



State of Ohio Environmental Protection Agency

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

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: 01-08234

DATE: 11/9/2000

Defense Supply Center Columbus
Mike Mott
PO Box 3990
Columbus, OH 43216-5000

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



Permit To Install

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

FINAL PERMIT TO INSTALL 01-08234

Application Number: 01-08234
APS Premise Number: 0125040219
Permit Fee: **\$800**
Name of Facility: Defense Supply Center Columbus
Person to Contact: Mike Mott
Address: PO Box 3990
Columbus, OH 43216-5000

Location of proposed air contaminant source(s) [emissions unit(s)]:
3990 E Broad St
Columbus, Ohio

Description of proposed emissions unit(s):
CHP boiler 1.

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

Environmental Protection Agency if the proposed sources are inadequate 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 prove to be inadequate 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.

Defense Supply Center Columbus
PTI Application: 01-08234
Issued: 11/9/2000

Facility ID: 0125040219

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>
PM	5.6
NOx	33.5
CO	20.4
OC	0.8
SO2	0.3

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>	OAC rule 3745-17-07(A)
B001 - 63.7 MMBTU/hr CHP gas-fired boiler (conversion from 70 MMBTU/hr coal fired boiler #1).	OAC rule 3745-31-05(A)(3)	
	OAC rule 3745-17-10(B)(1)	

Applicable Emissions
Limitations/Control Measures

Particulate emissions shall not exceed 1.3 lb/hr and 5.6 ton/yr.

Nitrogen oxides emissions shall not exceed 7.6 lbs/hr and 33.5 ton/yr.

Carbon monoxide emissions shall not exceed 4.6 lbs/hr and 20.4 ton/yr.

Organic compound emissions shall not exceed 0.2 lb/hr and 0.8 ton/yr.

Sulfur dioxide emissions shall not exceed 0.06 lbs/hr and 0.3 ton/yr.

There shall be no visible particulate matter emissions from the outlet.

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

See A.2.a. and A2.b., below.

Particulate emissions shall not exceed 0.020 lb/mmBtu of actual heat input.

The visible emissions opacity limitations established pursuant to OAC rule 3745-31-05 are more stringent than the emission limitations established by this rule.

2. Additional Terms and Conditions

- 2.a** The hourly and annual emission limitations were established at the maximum heat input to reflect the potential to emit for B001. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.
- 2.b** This permit represents a net allowable decrease of 84 tons SO₂ per year based on the average reported emission rate in 1999 and 1998.

B. Operational Restrictions

1. Only natural gas shall be burned in this emissions unit.

C. Monitoring and/or Recordkeeping Requirements

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

D. Reporting Requirements

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

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emissions Limitation:
Particulate emissions shall not exceed 1.3 lb/hr and 5.6 ton/yr.

Applicable Compliance Method:

Compliance shall with the hourly rate shall be based on the vendor's guaranteed emission rate of 0.02 lb/MMBTU times the maximum heat input of 63.7 MMBTU/hr. The annual emission rate is based on 8,760 hours of operation.

- b. Emission Limitation:
Nitrogen oxides emissions shall not exceed 7.6 lbs/hr and 33.5 ton/yr.

Applicable Compliance Method:

Compliance with the hourly rate shall be based on the vendor's guaranteed emission rate of

0.12 lb/MMBTU times the maximum heat input of 63.7 MMBTU/hr. The annual emission rate is based on 8,760 hours of operation.

- c. Emission Limitation:
Carbon monoxide emissions shall not exceed 4.6 lbs/hr and 20.4 ton/yr.

Applicable Compliance Method:
Compliance with the hourly rate shall be based on the vendor's guaranteed emission rate of 0.07 lb/MMBTU times the maximum heat input of 63.7 MMBTU/hr. The annual emission rate is based on 8,760 hours of operation.

- d. Emission Limitation:
Organic compound emissions shall not exceed 0.2 lb/hr and 0.8 ton/yr.

Applicable Compliance Method:
Compliance with the hourly rate shall be based on the vendor's guaranteed emission rate of 0.003 lb/MMBTU times the maximum heat input of 63.7 MMBTU/hr. The annual emission rate is based on 8,760 hours of operation.

- e. Emission Limitation:
Sulfur dioxide emissions shall not exceed 0.06 lb/hr and 0.3 ton/yr.

Applicable Compliance Method:
Compliance with the hourly rate shall be based on the vendor's guaranteed emission rate of 0.001 lb/MMBTU times the maximum heat input of 63.7 MMBTU/hr. The annual emission rate is based on 8,760 hours of operation.

