

12 December 2012

Caitlin M. Conley
Assistant Director of EHS
Roger Williams University
1 Old Ferry Road, Bristol RI 02809

Dear Ms. Conley;

The Department of Environmental Management, Office of Air Resources has reviewed and approved your applications for three minor source permits and four general permits for emergency generators at Roger Williams University Campus in Bristol, Rhode Island. Minor source permits are for units located at Global Heritage Hall, North Campus Sewer Pump Station, and Guard House/Main Gate. General Permits are for units located at Facilities Mobile #02, Facilities Mobile #03, Cedar Hall Sewer Pump Station, and North Residence Hall

Pursuant to our review of your applications, enclosed are minor source permits (Approval Nos. 2190-2192) and general permits (General Permit Nos. GPEG-144 through GPEG-147).

Based on the representations made in your 18 April 2012 correspondence to Donald L. Whitaker of this office, the Office of Air Resources has preliminarily determined that your facility has the potential to emit greater than 50 tons per year of nitrogen oxides (NO_x) and therefore may be subject to the Operating Permit Program. The Operating Permit Program is a federally mandated program for major sources of air pollution. Rhode Island Air Pollution Control Regulation 29, "Operating Permits" contains provisions to allow sources to apply for an emissions cap if they meet certain criteria. Any stationary source with potential emissions in excess of any of the applicability thresholds for Regulation No. 29, but with actual emissions less than those thresholds, may apply to the Director for an emissions cap, at or below that threshold level. An emissions cap is a federally enforceable document and includes some combination of production and/or operational limitations, and relieves the stationary source from the requirement to obtain an operating permit under Regulation No. 29. Please see the attached application for an emissions cap.

Please contact Richard Younkin of this office at 401-222-2808 extension 7033 or by email at rich.younkin@dem.ri.gov for further information.

If there are any questions concerning the minor source and/or general permits, please contact me at 401-222-2808, extension 7430.

Sincerely,

Darren J. Austin
Air Quality Specialist
Office of Air Resources

cc: Town of Bristol Building Official

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES

MINOR SOURCE PERMIT

ROGER WILLIAMS UNIVERSITY

APPROVAL NO. 2190

Pursuant to the provisions of Air Pollution Control Regulation No. 9, this minor source permit is issued to:

Roger Williams University

For the following:

Caterpillar Generator (Model No. SR-B (G3406TA) 360 BHP, 240 kW

Serial No. (CBM00232)

Located at:

Roger Williams University, Global Heritage Hall

1 Old Ferry Road, Bristol, Rhode Island

This permit shall be effective from the date of its issuance and shall remain in effect until revoked by or surrendered to the Department. This permit does not relieve *Roger Williams University* from compliance with applicable state and federal air pollution control rules and regulations. The design, construction and operation of this equipment shall be subject to the attached permit conditions and emission limitations.

Douglas L. McVay, Chief
Office of Air Resources

Date of Issuance

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES**

Permit Conditions and Emission Limitations

ROGER WILLIAMS UNIVERSITY

APPROVAL NO. 2190

A. Emission Limitations

1. Sulfur Dioxide

The sulfur content of any gaseous fuel burned in the emergency generator shall not exceed 10 grains total sulfur per 100 dry standard cubic feet.

2. Visible emissions from the emergency generator shall not exceed 10% opacity except for a period or periods aggregating no more than three minutes in any one-hour. This visible emission limitation shall not apply during startup of an emergency generator. Startup shall be defined as the first ten minutes of firing following the initiation of firing.

