

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
FIELD OPERATIONS - BUREAU OF AIR QUALITY



OPERATING PERMIT

In accordance with provisions of the Air Pollution Control Act, the act of January 8, 1960, P.L. 2119, as amended, and after due consideration of an application received under Chapter 127 and 129 of the rules and regulations of the Department of Environmental Protection, the Department hereby issues this permit for the operation of the air contamination source(s) described below:

Permit No.	<u>OP-46-0060</u>	Source(s)	<u>Facility NOx Sources</u>
Owner	<u>Department of Public Welfare</u>	Air	<u></u>
Address	<u>1001 Sterigere Street</u>	Cleaning	<u></u>
	<u>Norristown, PA 19401-5397</u>	Device	<u></u>
Attention	<u>Mr. Gary Raisener, FMM</u>	Location	<u>Norristown Township</u>
	<u></u>		<u>Montgomery County</u>

This permit is subject to the following conditions:

1. That the source(s) and any associated air cleaning devices are to be:
  - a. operated in such a manner as not to cause air pollution;
  - b. in compliance with the specifications and conditions of the applicable plan approval(s) issued.
  - c. operated and maintained in a manner consistent with good operating and maintenance practices.
2. This permit is valid only for the specific equipment, location and owner named above.

(SEE ADDITIONAL CONDITIONS ATTACHED)

Failure to comply with the conditions placed on this permit is a violation of Section 127.444. Violation of this or any other provision of Article III of the rules and regulations of the Department of Environmental Protection will result in suspension or revocation of this permit and/or prosecution under Section 9 of the Air Pollution Control Act.

Issued 01/21/1998

Francine Carlini  
Regional Manager  
Air Quality

Expires 01/21/2003

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Administration  
SEFO  
Re (GJC)229-4

**OPERATING PERMIT CONDITIONS**  
**PERMIT NO. OP-46-0060**  
**DEPARTMENT OF PUBLIC WELFARE (NSH)**

**CONDITIONS (continued):**

3. This Operating Permit incorporates Reasonably Available Control Technology (RACT) determinations as required by Title I provisions of the Clean Air Act Amendments and 25 Pa. Code Sections 129.91 through 129.95, and is issued for the operation of the following sources located at the Department of Welfare's Norristown State Hospital facility located in Norristown, Montgomery County:
- One International Boiler Works (IBW) SPC-30 (Serial No. 13576), anthracite coal fired boiler rated at 25,000 lbs/hr steam production or approximately 31 MMBtu/hr heat input.
  - Three Keeler 4 drum (Serial No. 10257-1, 12038-2 and 12038-1), anthracite coal fired boilers rated at 42,000 lbs/hr steam production or approximately 55 MMBtu/hr heat input.
4. This Operating Permit supersedes Operating Permit No. 46-302-191 with respect to Keeler boiler No. 1 and Operating Permit No. 46-302-156 with respect to IBW boiler No. 2. The terms and conditions of these permits have been incorporated into this permit.
5. The expiration date shown on this operating permit is for state purposes. For Federal enforcement purposes the operating permit shall remain in effect as part of the State Implementation Plan (SIP) until replaced pursuant to 40 CFR 51 and approved by the U.S. Environmental Protection Agency (EPA).
6. Pursuant to 25 Pa. Code Sections 129.91-95, the IBW boiler and three Keeler boilers shall undergo annual tune-ups which shall include, at a minimum, the procedures required by 25 Pa. Code Section 129.93(b)(2) and (3). The first such tune-up shall be accomplished within 180 days of issuance of this permit, with subsequent tune-ups to be performed annually.

The Company shall properly maintain the boiler by following the steps listed below:

- (a) The Company shall conduct an annual adjustment or tune-up on the combustion unit. This adjustment shall include, but not be limited to the following:
- (1) Inspection, adjustment, cleaning or replacement of fuel-burning equipment, including the burners and moving parts necessary for proper operation as specified by the manufacturer and good air pollution control practices.

