State of Ohio Environmental Protection Agency

RE: FINAL PERMIT TO INSTALL MODIFICATION **CERTIFIED MAIL**
FRANKLIN COUNTY

Street Address: Mailing Address:
Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329 Lazarus Gov. Center

Application No: 01-08714

DATE: 12/26/2003

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

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 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 within thirty (30) days after the notice of the Directors 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 Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA **CDO**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install **Issue Date: 12/26/2003**
Terms and Conditions **Effective Date: 12/26/2003**

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 01-08714

Application Number:	01-08714
APS Premise Number:	0125042608
Permit Fee:	**$11250**
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):
Boiler number 5.

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

Director

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install General Terms and Conditions

1. Monitoring and Related Recordkeeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. The operating conditions existing at the time of sampling or measurement.

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five 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 this permit. Such records may be maintained in computerized form.

c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

ii. Quarterly written reports of (i) any deviations from federally enforceable <u>emission limitations</u>, <u>operational restrictions</u>, <u>and control device operating parameter limitations</u>, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written 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. See B.9 below if no deviations occurred during the quarter.

iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. 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, i.e., upset, of any emissions units 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. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition

declared invalid.

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. 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 request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are

required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit To Operate Application

a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

12. 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.

B. State Only Enforceable Permit To Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping of state-only enforceable 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 state-only required 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.)

3. Permit Transfers

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

4. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete

within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

5. Construction of New Sources(s)

The proposed emissions unit(s) 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 cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

6. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

7. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

8. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

9. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

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.

C. Permit To Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant	Tons Per Year
NOx	340.12
CO	371.98
PE	61.39
VOC	25.55
SO2	129.08

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

I. MACT "Hammer" Requirements

1. The permittee may be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial & Institutional Boilers, 40 CFR Part 63, Subpart DDDDD. U.S. EPA failed to promulgate this standard by May 15, 2002, the Maximum Achievable Control Technology (MACT) hammer date. In accordance with 40 CFR Part 63, Subpart B (40 CFR Parts 63.50 through 63.56), the permittee shall submit an application to revise the permit to include equivalent emission limitations as a result of a case-by-case MACT determination. The application shall be submitted in two parts. The deadline to submit the Part I application, as specified in 40 CFR Part 63.53, was May 15, 2002.

2. If the final MACT standard is not promulgated by the deadline specified by U.S. EPA, the permittee shall submit the Part II application as specified in 40 CFR Part 63.53. The Part II application shall be submitted within 60 days after the deadline to promulgate the respective standard, as specified by the settlement between U.S. EPA and Sierra Club. It must contain the following information:

   a. for a new affected source, the anticipated date of startup of operation;
   b. the hazardous air pollutants (HAPs)emitted by each affected source in the relevant source category and an estimated total uncontrolled and controlled emission rate for HAPs from the affected source;
   c. any existing federal, State, or local limitations or requirements applicable to the affected source;
   d. for each affected emission point or group of affected emission points, an identification of control technology in place;
   e. information relevant to establishing the MACT floor (or MACT emission limitation), and, at the option of the permittee, a recommended MACT floor; and
   f. any other information reasonably needed by the permitting authority including, at the discretion of the permitting authority, information required pursuant to Subpart A of 40 CFR Part 63.

   The Part II application for a MACT determination may, but is not required to, contain the following information:

   a. recommended emission limitations for the affected source and support information. (the permittee may recommend a specific design, equipment, work practice, or operational standard, or combination thereof, as an emission limitation);
   b. a description of the control technologies that would be applied to meet the emission limitation, including technical information on the design, operation, size, estimated control efficiency and any other information deemed appropriate by the permitting authority, and identification of the affected sources to which the control

technologies must be applied; and

c. relevant parameters to be monitored and frequency of monitoring to demonstrate continuous compliance with the MACT emission limitation over the applicable reporting period.

3. If the NESHAP is promulgated before May 15, 2004, the facility shall be subject to the rule as an existing major source with a compliance date as specified in the NESHAP. Pursuant to the Subpart, the permittee shall submit the following notifications:

a. Within 120 days after promulgation of 40 CFR Part 63, Subpart DDDDD, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to the promulgated standard. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report, in accordance with 40 CFR Part 63.9(b)(2):

i. the name and mailing address of the permittee;

ii. the physical location of the source if it is different from the mailing address;

iii. identification of the relevant MACT standard and the source's compliance date;

iv. a brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each HAP; and

v. a statement confirming the facility is a major source for HAPs.

b. Within 60 days following completion of any required compliance demonstration activity specified in 40 CFR Part 63, Subpart DDDDD, the permittee shall submit a notification of compliance status that contains the following information:

i. the methods used to determine compliance;

ii. the results of any performance tests, visible emission observations, continuous monitoring systems performance evaluations, and/or other monitoring procedures or methods that were conducted;

iii the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;

iv. the type and quantity of HAPs emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR Part 63, Subpart DDDDD;

v. an analysis demonstrating whether the affected source is a major source or an area source;

vi. a description of the air pollution control equipment or method for each emission point, including each control device or method for each HAP and the control efficiency (percent) for each control device or method; and

vii a statement of whether or not the permittee has complied with the requirements of 40 CFR Part 63, Subpart DDDDD.

II. Nitrogen Oxides (NOx) Budget Trading Program OAC Chapter 3745-14

1. Facility Code - 0125042608

2. The following regulated emissions units are subject to the applicable requirements specified in OAC Chapter 3745-14 and the annual NOx allowance allocations listed below:

Emissions Unit	Annual Allowance for Calendar Years 2004 through 2007
B132 - Boiler #5	103.52 tons per year

3. The emissions units identified in Section A.1.b above are NOx budget units under OAC rule 3745-14-01(C)(1)(b).
[OAC rule 3745-14-01(C)(1)]

4. NOx allowances for units commencing operation on the dates specified in OAC rule 3745-14-05(C)(4) shall be allocated from the new source set-aside in accordance with the provisions of OAC rule 3745-14-05(C)(4)(d).
[OAC rule 3745-14-05(C)(4)]

5. The NOx authorized account representative shall submit a complete NOx budget permit application in accordance with the deadlines specified in paragraphs (B)(2) and (B)(3) of OAC rule 3745-14-03. The NOx authorized account representative shall also submit, in a timely manner, any supplemental information that the Director determines is necessary in order to review a NOx budget permit application and issue or deny a NOx budget permit.

[OAC rules 3745-14-01(E)(1)(a)(i), 3745-14-01(E)(1)(a)(ii), and 3745-14-03(B)(1)]

6. Beginning May 31, 2004, the owners and operators of each NOx budget source and each NOx budget unit at the source shall hold NOx allowances available for compliance deductions under paragraph (E) of OAC rule 3745-14-06, as of the NOx allowance transfer deadline, in the unit's compliance account and the source's overdraft account in

an amount not less than the total NOx emissions for the control period from the unit, as determined in accordance with OAC rule 3745-14-08, plus any amount necessary to account for actual utilization under paragraph (C)(5) of OAC rule 3745-14-05 for the control period.
[OAC rules 3745-14-01(E)(3)(a) and 3745-14-01(E)(3)(c)]

7. NOx allowances shall be held in, deducted from, or transferred among NOx allowance tracking system accounts in accordance with OAC rules 3745-14-05, 3745-14-06, 3745-14-07, and 3745-14-09.
[OAC rule 3745-14-01(E)(3)(d)]

8. A NOx allowance shall not be deducted, in order to comply with the requirement under paragraph (E)(3)(a) of OAC rule 3745-14-01, for a control period in a year prior to the year for which the NOx allowance was allocated.
[OAC rule 3745-14-01(E)(3)(e)]

9. Each ton of NOx emitted in excess of the NOx budget emission limitation, as defined in OAC rule 3745-14-01(B)(2)(yy), shall constitute a separate violation of OAC Chapter 3745-14, the Clean Air Act, and applicable Ohio law. The owners and operators of a NOx budget unit that has excess emissions in any control period shall surrender the NOx allowances required for deduction under paragraph (E)(4)(a) of OAC rule 3745-14-06 and pay any fine, penalty, or assessment or comply with any other remedy imposed under paragraph (E)(4)(c) of OAC rule 3745-14-06.
[OAC rules 3745-14-01(E)(3)(b), 3745-14-01(E)(4)(a) and 3745-14-01(E)(4)(b)]

10. When recorded by the Administrator pursuant to OAC rules 3745-14-06 and 3745-14-07, every allocation, transfer, or deduction of a NOx allowance to or from a NOx budget unit's compliance account or the overdraft account of the source where the unit is located is deemed to amend automatically, and become a part of, any NOx budget permit of the NOx budget unit by operation of law without any further review.
[OAC rule 3745-14-01(E)(3)(h)]

11. Except as provided below, the Director shall revise the NOx budget permit, as necessary, in accordance with OAC rule 3745-77-08. Each NOx budget permit is deemed to incorporate automatically the definitions of terms under paragraph (B) of OAC rule 3745-14-01 and, when recorded by the Administrator, in accordance with OAC rules 3745-14-06 and 3745-14-07, every allocation, transfer, or deduction of a NOx allowance to or from the compliance accounts of the NOx budget units covered by the permit or the overdraft account of the NOx budget source covered by the permit.

[OAC rules 3745-14-03(D)(2) and 3745-14-03(E)(1)]

12. The owner or operator of a NOx budget unit shall comply with the prohibitions under OAC rule 3745-14-08(A)(5).
[OAC rule 3745-14-08(A)(5)]

13. The owners and operators of the NOx budget unit shall keep on site at the source each of the following documents for a period of five years from the date the document is created: (This period may be extended for cause, at any time prior to the end of five years, in writing by the Director or Administrator.)

    a. the account certificate of representation for the NOx authorized account representative for the NOx budget unit and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with paragraph (D) of OAC rule 3745-14-02, provided that the certificate and documents shall be retained on site at the source beyond such five-year period until such documents are superseded because of the submission of a new account certificate or representation changing the NOx authorized account representative;

    b. all emission monitoring information, in accordance with OAC rule 3745-14-08;

    c. copies of all reports, compliance certifications, and other submissions and all records made or required under the NOx budget trading program; and

    d. copies of all documents used to complete a NOx budget permit application and any other submission under the NOx budget trading program or to demonstrate compliance with the requirements of the NOx budget trading program.

    [OAC rule 3745-14-01(E)(5)(a)(i) through (iv)]

14. The permittee, and to the extent applicable, the NOx authorized account representative of the NOx budget unit, shall comply with the monitoring and reporting requirements as provided in OAC rule 3745-14-08 and in 40 CFR Part 75, Subpart H. For purposes of complying with such requirements the definitions in OAC rule 3745-14-01(B) and in 40 CFR 72.2 shall apply, and the terms "affected unit," "designated representative," and "continuous emission monitoring system" (or "CEMS") in 40 CFR Part 75 shall be replaced by the terms "NOx budget unit," "NOx authorized account representative," and "continuous emission monitoring system" (or "CEMS"), respectively, as defined in OAC rule 3745-14-01(B).
[OAC rule 3745-14-08(A)]

15. The permittee shall comply with the monitoring plan requirements of 40 CFR Part 75.62, except that the monitoring plan is only required to include information required by 40 CFR Part 75, Subpart H.
[OAC rule 3745-14-08(E)(2)(b)]

16. The NOx authorized account representative of the NOx budget unit shall submit the reports and compliance certifications required under the NOx budget trading program, including those under OAC rules 3745-14-04 and 3745-14-08, to the Director and Administrator.
[OAC rule 3745-14-01(E)(4)(b)]

17. Each submission under the NOx budget trading program shall be submitted, signed, and certified by the NOx authorized account representative for each NOx budget source on behalf of which the submission is made. Each such submission shall include the following certification statement by the NOx authorized account representative:

"I am authorized to make this submission on behalf of the owners and operators of the NOx budget sources or NOx budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

If the NOx authorized account representative for a NOx budget unit subject to an acid rain emission limitation who signed and certified any submission that is made under Subpart F or G of 40 CFR Part 75 and which includes data and information required under OAC rule 3745-14-08 or Subpart H of 40 CFR Part 75 is not the same person as the designated representative or the alternate designated representative for the unit under 40 CFR Part 72, then the submission shall also be signed by the designated representative or the alternate designated representative.
[OAC rules 3745-14-02(A)(5) and 3745-14-08(E)(1)(b)]

18. The NOx authorized account representative shall submit quarterly reports covering the period May 1 through September 30 of each year and including the data described in 40 CFR 75.74(c)(6). The NOx authorized account representative shall submit such quarterly reports, beginning with the calendar quarter covering May 1 through June 30, 2003. The NOx authorized account representative shall submit each quarterly report to the Administrator within thirty days following the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in 40 CFR Part 75, Subpart H.