- f. Emission Limitation:
There shall be no visible particulate matter emissions from the outlet of the stack.

Applicable Compliance Method:
Compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(4) using methods and procedures specified in USEPA Method 22.

F. Miscellaneous Requirements

None

NEW SOURCE REVIEW FORM B

PTI Number: 01-08234 Facility ID: 0125040219

FACILITY NAME Defense Supply Center Columbus

FACILITY DESCRIPTION CHP boiler 1. CITY/TWP Columbus

SIC CODE 9199 SCC CODE 1-03-006-02 EMISSIONS UNIT ID B001

EMISSIONS UNIT DESCRIPTION 50 MMBTU/hr gas-fired boiler (conversion from 70 MMBTU/hr coal fired boiler #1).

DATE INSTALLED 9/30/00

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	Attainment			1.3	5.6
PM ₁₀					
Sulfur Dioxide	Attainment			0.06	0.3
Organic Compounds	Attainment			0.2	0.8
Nitrogen Oxides	Attainment			7.6	33.5
Carbon Monoxide	Attainment			4.7	33.5
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES: No federal rules apply ,because the conversion cost is less than 40% of new boiler and all pollutant levels will decrease as a result.

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination Use of low NOx burner and compliance with applicable rules and regulations.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

Ohio EPA's air Toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES x NO

IDENTIFY THE AIR CONTAMINANTS: _____

NEW SOURCE REVIEW FORM B

PTI Number: 01-08234 Facility ID: 0125040219

FACILITY NAME Defense Supply Center Columbus

FACILITY DESCRIPTION CHP boiler 1. CITY/TWP Columbus

Ohio EPA Permit to Install Information Form Please describe below any documentation which is being submitted with this recommendation (must be sent the same day). Electronic items should be submitted with the e-mail transmitting the PTI terms, and in software that CO can utilize. If mailing any hard copy, this section must be printed as a cover page. All items must be clearly labeled indicating the PTI name and number. Submit **hard copy items to Pam McGraner, AQM&P, DAPC, Central Office, and electronic files to airpti@epa.state.oh.us**

Please fill out the following. If the checkbox does not work, replace it with an 'X'

	<u>Electronic</u>	<u>Additional information File Name Convention (your PTI # plus this letter)</u>	<u>Hard Copy</u>	<u>None</u>
<u>Calculations (required)</u>	<input checked="" type="checkbox"/>	0000000c.wpd	<input type="checkbox"/>	
<u>Modeling form/results</u>	<input type="checkbox"/>	0000000s.wpd	<input type="checkbox"/>	<input type="checkbox"/>
<u>PTI Application (complete or partial)*</u>	<input type="checkbox"/>	0000000a.wpd	<input type="checkbox"/>	<input type="checkbox"/>
<u>BAT Study</u>	<input type="checkbox"/>	0000000b.wpd	<input type="checkbox"/>	<input type="checkbox"/>
<u>Other/misc.</u>	<input type="checkbox"/>	0000000t.wpd	<input type="checkbox"/>	<input type="checkbox"/>

* Mandatory for netting, PSD, nonattainment NSR, 112(g), 21-07(G)(9)(g) and 21-09(U)(2)(f) - 2 complete copies.

Please complete (see comment bubble to the left for additional instructions):

[NSR Discussion](#)

[NSR Discussion](#)

A. General Information

Defense Supply Center, Columbus (DSCC) has submitted an application to allow conversion of one 70 MMBTU/hr coal-fired Boilers, B001, to natural gas-fire at 63.7 MMBTU input/hr. DSCC withdrew a 70 MMBTU/hr coal-fired boiler B002 from service in 1995 and replaced it with a new 52 MMBTU/hr boiler (B014) under PTI 01-5906 issued September 13, 1995. DSCC notified CDO on August 9, 2000 that the remaining coal-fired boiler (B003) had been taken out of service and coal operations had ceased.

B. Applicable Rules

OAC rule 3745-31-05(A)(5) - The burner vendor Forney is proposing to install a NOx Miser style burner with a guaranteed emission rate of 0.12 lb NO_x/MMBTU of fuel input, that may be considered best available technology due to seal leakage and short circuiting in the existing firebox. CDO previously approved an allowable emission rate of 0.15 lb NO_x/MMBTU of heat input in PTI 01-5957 in August 1995 for the conversion of a coal fired boiler to landfill/natural gas at 88 MMBTU/hr heat input. CDO also previously approved an allowable of 0.12 lb NO_x/MMBTU of fuel input in PTI 01-5906 issued September 13, 1995 for a new 52 MMBTU/hr gas-fired boiler installed at DSCC.

