



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL CERTIFIED MAIL
HAMILTON 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: 14-05078

DATE: 1/30/2001

LSI Lighting Systems Inc
Frank Dornbach
10000 Alliance Road
Cincinnati, OH 45242

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

HCDES



Permit To Install

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

FINAL PERMIT TO INSTALL 14-05078

Application Number: 14-05078
APS Premise Number: 1431052164
Permit Fee: **\$100**
Name of Facility: LSI Lighting Systems Inc
Person to Contact: Frank Dornbach
Address: 10000 Alliance Road
Cincinnati, OH 45242

Location of proposed air contaminant source(s) [emissions unit(s)]:
10170 Alliance Road
Cincinnati, Ohio

Description of proposed emissions unit(s):
Incinerator with afterburner.

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.

LSI Lighting Systems Inc
 PTI Application: 14-05078
 Issued: 1/30/2001

Facility ID: 1431052164

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/PM10	0.13
NOx	0.69
CO	0.07
OC	0.14
SO2	0.07

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.

OAC rule 3745-17-09(C)

Operations, Property,
and/or Equipment

Applicable Rules/Requirements

N001 -Burn off oven for metal parts with afterburner
OAC rule 3745-31-05(A)(3)

OAC rule 3745-17-09(B)

OAC rule 3745-17-07(A)

Applicable Emissions
Limitations/Control Measures

0.03 lb/hour and 0.13 TPY
PM/PM10
3.79 lbs/day and 0.69 TPY NO_x
0.38 lb/day and 0.07 TPY CO
0.77 lb/day and 0.14 TPY OC
0.38 lb/day and 0.07 TPY SO₂

Visible particulate emissions from the stack shall not exceed 10% opacity as a six-minute average except for one six-minute period in any continuous sixty-minute period during which the opacity shall not exceed 20% as a six-minute average.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-09(B) and 3745-17-09(C).

0.10 pound PM/100 pounds of material charged

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

See term A.2.c

2. Additional Terms and Conditions

- 2.a** The hourly and annual emission limitations outlined above are based on the emissions unit's potential to emit (PTE). Therefore, no records are required to demonstrate compliance with these limits.

- 2.b Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by maintaining a secondary combustion chamber temperature at 1500 degrees Fahrenheit or greater during operation of the burn off oven and meeting the specified emission rates.
- 2.c Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.

B. Operational Restrictions

1. The secondary combustion chamber temperature shall be maintained at 1500 degrees Fahrenheit or greater during each batch cycle.
2. Proper operating procedures shall be employed at all times during the operation of this emissions unit. These procedures shall include a pre-heating cycle as specified by the manufacturer, or an equivalent pre-heating system. The preheated temperature for the secondary combustion chamber of the burn off oven shall be at least 1500 degrees Fahrenheit.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the secondary combustion chamber temperature, in degrees Fahrenheit, during each batch cycle. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The monitoring and recording devices shall be capable of accurately measuring the desired parameter.
2. The permittee shall maintain a log of all periods of time when the emissions unit is in operation and the secondary combustion chamber temperature was less than 1500 degrees Fahrenheit.

D. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of all periods of time during which the secondary combustion chamber temperature was below 1500 degrees Fahrenheit during operation of this emissions unit. The notification shall include a copy of such record, including any corrective action(s) taken, and shall be sent to the Hamilton County Department of Environmental Services within 45 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. Emission Limitation:
0.10 pound PM/100 pounds of material charged

Applicable Compliance Method:

If required, compliance with this mass emission limitation shall be based upon stack testing conducted using Method 5 from 40 CFR Part 60.

- b. Emission Limitation:
0.03 lb/hour and 0.13 TPY PM/PM10

Applicable Compliance Method:

The 0.03 lb/hour emission limitation is based on multiplying the 0.10 pound PM/100 pounds of material charged by the maximum hourly material charged. The 0.13 TPY limitation was developed by multiplying the 0.03 lb/hour limitation by the maximum operating schedule of 24 hours day and 365 days/yr, and dividing by 2000 lbs/ton.

- c. Emission Limitation:
3.79 lbs/day and 0.69 TPY NO_x

Applicable Compliance Method:

The 3.79 lb/day emission limitation is based on stack test information submitted by the permittee in the PTI application. The 0.69 TPY limitation was developed by multiplying the 3.79 lb/day limitation by the maximum operating schedule of 365 days/yr, and dividing by 2000 lbs/ton.

- d. Emission Limitation:
0.38 lb/day and 0.07 TPY CO

Applicable Compliance Method:

The 0.38 lb/day emission limitation is based on stack test information submitted by the permittee in the PTI application. The 0.07 TPY limitation was developed by multiplying the 0.38 lb/day limitation by the maximum operating schedule of 365 days/yr, and dividing by 2000 lbs/ton.

- e. Emission Limitation:

11

LSI Lj

PTI A

Issued: 1/30/2001

Emissions Unit ID: **N001**

0.77 lb/day and 0.14 TPY OC

Applicable Compliance Method:

0.77 lb/day emission limitation is based on stack test information submitted by the permittee in the PTI application. The 0.14 TPY limitation was developed by multiplying the 0.77 lb/day limitation by the maximum operating schedule of 365 days/yr, and dividing by 2000 lbs/ton.

- f. Emission Limitation:
0.38 lb/day and 0.07 TPY SO₂

Applicable Compliance Method:

The 0.38 lb/day emission limitation is based on stack test information submitted by the permittee in the PTI application. The 0.07 TPY limitation was developed by multiplying the 0.38 lb/day limitation by the maximum operating schedule of 365 days/yr, and dividing by 2000 lbs/ton.