[OAC rules 3745-14-08(E)(4)(b) and 3745-14-08(E)(4)(c)(i)]

19. The NOx authorized account representative shall submit to the Administrator a compliance certification in support of each quarterly report based on a reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The compliance certification shall state that:

    a. the monitoring data submitted were recorded in accordance with the applicable requirements of OAC rule 3745-14-08 and 40 CFR Part 75, including the quality assurance procedures and specifications; and

    b. for a unit with add-on NOx emission controls and for all hours where data are substituted in accordance with 40 CFR Part 75.34(a)(1), the add-on emission control were operating within the range of parameters listed in the quality assurance program under Appendix B of 40 CFR Part 75 and the substitute values do not systematically underestimate the NOx emissions.

    [OAC rule 3745-14-08(E)(4)(d)(i) and (ii)]

20. The NOx authorized account representative for a NOx budget unit shall submit written notice of monitoring system certification and re-certification test dates to the Director and the Administrator in accordance with 40 CFR Part 75.61. The NOx authorized account representative shall submit a certification application to the Administrator, U.S. EPA, Region V Office, and the Director within forty-five days after completing all initial or re-certification tests required under paragraph (B) of OAC rule 3745-14-08, including the information required under Subpart H of 40 CFR Part 75.
    [OAC rules 3745-14-08(D) and 3745-14-08(E)(3)]

21. For each control period in which one or more NOx budget units at a source are subject to the NOx budget emission limitation, the NOx authorized account representative of the source shall submit to the Director and the Administrator, by November 30 of that year, a compliance certification report for each source covering all such units. The NOx authorized account representative shall include the following elements in the compliance certification report, in a format prescribed by the Administrator, concerning each unit at the source and subject to the NOx budget emission limitation for the control period covered by the report:

    a. identification of each NOx budget unit;

    b. at the NOx authorized account representative's option, the serial numbers of the NOx allowances that are to be deducted from each unit's compliance account under paragraph (E) of OAC rule 3745-14-06 for the control period;

    c. at the NOx authorized account representative's option, for units sharing a common stack and having NOx emissions that are not monitored separately or apportioned in accordance with OAC rule 3745-14-08, the percentage of allowances that is to be deducted from each unit's compliance account under paragraph (E)(5) of OAC

rule 3745-14-06; and

d. the compliance certification under paragraph (A)(3) of OAC rule 3745-14-04.

[OAC rules 3745-14-04(A)(1) and 3745-14-04(A)(2)]

22. In the compliance certification report under Section A.II.21.d above, the NOx authorized account representative shall certify, based upon reasonable inquiry of those persons with the primary responsibility for operating the source and the NOx budget units at the source in compliance with the NOx budget trading program, whether each NOx budget unit for which the compliance certification is submitted was operated during the calendar year covered by the report in compliance with the requirements of the NOx budget trading program applicable to the unit, including all the following:

a. whether the unit was operated in compliance with the NOx budget emission limitation;

b. whether the monitoring plan that governs the unit has been maintained to reflect the actual operation and monitoring of the unit, and contains all information necessary to attribute NOx emissions to the unit, in accordance with OAC rule 3745-14-08;

c. whether all the NOx emissions from the unit, or group of units (including the unit) using a common stack, were monitored or accounted for through the missing data procedures and reported in the quarterly monitoring reports, including whether conditional data were reported in the quarterly reports in accordance with OAC rule 3745-14-08, and if conditional data were reported, the permittee shall indicate whether the status of all conditional data has been resolved and all necessary quarterly report submissions have been made; and

d. whether the facts that form the basis for certification under OAC rule 3745-14-08 of each monitor at the unit or group of units (including the unit) using a common stack, or for using an excepted monitoring method or alternative monitoring method approved under OAC rule 3745-14-08, if any, have changed.

If a change is required to be reported under Section A.II.22.d above, specify the nature of the change, the reason for the change, when the change occurred, and how the unit's compliance status was determined subsequent to the change, including what method was used to determine emissions when a change mandated the need for monitor re-certification.
[OAC rule 3745-14-04(A)(3)]

23. The NOx authorized account representative shall submit a complete NOx budget permit renewal application for the NOx budget source covering the NOx budget units at the source in accordance with paragraph (E) of OAC rule 3745-77-08.
[OAC rule 3745-14-03(B)(3)(a)]

24. The emission measurements recorded and reported in accordance with OAC rule 3745-14-08 shall be used to determine compliance by the unit with the NOx budget emission limitation under paragraph (E)(3) of OAC rule 3745-14-01.
[OAC rule 3745-14-01(E)(2)(b)]

25. The permittee shall develop and maintain a written quality assurance/quality control plan for each continuous NOx monitoring system designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on-site and available for inspection during regular office hours.
[OAC rules 3745-14-08(A)(2)(c) and 3745-14-08(A)(2)(d)]

III. PSD Permitting Application Modeling Demonstration

Per permittee's air permit to install application dated January 2003, the permittee has submitted an air dispersion modeling demonstration, similar to a PSD permitting application modeling demonstration, which was demonstrated that the increased emissions from the existing emissions unit B132 and the installation of four new boilers (emissions units B140, B141, B142, and B143) in conjunction with the shut down of four existing boilers (emissions units B121, B122, B124, and B125) is in compliance with a PSD permitting application modeling demonstration as if the above mentioned permitting action was subject to a PSD permitting application modeling demonstration.

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

none

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
B132 - Boiler 5 - 313.1 mmBtu/hr gas/oil fired water tube boiler with low NOx burner (300.1 mmBtu/hr when firing fuel oil) (Terms in this permit supersede those identified in PTI 01-7409 issued on 12/01/1999 for this emissions unit)	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A)

	Applicable Emissions Limitations/Control Measures	
40 CFR Part 60, Subpart Db	Nitrogen oxides (NOx) emissions shall not exceed 0.036 lb/mmBtu when firing natural gas and 0.12 lb/mmBtu when firing number 2 distillate fuel oil.	VOC emissions shall not exceed 11.40 tons per year when firing natural gas and/or number 2 distillate fuel oil.
	NOx emissions shall not exceed 103.52 tons per year when firing natural gas and/or number 2 distillate fuel oil.	Sulfur dioxide (SO2) emissions shall not exceed 0.0006 lb/mmBtu when firing natural gas and 0.056 lb/mmBtu when firing number 2 distillate fuel oil.
OAC rule 3745-21-08(B)		SO2 emissions shall not exceed 37.80 tons per year when firing natural gas and/or number 2 distillate fuel oil.
OAC rule 3745-21-07(B)	Carbon monoxide (CO) emissions shall not exceed 0.072 lb/mmBtu when firing natural gas and 0.17 lb/mmBtu when firing number 2 distillate fuel oil.	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and 40 CFR Part 60, Subpart Db.
OAC rule 3745-31-13(D)(1)		
OAC rule 3745-17-10(B)(1)		
OAC rule 3745-18-06(D)		See A.II.3 below.
OAC rule 3745-23-06(C)(1)	CO emissions shall not exceed 161.04 tons per year when firing natural gas and/or number 2 distillate fuel oil.	
OAC rule 3745-23-06(C)(2)		Visible PE shall not exceed 20% opacity, as a 6-minute average when firing natural gas, except as provided by rule.
	Particulate emissions (PE) shall not exceed 0.007 lb/mmBtu when firing natural gas and 0.0196 lb/mmBtu when firing number 2 distillate fuel oil.	When firing number 2 distillate fuel oil, visible PE shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity, and because this emissions unit employs a high heat release rate as defined in 40 CFR Part 60.41b, the NOx emissions heat input limitation shall not exceed 0.2 lb/mmBtu expressed as NO_2.
	PE shall not exceed 17.68 tons per year when firing natural gas and/or number 2 distillate fuel oil.	
	Volatile organic compound (VOC) emissions shall not exceed 0.008 lb/mmBtu when firing natural gas and 0.009 lb/mmBtu when firing number 2 distillate fuel oil.	See A.I.2.a below. See A.I.2.b below.

The emission limitations established pursuant to OAC rule 3745-31-05(A)(3) are more stringent than the emission limitations established by these rules.

2. Additional Terms and Conditions

2.a The permittee satisfies the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08 and 3745-21-07(B), respectively, by complying with the best available technology requirements of OAC rule 3745-31-05(A)(3).

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.b As a non-profit education institution, the permittee requested and received a discretionary exemption from the Director on March 14, 2003, to exempt this emissions unit from the PSD requirements contained in OAC rules 3745-31-10 through 3745-31-20.

2.c This emissions unit is subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

II. Operational Restrictions

1. The maximum annual fuel oil usage for this emissions unit shall not exceed 9,526,500 gallons.

2. The quality of the number 2 distillate fuel oil burned in this emissions unit shall meet, on an as-received basis, a sulfur content which is equal to or less than 0.5 weight percent sulfur and is sufficient to comply with the allowable sulfur dioxide emission limitation specified in Section A.I above.

3. The permittee shall operate low NOx burners and employ flue gas recirculation at all times this emissions unit is in operation.

4. The permittee shall operate and maintain equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit when combusting number 2 distillate fuel oil.

5. The permittee shall operate and maintain equipment to continuously monitor and record the NOx emissions from this emissions unit when combusting natural gas and/or number 2 distillate fuel oil.

6. The permittee shall burn only natural gas and/or number 2 distillate fuel oil in this emissions unit.

III. Monitoring and/or Record keeping Requirements

1. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

2. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

   The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

   a. Alternative 1:

      For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

   b. Alternative 2:

      The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall

maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

3. For each day during which the permittee burns a fuel other than natural gas or number 2 distillate fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

4. The permittee shall maintain daily records of the following information:

   a. the natural gas consumption for each day (in million cubic feet);

   b. the number 2 distillate fuel oil consumption for each day (in gallons);

   c. the total actual heat input to the emissions unit, calculated as follows:

$$DI = DI_g + DI_o$$

DI	=	Total heat input for each day, mmBtu
DI_g	=	Daily heat input rate from Gas
DI_o	=	Daily heat input rate from Oil

When the unit is combusting natural gas, use the following equation to calculate heat input rate:

$$DI_g = (Q_g * GCV_g) / 10^3$$

Where:

DI_g	=	Daily heat input rate from pipeline natural gas, mmBtu/day.
Q_g	=	Metered flow rate of gaseous fuel combusted during unit operation, thousand standard cubic feet per day.
GCV_g	=	Gross calorific value of natural gas, as determined by sampling (for each monthly sample of pipeline natural gas, or as verified by the contractual supplier at least once every month pipeline natural gas is combusted) using ASTM D1826-88, ASTM D3588-91, ASTM D4891-89, GPA Standard 2172-86 "Calculation of Gross Heating Value, Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis," or GPA Standard 2261-90 "Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography," Btu/scf.
10^3	=	Conversion of thousand Btu to mmBtu.

When the unit is combusting oil, use the following equation to calculate hourly heat input rate:

$$DI_o = V_{oil\text{-}rate} * D_{oil} * (GCV_o / 10^6)$$

Where:

DI_o = Daily heat input rate from oil, mmBtu/day.
$V_{oil\text{-}rate}$ = Volume rate of oil consumed per day, measured in gal/day
D_{oil} = Density of oil, measured in lb/gal
GCV_o = Gross calorific value of oil, as measured by ASTM D240-87, ASTM D2015-91, or ASTM D2382-88 for each batch of oil burned, Btu/unit mass, in lbs.
10^6 = Conversion of Btu to mmBtu.

d. the rolling, 30-day average NOx emission rate, in pounds per mmBtu, when firing natural gas; and

e. the rolling, 30-day average NOx emission rate, in pounds per mmBtu, when firing number 2 distillate fuel oil.

5. The permittee shall collect and record the following information for the purpose of determining annual mass emissions:

a. the amount of natural gas used (in million cubic feet);

b. the amount of number 2 distillate fuel oil used (in gallons); and

c. the total amount of mass annual emissions of each pollutant listed in term A.I.1 emitted from this emissions unit, in pounds or tons.

6. The permittee shall operate and maintain existing equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit when combusting number 2 distillate fuel oil. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

7. The permittee shall maintain a certification letter from the Ohio EPA documenting that the existing continuous opacity monitoring system has been certified in accordance with the requirements of 40 CFR part 60, Appendix B, Performance Specification 1. The letter of certification shall be made available to the Director upon request.

8. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of

the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2 and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

9. The permittee shall operate and maintain existing equipment to continuously monitor and record NOx emissions from this emissions unit, in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of the following data obtained by the continuous NOx monitoring system: emissions of NOx in pounds per mmBtu of actual heat input on an hourly average basis, emissions of NOx in pounds per mmBtu on a rolling 30-day average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

10. The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that continuous NOx monitoring system has been certified in accordance with 40 CFR Part 60. The letter of certification shall be made available to the Director upon request.

11. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NOx monitoring system designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on site and available for inspection during regular office hours.

12. Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

13. The permittee shall calculate the annual capacity factor each calendar as defined in 40 CFR Part 60.41b individually for each fuel burned pursuant to 40 CFR Part 60.49b.(d). The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

IV. Reporting Requirements

1. The permittee shall notify the Director (the Ohio EPA, Central District Office) in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation based upon the

calculated sulfur dioxide emission rates and any record which shows a deviation of the allowable sulfur content. The notification shall include a copy of such record and shall be set to the Director (the Ohio EPA, Central District Office) within 45 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or number 2 distillate fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

3. The permittee shall submit reports (hardcopy or electronic format) within 30 days following the end of each calendar quarter to the Ohio EPA, Central District Office documenting all instances of opacity valued in excess of the limitations specified above when firing number 2 distillate fuel oil, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective action(s) taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

   The reports shall also identify any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) when firing number 2 distillate fuel oil, along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions until and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

   If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

   These quarterly excess emission reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

4. The permittee shall submit reports (hardcopy or electronic format) within 30 days following the end of each calendar quarter to the Ohio EPA, Central District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective action(s) taken (if any), of all 30-day average NOx values in excess of the applicable NOx emission rate (pound per mmBtu).

   The reports shall also identify any continuous NOx monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions until and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

These quarterly excess emission reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

5. The permittee shall submit quarterly reports of the following information:

   a. certifying that only very low sulfur oil meeting the definition in 40 CFR Part 60.41b was combusted in this emissions unit during the preceding quarter;

   b. if term IV.5.a is not submitted, then the permittee shall submit the following information along with the appropriate information contained within 40 CFR Part 60.49b(k):

      i. the number of hourly averages available for outlet emissions rates and inlet emissions rates;

      ii. the standard deviation of hourly averages for outlet emissions rates and inlet rates, as determined in 40 CFR Part 60, Subpart A, Method 19, section 7;

      iii. the lower confidence limit for the mean outlet emission rate and upper confidence limit for the mean inlet emission rate, as calculated in 40 CFR Part 60, Subpart A, Method 19, section 7; and

      iv. the ratio of the lower confidence limit for the mean outlet emission rate and the allowable emission rate, as calculated in 40 CFR Part 60, Subpart A, Method 19, section 7.

6. The permittee shall submit annual reports that specify the total particulate, SO2, VOC, NOx, CO emissions and natural gas and fuel oil usages for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of the terms and conditions of this permit shall be determined in accordance with the following methods:

   a. Emission Limitations**:**
   Nitrogen oxide (NOx) emissions shall not exceed 0.036 lb/mmBtu of actual heat input while firing natural gas and 0.12 lb/mmBtu of actual heat input while firing number 2 distillate fuel oil.

   Applicable Compliance Method:

When firing number 2 distillate fuel oil, compliance with the emissions limitations shall be demonstrated on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days.

When firing natural gas, compliance with the emissions limitations shall be demonstrated on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days.

If required, the permittee shall demonstrate compliance with these emission limitations through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

b. Emission Limitations**:**
Nitrogen oxide (NOx) emissions shall not exceed 103.52 tons per year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying the CEMS emission data (lbs NOx/mmBtu) by the average annual natural gas heat content (Btu/cu ft) by the annual natural gas usage (mmcu ft/yr) and dividing by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying the CEMS emission data (lbs NOx/mmBtu) by the average annual number 2 distillate fuel oil heat content (Btu/gal) by the annual number 2 distillate fuel oil usage (gal/yr) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

c. Emission Limitations**:**
Carbon monoxide (CO) emissions shall not exceed 0.072 lb/mmBtu of actual heat input while firing natural gas and 0.17 lb/mmBtu of actual heat input while firing number 2 distillate fuel oil.

Applicable Compliance Method:
When firing natural gas, compliance shall be demonstrated by multiplying the maximum

hourly gas burning capacity of the emission unit (302,512 cu ft/hr) by the emission factor supplied by the boiler manufacturer (Babcock and Wilcox, 04/29/2001) for CO in natural gas combustion (74.5 lbs CO/mmcu ft) and dividing by the maximum hourly heat input capacity of the emission unit (313 mmBtu/hr).

When firing number 2 distillate fuel oil, compliance shall be demonstrated with the boiler manufacturer's emission factor data (0.17 lb/mmBtu, Babcock and Wilcox, 04/24/1998).

If required, the permittee shall demonstrate compliance with this emission limitation through emission test performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

d. Emission Limitation:
Carbon monoxide (CO) emissions shall not exceed 161.04 tons per year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying annual natural gas usage (cu ft/yr) by the emission factor supplied by the boiler manufacturer (Babcock and Wilcox, 04/29/2001) for CO in natural gas combustion (74.5 lbs of CO/mmcu ft) and dividing by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying annual number 2 distillate fuel oil usage (gal/yr) by the heat content of the oil (Btu/gal) by the emission factor supplied by the boiler manufacturer (Babcock and Wilcox, 04/24/1998) for CO in number 2 distillate fuel oil combustion (0.17 lb CO/mmBtu) and dividing by 2,000 lbs/ton and by 1,000,000 Btu/mmBtu.

e. Emission Limitations:
Particulate emissions (PE) shall not exceed 0.007 lb/mmBtu of actual heat input when firing natural gas and 0.0196 lb/mmBtu of actual heat input when firing number 2 distillate fuel oil.
Applicable Compliance Method:
When firing natural gas, compliance shall be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (302,512 cu ft/hr) by the boiler manufacturer's emission factor (Babcock and Wilcox, 04/24/1998) for PE in natural gas combustion (7.25 lbs PE/mmcu ft) and dividing by the maximum hourly heat input capacity of the emissions unit (313 mmBtu/hr).

When firing number 2 distillate fuel oil, compliance shall be demonstrated by the most recent emission test.

If required, the permittee shall demonstrate compliance with this emission limitation

through emission test performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

f. Emission Limitation:
Particulate emissions (PE) shall not exceed 17.68 tons per year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The natural gas annual emissions shall be determined by multiplying the annual natural gas usage (mmcu ft/yr) by the boiler manufacturer's emission factor (Babcock and Wilcox, 04/24/1998) for PE in natural gas combustion (7.25 lbs PE/mmcu ft), and dividing by 2000 pounds per ton.

The number 2 distillate fuel oil emissions shall be determined by multiplying the emission factor established during the most recent emission test that demonstrated compliance (lbs/gal) by the annual number 2 distillate fuel oil usage (gal/yr) and dividing by 2000 pounds per ton.

g. Emission Limitations:
Volatile organic compound (VOC) emissions shall not exceed 0.008 lb/mmBtu of actual heat input when firing natural gas and 0.009 lb/mmBtu of actual heat input when firing number 2 distillate fuel oil.

Applicable Compliance Method:
When firing natural gas, compliance shall be demonstrated by multiplying the maximum hourly gas burning capacity of the emissions unit (302,512 cu ft/hr) by the boiler manufacturer's emission factor (Babcock and Wilcox, 04/24/1998) for volatile organic compounds in natural gas combustion (8.28 lbs VOC/mmcu ft), and dividing by the maximum hourly heat input capacity of the emissions unit (313 mmBtu/hr).

When firing number 2 distillate fuel oil, compliance with this emission limitation may be demonstrated by multiplying the maximum fuel oil burning capacity of the emissions unit (2,144 gal/hr) by the boiler manufacturer's emission factor (Babcock and Wilcox, 04/24/1998) for volatile organic compounds in number 2 distillate fuel oil combustion (1.26 lbs VOC/1000 gal), and dividing by the maximum hourly heat input capacity of the emissions unit (300.1 mmBtu/hr).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

h. Emission Limitation:
Volatile organic compound emissions (VOC) shall not exceed 11.40 tons/year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The natural gas annual emissions shall be determined by multiplying the annual natural gas usage (cu ft/yr) by the boiler manufacturer's emission factor (Babcock and Wilcox, 04/24/1998) for volatile organic compounds in natural gas combustion (8.28 lbs VOC/mmcu ft), and dividing by 2000 pounds per ton.

The number 2 distillate fuel oil emissions shall be determined by multiplying the annual number 2 distillate fuel oil usage (gal) by the boiler manufacturer's emission factor (Babcock and Wilcox, 04/24/1998) for volatile organic compounds in number 2 distillate fuel oil combustion (1.26 lbs VOC/1000 gal), and dividing by 2000 pounds per ton.

i. Emission Limitations:
Sulfur dioxide (SO2) emissions shall not exceed 0.0006 lb/mmBtu of actual heat input when firing natural gas and 0.056 lb/mmBtu of actual heat input when firing number 2 distillate fuel oil.

Applicable Compliance Method:
When firing fuel oil, compliance with the allowable sulfur dioxide emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation.

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6, while firing number 2 distillate fuel oil.

j. Emission Limitation:
Sulfur dioxide (SO2) emissions shall not exceed 37.80 tons/year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The natural gas annual emissions shall be determined by multiplying the annual natural gas usage (cu ft/yr) by the emission factor from AP-42 Table 1.4-2 (07/1998) for SO2 in natural gas combustion (0.6 lb SO2/mmcu ft), and dividing by 2000 pounds per ton.

When firing number 2 distillate fuel oil compliance with the allowable sulfur dioxide emission limitation shall be demonstrated by multiplying the annual number 2 distillate fuel oil consumption (gal/year) by the emission factor of 157*S lbs SO2/1,000 gal, where S equals sulfur content (from AP-42, Table 1.3-1, 09/1998) and dividing by 2000 pounds per ton.

k. Emission Limitation:
Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average when firing natural gas, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

l. Emission Limitation:
Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity when firing number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance may be determined by data collected and recorded for the COM and, if required, by visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

VI. Miscellaneous Requirements

Emissions Unit ID: B132

Per permittee's air permit to install application dated January 2003, the permittee shall comply with all applicable provisions of OAC rule 3745-14 for emissions unit B132 if appropriate, including but not limited to, certain NOx emissions limitations in the emissions trading program, obtain permits, comply with trading procedures and meet the monitoring and reporting requirements in this rule. See Part II. A.II of this permit.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
B132 - Boiler 5 - 313.1 mmBtu/hr gas/oil fired water tube boiler with low NOx burner	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
B140 - New Boiler 1 - 206 mmBtu/hr gas/oil fired water tube boiler with low NOx burner	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A)

	Applicable Emissions Limitations/Control Measures	
		tons per year when firing natural gas and/or number 2 distillate fuel oil.
40 CFR Part 60, Subpart Db	Nitrogen oxides (NOx) emissions shall not exceed 0.035 lb/mmBtu when firing natural gas and 0.10 lb/mmBtu when firing number 2 distillate fuel oil.	Sulfur dioxide (SO2) emissions shall not exceed 0.0006 lb/mmBtu when firing natural gas and 0.052 lb/mmBtu when firing number 2 distillate fuel oil.
OAC rule 3745-21-07(B) OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)	NOx emissions shall not exceed 59.15 tons per year when firing natural gas and/or number 2 distillate fuel oil.	SO2 emissions shall not exceed 22.82 tons per year when firing natural gas and/or number 2 distillate fuel oil.
OAC rule 3745-31-13(D)(1)		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and 40 CFR Part 60, Subpart Db.
OAC rule 3745-17-10(B)(1)	Carbon monoxide (CO) emissions shall not exceed 0.04 lb/mmBtu when firing natural gas and 0.08 lb/mmBtu when firing number 2 distillate fuel oil.	See A.II.3 below.
OAC rule 3745-18-06(D)	CO emissions shall not exceed 52.74 tons per year when firing natural gas and/or number 2 distillate fuel oil.	Visible PE shall not exceed 20% opacity, as a 6-minute average when firing natural gas, except as provided by rule.
	Particulate emissions (PE) shall not exceed 0.005 lb/mmBtu when firing natural gas and 0.02 lb/mmBtu when firing number 2 distillate fuel oil.	Visible PE shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity, when firing number 2 distillate fuel oil.
	PE shall not exceed 10.93 tons per year when firing natural gas and/or number 2 distillate fuel oil.	See A.I.2.a below.
	Volatile organic compound (VOC) emissions shall not exceed 0.004 lb/mmBtu when firing natural gas and 0.004 lb/mmBtu when firing number 2 distillate fuel oil.	See A.I.2.b below.
	VOC emissions shall not exceed 3.54	The emission limitations established pursuant to OAC rule 3745-31-05(A)(3) are more stringent than the emission limitations established by these rules.

2. Additional Terms and Conditions

2.a The permittee satisfies the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and both 3745-23-06 and 3745-21-07 , respectively, by complying with the best available technology requirements of OAC rule 3745-31-05(A)(3).

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.b As a non-profit education institution, the permittee requested and received a discretionary exemption from the Director on March 14, 2003, to exempt this emissions unit from the PSD requirements contained in OAC rules 3745-31-10 through 3745-31-20.

2.c This emissions unit is subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

II. Operational Restrictions

1. The maximum annual fuel oil usage for this emissions unit shall not exceed 6,285,300 gallons.

2. The quality of the number 2 distillate fuel oil burned in this emissions unit shall meet, on an as-received basis, a sulfur content which is equal to or less than 0.5 weight percent sulfur and is sufficient to comply with the allowable sulfur dioxide emission limitation specified in Section A.I above.

3. The permittee shall operate low NOx burners and employ flue gas recirculation at all times this emissions unit is in operation.

4. The permittee shall operate and maintain equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit when combusting number 2 distillate fuel oil.

5. The permittee shall operate and maintain equipment to continuously monitor and record the NOx emissions from this emissions unit when combusting natural gas and/or number 2 distillate fuel oil.