B. Operating Requirements

1. The maximum firing rate for the emergency generator shall not exceed 2894 cubic feet per hour.
2. The emergency generator shall not operate more than 500 hours in any 12-month period.
3. The emergency generator shall be used only during emergencies or for maintenance or testing purposes. Emergency means an electric power outage due to a failure of the electrical grid, on-site disaster, local equipment failure, or public service emergencies such as flood, fire, or natural disaster. Emergency shall also mean periods during which ISO New England, or any successor Regional Transmission Organization, directs the implementation of operating procedures for voltage reductions, voluntary load curtailments by customers or automatic or manual load shedding within Rhode Island in response to unusually low frequency, equipment overload, capacity or energy deficiency, unacceptable voltage levels or other such emergency conditions.
4. The emergency generator shall not be operated in conjunction with any voluntary demand-reduction program or any other interruptible power supply arrangement with a utility, other market participant or system operator unless such program is

implemented at the same time as ISO New England, or any successor Regional Transmission Organization, directs the implementation of operating procedures for voltage reductions, voluntary load curtailments by customers or automatic or manual load shedding within Rhode Island in response to unusually low frequency, equipment overload, capacity or energy deficiency, unacceptable voltage levels or other such emergency conditions.

C. Continuous Monitoring

1. The emergency generator shall be equipped with a non-resettable elapsed time meter to indicate, in cumulative hours, the elapsed engine operating time for the unit.

D. Record Keeping and Reporting

1. The owner/operator shall, on a monthly basis, no later than 5 days after the first of each month, determine and record the hours of operation for the emergency generator for the previous 12 month period.
2. The owner/operator shall notify the Office of Air Resources, in writing, whenever the hours of operation in any 12 month period exceeds 500 hours for the emergency generator.
3. The owner/operator shall notify the Office of Air Resources of any anticipated noncompliance with the terms of this permit or any other applicable air pollution control rules and regulations.
4. The owner/operator shall notify the Office of Air Resources in writing of any planned physical or operational change to this emergency generator that would:
 - a. Change the representation of the facility in the application.
 - b. Alter the applicability of any state or federal air pollution rules or regulations.
 - c. Result in the violation of any terms or conditions of this permit.
 - d. Qualify as a modification under APC Regulation No. 9.

Such notification shall include:

- Information describing the nature of the change.
- Information describing the effect of the change on the emission of any air contaminant.

- The scheduled completion date of the planned change.

Any such change shall be consistent with the appropriate regulation and have the prior approval of the Director.

5. The owner/operator shall notify the Office of Air Resources, in writing, of any noncompliance with the terms of this permit or any other air pollution control rule or regulation within 30 calendar days of becoming aware of such occurrence and supply the Director with the following information:
 - a. The name and location of the facility;
 - b. The subject source(s) that caused the noncompliance with the permit term;
 - c. The time and date of first observation of the incident of noncompliance;
 - d. The cause and expected duration of the incident of noncompliance;
 - e. The estimated rate of emissions (expressed in lbs/hr or lbs/day) during the incident and the operating data and calculations used in estimating the emission rate.
 - f. The proposed corrective actions and schedule to correct the conditions causing the incidence of noncompliance.
6. All records required as a condition of this permit shall be maintained for a minimum of five years after the date of each record and shall be made available to representatives of the Office of Air Resources upon request.

E. Other Permit Conditions

1. To the extent consistent with the requirements of this approval and applicable Federal and State laws, the emergency generator shall be designed, constructed and operated in accordance with the representation of the equipment in the permit application.
2. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter the facility at all times for the purpose of inspecting any air pollution source, investigating any condition it believes may be causing air pollution or examining any records required to be maintained by the Office of Air Resources.
3. At all times, including periods of startup, shutdown and malfunction, the owner/operator shall, to the extent practicable, maintain and operate the emergency generator in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and

maintenance procedures are being used will be based on information available to the Office of Air Resources which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the emergency generator.

4. The owner/operator is subject to the requirements of 40 CFR 60, Subpart A (General Provisions) and Subpart JJJJ (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines). Compliance with all applicable provisions therein is required.