OAC rule 3745-17-10(B)(1) - This rule limits allowable particulate emissions from existing gas burning equipment to 0.02 lb/MMBTU of fuel input.

NEW SOURCE REVIEW FORM B

PTI Number: 01-08234 Facility ID: 0125040219

FACILITY NAME Defense Supply Center Columbus

FACILITY DESCRIPTION CHP boiler 1. CITY/TWP Columbus

OAC rule 3745-17-07(A) - This rule limits allowable opacity from any stack to 20% as a six-minute average for any consecutive six minute period.

OAC rule 3745-18-06(D) - This rule, which restricts sulfur dioxide emissions, would not be applicable because only natural gas is proposed for combustion.

40 CFR 60 Subpart Dc - The conversion of this boiler would be exempted from NSPS applicability because the conversion is less than 40% of the cost of new construction. This is based on the estimated \$373,054 cost of conversion compared to the actual cost of 734,000 for installing a new, but smaller, gas boiler in 1995 adjusted by 25% for the larger capacity of the boiler resulting in \$917,500.

C. Miscellaneous

DSSC will be a minor source for criteria pollutant emissions following conversion to natural gas. The maximum potential to emit will be $(6.22 \text{ lb/hr (B014)} + 7.64 \text{ lb/hr (B001)}) * 8,760 \text{ hrs/yr} * 1 \text{ ton}/2,000 \text{ lb} = 60.7 \text{ ton NOx/yr}$.

D. Fee

DSSC operates under SIC code of 9199. The fee for this conversion would be \$400.00 based on a maximum fuel input of 63.7 MMBTU/hr. This fee would be doubled to \$800.00 because conversion had been started prior to issuance of the final PTI.

Please complete for these type permits (For PSD/NSR Permit, place mouse over this text):

Synthetic Minor Determination and/or Netting Determination
Permit To Install ENTER PTI NUMBER HERE

A. Source Description

Defense Supply Center, Columbus (DSCC) has submitted an application to allow conversion of one 70 MMBTU/hr coal-fired Boilers, B001, to natural gas-fire at 63.7 MMBTU input/hr. DSCC withdrew a 70 MMBTU/hr coal-fired boiler B002 from service in 1995 and the remaining coal-fired boiler (B003) had been taken out of service and coal operations had ceased prior to 2000 year heating season.

B. Facility Emissions and Attainment Status

DSCC was a major facility for Title V fee purposes reporting 7.2 ton PM/yr, 82.1 ton SO₂/yr and 32.4 ton NO_x/yr in 1999. With the conversion of B001 to natural gas, the remaining boiler B014 has restricted natural gas usage to 226 million cubic feet per year in PTI 01-5906 or 7,774 hours of operation resulting in an annual allowable emission of 2.27 ton PM, 13.57 ton NO_x and 0.11 ton SO₂. DSCC is located in Franklin County, which is attainment for all criteria pollutants

NEW SOURCE REVIEW FORM B

PTI Number: 01-08234 Facility ID: 0125040219

FACILITY NAME Defense Supply Center Columbus

FACILITY DESCRIPTION CHP boiler 1. CITY/TWP Columbus

C. Source Emissions

The following table presents reported average emission rate from 1998 and 1999 from coal fired boilers with emission rates following conversion of B001 to natural gas and operating at 8,760 hours per year:

Boiler fire	PM ton	NOx, ton	SO2 ton	CO ton	OC ton
Coal-fire X001 Avg.	7.4	33.4	84.5	11.3	0.2
Gas-fire B001 PTE	5.6	33.5	0.3	20.4	0.8
Decrease	1.8	0	84.2		
Increase				9.1	0.6

D. Conclusion

The proposed emission limits represent a decrease in of 1.8 ton PM and 84.2 ton SOx, therefore PSD does not apply.

Calculations

Pollutant	lbs/MMBTU	MMBTU/hr	lbs/hr	hr/yr	ton/yr
PM	0.02	63.7	1.27	8,760	5.58
SO2	0.001	63.7	0.06	8,760	0.28
NOx	0.12	63.7	7.64	8,760	33.48
CO	0.073	63.7	4.65	8,760	20.37
OC	0.003	63.7	0.19	8,760	0.84

PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:

NONE

NEW SOURCE REVIEW FORM B

PTI Number: 01-08234 Facility ID: 0125040219

FACILITY NAME Defense Supply Center Columbus

FACILITY DESCRIPTION CHP boiler 1. CITY/TWP Columbus

Please complete:

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PM	5.6
NOx	33.5
CO	20.4
OC	0.8
SO2	0.3