6. The permittee shall burn only natural gas and/or number 2 distillate fuel oil in this emissions unit.

III. Monitoring and/or Record keeping Requirements

1. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

2. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

   The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

   a. Alternative 1:

      For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

   b. Alternative 2:

      The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

3. For each day during which the permittee burns a fuel other than natural gas or number 2 distillate fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

4. The permittee shall maintain daily records of the following information:

   a. the natural gas consumption for each day (in million cubic feet);

   b. the number 2 distillate fuel oil consumption for each day (in gallons);

   c. the total actual heat input to the emissions unit, calculated as follows:

$$DI = DI_g + DI_o$$

DI	=	Total heat input for each day, mmBtu
DI_g	=	Daily heat input rate from Gas
DI_o	=	Daily heat input rate from Oil

When the unit is combusting natural gas, use the following equation to calculate heat input rate:

$$DI_g = (Q_g * GCV_g) / 10^3$$

Where:

DI_g	=	Daily heat input rate from pipeline natural gas, mmBtu/day.
Q_g	=	Metered flow rate of gaseous fuel combusted during unit operation, thousand standard cubic feet per day.
GCV_g	=	Gross calorific value of natural gas, as determined by sampling (for each monthly sample of pipeline natural gas, or as verified by the contractual supplier at least once every month pipeline natural gas is combusted) using ASTM D1826-88, ASTM D3588-91, ASTM D4891-89, GPA Standard 2172-86 "Calculation of Gross Heating Value, Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis," or GPA Standard 2261-90 "Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography," Btu/scf.
10^3	=	Conversion of thousand Btu to mmBtu.

When the unit is combusting oil, use the following equation to calculate hourly heat input rate:

$$DI_o = V_{oil\text{-}rate} * D_{oil} * (GCV_o / 10^6)$$

Where:

DI_o	=	Daily heat input rate from oil, mmBtu/day.
$V_{oil\text{-}rate}$	=	Volume rate of oil consumed per day, measured in gal/day
D_{oil}	=	Density of oil, measured in lb/gal
GCV_o	=	Gross calorific value of oil, as measured by ASTM D240-87, ASTM D2015-91, or ASTM D2382-88 for each batch of oil burned, Btu/unit

mass, lbs.

10^6 = Conversion of Btu to mmBtu.

d. beginning after the initial compliance demonstration, the rolling, 30-day average NOx emission rate, in pounds per mmBtu, when firing natural gas; and

e. beginning after the initial compliance demonstration**,** the rolling, 30-day average NOx emission rate, in pounds per mmBtu, when firing number 2 distillate fuel oil.

5. The permittee shall collect and record the following information for the purpose of determining annual mass emissions:

a. the amount of natural gas used (in million cubic feet);

b. the amount of number 2 distillate fuel oil used (in gallons); and

c. the total amount of mass annual emissions of each pollutant listed in term A.I.1 emitted from this emissions unit, in pounds or tons.

6. The permittee shall properly install, operate and maintain equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit when combusting number 2 distillate fuel oil. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Prior to the installation of the continuous opacity monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirement in 40 CFR Part 60, Appendix B, Performance Specification 1 for approval by the Ohio EPA, Central Office.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

7. Within 60 days after achieving the maximum production rate at which this emissions unit will be operated, but not later than 180 days after its initial startup, the permittee shall conduct certification tests on the continuous opacity monitoring system equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 1. Personnel from the Ohio EPA, Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to the Ohio EPA, Central District Office pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous opacity monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 1, including section 5.1.9 (mandatory).

8. Within 180 days of startup of this emissions unit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum,

conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2 and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

9. The permittee shall properly install, operate and maintain equipment to continuously monitor and record NOx emissions from this emissions unit, in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Prior to the installation of the continuous NOx monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirement in 40 CFR Part 60 for approval by the Ohio EPA, Central Office.

The permittee shall maintain records of the following data obtained by the continuous NOx monitoring system: emissions of NOx in pounds per mmBtu of actual heat input on an hourly average basis, emissions of NOx in pounds per mmBtu on a rolling 30-day average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

10. Within 60 days after achieving the maximum production rate at which this emissions unit will be operated, but not later than 180 days after its initial startup, the permittee shall conduct certification tests on such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60. Personnel from the Ohio EPA, Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to the Ohio EPA, Central District Office pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous NOx monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60.

11. Within 180 days of startup of this emissions unit, the permittee shall develop a written quality assurance/quality control plan for the continuous NOx monitoring system designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on site and available for inspection during regular office hours.

12. Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

13. The permittee shall calculate the annual capacity factor each calendar as defined in 40 CFR Part 60.41b individually for each fuel burned pursuant to 40 CFR Part 60.49b.(d). The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

14. For the initial compliance test, NOx from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NOx emissions lb/mmBtu limitation in this emissions unit. The 30-day average emission rate is calculated as the average of all hourly emission data recorded by the monitoring system during the 30-day test period.

IV. Reporting Requirements

1. Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

   a. construction date (no later than 30 days after such date);
   b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
   c. actual start-up date (within 15 days after such date); and
   d. date of performance testing (If required, at least 30 days prior to testing).

   Reports are to be sent to:

   Ohio Environmental Protection Agency
   DAPC - Permit Management Unit
   P.O. Box 1049
   Columbus, OH 43216-1049

   and

   Ohio EPA, Central District Office
   Air Pollution Group
   3232 Alum Creek Drive
   Columbus, OH 43207

2. The permittee shall notify the Director (the Ohio EPA, Central District Office) in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates and any record which shows a deviation of the allowable sulfur content. The notification shall include a copy of such record and shall be set to the Director (the Ohio EPA, Central District Office) within 45 days after the deviation occurs.

3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or number 2 distillate fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

4. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports (hardcopy or electronic format) within 30 days following the end of each calendar quarter to the Ohio EPA, Central District Office documenting all instances of opacity valued in excess of the limitations specified above when firing number 2 distillate fuel oil, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective action(s) taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

   The reports shall also identify any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) when firing number 2 distillate fuel oil, along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions until and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

   If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

   These quarterly excess emission reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

5. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031, the permittee shall submit reports (hardcopy or electronic format) within 30 days following the end of each calendar quarter to the Ohio EPA, Central District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective action(s) taken (if any), of all 30-day average NOx values in excess of the applicable NOx emission rate (pound per mmBtu).

   The reports shall also identify any continuous NOx monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions until and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

   If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

   These quarterly excess emission reports shall be submitted by January 31, April 30, July 31, and

October 31 of each year and shall address the data obtained during the previous calendar quarter.

6. The permittee shall submit quarterly reports of the following information:

   a. certifying that only very low sulfur oil meeting the definition in 40 CFR Part 60.41b was combusted in this emissions unit during the preceding quarter;

   b. if term IV.6.a is not submitted, then the permittee shall submit the following information along with the appropriate information contained within 40 CFR Part 60.49b(k):

      i. the number of hourly averages available for outlet emissions rates and inlet emissions rates;

      ii. the standard deviation of hourly averages for outlet emissions rates and inlet rates, as determined in 40 CFR Part 60, Subpart A, Method 19, section 7;

      iii. the lower confidence limit for the mean outlet emission rate and upper confidence limit for the mean inlet emission rate, as calculated in 40 CFR Part 60, Subpart A, Method 19, section 7; and

      iv. the ratio of the lower confidence limit for the mean outlet emission rate and the allowable emission rate, as calculated in 40 CFR Part 60, Subpart A, Method 19, section 7.

7. The permittee shall submit annual reports that specify the total particulate, SO2, VOC, NOx and CO emissions and natural gas and fuel oil usages for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Within 60 days after achieving the maximum production rate at which this emissions unit will be operated, but not later than 180 days after its initial startup, the permittee shall conduct performance tests to demonstrate compliance with the particulate emission limitation and NOx emission limitation while firing number 2 distillate fuel oil.

   The particulate emission test shall be conducted in accordance with the procedures specified in 40 CFR Parts 60.8 and 60.46b(d). The test shall be conducted while the emissions unit is operating at or near its maximum capacity, while firing number 2 distillate fuel oil.

   The NOx performance test shall be conducted using the NOx monitoring system in accordance

with the procedures specified in 40 CFR Parts 60.8 and 60.46b(e). The test shall be conducted while the emissions unit is operating at or near its maximum capacity, while firing number 2 distillate fuel oil.

2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

3. A comprehensive written report on the results of the emission(s) test(s) shall be submitted to the Ohio EPA, Central District Office within 30 days following the completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

4. Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

5. Compliance with the emission limitations in Section A.I. OF the terms and conditions of this permit shall be determined in accordance with the following methods:

   a. Emission Limitations**:**
   Nitrogen oxide (NOx) emissions shall not exceed 0.035 lb/mmBtu of actual heat input while firing natural gas and 0.10 lb/mmBtu of actual heat input while firing number 2 distillate fuel oil.

   Applicable Compliance Method:
   Following the initial performance test, when firing number 2 distillate fuel oil, compliance with the emissions limitations shall be demonstrated on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days.

   When firing natural gas, compliance with the emissions limitations shall be demonstrated on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days.

   b. Emission Limitation**:**
   Nitrogen oxide (NOx) emissions shall not exceed 59.15 tons per year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying the CEMS emission data (lbs NOx/mmBtu) by the average annual natural gas heat content (Btu/cu ft) by the annual natural gas usage (mmcu ft/yr) and dividing by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying the CEMS emission data (lbs NOx/mmBtu) by the average annual number 2 distillate fuel oil heat content (Btu/gal) by the annual number 2 distillate fuel oil usage (gal/yr) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

c. Emission Limitations**:**
Carbon monoxide (CO) emissions shall not exceed 0.04 lb/mmBtu of actual heat input while firing natural gas and 0.08 lb/mmBtu of actual heat input while firing number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated with the boiler manufacturer's emission factor data: 0.04 lb/mmBtu for natural gas and 0.08 lb/mmBtu for number 2 distillate fuel oil (Nebraska Boiler Company, 08/28/2002).

If required, the permittee shall demonstrate compliance with this emission limitation through emission test performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

d. Emission Limitation:
Carbon monoxide (CO) emissions shall not exceed 52.74 tons per year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying annual natural gas usage (cu ft/yr) by the heat content of the gas (Btu/cu ft) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for CO in natural gas combustion (0.04 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying annual number 2 distillate fuel oil usage (gal/yr) by the heat content of the oil (Btu/gal) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for CO in number 2 distillate fuel oil combustion (0.08 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

e. Emission Limitations:
Particulate emissions (PE) shall not exceed 0.005 lb/mmBtu of actual heat input when firing natural gas and 0.02 lb/mmBtu of actual heat input when firing number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated with the boiler manufacturer's emission factor data: 0.005 lb/mmBtu for natural gas and 0.02 lb/mmBtu for number 2 distillate fuel oil (Nebraska Boiler Company, 08/28/2002).

f. Emission Limitation:
Particulate emissions (PE) shall not exceed 10.93 tons per year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying annual natural gas usage (cu ft/yr) by the heat content of the gas (Btu/cu ft) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for PE in natural gas combustion (0.005 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying annual number 2 distillate fuel oil usage (gal/yr) by the heat content of the oil (Btu/gal) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for PE in number 2 distillate fuel oil combustion (0.02 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

g. Emission Limitations:
Volatile organic compound (VOC) emissions shall not exceed 0.004 lb/mmBtu of actual heat input when firing natural gas and 0.004 lb/mmBtu of actual heat input when firing number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated with the boiler manufacturer's emission factor data: 0.004 lb/mmBtu for natural gas and 0.004 lb/mmBtu for number 2 distillate fuel oil (Nebraska Boiler Company, 08/28/2002).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

h. Emission Limitation:
Volatile organic compound emissions (VOC) shall not exceed 3.54 tons/year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2

distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying annual natural gas usage (cu ft/yr) by the heat content of the gas (Btu/cu ft) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for VOC in natural gas combustion (0.004 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying annual number 2 distillate fuel oil usage (gal/yr) by the heat content of the oil (Btu/gal) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for VOC in number 2 distillate fuel oil combustion (0.004 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

i. Emission Limitations:
Sulfur dioxide (SO2) emissions shall not exceed 0.0006 lb/mmBtu of actual heat input when firing natural gas and 0.052 lb/mmBtu of actual heat input when firing number 2 distillate fuel oil.

Applicable Compliance Method:
When firing fuel oil, compliance with the allowable sulfur dioxide emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation.

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6, while firing number 2 distillate fuel oil.

j. Emission Limitation:
Sulfur dioxide (SO2) emissions shall not exceed 22.82 tons/year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying annual natural gas usage (cu ft/yr) by the heat content of the gas (Btu/cu ft) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for SO2 in natural gas combustion (0.0006 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying annual number 2 distillate fuel oil usage (gal/yr) by the heat content of the oil (Btu/gal) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for SO2 in number 2 distillate fuel oil combustion (0.052 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

k. Emission Limitation:
Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average

when firing natural gas, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

l. Emission Limitation:
Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity when firing number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance may be determined by data collected and recorded for the COM and, if required, by visible emissions observations.