**OPERATING PERMIT CONDITIONS**  
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**DEPARTMENT OF PUBLIC WELFARE (NSH)**

**CONDITIONS (continued):**

- (2) Inspection of the flame pattern or characteristics and adjustments necessary to minimize total emissions of NO<sub>x</sub> and to the extent practicable minimize emissions of CO.
  - (3) Inspection of the air-to-fuel ratio control system and adjustments necessary to ensure proper calibration and operation as specified by the manufacturer.
- (b) The company shall record each adjustment conducted under the procedures in paragraph 6(a) in a permanently bound log book or other method approved by the Department. This log shall contain, at a minimum, the following information:
  - (1) The date of the tuning procedure.
  - (2) The name of the service company and technicians.
  - (3) The final operating rate or load.
  - (4) The final CO and NO<sub>x</sub> emission rates.
  - (5) The final excess oxygen rate.
7. Pursuant to the RACT provisions of Chapter 129 of Article III of the Rules and Regulations of the Department of Environmental Protection, the following nitrogen oxides (NO<sub>x</sub>) emission limits are established: The IBW boiler (Model SPC-30) rated at 25,000 lbs/hr steam production or 31 MMBtu/hr heat input, shall not emit NO<sub>x</sub> at a rate in excess of 0.36 pounds per million BTU of heat input. Three Keeler boilers (Model 10257-1) rated at 42,000 lbs/hr steam production or 55 MMBtu/hr heat input each, shall not emit NO<sub>x</sub> at a rate in excess of 0.34 pounds per million BTU of heat input per boiler. The Department reserves the right to establish and impose more stringent limitations based on results from stack testing. Data or information required to determine compliance with Condition 7 shall be recorded and maintained in a time frame consistent with the averaging period of the requirement(s).
8. Pursuant to the presumptive RACT provisions of Section 129 93 (c)(5) of Chapter 129 of Article III of the Rules and Regulations of the Department of Environmental Protection, twelve standby emergency generators shall be operated less than 500 hours in any consecutive 12 month period. Additionally, all the generators shall be maintained and operated in accordance with manufacturer's specifications as well as in accordance with good air pollution practices

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**CONDITIONS (continued):**

- 9 Pursuant to the presumptive RACT provisions of 25 Pa. Code Section 129.93(c), the 23 residential style oil-fired furnaces with heat inputs of less than 20 million Btu/hour shall be maintained and operated in accordance with manufacturers' specifications as well as in accordance with good air pollution practices.
10. Within 180 days of the issuance of this operating permit, and every five years thereafter, three Keeler boilers (Model 10257-1) rated at 42,000 lbs/hr steam production or 55 MMBtu/hr heat input shall undergo stack testing to determine compliance with the nitrogen oxides (NOx) RACT emission limitations specified in Condition 7 herein. This testing is to be performed using test methods and procedures in accordance with 25 Pa Code Section 139 and approved by the Department.
11. At least 60 days prior to the performance of any testing required by Condition 10 herein, the company shall submit a pre-test plan to the Department for evaluation. This plan shall contain the specific testing and analytical procedures to be used in performing the testing and the method to be used in determining heat input to the boiler during testing. This plan is to be accompanied by a dimensioned sketch of the stack(s) showing the proposed location of the sampling ports.
12. The Department shall be given at least 14 days advance notice of the specific dates and times for the performance of any testing required by condition 10 herein in order that Department personnel can arrange to be present.
13. Within 60 days of the completion of any testing required by Condition 10 herein, 2 copies of a test report shall be submitted to the Department. This shall contain the results of the testing (reported as pounds per million BTU of heat input), a description of the testing and analytical procedures actually used for the performance of the tests, a copy of all raw data generated during the tests and a copy of all calculations performed.

*Conditions 14 through 17 herein pertain to Keeler Boiler No. 1 previously operated pursuant to operating permit No. 46-302-191.*

14. The company shall not impose conditions upon or otherwise restrict the Department's access to the aforementioned source(s) and/or any associated air cleaning device(s) and shall allow the Department to have access at any time to said source(s) and associated air cleaning device(s) with such measuring and recording equipment, including equipment recording visual observations, as the Department deems necessary and proper for performing its duties and for the effective enforcement of the Air Pollution Control Act.