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STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES

MINOR SOURCE PERMIT

ROGER WILLIAMS UNIVERSITY

APPROVAL NO. 2191

Pursuant to the provisions of Air Pollution Control Regulation No. 9, this minor source permit is issued to:

ROGER WILLIAMS UNIVERSITY

For the following:

Superior Generator (Model No. 55R431) 85 BHP, 55kW (Serial No. 02091851)

Vortec Engine (Model No. 5700)

Located at: *Roger Williams University, North Campus Sewer Pump Station*

1 Old Ferry Road, Bristol, Rhode Island

This permit shall be effective from the date of its issuance and shall remain in effect until revoked by or surrendered to the Department. This permit does not relieve *Roger Williams University* from compliance with applicable state and federal air pollution control rules and regulations. The design, construction and operation of this equipment shall be subject to the attached permit conditions and emission limitations.

Douglas L. McVay, Chief
Office of Air Resources

Date of Issuance

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES**

Permit Conditions and Emission Limitations

ROGER WILLIAMS UNIVERSITY

APPROVAL NO. 2191

A. Emission Limitations

1. Sulfur Dioxide

The sulfur content of any gaseous fuel burned in the emergency generator shall not exceed 10 grains total sulfur per 100 dry standard cubic feet.

2. Visible emissions from the emergency generator shall not exceed 10% opacity except for a period or periods aggregating no more than three minutes in any one-hour. This visible emission limitation shall not apply during startup of an emergency generator. Startup shall be defined as the first ten minutes of firing following the initiation of firing.

B. Operating Requirements

1. The maximum firing rate for the emergency generator shall not exceed 1030 cubic feet per hour.
2. The emergency generator shall not operate more than 500 hours in any 12-month period.
3. The emergency generator shall be used only during emergencies or for maintenance or testing purposes. Emergency means an electric power outage due to a failure of the electrical grid, on-site disaster, local equipment failure, or public service emergencies such as flood, fire, or natural disaster. Emergency shall also mean periods during which ISO New England, or any successor Regional Transmission Organization, directs the implementation of operating procedures for voltage reductions, voluntary load curtailments by customers or automatic or manual load shedding within Rhode Island in response to unusually low frequency, equipment overload, capacity or energy deficiency, unacceptable voltage levels or other such emergency conditions.
4. The emergency generator shall not be operated in conjunction with any voluntary demand-reduction program or any other interruptible power

supply arrangement with a utility, other market participant or system operator unless such program is implemented at the same time as ISO New England, or any successor Regional Transmission Organization, directs the implementation of operating procedures for voltage reductions, voluntary load curtailments by customers or automatic or manual load shedding within Rhode Island in response to unusually low frequency, equipment overload, capacity or energy deficiency, unacceptable voltage levels or other such emergency conditions.

C. Continuous Monitoring

1. The emergency generator shall be equipped with a non-resettable elapsed time meter to indicate, in cumulative hours, the elapsed engine operating time for the unit.

D. Record Keeping and Reporting

1. The owner/operator shall, on a monthly basis, no later than 5 days after the first of each month, determine and record the hours of operation for the emergency generator for the previous 12 month period.
2. The owner/operator shall notify the Office of Air Resources, in writing, whenever the hours of operation in any 12 month period exceeds 500 hours for the emergency generator.
3. The owner/operator shall notify the Office of Air Resources of any anticipated noncompliance with the terms of this permit or any other applicable air pollution control rules and regulations.
4. The owner/operator shall notify the Office of Air Resources in writing of any planned physical or operational change to this emergency generator that would:
 - e. Change the representation of the facility in the application.
 - f. Alter the applicability of any state or federal air pollution rules or regulations.
 - g. Result in the violation of any terms or conditions of this permit.
 - h. Qualify as a modification under APC Regulation No. 9.

Such notification shall include:

- Information describing the nature of the change.

- Information describing the effect of the change on the emission of any air contaminant.
- The scheduled completion date of the planned change.

Any such change shall be consistent with the appropriate regulation and have the prior approval of the Director.