VI. Miscellaneous Requirements

1. Ambient air quality impacts from the shut down and removal of emissions unit B125 are being used as ambient air quality impact credits towards the increase in ambient air quality impacts associated with this emissions unit. Therefore, at no time shall both emissions units B125 and B140 operate at the same time.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
B140 - New Boiler 1 - 206 mmBtu/hr gas/oil fired water tube boiler with low NOx burner	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
B141 - New Boiler 3 - 206 mmBtu/hr gas/oil fired water tube boiler with low NOx burner	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A)

	Applicable Emissions Limitations/Control Measures	
		tons per year when firing natural gas and/or number 2 distillate fuel oil.
40 CFR Part 60, Subpart Db	Nitrogen oxides (NOx) emissions shall not exceed 0.035 lb/mmBtu when firing natural gas and 0.10 lb/mmBtu when firing number 2 distillate fuel oil.	Sulfur dioxide (SO2) emissions shall not exceed 0.0006 lb/mmBtu when firing natural gas and 0.052 lb/mmBtu when firing number 2 distillate fuel oil.
OAC rule 3745-21-07(B) OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)	NOx emissions shall not exceed 59.15 tons per year when firing natural gas and/or number 2 distillate fuel oil.	SO2 emissions shall not exceed 22.82 tons per year when firing natural gas and/or number 2 distillate fuel oil.
OAC rule 3745-31-13(D)(1)		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and 40 CFR Part 60, Subpart Db.
OAC rule 3745-17-10(B)(1)	Carbon monoxide (CO) emissions shall not exceed 0.04 lb/mmBtu when firing natural gas and 0.08 lb/mmBtu when firing number 2 distillate fuel oil.	See A.II.3 below.
OAC rule 3745-18-06(D)	CO emissions shall not exceed 52.74 tons per year when firing natural gas and/or number 2 distillate fuel oil.	Visible PE shall not exceed 20% opacity, as a 6-minute average when firing natural gas, except as provided by rule.
	Particulate emissions (PE) shall not exceed 0.005 lb/mmBtu when firing natural gas and 0.02 lb/mmBtu when firing number 2 distillate fuel oil.	Visible PE shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity, when firing number 2 distillate fuel oil.
	PE shall not exceed 10.93 tons per year when firing natural gas and/or number 2 distillate fuel oil.	See A.I.2.a below.
	Volatile organic compound (VOC) emissions shall not exceed 0.004 lb/mmBtu when firing natural gas and 0.004 lb/mmBtu when firing number 2 distillate fuel oil.	See A.I.2.b below.
	VOC emissions shall not exceed 3.54	The emission limitations established pursuant to OAC rule 3745-31-05(A)(3) are more stringent than the emission limitations established by these rules.

2. Additional Terms and Conditions

2.a The permittee satisfies the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and both 3745-23-06 and 3745-21-07 , respectively, by complying with the best available technology requirements of OAC rule 3745-31-05(A)(3).

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.b As a non-profit education institution, the permittee requested and received a discretionary exemption from the Director on March 14, 2003, to exempt this emissions unit from the PSD requirements contained in OAC rules 3745-31-10 through 3745-31-20.

2.c This emissions unit is subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

II. Operational Restrictions

1. The maximum annual fuel oil usage for this emissions unit shall not exceed 6,285,300 gallons.

2. The quality of the number 2 distillate fuel oil burned in this emissions unit shall meet, on an as-received basis, a sulfur content which is equal to or less than 0.5 weight percent sulfur and is sufficient to comply with the allowable sulfur dioxide emission limitation specified in Section A.I above.

3. The permittee shall operate low NOx burners and employ flue gas recirculation at all times this emissions unit is in operation.

4. The permittee shall operate and maintain equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit when combusting number 2 distillate fuel oil.

5. The permittee shall operate and maintain equipment to continuously monitor and record the NOx emissions from this emissions unit when combusting natural gas and/or number 2 distillate fuel oil.

6. The permittee shall burn only natural gas and/or number 2 distillate fuel oil in this emissions unit.

III. Monitoring and/or Record keeping Requirements

1. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

2. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

   The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

   a. Alternative 1:

      For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

   b. Alternative 2:

      The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated

sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

3. For each day during which the permittee burns a fuel other than natural gas or number 2 distillate fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

4. The permittee shall maintain daily records of the following information:

   a. the natural gas consumption for each day (in million cubic feet);

   b. the number 2 distillate fuel oil consumption for each day (in gallons);

   c. the total actual heat input to the emissions unit, calculated as follows:

$$DI = DI_g + DI_o$$

DI = Total heat input for each day, mmBtu
DI_g = Daily heat input rate from Gas
DI_o = Daily heat input rate from Oil

When the unit is combusting natural gas, use the following equation to calculate heat input rate:

$$DI_g = (Q_g * GCV_g) / 10^3$$

Where:
DI_g = Daily heat input rate from pipeline natural gas, mmBtu/day.
Q_g = Metered flow rate of gaseous fuel combusted during unit operation, thousand standard cubic feet per day.
GCV_g = Gross calorific value of natural gas, as determined by sampling (for each monthly sample of pipeline natural gas, or as verified by the contractual supplier at least once every month pipeline natural gas is combusted) using ASTM D1826-88, ASTM D3588-91, ASTM D4891-89, GPA Standard 2172-86 "Calculation of Gross Heating Value, Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis," or GPA Standard 2261-90 "Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography," Btu/scf.
10^3 = Conversion of thousand Btu to mmBtu.

When the unit is combusting oil, use the following equation to calculate hourly heat input rate:

$$DI_o = V_{oil\text{-}rate} * D_{oil} * (GCV_o / 10^6)$$

Where:
DI_o = Daily heat input rate from oil, mmBtu/day.
$V_{oil\text{-}rate}$ = Volume rate of oil consumed per day, measured in gal/day
D_{oil} = Density of oil, measured in lb/gal
GCV_o = Gross calorific value of oil, as measured by ASTM D240-87, ASTM D2015-91, or ASTM D2382-88 for each batch of oil burned,

Btu/unit mass, in lbs.

10^6 = Conversion of Btu to mmBtu.

d. beginning after the initial compliance demonstration, the rolling, 30-day average NOx emission rate, in pounds per mmBtu, when firing natural gas; and

e. beginning after the initial compliance demonstration, the rolling, 30-day average NOx emission rate, in pounds per mmBtu, when firing number 2 distillate fuel oil.

5. The permittee shall collect and record the following information for the purpose of determining annual mass emissions:

a. the amount of natural gas used (in million cubic feet);

b. the amount of number 2 distillate fuel oil used (in gallons); and

c. the total amount of mass annual emissions of each pollutant listed in term A.I.1 emitted from this emissions unit, in pounds or tons.

6. The permittee shall properly install, operate and maintain equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit when combusting number 2 distillate fuel oil. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Prior to the installation of the continuous opacity monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirement in 40 CFR Part 60, Appendix B, Performance Specification 1 for approval by the Ohio EPA, Central Office.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

7. Within 60 days after achieving the maximum production rate at which this emissions unit will be operated, but not later than 180 days after its initial startup, the permittee shall conduct certification tests on the continuous opacity monitoring system equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 1. Personnel from the Ohio EPA, Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to the Ohio EPA, Central District Office pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous opacity monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 1, including section 5.1.9 (mandatory).

8. Within 180 days of startup of this emissions unit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum,

conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2 and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

9. The permittee shall properly install, operate and maintain equipment to continuously monitor and record NOx emissions from this emissions unit, in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Prior to the installation of the continuous NOx monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirement in 40 CFR Part 60 for approval by the Ohio EPA, Central Office.

The permittee shall maintain records of the following data obtained by the continuous NOx monitoring system: emissions of NOx in pounds per mmBtu of actual heat input on an hourly average basis, emissions of NOx in pounds per mmBtu on a rolling 30-day average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

10. Within 60 days after achieving the maximum production rate at which this emissions unit will be operated, but not later than 180 days after its initial startup, the permittee shall conduct certification tests on such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60. Personnel from the Ohio EPA, Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to the Ohio EPA, Central District Office pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous NOx monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60.

11. Within 180 days of startup of this emissions unit, the permittee shall develop a written quality assurance/quality control plan for the continuous NOx monitoring system designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on site and available for inspection during regular office hours.

12. Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

13. The permittee shall calculate the annual capacity factor each calendar as defined in 40 CFR Part 60.41b individually for each fuel burned pursuant to 40 CFR Part 60.49b.(d). The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

14. For the initial compliance test, NOx from the steam generating unit are monitored for 30

successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NOx emissions lb/mmBtu limitation in this emissions unit. The 30-day average emission rate is calculated as the average of all hourly emission data recorded by the monitoring system during the 30-day test period.

IV. Reporting Requirements

1. Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

   a. construction date (no later than 30 days after such date);
   b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
   c. actual start-up date (within 15 days after such date); and
   d. date of performance testing (If required, at least 30 days prior to testing).

   Reports are to be sent to:

   Ohio Environmental Protection Agency
   DAPC - Permit Management Unit
   P.O. Box 1049
   Columbus, OH 43216-1049

   and

   Ohio EPA, Central District Office
   Air Pollution Group
   3232 Alum Creek Drive
   Columbus, OH 43207

2. The permittee shall notify the Director (the Ohio EPA, Central District Office) in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates and any record which shows a deviation of the allowable sulfur content. The notification shall include a copy of such record and shall be set to the Director (the Ohio EPA, Central District Office) within 45 days after the deviation occurs.

3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or number 2 distillate fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

4. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports (hardcopy or electronic format) within 30 days following the end of each calendar quarter to the Ohio EPA, Central District Office documenting all instances of opacity valued in excess of the limitations specified above when firing number 2 distillate fuel oil, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective

action(s) taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The reports shall also identify any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) when firing number 2 distillate fuel oil, along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions until and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

These quarterly excess emission reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

5. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031, the permittee shall submit reports (hardcopy or electronic format) within 30 days following the end of each calendar quarter to the Ohio EPA, Central District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective action(s) taken (if any), of all 30-day average NOx values in excess of the applicable NOx emission rate (pound per mmBtu).

   The reports shall also identify any continuous NOx monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions until and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

   If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

These quarterly excess emission reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

6. The permittee shall submit quarterly reports of the following information:

   a. certifying that only very low sulfur oil meeting the definition in 40 CFR Part 60.41b was combusted in this emissions unit during the preceding quarter;

   b. if term IV.6.a is not submitted, then the permittee shall submit the following information along with the appropriate information contained within 40 CFR Part 60.49b(k):

      i. the number of hourly averages available for outlet emissions rates and inlet emissions rates;

      ii. the standard deviation of hourly averages for outlet emissions rates and inlet rates, as determined in 40 CFR Part 60, Subpart A, Method 19, section 7;

      iii. the lower confidence limit for the mean outlet emission rate and upper confidence limit for the mean inlet emission rate, as calculated in 40 CFR Part 60, Subpart A, Method 19, section 7; and

      iv. the ratio of the lower confidence limit for the mean outlet emission rate and the allowable emission rate, as calculated in 40 CFR Part 60, Subpart A, Method 19, section 7.

7. The permittee shall submit annual reports that specify the total particulate, SO2, VOC, NOx and CO emissions and natural gas and fuel oil usages for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Within 60 days after achieving the maximum production rate at which this emissions unit will be operated, but not later than 180 days after its initial startup, the permittee shall conduct performance tests to demonstrate compliance with the particulate emission limitation and NOx emission limitation while firing number 2 distillate fuel oil.

   The particulate emission test shall be conducted in accordance with the procedures specified in 40 CFR Parts 60.8 and 60.46b(d). The test shall be conducted while the emissions unit is operating at or near its maximum capacity, while firing number 2 distillate fuel oil.

   The NOx performance test shall be conducted using the NOx monitoring system in accordance with the procedures specified in 40 CFR Parts 60.8 and 60.46b(e). The test shall be conducted while the emissions unit is operating at or near its maximum capacity, while firing number 2 distillate fuel oil.

2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to

Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

3. A comprehensive written report on the results of the emission(s) test(s) shall be submitted to the Ohio EPA, Central District Office within 30 days following the completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

4. Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

5. Compliance with the emission limitations in Section A.I. OF the terms and conditions of this permit shall be determined in accordance with the following methods:

   a. Emission Limitations**:**
   Nitrogen oxide (NOx) emissions shall not exceed 0.035 lb/mmBtu of actual heat input while firing natural gas and 0.10 lb/mmBtu of actual heat input while firing number 2 distillate fuel oil.

   Applicable Compliance Method:
   Following the initial performance test, when firing number 2 distillate fuel oil, compliance with the emissions limitations shall be demonstrated on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days.

   When firing natural gas, compliance with the emissions limitations shall be demonstrated on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days.

   b. Emission Limitation**:**
   Nitrogen oxide (NOx) emissions shall not exceed 59.15 tons per year when firing natural gas and/or number 2 distillate fuel oil.

