



Connecticut Department of
**ENERGY &
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 (CGS) and Section 22a-174-3a of the Regulations of Connecticut State Agencies (RCSA).

Owner/Operator:	Kleen Energy Systems LLC
Address:	P.O. Box 2696, Middletown, CT 06457
Equipment Location:	1349 River Road, Middletown, CT 06457
Equipment Description:	73.5 MMBTU/hr Auxiliary Boiler

Town-Permit Numbers:	104-0134
Town-Premises Numbers:	246
Modification Issue Date:	May 22, 2012
Prior Permit Issue Dates:	February 25, 2008
Expiration Date:	None

/s/ Anne Gobin for
Daniel C. Esty
Commissioner

May 22, 2012
Date

PERMIT FOR FUEL BURNING EQUIPMENT**DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT**

This permit specifies necessary terms and conditions for the operation of this equipment to comply with state and federal air quality standards. The Permittee shall at all times comply with the terms and conditions stated herein.

PART I. DESIGN SPECIFICATIONS**A. Equipment Design Specifications**

1. Fuel Type(s): Natural Gas
2. Maximum Fuel Firing Rate(s): 72,041
3. Maximum Gross Heat Input (MMBTU/hr): 73.5

B. Control Equipment Design Specifications

1. Low NOx Burner
 - a. Make and Model: Rentech Boiler - Straight O-Type Watertube -
Serial No: 2008-67
 - b. Guaranteed NOx Emission Rate (lb/MM BTU): 0.045

C. Stack Parameters

1. Minimum Stack Height (ft): 50
2. Minimum Exhaust Gas Flow Rate (acfm): 19,301
3. Stack Exit Temperature (°F): 300
4. Minimum Distance from Stack to Property Line (ft): 121

PART II OPERATIONAL CONDITIONS**A. Equipment**

1. Maximum Fuel Consumption over any Consecutive 12 Month Period:
86,400,000cf/yr

PART III. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS**A. Monitoring**

1. The Permittee shall continuously monitor fuel consumption using a non-resettable totalizing fuel meter.

B. Record Keeping

1. The Permittee shall record the monthly and consecutive 12 month fuel consumption. The consecutive 12 month fuel consumption shall be determined by adding (for each fuel) the current month's fuel consumption to that of the previous 11 months. The Permittee shall

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DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION BUREAU OF AIR MANAGEMENT

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

make these calculations within 30 days of the end of the previous month.

2. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request.

PART IV. OPERATION AND MAINTENANCE REQUIREMENTS

- A. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations.
- B. The Permittee shall properly operate the control equipment at all times that this equipment is in operation and emitting air pollutants.

PART V. ALLOWABLE EMISSION LIMITS

The Permittee shall not cause or allow this equipment to exceed the emission limits stated herein at any time.

A. Criteria Pollutants

	<u>lb/MMBTU</u>	<u>lb/hr</u>	<u>tpy</u>
TSP		0.46	0.28
PM ₁₀ /PM _{2.5}		0.46	0.28
SO ₂		0.16	0.10
NO _x	0.045	3.31	1.98
VOC		0.28	0.17
CO		5.30	3.18

- B. **Hazardous Air Pollutants:** This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any hazardous air pollutant (HAP) emitted and listed in RCSA Section 22a-174-29.
[STATE ONLY REQUIREMENT]

- C. **OPACITY:** This equipment shall not exceed 10% opacity during any six minute block average as measured by 40 CFR 60, Appendix A, Reference Method 9.

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Town No: 104

Premises No: 246

Permit No: 0134

Stack No: 3

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DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION BUREAU OF AIR MANAGEMENT

PART V. ALLOWABLE EMISSION LIMITS, cont.

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

1. Manufacture Data
2. AP-42, 5th edition

The commissioner may require 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 performed in accordance with the Emission Test Guidelines available on the DEEP website:

http://www.ct.gov/dep/cwp/view.asp?a=2684&q=322076&depNav_GID=1619.

Stack emission testing, pursuant to RCSA §22a-174-22(k), shall be required for the following pollutant(s):

PM SO₂ NO_x CO VOC Opacity
 Other (HAPs): _____, _____,

PART VII. SPECIAL REQUIREMENTS

- A.** The Permittee shall comply with all applicable sections of the following New Source Performance Standard(s) at all times.

Title 40 CFR Part 60, Subpart Dc

Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

- B. STATE ONLY REQUIREMENT:** 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 RCSA Sections 22a-69-1 through 22a-69-7.4.
- C.** The Permittee shall possess, at least, 210 tons of external emissions reductions of NO_x to offset the quantity of NO_x emitted from the sources covered under Permit Nos. 104-0131, 104-0133 and 104-0134 and RCSA §22a-174-3b to comply with Subsection 22a-174-3a(1) of the RCSA. Such a quantity is sufficient to offset the emissions from the sources listed at a ratio of 1.2 tons of reduction for every ton of NO_x emissions allowed under the permits listed. Such offsets have been obtained from

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PART VII. SPECIAL REQUIREMENTS, cont.

the following sources, each located in New York: 186 offsets from Kings Plaza JV, LLC (Serial # NYDEC-2-6105-00301-186), 23 offsets from Wehran Energy Corporation (Serial # NYDEC-1-4722-00799-23), and 1 offset from

Element Market, LLC (serial # NYDEC-2-6107-00141-1). The offsets from Kings Plaza JV, LLC and Wehran Energy Corporation were approved by the Department on February 6, 2008. The offset from Element Market, LLC was approved on March 15, 2012. The Permittee shall maintain sole ownership and possession of these emissions reductions for the duration of this permit and any subsequent changes to the permit.

PART VIII. 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 DEEP 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.
- 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 this document and all attachments thereto, and I 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. I understand that any false statement made in the

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PART VIII. ADDITIONAL TERMS AND CONDITIONS, cont.

submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute.

- 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.

- 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 Director; Engineering & Enforcement Division; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

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