5. The owner/operator shall notify the Office of Air Resources, in writing, of any noncompliance with the terms of this permit or any other air pollution control rule or regulation within 30 calendar days of becoming aware of such occurrence and supply the Director with the following information:

- g. The name and location of the facility;
- h. The subject source(s) that caused the noncompliance with the permit term;
- i. The time and date of first observation of the incident of noncompliance;
- j. The cause and expected duration of the incident of noncompliance;
- k. The estimated rate of emissions (expressed in lbs/hr or lbs/day) during the incident and the operating data and calculations used in estimating the emission rate.
- l. The proposed corrective actions and schedule to correct the conditions causing the incidence of noncompliance.

6. All records required as a condition of this permit shall be maintained for a minimum of five years after the date of each record and shall be made available to representatives of the Office of Air Resources upon request.

E. Other Permit Conditions

1. To the extent consistent with the requirements of this approval and applicable Federal and State laws, the emergency generator shall be designed, constructed and operated in accordance with the representation of the equipment in the permit application.
2. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter the facility at all times for the purpose of inspecting any air pollution source, investigating any condition it believes may be causing air pollution or examining any records required to be maintained by the Office of Air Resources.

3. At all times, including periods of startup, shutdown and malfunction, the owner/operator shall, to the extent practicable, maintain and operate the emergency generator in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Office of Air Resources which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the emergency generator.
4. The owner/operator is subject to the requirements of 40 CFR 60, Subpart A (General Provisions) and Subpart JJJJ (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines). Compliance with all applicable provisions therein is required.

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES

MINOR SOURCE PERMIT

ROGER WILLIAMS UNIVERSITY

APPROVAL NO. 2192

Pursuant to the provisions of Air Pollution Control Regulation No. 9, this minor source permit is issued to:

ROGER WILLIAMS UNIVERSITY

For the following:

Superior Generator (Model No. 50R161), 75 HP, 50 kW (Serial No. 09071795)

John Deere Engine (Model No.5030TF270C) (Serial No. PE5030T136498)

Located at: *Roger Williams University, Guard House/Main Gate*

1 Old Ferry Road, Bristol, Rhode Island

This permit shall be effective from the date of its issuance and shall remain in effect until revoked by or surrendered to the Department. This permit does not relieve *Roger Williams University* from compliance with applicable state and federal air pollution control rules and regulations. The design, construction and operation of this equipment shall be subject to the attached permit conditions and emission limitations.

**Douglas L. McVay, Chief
Office of Air Resources**

Date of Issuance

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES**

Permit Conditions and Emission Limitations

ROGER WILLIAMS UNIVERSITY

APPROVAL NO. 2192

A. Emission Limitations

1. Sulfur Dioxide

The sulfur content of any liquid fuel burned in the emergency generator shall not exceed 15 ppm by weight.

2. Visible emissions from the emergency generator shall not exceed 10% opacity except for a period or periods aggregating no more than three minutes in any one-hour. This visible emission limitation shall not apply during startup of an emergency generator. Startup shall be defined as the first ten minutes of firing following the initiation of firing.

B. Operating Requirements

1. The maximum firing rate for the emergency generator shall not exceed 4.4 gallons per hour.
2. The emergency generator shall not operate more than 500 hours in any consecutive 12-month period.
3. The emergency generator shall be used only during emergencies or for maintenance or testing purposes. Emergency means an electric power outage due to a failure of the electrical grid, on-site disaster, local equipment failure, or public service emergencies such as flood, fire, or natural disaster. Emergency shall also mean periods during which ISO New England, or any successor Regional Transmission Organization, directs the implementation of operating procedures for voltage reductions, voluntary load curtailments by customers or automatic or manual load shedding within Rhode Island in response to unusually low frequency, equipment overload, capacity or energy deficiency, unacceptable voltage levels or other such emergency conditions.
4. The emergency generator shall not be operated in conjunction with any voluntary demand-reduction program or any other interruptible power supply arrangement with a utility, other market participant or system operator unless such program is implemented at the same time as ISO New England, or any successor Regional

Transmission Organization, directs the implementation of operating procedures for voltage reductions, voluntary load curtailments by customers or automatic or manual load shedding within Rhode Island in response to unusually low frequency, equipment overload, capacity or energy deficiency, unacceptable voltage levels or other such emergency conditions.