   Applicable Compliance Method:
   Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

   The annual natural gas emissions shall be determined by multiplying the CEMS emission

data (lbs NOx/mmBtu) by the average annual natural gas heat content (Btu/cu ft) by the annual natural gas usage (mmcu ft/yr) and dividing by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying the CEMS emission data (lbs NOx/mmBtu) by the average annual number 2 distillate fuel oil heat content (Btu/gal) by the annual number 2 distillate fuel oil usage (gal/yr) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

c. Emission Limitations**:**
Carbon monoxide (CO) emissions shall not exceed 0.04 lb/mmBtu of actual heat input while firing natural gas and 0.08 lb/mmBtu of actual heat input while firing number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated with the boiler manufacturer's emission factor data: 0.04 lb/mmBtu for natural gas and 0.08 lb/mmBtu for number 2 distillate fuel oil (Nebraska Boiler Company, 08/28/2002).

If required, the permittee shall demonstrate compliance with this emission limitation through emission test performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

d. Emission Limitation:
Carbon monoxide (CO) emissions shall not exceed 52.74 tons per year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying annual natural gas usage (cu ft/yr) by the heat content of the gas (Btu/cu ft) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for CO in natural gas combustion (0.04 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying annual number 2 distillate fuel oil usage (gal/yr) by the heat content of the oil (Btu/gal) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for CO in number 2 distillate fuel oil combustion (0.08 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

e. Emission Limitations:
Particulate emissions (PE) shall not exceed 0.005 lb/mmBtu of actual heat input when firing natural gas and 0.02 lb/mmBtu of actual heat input when firing number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated with the boiler manufacturer's emission factor data: 0.005 lb/mmBtu for natural gas and 0.02 lb/mmBtu for number 2 distillate fuel oil (Nebraska Boiler Company, 08/28/2002).

f. Emission Limitation:
Particulate emissions (PE) shall not exceed 10.93 tons per year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying annual natural gas usage (cu ft/yr) by the heat content of the gas (Btu/cu ft) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for PE in natural gas combustion (0.005 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying annual number 2 distillate fuel oil usage (gal/yr) by the heat content of the oil (Btu/gal) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for PE in number 2 distillate fuel oil combustion (0.02 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

g. Emission Limitations:
Volatile organic compound (VOC) emissions shall not exceed 0.004 lb/mmBtu of actual heat input when firing natural gas and 0.004 lb/mmBtu of actual heat input when firing number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated with the boiler manufacturer's emission factor data: 0.004 lb/mmBtu for natural gas and 0.004 lb/mmBtu for number 2 distillate fuel oil (Nebraska Boiler Company, 08/28/2002).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

h. Emission Limitation:
Volatile organic compound emissions (VOC) shall not exceed 3.54 tons/year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying annual natural gas usage (cu ft/yr) by the heat content of the gas (Btu/cu ft) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for VOC in natural gas combustion (0.004 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by

2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying annual number 2 distillate fuel oil usage (gal/yr) by the heat content of the oil (Btu/gal) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for VOC in number 2 distillate fuel oil combustion (0.004 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

i. Emission Limitations:
Sulfur dioxide (SO2) emissions shall not exceed 0.0006 lb/mmBtu of actual heat input when firing natural gas and 0.052 lb/mmBtu of actual heat input when firing number 2 distillate fuel oil.

Applicable Compliance Method:
When firing fuel oil, compliance with the allowable sulfur dioxide emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation.

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6, while firing number 2 distillate fuel oil.

j. Emission Limitation:
Sulfur dioxide (SO2) emissions shall not exceed 22.82 tons/year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying annual natural gas usage (cu ft/yr) by the heat content of the gas (Btu/cu ft) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for SO2 in natural gas combustion (0.0006 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying annual number 2 distillate fuel oil usage (gal/yr) by the heat content of the oil (Btu/gal) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for SO2 in number 2 distillate fuel oil combustion (0.052 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

k. Emission Limitation:
Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average when firing natural gas, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

l. Emission Limitation:
Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity when firing number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance may be determined by data collected and recorded for the COM and, if required, by visible emissions observations.

VI. Miscellaneous Requirements

1. Ambient air quality impacts from the shut down and removal of emissions unit B124 are being used as ambient air quality impact credits towards the increase in ambient air quality impacts associated with this emissions unit. Therefore, at no time shall both emissions units B124 and B141 operate at the same time.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
B141 - New Boiler 3 - 206 mmBtu/hr gas/oil fired water tube boiler with low NOx burner	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
B142 - New Boiler 6 - 206 mmBtu/hr gas/oil fired water tube boiler with low NOx burner	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A)

	Applicable Emissions Limitations/Control Measures	
		tons per year when firing natural gas and/or number 2 distillate fuel oil.
40 CFR Part 60, Subpart Db	Nitrogen oxides (NOx) emissions shall not exceed 0.035 lb/mmBtu when firing natural gas and 0.10 lb/mmBtu when firing number 2 distillate fuel oil.	Sulfur dioxide (SO2) emissions shall not exceed 0.0006 lb/mmBtu when firing natural gas and 0.052 lb/mmBtu when firing number 2 distillate fuel oil.
OAC rule 3745-21-07(B) OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)	NOx emissions shall not exceed 59.15 tons per year when firing natural gas and/or number 2 distillate fuel oil.	SO2 emissions shall not exceed 22.82 tons per year when firing natural gas and/or number 2 distillate fuel oil.
OAC rule 3745-31-13(D)(1)		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and 40 CFR Part 60, Subpart Db.
OAC rule 3745-17-10(B)(1)	Carbon monoxide (CO) emissions shall not exceed 0.04 lb/mmBtu when firing natural gas and 0.08 lb/mmBtu when firing number 2 distillate fuel oil.	See A.II.3 below.
OAC rule 3745-18-06(D)	CO emissions shall not exceed 52.74 tons per year when firing natural gas and/or number 2 distillate fuel oil.	Visible PE shall not exceed 20% opacity, as a 6-minute average when firing natural gas, except as provided by rule.
	Particulate emissions (PE) shall not exceed 0.005 lb/mmBtu when firing natural gas and 0.02 lb/mmBtu when firing number 2 distillate fuel oil.	Visible PE shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity, when firing number 2 distillate fuel oil.
	PE shall not exceed 10.93 tons per year when firing natural gas and/or number 2 distillate fuel oil.	See A.I.2.a below.
	Volatile organic compound (VOC) emissions shall not exceed 0.004 lb/mmBtu when firing natural gas and 0.004 lb/mmBtu when firing number 2 distillate fuel oil.	See A.I.2.b below.
	VOC emissions shall not exceed 3.54	The emission limitations established pursuant to OAC rule 3745-31-05(A)(3) are more stringent than the emission limitations established by these rules.

2. Additional Terms and Conditions

2.a The permittee satisfies the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and both 3745-23-06 and 3745-21-07 , respectively, by complying with the best available technology requirements of OAC rule 3745-31-05(A)(3).

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.b As a non-profit education institution, the permittee requested and received a discretionary exemption from the Director on March 14, 2003, to exempt this emissions unit from the PSD requirements contained in OAC rules 3745-31-10 through 3745-31-20.

2.c This emissions unit is subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

II. Operational Restrictions

1. The maximum annual fuel oil usage for this emissions unit shall not exceed 6,285,300 gallons.

2. The quality of the number 2 distillate fuel oil burned in this emissions unit shall meet, on an as-received basis, a sulfur content which is equal to or less than 0.5 weight percent sulfur and is sufficient to comply with the allowable sulfur dioxide emission limitation specified in Section A.I above.

3. The permittee shall operate low NOx burners and employ flue gas recirculation at all times this emissions unit is in operation.

4. The permittee shall operate and maintain equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit when combusting number 2 distillate fuel oil.

5. The permittee shall operate and maintain equipment to continuously monitor and record the NOx emissions from this emissions unit when combusting natural gas and/or number 2 distillate fuel oil.

6. The permittee shall burn only natural gas and/or number 2 distillate fuel oil in this emissions unit.

III. Monitoring and/or Record keeping Requirements

1. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

2. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

   The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

   a. Alternative 1:

      For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

   b. Alternative 2:

      The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall

maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

3. For each day during which the permittee burns a fuel other than natural gas or number 2 distillate fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

4. The permittee shall maintain daily records of the following information:

   a. the natural gas consumption for each day (in million cubic feet);

   b. the number 2 distillate fuel oil consumption for each day (in gallons);

   c. the total actual heat input to the emissions unit, calculated as follows:

$$DI = DI_g + DI_o$$

DI = Total heat input for each day, mmBtu
DI_g = Daily heat input rate from Gas
DI_o = Daily heat input rate from Oil

When the unit is combusting natural gas, use the following equation to calculate heat input rate:

$$DI_g = (Q_g * GCV_g) / 10^3$$

Where:
DI_g = Daily heat input rate from pipeline natural gas, mmBtu/day.
Q_g = Metered flow rate of gaseous fuel combusted during unit operation, thousand standard cubic feet per day.
GCV_g = Gross calorific value of natural gas, as determined by sampling (for each monthly sample of pipeline natural gas, or as verified by the contractual supplier at least once every month pipeline natural gas is combusted) using ASTM D1826-88, ASTM D3588-91, ASTM D4891-89, GPA Standard 2172-86 "Calculation of Gross Heating Value, Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis," or GPA Standard 2261-90 "Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography," Btu/scf.
10^3 = Conversion of thousand Btu to mmBtu.

When the unit is combusting oil, use the following equation to calculate hourly heat input

rate:

$$DI_o = V_{oil\text{-}rate} * D_{oil} * (GCV_o / 10^6)$$

Where:

DI_o = Daily heat input rate from oil, mmBtu/day.

$V_{oil\text{-}rate}$ = Volume rate of oil consumed per day, measured in gal/day

D_{oil} = Density of oil, measured in lb/gal

GCV_o = Gross calorific value of oil, as measured by ASTM D240-87, ASTM D2015-91, or ASTM D2382-88 for each batch of oil burned, Btu/unit mass, in lbs.

10^6 = Conversion of Btu to mmBtu.

d. beginning after the initial compliance demonstration, the rolling, 30-day average NOx emission rate, in pounds per mmBtu, when firing natural gas; and

e. beginning after the initial compliance demonstration, the rolling, 30-day average NOx emission rate, in pounds per mmBtu, when firing number 2 distillate fuel oil.

5. The permittee shall collect and record the following information for the purpose of determining annual mass emissions:

a. the amount of natural gas used (in million cubic feet);

b. the amount of number 2 distillate fuel oil used (in gallons); and

c. the total amount of mass annual emissions of each pollutant listed in term A.I.1 emitted from this emissions unit, in pounds or tons.

6. The permittee shall properly install, operate and maintain equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit when combusting number 2 distillate fuel oil. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Prior to the installation of the continuous opacity monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirement in 40 CFR Part 60, Appendix B, Performance Specification 1 for approval by the Ohio EPA, Central Office.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

7. Within 60 days after achieving the maximum production rate at which this emissions unit will be operated, but not later than 180 days after its initial startup, the permittee shall conduct certification tests on the continuous opacity monitoring system equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 1. Personnel from the Ohio EPA, Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine

equipment and witness the certification tests. Two copies of the test results shall be submitted to the Ohio EPA, Central District Office pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous opacity monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 1, including section 5.1.9 (mandatory).

8. Within 180 days of startup of this emissions unit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2 and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

9. The permittee shall properly install, operate and maintain equipment to continuously monitor and record NOx emissions from this emissions unit, in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Prior to the installation of the continuous NOx monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirement in 40 CFR Part 60 for approval by the Ohio EPA, Central Office.

The permittee shall maintain records of the following data obtained by the continuous NOx monitoring system: emissions of NOx in pounds per mmBtu of actual heat input on an hourly average basis, emissions of NOx in pounds per mmBtu on a rolling 30-day average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

10. Within 60 days after achieving the maximum production rate at which this emissions unit will be operated, but not later than 180 days after its initial startup, the permittee shall conduct certification tests on such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60. Personnel from the Ohio EPA, Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to the Ohio EPA, Central District Office pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous NOx monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60.

11. Within 180 days of startup of this emissions unit, the permittee shall develop a written quality assurance/quality control plan for the continuous NOx monitoring system designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on site and available for inspection during regular office hours.

12. Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

13. The permittee shall calculate the annual capacity factor each calendar as defined in 40 CFR Part 60.41b individually for each fuel burned pursuant to 40 CFR Part 60.49b.(d). The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

14. For the initial compliance test, NOx from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NOx emissions lb/mmBtu limitation in this emissions unit. The 30-day average emission rate is calculated as the average of all hourly emission data recorded by the monitoring system during the 30-day test period.

IV. Reporting Requirements

1. Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

   a. construction date (no later than 30 days after such date);
   b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
   c. actual start-up date (within 15 days after such date); and
   d. date of performance testing (If required, at least 30 days prior to testing).

