



State of Ohio Environmental Protection Agency

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September 25, 1996

CERTIFIED MAIL

Permit to Operate Application No. **0247040334B004**
Lorain County

**Thomas Wolfe Greenhouse
Thomas Wolfe
5372 Detroit Road
Elyria, OH 44035**

Enclosed are Permit(s) to Operate which allow you to operate the described air contaminant source(s) in the manner indicated in the permit(s). Because these permits contain several conditions and restrictions, I urge you to read them carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the board. An appeal may be filed with the Environmental Board of Review at the following address:

Environmental Board of Review
236 East Town Street
Room 300
Columbus, Ohio 43215

If you have any questions, please contact the air pollution control agency to which you submitted your application.

Very truly yours

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

**USEPA
NORTHEAST DISTRICT OFFICE/DAPC**

George V. Voinovich, Governor
Nancy P. Hollister, Lt. Governor
Donald R. Schregardus, Director



PERMIT TO OPERATE AN AIR CONTAMINANT SOURCE

Date of Issuance **September 25, 1996** Application No. **0247040334B004**

Effective Date **September 25, 1996** Permit Fee **\$000**

This document constitutes issuance to: **THOMAS WOLFE GREENHOUSE
5372 DETROIT ROAD
ELYRIA, OHIO 44035**

of a permit to operate for:
**ERIE CITY UNDERFEED STOKER FE (9.9 MMBTU/HR)
ERIE CITY COAL BOILER**

The following terms and conditions are hereby expressly incorporated into this permit to operate:

1. This permit to operate shall be effective until **September 24, 1999**
You will be contacted approximately six months prior to this date regarding the renewal of this permit. If you are not contacted, please write to the appropriate Ohio EPA field office.
2. The above-described source is and shall remain in full compliance with all applicable State and federal laws and regulations and the terms and conditions of this permit.
3. Prior to any modification of this source, as defined in rule 3745-31-01 of the Ohio Administrative Code (OAC), a permit to install must be granted by the Ohio EPA pursuant to OAC Chapter 3745-31.
4. The Director of the Ohio EPA or an authorized representative may, subject to the safety requirements of the permit holder, enter upon the premises of this source at any time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State and federal air pollution laws and regulations and the terms and conditions of this permit.
5. A permit fee in the amount specified above must be remitted within 15 days from the issuance date of this permit.
6. Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA field office must be notified in writing of any transfer of this permit.
7. This source and any associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices in order to minimize air contaminant emissions. Any malfunction of this source or any associated air pollution control system(s) shall be reported immediately to the appropriate Ohio EPA field office in accordance with OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of this source.
8. Any unauthorized or emergency release of an air contaminant from this source which, due to the toxic or hazardous nature of the material, may pose a threat to public health, or otherwise endanger the safety or welfare of the public, shall be reported immediately to the appropriate Ohio EPA field office (during normal business hours) or to the Ohio EPA's Emergency Response Group (1-800-282-9378). (Additional reporting may be required pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act.)
9. The appropriate Ohio EPA field office is: **NORTHEAST DISTRICT OFFICE/DAPC
2110 EAST AURORA RD
TWINSBURG, OHIO 44087 (216) 425-9171**

10. If this term and condition is checked, the permit holder is subject to the attached special terms and conditions.

OHIO ENVIRONMENTAL PROTECTION AGENCY

Director

SYNTHETIC MINOR DETERMINATION

A) SOURCE DESCRIPTION:

Thomas Wolfe Greenhouses has requested a modification in the Permit to Operate (PTO) for the 9.9 mmBtu/hour coal fired stoker boiler at its facility at 5362 Detroit Road, Elyria, Ohio. The modification would result in a federally enforceable State operating permit sulfur dioxide emissions limit for this source (B004) of 88.66 tons/year. SO₂ emissions for the facility would be limited to 99.50 TPY.

B) FACILITY EMISSIONS AND AREA ATTAINMENT STATUS:

Elyria is in the central portion of Lorain County which is designated attainment for SO₂. Current actual annual SO₂ emissions for this source are estimated to be 32.86 tons. Actual annual SO₂ emissions from this facility, including estimated SO₂ emissions of 3.21 tons from one natural gas/#2 oil fired boiler and negligible emissions from another gas fired boiler, are estimated to be 36.07 tons.