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**CONDITIONS (continued):**

- 15 The company shall, upon Department request, provide fuel analyses, or fuel samples, of the fuel used in the Keeler No. 1 boiler.

The storage and handling of the ash generated by the operation of the Keeler No. 1 boiler shall not at any time result in the emission of fugitive air contaminants in excess of the limitations specified in Section 123.1 of Chapter 123 of the Rules and Regulations of the Department.

The sulfur content of the anthracite coal fired in this boiler shall not, at any time, exceed 0.65% (by weight).

- 16 A representative of the hospital shall, upon any occasion that the bin(s) or silo(s) are being loaded, supervise said loading to assure that the loading pressure remains below that necessary to open any bin vent bypass caps that may exist.
- 17 The company shall maintain on hand copies of the temperature monitoring records for a period of two (2) years and shall make these records available to the Department upon request.

*Conditions 18 through 21 herein pertain to IBW Boiler No. 2 previously operated pursuant to operating permit No. 46-302-156.*

- 18 If, at any time, it is determined that the use of the IBW boiler is causing the emission of particulate matter in excess of the limitations specified in Section 123.11, visible air contaminants in excess of the limitations specified in Section 123.41 or sulfur oxides in excess of the limitations specified in Section 123.22, all Section of Chapter 123 of Article III of the Rules and Regulations of the Department of Environmental Protection, or is causing the emission of these or any other type of air contaminant in excess of the limitations specified in, or established pursuant to, any other applicable rule or regulation contained in Article III, the owner shall take immediate steps, including the installation of additional air cleaning device(s), if necessary, to reduce the air contaminant emissions to within the applicable limitations.
- 19 The owner shall, upon Department request, provide fuel analyses, or fuel samples, of the fuel used in the IBW boiler.
- 20 The storage and handling of the ash generated by the operation of the IBW boiler shall not at any time result in the emission of fugitive air contaminants in excess of the limitations specified in Section 123.1 of Chapter 123 of the Rules and Regulations of the Department.

**OPERATING PERMIT CONDITIONS**  
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**CONDITIONS (continued):**

21. The operation of the IBW boiler shall not at any time result in the emission of visible air contaminants in excess of the limitations specified in Section 123.41, particulate matter in excess of the limitations specified in Section 123.11 or sulfur oxides in excess of the limitations specified in Section 123.22, all Sections of Chapter 123 of Article III of the Rules and Regulations of the Department of Environmental Protection, or in the emission of any of these or any other type of air contaminant in excess of the limitations specified in, or established pursuant to, any other applicable rule or regulation contained in Article III.
22. If, at any time, the Department has cause to believe that air contaminant emissions from the aforementioned source(s) may be in excess of the limitations specified in, or established pursuant to, any applicable rule or regulation contained in Article III of the Rules and Regulations of the Department of Environmental Protection, the Department of Public Welfare shall be required to conduct whatever tests are deemed necessary by the Department to determine the actual emission rate(s). Such testing shall be conducted in accordance with the provisions of Chapter 139 of the Rules and Regulations of the Department of Environmental Protection, where applicable, and in accordance with any restrictions or limitations established by the Department at such time as it notifies the company that testing is required.
23. The company, within one hour of occurrence, shall notify the Department of Environmental Protection, at 610-832-6241, of any malfunction of the source(s) or associated air cleaning device(s) which results in, or may possibly be resulting in, the emission of air contaminants in excess of the limitations specified in, or established pursuant to, any applicable rule or regulation contained in Article III of the Rules and Regulations of the Department of Environmental Protection. A written report shall be submitted to the Department within two working days following the incident describing the malfunctions and corrective actions taken.
24. This Operating Permit is valid for a limited period of time and may be renewed before its expiration. Requests for an Operating Permit renewal must be in writing and must be accompanied by the appropriate permit application processing and annual permit administration fees as specified in Section 127.703 of the Rules and Regulations of the Department of Environmental Protection. These fees shall be paid in the form of a check payable to the "Commonwealth of Pennsylvania-Clean Air Fund". The request should be made using the appropriate form and must be received by the Department along with a completed Air Pollution Control Act Compliance Review form no later than as least 30 days in advance of the expiration date.

