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September 25, 1996

CERTIFIED MAIL

Modification to Permit to Operate
Application No. 0247080444B003
Lorain County

BETZEL GREENHOUSE INC
3225 North Ridge Rd
Lorain, Ohio 44025

Attention: Robert Betzel

Enclosed please find an order modifying the permit to operate or variance to operate, identified therein.

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, OH 43215.

If you have any questions regarding this action, please contact the agency to which you submitted your original application.

Very truly yours

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

Enclosure

USEPA
NORTHEAST DISTRICT OFFICE/DAPC

Issuance Date: September 25, 1996
Effective Date: September 25, 1996

OHIO ENVIRONMENTAL PROTECTION AGENCY

MODIFICATION TO PERMIT TO OPERATE

Company Name: BETZEL GREENHOUSE INC.
Company Address: 3225 NORTH RIDGE RD
LORAIN, OHIO 44055
Description of Equipment: SCOTCH MARINE UNDERFEED COAL FIRED
BOILER (6.43 MMBTU/HR)
Equipment ID: COAL BOILER
Application Number: 0247080444B003

Whereas, the source owner has been issued a Permit to Operate indicated above by the Ohio Environmental Protection Agency, hereafter referred to as the Agency,

Whereas, the Agency has determined that the special terms and conditions to the aforementioned Permit to Operate should be modified,

Therefore, the above-referenced Permit to Operate is hereby modified to include the modified special terms and conditions attached to this order.

Reasons for modification: to incorporate federally enforceable limitations.



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: 02-47-08-0444 B003

FACILITY NAME: BETZEL GREENHOUSE, INC.

EQUIPMENT DESCRIPTION: SCOTCH MARINE UNDERFEED COAL
FIRED BOILER (6.43 MMBTU/HR.)

COMPANY ID: 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
OAC Rule 3745-15-06
OAC Rule 3745-35-07

(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 I, the particulate emissions from this emissions unit shall not exceed 0.40 pound per million Btu (mmBtu) of heat input. Annual particulate emissions shall not exceed 2.57 pounds per hour or 11.26 tons per year.
2. Sulfur dioxide (SO₂) emissions from this facility shall not exceed 99.55 tons per year. SO₂ emissions from this single coal-fired emissions unit (B003) shall not exceed 3.96 pounds per million Btu of heat input or 92.58 tons per year. (See "Federally Enforceable Emission Requirements for Sulfur Dioxide" below.)

C) GENERAL SOURCE OPERATING RESTRICTIONS:

1. The maximum heat input to this source shall not exceed 6.43 mmBtu per hour, the maximum rated capacity of this boiler.
2. The steam injection system shall be used at all times during operation of this source.
3. The use of flyash reinjection in this source is prohibited.
4. This source shall employ an overfire air system which is designed, maintained, and operated in accordance with good engineering practices and which minimizes visible emissions.

D) PARTICULATE/VISIBLE EMISSION RESTRICTIONS:

This source shall comply with OAC Rule 3745-17-07(A), which limits visible particulate emissions as follows:

1. Except as provided below, visible particulate emissions from the stack shall not exceed an opacity of twenty (20) percent as a six-minute average.
2. Visible particulate emissions from the stack may exceed twenty (20) percent as a six-minute average for not more than six (6) consecutive minutes in any sixty-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 no 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 shutdown 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 boiler operations 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 sources at this facility shall be limited to 99.55 tons. Since two minor sources at this facility (one gas/#2 oil fired boiler, source B001, and one gas fired boiler, source B002, with maximum heat input rates of 5.3 and 5.2 mmBtu per hour, respectively) have combined maximum annual potential SO₂ emissions of 6.97 ton per year, the annual allowable emissions from this coal fired source (B003) shall not exceed 92.58 tons. This annual SO₂ emission limitation shall be achieved by restricting both the sulfur content in the coal supply and the maximum number of operating hours of this source in the following manner:

1. 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 SO₂ emission limitation of 3.96 pounds of SO₂ per mmBtu actual heat input;
 - b) less than 8.0 percent ash; and

c. greater than 13,000 Btu per pound of 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 Isoperibol Calorimeter, respectively.

2. The maximum number of hours this source may operate during any rolling 365-day period is 7272 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</u> <u>ISSUANCE)</u>	<u>CUMULATIVE</u> <u>ALLOWABLE</u> <u>TOTAL HOURS</u>
1	744
2	1464
3	2208
4	2952
5	3648
6	4392
7	5112
8	5856
9	6576
10	7272
11	7272
12	7272

F) RECORDKEEPING REQUIREMENTS:

This facility shall maintain the following records for this source, in addition to those records referred to in paragraph (D) above:

1. Daily records of the total hours of operation, including the hours in a banked condition, and the cumulative total of the hours of operation on a rolling 365-day basis. These records shall be signed daily by the owner/operator, attesting to the accuracy of the data.
2. For each shipment of coal, the quantity of coal received and the results of the coal supplier's analyses on both an as-received and dry basis. Data recorded shall include:
 - a) the total quantity of coal received (tons),
 - b) the sulfur content (percent) of the coal,
 - c) the ash content (percent) of the coal,
 - d) the heat content (Btu per pound) of the coal, and
 - e) the SO₂ emission rate (pounds SO₂ per mmBtu actual heat input) for the coal.

Compliance with the applicable SO₂ emission limit, as well as the ash and Btu limitations, shall be determined based on the weighted arithmetic average of all fuel analyses for each calendar month.

[NOTE: A weighted average fuel quality value is determined by multiplying each fuel analysis value (Btu/pound, percent ash, or SO₂ emission rate) by the weight of the shipment of fuel for which the quality value is representative, adding up all the value-weighted products, and dividing the sum of the value-weighted products by the sum of all the shipment weights.]

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

g) A copy of the coal supplier's analyses for each coal shipment received during the reporting period.

All fuel analyses data shall be reported on both an as received and a dry basis.

These reports shall be submitted by February 15 and August 15 of each year and shall cover operations for the previous six calendar months (July through December and January through June).

All reports required by these terms and conditions shall be sent to:

Ohio Environmental Protection Agency
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087
Phone: (216) 963-1200

An Ohio EPA form, entitled "Auxiliary Boiler Operations Log", or an approved equivalent, shall be used to record the daily boiler operating hours and rolling 365-day cumulative total operating hours as required to demonstrate compliance with this permit.

H) FEDERAL ENFORCEABILITY:

Sections B(2), E, F, and G of these Special Terms and Conditions constitute the federally enforceable portions of this Permit to Operate.

Prepared by: F. T. Mueller

Date Prepared: April 2, 1996

AUXILIARY BOILER OPERATIONS LOG
(Data Required for Synthetic Minor Operating Permit)

SOURCE NAME: _____

MONTH: _____

YEAR: _____

DAY	BOILER OPERATION HOURS			ROLLING 365-DAY CUMULATIVE TOTAL:
	HOURS FIRED	HOURS BANKED	TOTAL OPERATING HOURS.	HOURS OPERATION
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
TOTAL				

OWNER/OPERATOR SIGNATURE: _____

DATE: _____

AUXILIARY BOILER OPERATIONS LOG
(Data Required for Synthetic Minor Operating Permit)

SOURCE NAME: _____

MONTH: _____

YEAR: _____

DAY	BOILER OPERATION HOURS			ROLLING 365-DAY CUMULATIVE TOTAL:
	HOURS FIRED	HOURS BANKED	TOTAL OPERATING HOURS.	HOURS OPERATION
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
TOTAL				

OWNER/OPERATOR SIGNATURE: _____

DATE: _____