



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
MADISON COUNTY**

**CERTIFIED MAIL**

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 01-08518**

**DATE: 4/2/2002**

London Correctional Institution  
Joe Kohus  
P.O. Box 69  
London, OH 43140

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

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

You are hereby notified that this action 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  
236 East Town Street, Room 300  
Columbus, Ohio 43215

Very truly yours,

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

cc: USEPA

CDO



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**Permit To Install  
Terms and Conditions**

**Issue Date: 4/2/2002  
Effective Date: 4/2/2002**

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**FINAL PERMIT TO INSTALL 01-08518**

Application Number: 01-08518  
APS Premise Number: 0149010062  
Permit Fee: **\$400**  
Name of Facility: London Correctional Institution  
Person to Contact: Joe Kohus  
Address: P.O. Box 69  
London, OH 43140

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**1580 State Route 56  
London, Ohio**

Description of proposed emissions unit(s):  
**30,000 PPH steam boiler.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit 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 emissions unit(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 and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. 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 Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

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

#### 3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of 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.

#### 4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized

representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions 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. 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 emissions unit(s) that is (are) served by such control system(s).

**6. 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.

**7. 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.

**8. 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.

**9. 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

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**Facility ID: 0149010062**

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.

**10. 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.

**11. Applicability**

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit to Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

**12. 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.

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This 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 thirty (30) days after commencing operation of the emissions unit(s) covered by this permit.

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**Issued**

**Facility ID: 0149010062**

Emissions Unit ID: **B010**

**14. 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.

**15. 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.

**B. 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

<u>Pollutant</u>	<u>Tons Per Year</u>
NO <sub>x</sub>	8.3
CO	14.0
SO <sub>2</sub>	0.09
PE	0.32

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
B010 - 38.81 MMBtu/hr natural gas fired boiler, with no. 2 fuel oil back up, equipped with low NO <sub>x</sub> burners	OAC rule 3745-17-10(B)(1)  OAC rule 3745-31-05(A)(3)  OAC rule 3745-17-07(A)(1)  OAC rule 3745-18-06(D)
	40 CFR Part 60, Subpart Dc

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Emissions Unit ID: B010

Applicable Emissions  
Limitations/Control Measures

Nitrogen oxide (NO<sub>x</sub>) emissions shall not exceed 1.9 lbs/hour and 8.3 tons per year when firing natural gas.

NO<sub>x</sub> emissions shall not exceed 5.3 lbs/hour when firing no. 2 fuel oil.

Carbon monoxide (CO) emissions shall not exceed 3.2 lbs/hour and 14.0 tons per year when firing natural gas.

Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 0.02 lb/hour and 0.09 ton per year when firing natural gas.

SO<sub>2</sub> emissions shall not exceed 1.9 lbs/hour when firing no. 2 fuel oil.

Particulate emissions (PE) shall not exceed 0.32 ton per year when firing natural gas or no. 2 fuel oil.

The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-10(B)(1) and OAC rule 3745-17-07(A)(1).

See section B.3 below.

PE shall not exceed 0.020 lb/mmBtu of actual heat input when firing natural gas or no. 2 fuel oil.

Visible particulate emissions shall not exceed 20% opacity, as a six(6)-minute average, except as provided by the rule.

The emission limitation specified in this rule is less stringent than the emission limitation established by OAC 3745-31-05(A)(3).

The sulfur dioxide emission limitation specified in this rule is equal to or less stringent than the emission limitation established by OAC 3745-31-05(A)(3).

## **2. Additional Terms and Conditions**

- 2.a** The hourly and annual emission limitations from firing natural gas were established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with these limits.

## **B. Operational Restrictions**

1. The permittee shall burn only natural gas or no. 2 fuel oil in this emissions unit.
2. The maximum annual consumption of no. 2 fuel oil burned in this emissions unit shall not exceed 8,000 gallons.
3. The quality of the no. 2 fuel oil burned in this emissions unit shall meet a sulfur content which is equal to or less than 0.5 weight percent sulfur on an "as burned" basis.

## **C. Monitoring and/or Recordkeeping Requirements**

1. Pursuant to 40 CFR Part 60 Subpart Dc, the permittee shall record and maintain records of the amount of natural gas and no. 2 fuel oil combusted during each day.
2. For each day during which the permittee burns a fuel other than natural gas or no. 2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
3. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of any oil that is received for burning in this emission unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon approval by the Ohio EPA, Central District Office.
4. For each shipment of any fuel oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of fuel oil received, and the permittee's or oil supplier's analyses for sulfur content and heat content.

## **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or no. 2 fuel oil was burned in the emissions unit. These reports shall be

submitted within 30 days after the deviation occurs.