C) MODIFIED SOURCE EMISSIONS LIMITATIONS:

Through the "Federally Enforceable Emissions Requirements for Sulfur Dioxide" section of this PTO, this facility will be limited to annual SO₂ emissions of 99.50 TPY. This specific source (B004) will be restricted to annual SO₂ emissions of 88.66 TPY to be achieved by:

- 1) Limiting the sulfur content of the coal purchased and burned in this 9.9 mmBtu/hour boiler to 2.31 pounds of SO₂ per million Btu heat input on a "dry" basis. (This value shall be determined by a weighted monthly average of supplier analyses of coal shipments during each month.)
- 2) Limiting the number of hours of source operation to 7752 on a rolling 365 day cumulative total basis
- 3) Requiring this facility to record monthly coal quality data and operational hours and to report this data on a semi-annual basis to NEDO.

D) CONCLUSIONS:

NEDO believes that the coal quality and boiler operating time restrictions placed on this relatively small source will effectively limit this facility to "synthetic minor" status with regards to SO₂ emissions. The facility is a minor source for other air pollutants.

The following terms and conditions will be included in each non-Title V permit under the General Conditions section.

1. Compliance Requirements

The above-described emissions unit is and shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

3. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

4. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of three years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Such records may be maintained in computerized form.

5. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State and federal air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

6. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of this emissions unit(s) that is (are) served by such control system(s).

7. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permittee. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Permit Renewal

Approximately six months prior to the expiration date of this permit, a notice regarding the renewal of this permit will be sent to the permittee's designated facility contact. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency. It is the permittee's responsibility to renew this permit even if no notice of its expiration is received.

The following Ohio EPA District Office or local air agency has jurisdiction in the area in which the facility is located:

- 10.** The permittee also is subject to the attached special terms and conditions.

APPLICATION NUMBER: 02-47-04-0334 B004
FACILITY NAME: THOMAS WOLFE GREENHOUSES
EQUIPMENT DESCRIPTION: ERIE CITY UNDERFEED STOKER FE
(9.9 MMBTU/HR)
COMPANY ID: ERIE CITY COAL BOILER

SPECIAL TERMS AND CONDITIONS

A) APPLICABLE STATE REGULATIONS:

The following rules of the Ohio Administrative Code (OAC) establish the applicable emission limitations and/or control requirements of this source:

OAC Rule 3745-17-07(A)
OAC Rule 3745-17-10(C)
OAC Rule 3745-18-04

(This condition in no way limits the applicability of other requirements of the Ohio Administrative Code to this source.)

B) ALLOWABLE EMISSIONS LIMITS:

- 1 Per OAC Rule 3745-17-10(C) (1), Figure 1, the particulate emissions from this emissions unit shall not exceed 0.30 pound per million Btu (mmBtu) of heat input. Annual particulate emissions shall not exceed 13.01 tons per year.
2. Sulfur dioxide (SO₂) emissions from this facility shall not exceed 99.50 tons per year. Sulfur dioxide emissions from this single coal-fired emissions unit (B004) shall not exceed 2.31 pounds per million Btu of heat input or 88.66 tons per year. (See Additional Conditions for Federally Enforceable Sulfur Dioxide Emissions Limits below).

C) GENERAL SOURCE OPERATING RESTRICTIONS:

1. The maximum heat input to this emissions unit shall exceed 9.9 million Btu per hour, the maximum rated capacity of this boiler.
2. The steam injection system shall be used at all times during operation of this emissions unit.
3. The use of flyash reinjection in this emissions unit is prohibited.
4. This emissions unit shall employ an overfire air system which is designed, maintained, and operated in accordance with good engineering practices and which minimizes visible emissions.

D) VISIBLE EMISSIONS RESTRICTIONS:

This emissions unit shall comply with Ohio EPA regulations in OAC Rule 3745-17-07(A) which limits visible particulate emissions as follows:

1. Visible particulate emissions from any stack shall not exceed an opacity of twenty (20) percent as a six minute average.
2. Visible particulate emissions from any stack may exceed twenty percent as a six minute average for not more than six (6) consecutive minutes in any sixty (60) minute period but shall not exceed sixty (60) percent opacity at any time.

