



**STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT**

**NEW SOURCE REVIEW PERMIT
TO CONSTRUCT AND OPERATE
A STATIONARY SOURCE**

Issued pursuant to Title 22a of the Connecticut General Statutes and Section 22a-174-3a of the Regulations of Connecticut State Agencies.

Owner/Operator: The Metropolitan District

Address: P.O. Box 800, Hartford, CT 06142-0800

Equipment Location: Hartford WPCF, 240 Brainard Road, Hartford, CT 06114

Equipment Description: #3 Caterpillar Diesel Engine Model #3406

Permit Number: 075-0215

Town/Premises Numbers: 75/505

Original Permit Issue Date: 5/20/99

Revision Issue Date: 9/22/05

Expiration Date: NONE

/s/Gina McCarthy
Gina McCarthy
Commissioner

9/22/05
Date

PERMIT FOR FUEL BURNING EQUIPMENT

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The conditions on all pages of this permit and attached appendices shall be verified at all times except those noted as design specifications. Design specifications need not be verified on a continuous basis; however, if requested by the Commissioner, demonstration of compliance shall be shown.

PART I. OPERATIONAL CONDITIONS

A. Operating Limits

1. Fuel Type(s): Diesel fuel oil
2. Maximum Fuel Consumption over any Consecutive Twelve (12) Month Period: 107,500 gallons*
3. Fuel Sulfur Content (% by weight, dry basis): 0.05

*Combined fuel limit for Permit Nos. 075-0213, 075-0214, 075-0215, 075-0216, and 075-0217

B. Design Specifications

1. Maximum Fuel Firing Rate(s) (gal/hr): 21.5
2. Maximum Gross Heat Input (MM BTU/hr): 2.97
3. Minimum Stack Height (ft): 42.7
4. Minimum Exhaust Gas Flow Rate (acfm): 2,606
5. Stack Exit Temperature (°F): 957
6. Minimum Distance from Stack to Property Line (ft): 60

PART II. CONTROL EQUIPMENT (Applicable if -X- Checked) (See Appendix E for Specifications)

A. Type

- | | |
|---|--|
| <input checked="" type="checkbox"/> None | <input type="checkbox"/> Selective Non-Catalytic Reduction |
| <input type="checkbox"/> Scrubber | <input type="checkbox"/> Selective Catalytic Reduction |
| <input type="checkbox"/> Electrostatic Precipitator | <input type="checkbox"/> Low NOx Burner |
| <input type="checkbox"/> Cyclone | <input type="checkbox"/> Fabric Filter |
| <input type="checkbox"/> Multi-Cyclone | <input type="checkbox"/> Particulate Trap |
| <input type="checkbox"/> Thermal DeNOx | <input type="checkbox"/> Other |

B. Minimum Efficiency

1. Capture Efficiency (%):
2. Removal Efficiency (%):
3. Overall Efficiency (%):

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**PART III. CONTINUOUS EMISSION MONITORING REQUIREMENTS AND
ASSOCIATED EMISSION LIMITS** (Applicable if -X- Checked)

CEM shall be required for the following pollutant/operational parameters and enforced on the following basis:

| <u>Pollutant/Operational Parameter</u> | <u>Averaging Times</u> | <u>Emission Limit</u> | <u>Units</u> |
|--|----------------------------|---------------------------|--------------|
| <input checked="" type="checkbox"/> None | | | |
| <input type="checkbox"/> Opacity | six minute block | | |
| <input type="checkbox"/> SOx | 3 hour rolling | | |
| <input type="checkbox"/> NOx | 24 hour rolling | | |
| <input type="checkbox"/> CO | 1 hour block | | |
| <input type="checkbox"/> CO ₂ | 1 hour block | | |
| <input type="checkbox"/> O ₂ | 1 hour block | | |
| <input type="checkbox"/> Temperature | continuous | | |

(See Appendix A for General Requirements)

PART IV. MONITORING, REPORTING AND RECORD KEEPING REQUIREMENTS

A. Monitoring

When more than one fuel supply tank is to service the sources covered by Permit Nos. 075-0213, 075-0214, 075-0215, 075-0216, and 075-0217 or when other sources not covered by the referenced permits are supplied by the same fuel tank, the Permittee shall use a non-resettable totalizing fuel metering device to continuously monitor the combined fuel feed to sources covered by Permit Nos. 075-0213, 075-0214, 075-0215, 075-0216, and 075-0217.