C. Continuous Monitoring

1. The emergency generator shall be equipped with a non-resettable elapsed time meter to indicate, in cumulative hours, the elapsed engine operating time for the unit.

D. Fuel Oil Testing

1. Compliance with the diesel fuel sulfur limit may be determined based on a certification from the fuel supplier. Fuel supplier certifications shall include the following information:
 - a. The name of the fuel supplier;
 - b. The sulfur content of the fuel from which the shipment came or the shipment itself;
 - c. The location of the fuel when the sample was drawn for analysis to determine the sulfur content of the fuel, specifically including whether the fuel was sampled as delivered to the Roger Williams University or whether the sample was drawn from fuel in storage at the fuel supplier's facility or another location;
 - d. The method used to determine the sulfur content of the fuel.
2. As an alternative to fuel supplier certification, the owner/operator may elect to sample the fuel prior to combustion. Sampling and analysis shall be conducted for the fuel in the initial tank(s) of fuel to be fired in the engine and after each new shipment of fuel is received. Samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any fuel is combusted.

E. Record Keeping and Reporting

1. The owner/operator shall, on a monthly basis, no later than 5 days after the first of each month, determine and record the hours of operation and fuel use for the emergency generator for the previous 12-month period.
2. The owner/operator shall notify the Office of Air Resources, in writing, whenever the hours of operation in any 12-month period exceed 500 hours for the emergency generator.

3. The owner/operator shall notify the Office of Air Resources of any anticipated noncompliance with the terms of this permit or any other applicable air pollution control rules and regulations.
4. The owner/operator shall maintain copies of all fuel supplier certifications or fuel oil analysis and these copies shall be made accessible for review by the Office of Air Resources or its authorized representative and EPA.
5. The owner/operator shall notify the Office of Air Resources in writing of any planned physical or operational change to any equipment that would:
 - a. Change the representation of the facility in the application.
 - b. Alter the applicability of any state or federal air pollution rules or regulations.
 - c. Result in the violation of any terms or conditions of this permit.
 - d. Qualify as a modification under APC Regulation No. 9.

Such notification shall include:

- Information describing the nature of the change.
- Information describing the effect of the change on the emission of any air contaminant.
- The scheduled completion date of the planned change.

Any such change shall be consistent with the appropriate regulation and have the prior approval of the Director.

6. The owner/operator shall notify the Office of Air Resources, in writing, of any noncompliance with the terms of this permit within 30 calendar days of becoming aware of such occurrence and supply the Director with the following information:
 - a. The name and location of the facility;
 - b. The subject source(s) that caused the noncompliance with the permit term;
 - c. The time and date of first observation of the incident of noncompliance;
 - d. The cause and expected duration of the incident of noncompliance;

- e. The estimated rate of emissions (expressed in lbs/hr or lbs/day) during the incident and the operating data and calculations used in estimating the emission rate.
 - f. The proposed corrective actions and schedule to correct the conditions causing the incidence of noncompliance.
7. All records required as a condition of this permit shall be maintained for a minimum of five years after the date of each record and shall be made available to representatives of the Office of Air Resources upon request.

F. Other Permit Conditions

- 1. To the extent consistent with the requirements of this approval and applicable Federal and State laws, the emergency generator shall be designed, constructed and operated in accordance with the representation of the equipment in the permit application.
- 2. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter the facility at all times for the purpose of inspecting any air pollution source, investigating any condition it believes may be causing air pollution or examining any records required to be maintained by the Office of Air Resources.
- 3. At all times, including periods of startup, shutdown and malfunction, the owner/operator shall, to the extent practicable, maintain and operate the emergency generator in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Office of Air Resources which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the emergency generator.
- 4. The owner/operator is subject to the requirements of 40 CFR 60, Subpart A (General Provisions) and Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines). Compliance with all applicable provisions therein is required.