   Reports are to be sent to:

   Ohio Environmental Protection Agency
   DAPC - Permit Management Unit
   P.O. Box 1049
   Columbus, OH 43216-1049

   and

   Ohio EPA, Central District Office
   Air Pollution Group
   3232 Alum Creek Drive
   Columbus, OH 43207

2. The permittee shall notify the Director (the Ohio EPA, Central District Office) in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates and any record which shows a deviation of the allowable sulfur content. The notification shall include a copy of such record and shall be set to the Director (the Ohio EPA, Central District Office) within 45 days after the deviation occurs.

3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or number 2 distillate fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

4. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports (hardcopy or electronic format) within 30 days following the end of each calendar quarter to the Ohio EPA, Central District Office documenting all instances of opacity valued in excess of the limitations specified above when firing number 2 distillate fuel oil, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective action(s) taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

   The reports shall also identify any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) when firing number 2 distillate fuel oil, along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions until and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

   If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

   These quarterly excess emission reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

5. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031, the permittee shall submit reports (hardcopy or electronic format) within 30 days following the end of each calendar quarter to the Ohio EPA, Central District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective action(s) taken (if any), of all 30-day average NOx values in excess of the applicable NOx emission rate (pound per mmBtu).

   The reports shall also identify any continuous NOx monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions until and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

   If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

These quarterly excess emission reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

6. The permittee shall submit quarterly reports of the following information:

   a. certifying that only very low sulfur oil meeting the definition in 40 CFR Part 60.41b was combusted in this emissions unit during the preceding quarter;

   b. if term IV.6.a is not submitted, then the permittee shall submit the following information along with the appropriate information contained within 40 CFR Part 60.49b(k):

      i. the number of hourly averages available for outlet emissions rates and inlet emissions rates;

      ii. the standard deviation of hourly averages for outlet emissions rates and inlet rates, as determined in 40 CFR Part 60, Subpart A, Method 19, section 7;

      iii. the lower confidence limit for the mean outlet emission rate and upper confidence limit for the mean inlet emission rate, as calculated in 40 CFR Part 60, Subpart A, Method 19, section 7; and

      iv. the ratio of the lower confidence limit for the mean outlet emission rate and the allowable emission rate, as calculated in 40 CFR Part 60, Subpart A, Method 19, section 7.

7. The permittee shall submit annual reports that specify the total particulate, SO2, VOC, NOx and CO emissions and natural gas and fuel oil usages for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Within 60 days after achieving the maximum production rate at which this emissions unit will be operated, but not later than 180 days after its initial startup, the permittee shall conduct performance tests to demonstrate compliance with the particulate emission limitation and NOx emission limitation while firing number 2 distillate fuel oil.

   The particulate emission test shall be conducted in accordance with the procedures specified in 40 CFR Parts 60.8 and 60.46b(d). The test shall be conducted while the emissions unit is operating at or near its maximum capacity, while firing number 2 distillate fuel oil.

   The NOx performance test shall be conducted using the NOx monitoring system in accordance with the procedures specified in 40 CFR Parts 60.8 and 60.46b(e). The test shall be conducted while the emissions unit is operating at or near its maximum capacity, while firing number 2 distillate fuel oil.

2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to

Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

3. A comprehensive written report on the results of the emission(s) test(s) shall be submitted to the Ohio EPA, Central District Office within 30 days following the completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

4. Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

5. Compliance with the emission limitations in Section A.I. OF the terms and conditions of this permit shall be determined in accordance with the following methods:

   a. Emission Limitations**:**
   Nitrogen oxide (NOx) emissions shall not exceed 0.035 lb/mmBtu of actual heat input while firing natural gas and 0.10 lb/mmBtu of actual heat input while firing number 2 distillate fuel oil.

   Applicable Compliance Method:
   Following the initial performance test, when firing number 2 distillate fuel oil, compliance with the emissions limitations shall be demonstrated on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days.

   When firing natural gas, compliance with the emissions limitations shall be demonstrated on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days.

   b. Emission Limitation**:**
   Nitrogen oxide (NOx) emissions shall not exceed 59.15 tons per year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying the CEMS emission data (lbs NOx/mmBtu) by the average annual natural gas heat content (Btu/cu ft) by the annual natural gas usage (mmcu ft/yr) and dividing by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying the CEMS emission data (lbs NOx/mmBtu) by the average annual number 2 distillate fuel oil heat content (Btu/gal) by the annual number 2 distillate fuel oil usage (gal/yr) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

c. Emission Limitations**:**
Carbon monoxide (CO) emissions shall not exceed 0.04 lb/mmBtu of actual heat input while firing natural gas and 0.08 lb/mmBtu of actual heat input while firing number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated with the boiler manufacturer's emission factor data: 0.04 lb/mmBtu for natural gas and 0.08 lb/mmBtu for number 2 distillate fuel oil (Nebraska Boiler Company, 08/28/2002).

If required, the permittee shall demonstrate compliance with this emission limitation through emission test performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

d. Emission Limitation:
Carbon monoxide (CO) emissions shall not exceed 52.74 tons per year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying annual natural gas usage (cu ft/yr) by the heat content of the gas (Btu/cu ft) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for CO in natural gas combustion (0.04 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying annual number 2 distillate fuel oil usage (gal/yr) by the heat content of the oil (Btu/gal) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for CO in number 2 distillate fuel oil combustion (0.08 lb/mmBtu) and

dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

e. Emission Limitations:
Particulate emissions (PE) shall not exceed 0.005 lb/mmBtu of actual heat input when firing natural gas and 0.02 lb/mmBtu of actual heat input when firing number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated with the boiler manufacturer's emission factor data: 0.005 lb/mmBtu for natural gas and 0.02 lb/mmBtu for number 2 distillate fuel oil (Nebraska Boiler Company, 08/28/2002).

f. Emission Limitation:
Particulate emissions (PE) shall not exceed 10.93 tons per year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying annual natural gas usage (cu ft/yr) by the heat content of the gas (Btu/cu ft) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for PE in natural gas combustion (0.005 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying annual number 2 distillate fuel oil usage (gal/yr) by the heat content of the oil (Btu/gal) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for PE in number 2 distillate fuel oil combustion (0.02 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

g. Emission Limitations:
Volatile organic compound (VOC) emissions shall not exceed 0.004 lb/mmBtu of actual heat input when firing natural gas and 0.004 lb/mmBtu of actual heat input when firing number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated with the boiler manufacturer's emission factor data: 0.004 lb/mmBtu for natural gas and 0.004 lb/mmBtu for number 2 distillate fuel oil (Nebraska Boiler Company, 08/28/2002).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

h. Emission Limitation:
Volatile organic compound emissions (VOC) shall not exceed 3.54 tons/year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying annual natural gas usage (cu ft/yr) by the heat content of the gas (Btu/cu ft) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for VOC in natural gas combustion (0.004 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying annual number 2 distillate fuel oil usage (gal/yr) by the heat content of the oil (Btu/gal) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for VOC in number 2 distillate fuel oil combustion (0.004 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

i. Emission Limitations:
Sulfur dioxide (SO2) emissions shall not exceed 0.0006 lb/mmBtu of actual heat input when firing natural gas and 0.052 lb/mmBtu of actual heat input when firing number 2 distillate fuel oil.

Applicable Compliance Method:
When firing fuel oil, compliance with the allowable sulfur dioxide emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation.

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6, while firing number 2 distillate fuel oil.

j. Emission Limitation:
Sulfur dioxide (SO2) emissions shall not exceed 22.82 tons/year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying annual natural gas usage (cu ft/yr) by the heat content of the gas (Btu/cu ft) by the emission factor supplied

by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for SO2 in natural gas combustion (0.0006 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying annual number 2 distillate fuel oil usage (gal/yr) by the heat content of the oil (Btu/gal) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for SO2 in number 2 distillate fuel oil combustion (0.052 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

k. Emission Limitation:
Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average when firing natural gas, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

l. Emission Limitation:
Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity when firing number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance may be determined by data collected and recorded for the COM and, if required, by visible emissions observations.

VI. Miscellaneous Requirements

1. Ambient air quality impacts from the shut down and removal of emissions unit B121 are being used as ambient air quality impact credits towards the increase in ambient air quality impacts associated with this emissions unit. Therefore, at no time shall both emissions units B121 and B142 operate at the same time.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
B142 - New Boiler 6 - 206 mmBtu/hr gas/oil fired water tube boiler with low NOx burner	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
B143 - New Boiler 7 - 206 mmBtu/hr gas/oil fired water tube boiler with low NOx burner	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A)

	Applicable Emissions Limitations/Control Measures	
		tons per year when firing natural gas and/or number 2 distillate fuel oil.
40 CFR Part 60, Subpart Db	Nitrogen oxides (NOx) emissions shall not exceed 0.035 lb/mmBtu when firing natural gas and 0.10 lb/mmBtu when firing number 2 distillate fuel oil.	Sulfur dioxide (SO2) emissions shall not exceed 0.0006 lb/mmBtu when firing natural gas and 0.052 lb/mmBtu when firing number 2 distillate fuel oil.
OAC rule 3745-21-07(B) OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)	NOx emissions shall not exceed 59.15 tons per year when firing natural gas and/or number 2 distillate fuel oil.	SO2 emissions shall not exceed 22.82 tons per year when firing natural gas and/or number 2 distillate fuel oil.
OAC rule 3745-31-13(D)(1)		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A) and 40 CFR Part 60, Subpart Db.
OAC rule 3745-17-10(B)(1)	Carbon monoxide (CO) emissions shall not exceed 0.04 lb/mmBtu when firing natural gas and 0.08 lb/mmBtu when firing number 2 distillate fuel oil.	See A.II.3 below.
OAC rule 3745-18-06(D)	CO emissions shall not exceed 52.74 tons per year when firing natural gas and/or number 2 distillate fuel oil.	Visible PE shall not exceed 20% opacity, as a 6-minute average when firing natural gas, except as provided by rule.
	Particulate emissions (PE) shall not exceed 0.005 lb/mmBtu when firing natural gas and 0.02 lb/mmBtu when firing number 2 distillate fuel oil.	Visible PE shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity, when firing number 2 distillate fuel oil.
	PE shall not exceed 10.93 tons per year when firing natural gas and/or number 2 distillate fuel oil.	See A.I.2.a below.
	Volatile organic compound (VOC) emissions shall not exceed 0.004 lb/mmBtu when firing natural gas and 0.004 lb/mmBtu when firing number 2 distillate fuel oil.	See A.I.2.b below.
	VOC emissions shall not exceed 3.54	The emission limitations established pursuant to OAC rule 3745-31-05(A)(3) are more stringent than the emission limitations established by these rules.

2. Additional Terms and Conditions

2.a The permittee satisfies the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-08 and both 3745-23-06 and 3745-21-07 , respectively, by complying with the best available technology requirements of OAC rule 3745-31-05(A)(3).

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.b As a non-profit education institution, the permittee requested and received a discretionary exemption from the Director on March 14, 2003, to exempt this emissions unit from the PSD requirements contained in OAC rules 3745-31-10 through 3745-31-20.

2.c This emissions unit is subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

II. Operational Restrictions

1. The maximum annual fuel oil usage for this emissions unit shall not exceed 6,285,300 gallons.

2. The quality of the number 2 distillate fuel oil burned in this emissions unit shall meet, on an as-received basis, a sulfur content which is equal to or less than 0.5 weight percent sulfur and is sufficient to comply with the allowable sulfur dioxide emission limitation specified in Section A.I above.

3. The permittee shall operate low NOx burners and employ flue gas recirculation at all times this emissions unit is in operation.

4. The permittee shall operate and maintain equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit when combusting number 2 distillate fuel oil.

5. The permittee shall operate and maintain equipment to continuously monitor and record the NOx emissions from this emissions unit when combusting natural gas and/or number 2 distillate fuel oil.

6. The permittee shall burn only natural gas and/or number 2 distillate fuel oil in this emissions unit.

III. Monitoring and/or Record keeping Requirements

1. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

2. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods (such as, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

   The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

   a. Alternative 1:

      For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, and the quality of the oil for those loads may be represented by a single batch analysis from the supplier.

   b. Alternative 2:

      The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall

maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

3. For each day during which the permittee burns a fuel other than natural gas or number 2 distillate fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

4. The permittee shall maintain daily records of the following information:

   a. the natural gas consumption for each day (in million cubic feet);

   b. the number 2 distillate fuel oil consumption for each day (in gallons);

   c. the total actual heat input to the emissions unit, calculated as follows:

$$DI = DI_g + DI_o$$

DI = Total heat input for each day, mmBtu
DI_g = Daily heat input rate from Gas
DI_o = Daily heat input rate from Oil

When the unit is combusting natural gas, use the following equation to calculate heat input rate:

$$DI_g = (Q_g * GCV_g) / 10^3$$

Where:
DI_g = Daily heat input rate from pipeline natural gas, mmBtu/day.
Q_g = Metered flow rate of gaseous fuel combusted during unit operation, thousand standard cubic feet per day.
GCV_g = Gross calorific value of natural gas, as determined by sampling (for each monthly sample of pipeline natural gas, or as verified by the contractual supplier at least once every month pipeline natural gas is combusted) using ASTM D1826-88, ASTM D3588-91, ASTM D4891-89, GPA Standard 2172-86 "Calculation of Gross Heating Value, Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis," or GPA Standard 2261-90 "Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography," Btu/scf.
10^3 = Conversion of thousand Btu to mmBtu.