The visible particulate emission limitations specified above shall not apply to the following operations, provided the operations are documented in a boiler operations log kept at the facility:

- a) The start-up of the source for a period of time required to achieve stable combustion conditions but more than three (3) hours from the moment of start-up "Start-up" means the commencement of firing of fuel from a cold non-fired condition.

- b) The shut down of the source for a period of not more than three (3) hours.
- c) The malfunction of the source or associated equipment if the owner of the source or operator of the equipment complies with the requirements of OAC Rule 3745-15-06.
- d) Intermittent soot blowing operations (the cleaning of heat transfer surfaces with pressurized air or steam)
- e) Intermittent ash removal operations (the dumping or pulling of ash).
- f) The commencement of increased coal firing from a banked condition for a period not to exceed thirty (30) minutes. "Banked condition" means the condition where the fuel is burned on the grates at rates which are sufficient to maintain ignition only.

This log shall clearly document the date, beginning time, and ending time of the exempted operations listed above.

E) FEDERALLY ENFORCEABLE EMISSION REQUIREMENTS FOR SULFUR DIOXIDE:

The total annual emissions of SO₂ from all emissions units at this facility shall be limited to 99.50 tons. Since two minor sources at this facility (one gas/#2 oil fired boiler, source B001, and one gas fired boiler, source B002, each with maximum heat input rates of 8.4 million Btu per hour) have combined maximum annual potential SO₂ emissions of 10.84 tons per year, the annual allowable emissions from this coal fired source (B004) shall not exceed 88.66 tons. This annual SO₂ emissions limitation shall be achieved by restricting both the sulfur content in the coal supply and the maximum number of operating hours (days) of this source in the following manner.

The quality of coal burned in this source shall meet the following specifications on a dry basis:

- a) a sulfur content which is sufficient to comply with an allowable sulfur dioxide emission limitation of 2.31 pounds of sulfur dioxide per million Btu actual heat input;

- b) less than 8.0 percent ash; and
- c) greater than 13,000 Btu per pound coal.

Compliance with the above-mentioned specifications for sulfur, ash, and heat content shall be determined by using the analytical results provided by the coal supplier for each shipment of coal. The analytical methods for sulfur content, ash content, and heat content in coal shall be: ASTM Method D3177, Total Sulfur in the Analysis Sample of Coal and Coke or ASTM Method D4239, Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; ASTM Method D3174, Ash in the Analysis Sample of Coal and Coke; ASTM Method D2015, Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, ASTM Method D3286, Gross Calorific Value of Coal and Coke by the Isothermal Bomb Calorimeter, or ASTM Method D1989, Standard Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Isooperibol Calorimeter, respectively.

- 2. The maximum number of hours this source may operate during any rolling 365-day period is 7752 hours.
- 3. During the first twelve (12) months of operation under this permit, this source shall not exceed the total number of hours of operation specified for each month in the following table:

<u>CALENDAR MONTH(S)</u> <u>[AFTER PERMIT ISSUANCE]</u>	<u>CUMULATIVE ALLOOWABLE</u> <u>TOTAL HOURS</u>
1	720
2	1464
3	2184
4	2928
5	3672
6	4368
7	5112
8	5832
9	6576
10	7296
11	7752
12	7752

- 3 Monthly calculations of the weighted average SO₂ emission rate, ash content, and heat content for the coal received each calendar month.

These records, as well as any other supporting analyses, computations, operations logs, and fuel receipts, shall be retained on site in facility files for a period of not less than five (5) years and shall be made available to the Director or any authorized representative of the Director for review during normal business hours.

G. REPORTING REQUIREMENTS:

- 1 The owner/operator of this source shall notify the Ohio EPA immediately if any of the restrictions in the "Federally Enforceable Requirements for Sulfur Dioxide" are exceeded.
- 2) This facility shall submit semi-annual reports to the Ohio EPA, Northeast District Office, which provide the following information for this source:
 - a) The total quantity of coal received during each calendar month;
 - b) The weighted average ash content (percent of the coal received during each calendar month;
 - c) The weighted average heat content (Btu per pound) of the coal received during each calendar month;
 - d) The weighted average SO₂ emission rate (pounds SO₂ per mmBtu actual heat input) for the coal received during each calendar month;
 - e) The number of hours of boiler operation for each day during the reporting period and during each calendar month;
 - f) The rolling 365-day cumulative total of the hours of operation for each day during the reporting period (after the first 12 months of operation under this permit); and