- g. Compliance with the visible particulate limitation shall be demonstrated by the methods outlined in 40 CFR Part 60, Appendix A, Method 9.
- h. Compliance with the secondary combustion chamber minimum temperature requirement shall be demonstrated by the recordkeeping requirements specified in sections C.1. and C.2.
2. The permittee shall conduct or have conducted an one hour visible particulate emissions test in accordance with the following requirements:
- a. the visible particulate emissions test shall be conducted within 6 months after startup of the emissions unit;
 - b. the visible particulate emissions test shall be conducted to demonstrate compliance with the visible emission limitation outlined in this permit;
 - c. the following test method shall be employed to demonstrate compliance: Method 9 outlined in 40 CFR Part 60, Appendix A.;
 - d. the Method 9 test shall be conducted while the emission unit is operating at or near maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services;
 - e. the visible particulate emissions test shall be conducted by a certified visible emissions

evaluator who has met the specifications of Method 9 outlined in 40 CFR Part 60, Appendix A; and,

- f. if the Method 9 test fails to demonstrate compliance with the visible particulate emissions limitation outlined in the terms and conditions of this permit, then stack testing shall be conducted using Method 5 from 40 CFR Part 60 to demonstrate compliance with the limit of 0.10 pound PM/100 pounds material charged.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 District Office's or local air agency's refusal to accept the results of the emission test(s).

A comprehensive written report on the results of the visible particulate emissions test shall be signed by the person or persons responsible for the test and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the test. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services. This report shall contain the following:

- a. a copy of the visible emissions evaluation form; and,
- b. a copy of the visible emissions evaluator certification.

F. Miscellaneous Requirements

None

NEW SOURCE REVIEW FORM B

PTI Number: 14-05078 Facility ID: 1431052164

FACILITY NAME LSI Lighting Systems Inc

FACILITY DESCRIPTION Incinerator with afterburner CITY/TWP Cincinnati

SIC CODE 3643 SCC CODE 5-03-001-02 EMISSIONS UNIT ID N001

EMISSIONS UNIT DESCRIPTION Burn off oven for metal parts with afterburner

DATE INSTALLED May 2001

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	0.03 lb/hour	0.0078	0.03 lb/hour	0.13
PM ₁₀	attainment	0.03 lb/hour	0.0078	0.03 lb/hour	0.13
Sulfur Dioxide	attainment	0.03 lb/day	0.004	0.38 lb/day	0.07
Organic Compounds	attainment	0.06 lb/day	0.008	0.77 lb/day	0.14
Nitrogen Oxides	attainment	0.32 lb/day	0.04	3.79 lbs/day	0.69
Carbon Monoxide	attainment	0.03 lb/day	0.004	0.38 lb/day	0.07
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

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

Enter Determination BAT has been determined to be compliance with all applicable rules, compliance with the specified emission rates, and by maintaining a secondary combustion chamber temperature at 1500 degrees Fahrenheit or greater during operation of the burn off oven.

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 NOIDENTIFY THE AIR CONTAMINANTS: NA

NEW SOURCE REVIEW FORM B

PTI Number: 14-05078 Facility ID: 1431052164

FACILITY NAME LSI Lighting Systems Inc

FACILITY DESCRIPTION Incinerator with afterburner CITY/TWP Cincinnati

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 type="checkbox"/>	0000000c.wpd	<input checked="" type="checkbox"/>	
<u>Modeling form/results</u>	<input type="checkbox"/>	0000000s.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>PTI Application (complete or partial)*</u>	<input type="checkbox"/>	0000000a.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>BAT Study</u>	<input type="checkbox"/>	0000000b.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Other/misc.</u>	<input type="checkbox"/>	0000000t.wpd	<input type="checkbox"/>	<input checked="" 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

PTI 14-05078

LSI Lighting Systems, Inc
10170 Alliance Road
Cincinnati, OH 45242
PN: 1431052164

This PTI is for a burn off oven for metal parts with afterburner. The primary combustion chamber has a heat input of 0.572 MMBtu/hr and the secondary combustion temperature has a heat input of 0.85 MMBtu/hr. The burn off oven is fired by natural gas.

Emission limitations were determined using stack test data for a similar burn off oven and are scaled up to reflect the size of the LSI burn off oven. The maximum process weight rate of the proposed unit will be 1.58 times the test unit maximum processing rate. Annual emissions are based on a maximum operation schedule of 8760 hours/year. A minimum temperature of 1500 degrees Fahrenheit must be maintained in the secondary combustion chamber during times of operation. This will be monitored on a continuous temperature recorder.

The applicable regulations are OAC rules 3745-31-05(A)(3), 3745-17-07(A), 3745-17-09(B), and 3745-15-07.

BAT has been determined to be compliance with all applicable rules, compliance with the specified emission rates, and by maintaining a secondary combustion chamber temperature at 1500 degrees Fahrenheit or greater during operation of the burn off oven.

A direct final PTI should be issued for this emissions unit.

NEW SOURCE REVIEW FORM B

PTI Number: 14-05078 Facility ID: 1431052164

FACILITY NAME LSI Lighting Systems Inc

FACILITY DESCRIPTION Incinerator with afterburner CITY/TWP Cincinnati

Permit fee = \$100 Incinerator 0-100 lbs

Alberta Mellon
January 8, 2001Please 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](#)
- B. [Facility Emissions and Attainment Status](#)
- C. [Source Emissions](#)
- D. [Conclusion](#)

PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:

NONE

Please complete:

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PM/PM10	0.13
NOx	0.69
CO	0.07
OC	0.14
SO2	0.07