



State of Ohio Environmental Protection Agency

Street Address:

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Lazarus Gov.  
Center

**RE: DRAFT PERMIT TO INSTALL MODIFICATION  
FRANKLIN COUNTY  
Application No: 01-00572**

**CERTIFIED MAIL**

**DATE: 5/3/2001**

The Ohio State University  
Cecil Smith  
1314 Kinnear Rd  
Columbus, OH 43212

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install modification for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit modification. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit modification should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install modification may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install modification a fee of \$ 0 will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

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

cc: USEPA

CDO



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**Permit To Install  
Terms and Conditions**

**Issue Date: To be entered upon final issuance  
Effective Date: To be entered upon final issuance**

**DRAFT MODIFICATION OF PERMIT TO INSTALL 01-00572**

Application Number: 01-00572  
APS Premise Number: 0125042608  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: The Ohio State University  
Person to Contact: Cecil Smith  
Address: 1314 Kinnear Rd  
Columbus, OH 43212

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**2003 Millikin Rd  
Columbus, Ohio**

Description of proposed emissions unit(s):  
**181 MMBTU/Hr coal boiler.**

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

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Director

Substantial construction for installation must take place within eighteen months of the effective date of this permit. This deadline may be extended by up to twelve months, if application is made to the Director no less than sixty days before the expiration of this permit and the party shows good cause for any such extension.

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, examining records or reports pertaining to the construction, modification or installation of the above described source of environmental pollutants.

The proposed source shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

The specified permit fee must be remitted within 15 days of the effective date of this permit to install.

The appropriate District Office of the Ohio EPA or Local Air Pollution Control Agency shall be notified, in writing as to (a) the construction starting date (b) the construction completion date and (c) the date the facilities were placed into operation.

The permit holder shall conduct, or have conducted, performance testing of the subject air contaminant source(s) in accordance with procedures approved by the Agency and shall submit a written report, signed by the source owner, or his authorized agent, describing the test procedures followed and the results of such tests. The Director or his representative shall be allowed to witness the tests, examine testing equipment and acquire, or cause acquisition and/or submission of, data and information necessary to provide adequate assurance that source operation, process operating parameters and other conditions, together with testing procedures, provide a valid representation and proper characterization of the source's emissions and/or control equipment performance.

Such testing shall be planned, scheduled and implemented so as to provide for:

- (1) Prior written notification to the Ohio Environmental Protection Agency, through the appropriate District Office or Local Air Pollution Control Agency where the original application was filed. Such notification shall be made thirty (30) days in advance and shall specify the source operating parameters, the proposed test procedures and the time, date, place and person(s) conducting such tests.
- (2) Submittal of the test results report within thirty (30) days after the test completion.

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This permit shall apply only to the sources identified below and approved by the Ohio Environmental Protection Agency.

<u>Source Identification</u>	<u>Source Description</u>	<u>Ohio EPA Number</u>
181 Million BTU/hr input Coal Boiler	Firing method not defined	B131
Coal Handling System - Haul Roads	Truck hopper elevator, flight conveyor	F001
Ash/Lime Handling System	Pneumatic conveyor and silo	F002

As specified in OAC 3745-31-05, all new sources must, at a minimum, employ best available technology. The following terms and conditions fulfill the requirements of OAC 3745-31-05 and federal new source review requirements (40 CFR 51.18).

- a. The quality of coal burned in source 01 25 04 2608/B131 shall meet the following specifications (as received basis).
  1. Less than 14% ash
  2. Greater than 11,700 BTU/lb
  3. A sulfur content which in conjunction with a demonstrated collection efficiency of the control device will not cause a sulfur dioxide emission in excess of 0.87 lb/million BTU from this boiler and scrubber.
- b. The quantity of coal burned in source 01 25 04 2608/B131 shall not be greater than 53,000 tons for any calendar year.
- c. Emissions of the following air contaminants shall be considered permit limits. Those identified by an asterisk shall be required to have a performance test to establish initial compliance.

<u>Contaminant</u>	<u>Permit Limit(s)</u>		<u>Tons/Year</u>
	<u>lb./million BTU input</u>	<u>lb./hr.</u>	
Particulate*	0.04	7.24	24.8
Sulfur Dioxide*	0.87	157.5	687.83

Nitrogen Oxide*	0.6	108.6	474.36
Carbon Monoxide		15.5	67.61
		Permit Limit(s)	
<u>Contaminant</u>	<u>lb./million BTU input</u>	<u>lb./hr.</u>	<u>Tons/Year</u>
Lead		0.1	0.44
Beryllium		0.015	0.07
Mercury		0.003	0.02
Fluorides		0.004	0.0182

Opacity from any single stack or source of emission shall not exceed 20%, except for a period or periods aggregating not more than three minutes in any sixty minutes when opacity of up to and including 60% opacity is permitted.