When the unit is combusting oil, use the following equation to calculate hourly heat input rate:

$$DI_o = V_{oil\text{-}rate} * D_{oil} * (GCV_o / 10^6)$$

Where:
DI_o = Daily heat input rate from oil, mmBtu/day.
$V_{oil\text{-}rate}$ = Volume rate of oil consumed per day, measured in gal/day

D_{oil} = Density of oil, measured in lb/gal
GCV_o = Gross calorific value of oil, as measured by ASTM D240-87, ASTM D2015-91, or ASTM D2382-88 for each batch of oil burned, Btu/unit mass, in lbs.
10^6 = Conversion of Btu to mmBtu.

d. beginning after the initial compliance demonstration, the rolling, 30-day average NOx emission rate, in pounds per mmBtu, when firing natural gas; and

e. beginning after the initial compliance demonstration, the rolling, 30-day average NOx emission rate, in pounds per mmBtu, when firing number 2 distillate fuel oil.

5. The permittee shall collect and record the following information for the purpose of determining annual mass emissions:

a. the amount of natural gas used (in million cubic feet);

b. the amount of number 2 distillate fuel oil used (in gallons); and

c. the total amount of mass annual emissions of each pollutant listed in term A.I.1 emitted from this emissions unit, in pounds or tons.

6. The permittee shall properly install, operate and maintain equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit when combusting number 2 distillate fuel oil. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Prior to the installation of the continuous opacity monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirement in 40 CFR Part 60, Appendix B, Performance Specification 1 for approval by the Ohio EPA, Central Office.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

7. Within 60 days after achieving the maximum production rate at which this emissions unit will be operated, but not later than 180 days after its initial startup, the permittee shall conduct certification tests on the continuous opacity monitoring system equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 1. Personnel from the Ohio EPA, Central District Office

shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to the Ohio EPA, Central District Office pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous opacity monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 1, including section 5.1.9 (mandatory).

8. Within 180 days of startup of this emissions unit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2 and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

9. The permittee shall properly install, operate and maintain equipment to continuously monitor and record NOx emissions from this emissions unit, in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Prior to the installation of the continuous NOx monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirement in 40 CFR Part 60 for approval by the Ohio EPA, Central Office.

The permittee shall maintain records of the following data obtained by the continuous NOx monitoring system: emissions of NOx in pounds per mmBtu of actual heat input on an hourly average basis, emissions of NOx in pounds per mmBtu on a rolling 30-day average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

10. Within 60 days after achieving the maximum production rate at which this emissions unit will be operated, but not later than 180 days after its initial startup, the permittee shall conduct certification tests on such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60. Personnel from the Ohio EPA, Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to the Ohio EPA, Central District Office pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous NOx monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60.

11. Within 180 days of startup of this emissions unit, the permittee shall develop a written quality assurance/quality control plan for the continuous NOx monitoring system designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on site and available for

inspection during regular office hours.

12. Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

13. The permittee shall calculate the annual capacity factor each calendar as defined in 40 CFR Part 60.41b individually for each fuel burned pursuant to 40 CFR Part 60.49b.(d). The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

14. For the initial compliance test, NOx from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NOx emissions lb/mmBtu limitation in this emissions unit. The 30-day average emission rate is calculated as the average of all hourly emission data recorded by the monitoring system during the 30-day test period.

IV. Reporting Requirements

1. Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

   a. construction date (no later than 30 days after such date);
   b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
   c. actual start-up date (within 15 days after such date); and
   d. date of performance testing (If required, at least 30 days prior to testing).

   Reports are to be sent to:

   Ohio Environmental Protection Agency
   DAPC - Permit Management Unit
   P.O. Box 1049
   Columbus, OH 43216-1049

   and

   Ohio EPA, Central District Office
   Air Pollution Group
   3232 Alum Creek Drive
   Columbus, OH 43207

2. The permittee shall notify the Director (the Ohio EPA, Central District Office) in writing of any record which shows a deviation of the allowable sulfur dioxide emission limitation based upon the calculated sulfur dioxide emission rates and any record which shows a deviation of the allowable sulfur content. The notification shall include a copy of such record and shall be set to the Director (the Ohio EPA, Central District Office) within 45 days after the deviation occurs.

3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or number 2 distillate fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

4. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports (hardcopy or electronic format) within 30 days following the end of each calendar quarter to the Ohio EPA, Central District Office documenting all instances of opacity valued in excess of the limitations specified above when firing number 2 distillate fuel oil, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective action(s) taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

   The reports shall also identify any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) when firing number 2 distillate fuel oil, along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions until and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

   If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

   These quarterly excess emission reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

5. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031, the permittee shall submit reports (hardcopy or electronic format) within 30 days following the end of each calendar quarter to the Ohio EPA, Central District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective action(s) taken (if any), of all 30-day average NOx values in excess of the applicable NOx emission rate (pound per mmBtu).

   The reports shall also identify any continuous NOx monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions until

and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

These quarterly excess emission reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

6. The permittee shall submit quarterly reports of the following information:

   a. certifying that only very low sulfur oil meeting the definition in 40 CFR Part 60.41b was combusted in this emissions unit during the preceding quarter;

   b. if term IV.6.a is not submitted, then the permittee shall submit the following information along with the appropriate information contained within 40 CFR Part 60.49b(k):

      i. the number of hourly averages available for outlet emissions rates and inlet emissions rates;

      ii. the standard deviation of hourly averages for outlet emissions rates and inlet rates, as determined in 40 CFR Part 60, Subpart A, Method 19, section 7;

      iii. the lower confidence limit for the mean outlet emission rate and upper confidence limit for the mean inlet emission rate, as calculated in 40 CFR Part 60, Subpart A, Method 19, section 7; and

      iv. the ratio of the lower confidence limit for the mean outlet emission rate and the allowable emission rate, as calculated in 40 CFR Part 60, Subpart A, Method 19, section 7.

7. The permittee shall submit annual reports that specify the total particulate, SO2, VOC, NOx and CO emissions and natural gas and fuel oil usages for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Within 60 days after achieving the maximum production rate at which this emissions unit will be operated, but not later than 180 days after its initial startup, the permittee shall conduct performance tests to demonstrate compliance with the particulate emission limitation and NOx emission limitation while firing number 2 distillate fuel oil.

The particulate emission test shall be conducted in accordance with the procedures specified in 40 CFR Parts 60.8 and 60.46b(d). The test shall be conducted while the emissions unit is operating at or near its maximum capacity, while firing number 2 distillate fuel oil.

The NOx performance test shall be conducted using the NOx monitoring system in accordance with the procedures specified in 40 CFR Parts 60.8 and 60.46b(e). The test shall be conducted while the emissions unit is operating at or near its maximum capacity, while firing number 2 distillate fuel oil.

2. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Central District Office's refusal to accept the results of the emission test(s).

3. A comprehensive written report on the results of the emission(s) test(s) shall be submitted to the Ohio EPA, Central District Office within 30 days following the completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Central District Office.

4. Personnel from the Ohio EPA, Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

5. Compliance with the emission limitations in Section A.I. OF the terms and conditions of this permit shall be determined in accordance with the following methods:

   a. Emission Limitations**:**
   Nitrogen oxide (NOx) emissions shall not exceed 0.035 lb/mmBtu of actual heat input while firing natural gas and 0.10 lb/mmBtu of actual heat input while firing number 2 distillate fuel oil.

   Applicable Compliance Method:
   Following the initial performance test, when firing number 2 distillate fuel oil, compliance with the emissions limitations shall be demonstrated on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days.

   When firing natural gas, compliance with the emissions limitations shall be demonstrated on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days.

   b. Emission Limitation**:**
   Nitrogen oxide (NOx) emissions shall not exceed 59.15 tons per year when firing natural gas and/or number 2 distillate fuel oil.

   Applicable Compliance Method:
   Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying the CEMS emission data (lbs NOx/mmBtu) by the average annual natural gas heat content (Btu/cu ft) by the annual natural gas usage (mmcu ft/yr) and dividing by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying the CEMS emission data (lbs NOx/mmBtu) by the average annual number 2 distillate fuel oil heat content (Btu/gal) by the annual number 2 distillate fuel oil usage (gal/yr) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

c. Emission Limitations**:**
Carbon monoxide (CO) emissions shall not exceed 0.04 lb/mmBtu of actual heat input while firing natural gas and 0.08 lb/mmBtu of actual heat input while firing number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated with the boiler manufacturer's emission factor data: 0.04 lb/mmBtu for natural gas and 0.08 lb/mmBtu for number 2 distillate fuel oil (Nebraska Boiler Company, 08/28/2002).

If required, the permittee shall demonstrate compliance with this emission limitation through emission test performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

d. Emission Limitation:
Carbon monoxide (CO) emissions shall not exceed 52.74 tons per year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying annual natural gas usage (cu ft/yr) by the heat content of the gas (Btu/cu ft) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for CO in natural gas combustion (0.04 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying annual number 2 distillate fuel oil usage (gal/yr) by the heat content of the oil (Btu/gal) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for CO in number 2 distillate fuel oil combustion (0.08 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

e. Emission Limitations:
Particulate emissions (PE) shall not exceed 0.005 lb/mmBtu of actual heat input when firing natural gas and 0.02 lb/mmBtu of actual heat input when firing number 2 distillate

fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated with the boiler manufacturer's emission factor data: 0.005 lb/mmBtu for natural gas and 0.02 lb/mmBtu for number 2 distillate fuel oil (Nebraska Boiler Company, 08/28/2002).

f. Emission Limitation:
Particulate emissions (PE) shall not exceed 10.93 tons per year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying annual natural gas usage (cu ft/yr) by the heat content of the gas (Btu/cu ft) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for PE in natural gas combustion (0.005 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying annual number 2 distillate fuel oil usage (gal/yr) by the heat content of the oil (Btu/gal) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for PE in number 2 distillate fuel oil combustion (0.02 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

g. Emission Limitations:
Volatile organic compound (VOC) emissions shall not exceed 0.004 lb/mmBtu of actual heat input when firing natural gas and 0.004 lb/mmBtu of actual heat input when firing number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated with the boiler manufacturer's emission factor data: 0.004 lb/mmBtu for natural gas and 0.004 lb/mmBtu for number 2 distillate fuel oil (Nebraska Boiler Company, 08/28/2002).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

h. Emission Limitation:
Volatile organic compound emissions (VOC) shall not exceed 3.54 tons/year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying annual natural gas usage (cu ft/yr) by the heat content of the gas (Btu/cu ft) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for VOC in natural gas combustion (0.004 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying annual number 2 distillate fuel oil usage (gal/yr) by the heat content of the oil (Btu/gal) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for VOC in number 2 distillate fuel oil combustion (0.004 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

i. Emission Limitations:
Sulfur dioxide (SO2) emissions shall not exceed 0.0006 lb/mmBtu of actual heat input when firing natural gas and 0.052 lb/mmBtu of actual heat input when firing number 2 distillate fuel oil.

Applicable Compliance Method:
When firing fuel oil, compliance with the allowable sulfur dioxide emission limitation shall be demonstrated by documenting that the sulfur content of each shipment of oil received during a calendar month meets the limitation.

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6, while firing number 2 distillate fuel oil.

j. Emission Limitation:
Sulfur dioxide (SO2) emissions shall not exceed 22.82 tons/year when firing natural gas and/or number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance shall be demonstrated by summing the annual natural gas and number 2 distillate fuel oil emissions.

The annual natural gas emissions shall be determined by multiplying annual natural gas usage (cu ft/yr) by the heat content of the gas (Btu/cu ft) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for SO2 in natural gas combustion (0.0006 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

The annual number 2 distillate fuel oil emissions shall be determined by multiplying annual number 2 distillate fuel oil usage (gal/yr) by the heat content of the oil (Btu/gal) by the emission factor supplied by the boiler manufacturer (Nebraska Boiler Company, 08/28/2002) for SO2 in number 2 distillate fuel oil combustion (0.052 lb/mmBtu) and dividing by 1,000,000 BTU/mmBtu and again by 2,000 lbs/ton.

k. Emission Limitation:
Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average when firing natural gas, except as provided by rule.

Applicable Compliance Method:
If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

l. Emission Limitation:
Visible particulate emissions (PE) shall not exceed 20% opacity, as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity when firing number 2 distillate fuel oil.

Applicable Compliance Method:
Compliance may be determined by data collected and recorded for the COM and, if required, by visible emissions observations.

VI. Miscellaneous Requirements

1. Ambient air quality impacts from the shut down and removal of emissions unit B122 are being used as ambient air quality impact credits towards the increase in ambient air quality impacts associated with this emissions unit. Therefore, at no time shall both emissions units B122 and B143 operate at the same time.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
B143 - New Boiler 7 - 206 mmBtu/hr gas/oil fired water tube boiler with low NOx burner	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None