B. Record Keeping

1. The Permittee shall keep records of annual fuel consumption. Annual fuel consumption (combined for Permit Nos. 075-0213, 075-0214, 075-0215, 075-0216, and 075-0217) shall be based on any consecutive 12 month time period and shall be determined by adding (for each fuel) the current month's fuel usage to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
2. The Permittee shall keep records of the fuel certification for each delivery of fuel from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of the fuel as a condition of each shipment. The shipping receipt or contract shall include the date of delivery, the name of the fuel supplier, type of fuel delivered, the percentage of sulfur in such fuel, by weight, dry basis, and the method used to determine the sulfur content of such fuel.

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Town No: 75

Premises No: 0505

Permit No: 215

Stack No: 07

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PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS, cont.

3. The Permittee shall make and keep records on premises to determine compliance with the terms and conditions of this permit in accordance with RCSA 22a-174-4. Such records shall be made available upon request by the Commissioner and kept for the duration of this permit or for the previous five years, whichever is less.

PART V. ALLOWABLE EMISSION LIMITS

The Permittee shall not exceed the emission limits stated herein at any time.

| <u>Criteria Pollutants</u> | <u>#/hr</u> | <u>#/MM BTU</u> | <u>MASC* (ug/m³)</u> | <u>TPY**</u> |
|--------------------------------|-------------|-----------------|-------------------------------------|--------------|
| TSP | 0.30 | 0.10 | | 0.74 |
| PM ₁₀ | 0.30 | 0.10 | | 0.74 |
| SO _x | 0.15 | 0.05 | | 0.38 |
| NO _x | 8.49 | 2.88 | | 21.23 |
| VOC | 0.26 | 0.09 | | 0.65 |
| CO | 2.37 | 0.81 | | 5.93 |
| Sulfuric Acid | - | - | 1.48E+03 | - |

*Maximum Allowable Stack Concentration

**Combined emission limit for Permit Nos. 075-0213, 075-0214, 075-0215, 075-0216, and 075-0217

Demonstration of compliance with the above emission limits shall be met by calculating the emission rates using emission factors from the following sources:

1. Vendor data

The above statement shall not preclude the Commissioner from requiring other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

PART VI. STACK EMISSION TEST REQUIREMENTS (Applicable if -X-Checked)

Stack emission testing shall be required for the following pollutant(s):

None at this time

TSP SO_x NO_x CO

VOC PM-10 Pb

Other (HAPS): _____, _____,

(See Appendix B for General Requirements)

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PART VII. APPLICABLE REGULATORY REFERENCES (The Regulations of Connecticut State Agencies)

22a-174-3a; 22a-174-18; 22a-174-19; 22a-174-29(b); 22a-174-22

These references are not intended to be all inclusive - other sections of the Regulations may apply.

PART VIII. SPECIAL REQUIREMENTS

A. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations.

B. *Noise (for non-emergency use)*

The Permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations, as set forth in Sections 22a-69-1 through 22a-69-7.4 of the Regulations of Connecticut State Agencies.

C. The Permittee shall comply with all applicable sections of the following New Source Performance Standard(s) at all times. (Applicable if -X- checked)

40 CFR Part 60, Subpart: Db Dc GG A

None

(See Appendix C for Detailed Requirements)

PART IX. ADDITIONAL TERMS AND CONDITIONS

- A.** This permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- B.** Any representative of the DEP may enter the Permittee's site in accordance with constitutional limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.
- C.** This permit may be revoked, suspended, modified or transferred in accordance with applicable law.

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PART IX. ADDITIONAL TERMS AND CONDITIONS, continued:

- D.** This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons or municipalities who are not parties to this permit.
- E.** Any document, including any notice, which is required to be submitted to the Commissioner under this permit shall be signed by a duly authorized representative of the Permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in the documents and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense." Any false statement in any information submitted pursuant to this permit may be punishable as a criminal offense in accordance with Connecticut General Statutes §22a-6, under §53a-157 of the Connecticut General Statutes.
- F.** Nothing in this permit shall affect the Commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the Commissioner.
- G.** Within 15 days of the date the Permittee becomes aware of a change in any information submitted to the Commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the Commissioner.
- H.** The date of submission to the Commissioner of any document required by this permit shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the Commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.

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PART IX. ADDITIONAL TERMS AND CONDITIONS, continued:

- I. Any document required to be submitted to the Commissioner under this permit shall, unless otherwise specified in writing by the Commissioner, be directed to: Office of Assistant Director; Compliance & Field Operations Division; Bureau of Air Management; Department of Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

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