition 64. For further explanation see the comments on General Condition 64.

Condition 89. 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 and have been identified as applicable by the applicant:

9 VAC 5-50-140 Standard for Odorous Emissions

9 VAC 5-60-320 Standard for Toxic Pollutants

**INAPPLICABLE REQUIREMENTS**

The following requirements have been identified by the permittee as inapplicable:

| Citation                         | Description of Requirement                                | Justification   |
|----------------------------------|---|---|
| 40 CFR Part 60.752(b)(2)(iii)(B) | 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 Part 60, Subpart IIII     | NSPS for compression ignition, internal combustion engine | The INGENCO engines were manufactured prior to April 1, 2006.   |
| 40 CFR Part 64                   | Compliance Assurance Monitoring (CAM)                     | The INGENCO engines do not use any pollution control devices to achieve compliance.   |

**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.

## **CONFIDENTIAL INFORMATION**

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

## **GREENHOUSE GAS REQUIREMENTS**

40 CFR Part 98 - Mandatory Greenhouse Gas Reporting: The provisions of 40 CFR Part 98 require owners and operators of general stationary fuel combustion sources that emit 25,000 metric tons CO<sub>2</sub>e or more per year in combined emissions from such units, to report greenhouse gas (GHG) emissions, 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. The current state major NSR permit for the INGENCO Virginia Beach Plant contains no GHG-specific applicable requirements and there have been no modifications at the facility requiring a PSD permit. Therefore, there are no GHG applicable requirements from the underlying permit being pulled into the Title V permit; however, this facility is subject to Part 98, Mandatory Green House Gas Reporting.

## **PUBLIC PARTICIPATION**

The proposed permit will be placed on public notice in the Virginian-Pilot newspaper from Tuesday, July 1, 2014 to Thursday, July 31, 2014.