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**CONDITIONS (continued):**

An annual operating permit administration fee is also due pursuant to Section 127.703 no later than as least 30 days in advance of the expiration date. The administration fee is to be submitted with an Annual Operating Permit Administration Fee Transmittal form.

All necessary forms can be obtained from the Department upon request.

Re 30 (GJC97)229-5

**APPENDIX A  
Facility Inventory**

Source	Manufacturer/ Model	Capacity (MMBtu/hr)	Fuel (Coal)	PTE (TPY) NOx VOC		Actual (TPY) NOx VOC	
<b>Boiler(s)</b>							
Boiler 1	Keeler/10257-1	55	Anthracite	86.3	1.9	*	*
Boiler 2	IBW/SPC-30	31	Anthracite	48.6	1.1	*	*
Boiler 3	Keeler 12038-2	55	Anthracite	86.3	1.9	*	*
Boiler 4	Keeler 12038-1	55	Anthracite	86.3	1.9	*	*
<b>Sub-Total</b>				<b>307.6</b>	<b>6.8</b>	<b>66.6*</b>	<b>1.5*</b>
* This information is not available on a per boiler basis. Totals are based on total annual fuel usage in 1990-91.							
<b>Emergency Generator(s)</b>							
Building No 1	15 KW	No. 2 Oil		0.14	0.00	0.00	0.00
Building No 8	15 KW	No. 2 Oil		0.14	0.00	0.00	0.00
Building No 9	15 KW	No. 2 Oil		0.14	0.00	0.00	0.00
Building No 10	15 KW	No. 2 Oil		0.14	0.00	0.00	0.00
Building No 11	15 KW	No. 2 Oil		0.14	0.00	0.00	0.00
Building No 12	15 KW	No. 2 Oil		0.14	0.00	0.00	0.00
Building No 13	15 KW	No. 2 Oil		0.14	0.00	0.00	0.00
Building No 14	15 KW	No. 2 Oil		0.14	0.00	0.00	0.00
Building No 51	15 KW	No. 2 Oil		0.14	0.00	0.00	0.00
Building No 53	12 KW	No. 2 Oil		0.10	0.00	0.00	0.00
Building No 60	400 KW	No. 2 Oil		2.54	0.07	0.007	0.00
Building No 52	170 KW	Propane		1.08	0.03	0.003	0.00
<b>Sub-Total</b>				<b>3.7</b>	<b>0.10</b>	<b>0.01</b>	<b>0.00</b>
<b>Facility wide Total</b>				<b>311.2</b>	<b>6.9</b>	<b>66.618</b>	<b>1.5</b>

**Residential Style Oil-fired Furnaces:**

Building No.	Address	Maximum Input
44	1515 Stengere Street	420,000 BTU
45	1105 Stengere Street	243,000 BTU
55A/B	101 Upper Farm Road	324,000 BTU
56A	101 Upper Farm Road	116,000 BTU
56B/C	101 Upper Farm Road	324,000 BTU
73	106 Stoney Creek Road	120,000 BTU
73	106 Stoney Creek Road	120,000 BTU
74	Farm Repair Shop	84,000 BTU
81	530 W Germantown Pike	189,000 BTU
82	650 W Germantown Pike	243,000 BTU
83	660 W Germantown Pike	98,000 BTU
84	542 Whitehall Road	129,000 BTU
85	528 Whitehall Road	120,000 BTU
88	172 Whitehall Road	84,000 BTU
89	174 Whitehall Road	84,000 BTU
90	194 Whitehall Road	84,000 BTU
91	1758 Stengere Street	150,000 BTU
92	1754 Stengere Street	150,000 BTU
93	1750 Stengere Street	84,000 BTU
94	1732 Stengere Street	95,000 BTU
95	1724 Stengere Street	95,000 BTU
96	1712 Stengere Street	95,000 BTU
97	1762 Stengere Street	100,000 BTU