Opacity limits as identified above shall apply to the following locations:

- a. Coal unloading
- b. Coal conveying
- c. Coal sizing or crushing
- d. Lime unloading, handling and storage
- e. Ash handling, storage and load out.

This facility shall install, operate and maintain equipment to continuously monitor and record the opacity of the particulate emissions for each stack that may service this boiler. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Within 30 days after the installation of the continuous monitoring and recording equipment, this facility shall conduct a performance specification test of such equipment pursuant to Section 3704.03(I) of the Ohio Revised Code and 40 CFR Part 60, Appendix B, Performance Specification Test 1. Personnel from the Ohio EPA field office shall be permitted to witness the performance specification test, and two copies of the test results shall be submitted to the Ohio EPA field office within 45 days after the test is completed.

Pursuant to 40 CFR Parts 60.7 and 60.13(h), this facility shall submit reports on a quarterly basis to the Ohio EPA field office documenting all instances of opacity values in excess of the limitations specified in OAC Rule 3745-17-07 or any limitations specified in the terms and conditions of this permit. These quarterly excess emission reports shall be submitted by February 15, May 15, August 15 and November 15, of each year and shall

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cover the data obtained during the previous calendar quarter.

Applicant shall install and maintain an oxygen analyzer to monitor and automatically trim the combustion control. This device is to be operated to assure complete combustion and will be considered as the prime control for the CO limit listed above.

Any malfunction or manual operation of this system shall be reported to the Ohio EPA per OAC Rule 3745-15-06.

The following basic measures shall be implemented to reduce fugitive emissions of particulates to the best available emission rate for all operations identified within this permit. These measures are considered a minimum requirement in each instance. The applicant shall provide any additional air pollution control device or strategy as necessary to insure obtainment of best available emission rates.

- a. Coal shall be unloaded in an enclosed area.
- b. Any coal crushing or sizing operation shall be completely enclosed.
- c. Any coal storage pile shall be sprayed with a surfactant as needed to minimize fugitive dust. Telescoping chutes shall be utilized to minimize free-fall of coal loaded into the enclosed pile.
- d. All transfer points for coal conveying shall be enclosed.
- e. All plant roadways shall be paved and shall be swept and/or vacuumed or washed on a regular basis.
- f. 15 MPH speed limits shall be posted and enforced on roadways identified in (e) above.
- g. Trucks utilized for ash disposal shall be covered.
- h. Refuse shall not be stockpiled at the facility.

Applicant shall not cause or allow the disposal of solid waste produced by the operation of any boiler to be transported to a solid waste facility unless the solid waste disposal facility has received appropriate approval from the Ohio EPA to receive and dispose of such waste.

This facility shall collect representative grab samples of the coal burned in this source on a frequency of two days per week. Each sample shall be collected from the coal crusher. The coal sampling shall be performed in accordance with ASTM Method D2234 Collection of a Gross Sample of Coal. At the end of each calendar month, all of the grab samples which were collected during that calendar month shall be combined into one

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composite sample.

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This facility shall also record the total quantity of coal burned in this source during each calendar day.

Each monthly composite sample of coal shall be analyzed for ash content (percent), sulfur content (percent), and heat content (Btu/pound of coal). The analytical methods for ash content, sulfur content, heat content shall be ASTM Method D3174, Ash in The Analysis Sample of Coal and Solid Fuel by the Adiabatic Bomb Calorimeter, respectively. Alternative, equivalent methods may be used upon written approval by the Ohio EPA field office.

Quarterly reports concerning the quality and quantity of the coal burned in this source shall be submitted to the Ohio EPA. These reports shall include the following information for the source for each calendar month during the previous calendar quarter:

- a. The total quantity of coal burned (tons);
- b. The average ash content (percent) of coal burned;
- c. The average sulfur content (percent) of the coal burned;
- d. The average heat content (BTU/lb) of the coal burned;
- e. The total quantity of gas (cubic feet) or oil (gallons);
- f. The operational status of all emission control and monitoring equipment and a report on any malfunction or repair of such equipment.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15, of each year and shall cover the data obtained during the previous calendar quarter.