2. The permittee shall submit deviation (excursion) reports that identify any exceedances of the annual no. 2 fuel oil gallon usage restriction. These reports shall be submitted within 30 days after the exceedance of the usage restriction.
3. The permittee shall submit deviation (excursion) reports that identify each day during which records were not maintained on the amount of natural gas or no. 2 fuel oil combusted in the emissions unit. These reports shall be submitted within 30 days after the deviation occurs.
4. The permittee shall notify the Ohio EPA, Central District Office, in writing of any record which shows an exceedance of the sulfur content limitation of 0.5 weight percent sulfur specified in section A.1. The notification shall include a copy of such record and shall be sent to the Ohio EPA, Central District Office within 30 days after the deviation occurs.

#### **E. Testing Requirements**

1. Compliance with the emission limitations and of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
NO<sub>x</sub> emissions shall not exceed 1.9 lbs/hour and CO emissions shall not exceed 3.2 lbs/hour when firing natural gas.

##### Applicable Compliance Method:

In order to demonstrate compliance, the permittee shall conduct, or have conducted, emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate(s) for NO<sub>x</sub> and CO in accordance with the following requirements:

- i. The emission testing shall be conducted within 90 days of start up of the emissions unit.
- ii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s) for NO<sub>x</sub> and CO: 40 CFR Part 60, Appendix A, Methods 1-4, 7E (NO<sub>x</sub>) and 10 (CO).
- iii. The test(s) shall be conducted while the emissions unit is operating at the maximum process weight rate.

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).

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.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office within 30 days following 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.

- b. Emission Limitation:  
NO<sub>x</sub> emissions shall not exceed 8.3 tons per year and CO emissions shall not exceed 14.0 tons per year when firing natural gas.

Applicable Compliance Method:

Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

- c. Emission Limitation:  
SO<sub>2</sub> emissions shall not exceed 0.02 lb/hour and 0.09 ton/year when firing natural gas.

Applicable Compliance Method:

Compliance shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (38.81 mmBtu/hour) by 0.0006 lb SO<sub>2</sub> per mmBtu natural gas burned (emissions factor from AP-42, 5th Ed., July 1998, Chapter 1.4.1, "Natural Gas Combustion," Table 1.4-2). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6C. Compliance with the annual limitation shall be assumed as long as compliance with the hourly limitation is maintained (the annual limitation was calculated by multiplying the hourly limitation by 8760, and then dividing by 2000).

- d. Emission Limitation:

Emissions Unit ID: **B010**

NO<sub>x</sub> emissions shall not exceed 5.3 lbs/hour when firing no. 2 fuel oil.

**Applicable Compliance Method:**

Compliance shall be determined by multiplying the maximum hourly oil burning capacity of the emissions unit (265 gallons/hour) by 20 lbs NO<sub>x</sub> per 1000 gallons oil burned (emissions factor from AP-42, 5th Ed., Chapter 1.3 "Fuel Oil Combustion," September 1998, Table 1.3-1). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 7E.

e. **Emission Limitation:**

SO<sub>2</sub> emissions shall not exceed 1.9 lbs/hour when firing no. 2 fuel oil.

**Applicable Compliance Method:**

Compliance shall be determined by multiplying the maximum hourly oil burning capacity of the emissions unit (265 gallons/hour) by 7.1 lbs SO<sub>2</sub> per 1000 gallons oil burned (emissions factor from AP-42, 5th Ed., Chapter 1.3 "Fuel Oil Combustion," September 1998, Table 1.3-1). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 6C.

f. **Emission Limitation:**

PE shall not exceed 0.020 lb/mmBtu of actual heat input when firing natural gas or no. 2 fuel oil.

**Applicable Compliance Method:**

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Method 5.

g. **Emission Limitation:**

PE shall not exceed 0.32 ton per year when firing natural gas or no. 2 fuel oil.

**Applicable Compliance Method:**

Compliance with the annual limitation shall be assumed as long as compliance with the rule-based hourly limitation is maintained (the annual limitation was calculated by multiplying the AP-42 emission factor of 0.0019 lb/MMBtu by the maximum heat input of 38.81MMBtu/hour by 8760, and then dividing by 2000).

h. **Emission Limitation:**

Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

**Applicable Compliance Method:**

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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).

- i. Emission Limitation:  
The quality of the no. 2 fuel oil burned in this emissions unit shall meet a sulfur content which is equal to or less than 0.5 weight percent sulfur on an "as burned" basis.

Applicable Compliance Method:

Compliance shall be demonstrated by the record keeping requirements pursuant to section C.4 above.

#### F. Miscellaneous Requirements

1. The following source 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.

<u>Source Number</u>	<u>Source Description</u>	<u>NSPS Regulation (Subpart)</u>
B010	38.81 mmBtu/hr natural gas fired boiler, with no. 2 fuel oil back up, equipped with low NO <sub>x</sub> burners	Subpart Dc

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

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

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

Reports are to be sent to:

Ohio Environmental Protection Agency  
DAPC - Air Quality Modeling and Planning  
P.O. Box 1049  
Columbus, OH 43216-1049

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**Facility ID: 0149010062**

Emissions Unit ID: **B010**

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Emissions Unit ID: **B010**

Ohio EPA  
Central District Office  
Division of Air Pollution Control  
3232 Alum Creek Drive  
Columbus, OH 43207