



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
STARK 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: 15-01545**

**DATE:** 10/16/2003

United Foundries Incorporated  
Denny Dostal  
1400 Grace Avenue NE  
Canton, OH 447052035

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  
309 South Fourth Street, Room 222  
Columbus, Ohio 43215

Sincerely,

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

cc: USEPA

Canton LAA



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**Permit To Install  
Terms and Conditions**

**Issue Date: 10/16/2003  
Effective Date: 10/16/2003**

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**FINAL PERMIT TO INSTALL 15-01545**

Application Number: 15-01545  
APS Premise Number: 1576050177  
Permit Fee: **\$500**  
Name of Facility: United Foundries Incorporated  
Person to Contact: Denny Dostal  
Address: 1400 Grace Avenue NE  
Canton, OH 447052035

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**1400 Grace Avenue NE  
Canton, Ohio**

Description of proposed emissions unit(s):  
**Sandblaster and sandmixer.**

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**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping 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 record keeping 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

**United Foundries Incorporated**  
**PTI Application: 15-01545**  
**Issued: 10/16/2003**

**Facility ID: 1576050177**

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 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.

**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 ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

**United Foundries Incorporated**  
**PTI Application: 15-01545**  
**Issued: 10/16/2003**

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**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> |
|------------------|----------------------|
| PE               | 1.19                 |
| PM <sub>10</sub> | 1.19                 |

**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.

Operations, Property,  
and/or Equipment

Applicable Rules/Requirements

P037 - centrifugal mold sandblaster  
controlled by baghouse #941.

OAC rule 3745-31-05(A)(3)

OAC rule 3745-17-07(A)(1)

OAC rule 3745-17-07(B)(1)

OAC rule 3745-17-08(B)

OAC rule 3745-17-11

Applicable Emissions  
Limitations/Control Measures

The particulate emissions (PE) and PM<sub>10</sub> rate from the baghouse shall not exceed 0.010 grain/dscf, 0.26 lb/hr and 1.14 tons/yr.

The fugitive PE and PM<sub>10</sub> emission rate shall not exceed 0.05 ton/yr.

There shall be no visible particulate emissions from the exhaust stack(s).

The requirements of this rule also include compliance with OAC rule 3745-17-08(B).

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

See section A.2.a below.

See section A.2.b below for the RACM requirements.

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

**2. Additional Terms and Conditions**

- 2.a** Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute

average. For purposes of verifying compliance with this requirement, the visible particulate emissions shall be observed at any non-stack egress point from the building housing this emissions unit. These egress points shall include, but not be limited to, doorways, windows, and roof monitors.

- 2.b** The permittee shall minimize or eliminate visible fugitive particulate emissions through the employment of reasonably available control measures (RACM).

At a minimum, the permittee's employment of RACM for this emissions unit shall include the following: partial capture of fugitive particulate emissions.

The collection efficiency shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.

- 2.c** The annual fugitive PE and PM<sub>10</sub> emissions from this emissions unit shall not exceed 0.05 ton per rolling, 12-month period based on an emission factor of 0.64 lb of PE and PM<sub>10</sub>/mold. In addition, at least 95% of the emissions from this emissions unit (P037) shall be captured and vented to the baghouse. The permittee has accepted a limit of 2,880 molds blasted per rolling, 12-month period. The annual stack emissions from this emissions unit shall not exceed 1.14 tons PE and PM<sub>10</sub> per rolling, 12-month period. The baghouse outlet emission rate is 0.010 gr/dscf.

$$0.010 \text{ gr/dscf} \times 3,000 \text{ dscf/min} \times 60 \text{ min/hr} \times \text{lb}/7000 \text{ gr} \times \text{ton}/2000 \text{ lbs} = 0.26 \text{ lb PE and PM}_{10}/\text{hr}$$

$$0.26 \text{ lb PE and PM}_{10}/\text{hr} \times 8,760 \text{ hrs/yr} \times 1 \text{ ton}/2000 \text{ lbs} = 1.14 \text{ tons PE and PM}_{10}/\text{yr}$$

$$0.64 \text{ lb PE and PM}_{10}/\text{mold} \times 2,880 \text{ molds/yr} \times \text{ton}/2000 \text{ lbs} \times (1 - 0.95) = 0.05 \text{ tpy PE and PM}_{10}$$

- 2.d** The requirements of OAC rule 3745-17-08(B)(3) do not apply to this emissions unit because the emissions unit was installed in 1989 and the baghouse was installed at the same time the emissions unit was installed. Consequently, the baghouse stack emissions for this emissions unit shall be subject to the requirements of OAC rule 3745-17-11. The fugitive emissions shall be subject to the general requirements of OAC rule 3745-17-08(B).

## B. Operational Restrictions

- 1.** The pressure drop across the baghouse shall be maintained within the range of 2 to 5 inches of

water while the emissions unit is in operation.

### **C. Monitoring and/or Record keeping Requirements**

1. The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall perform the following on a daily basis while this emissions unit is operating:
  - a. Empty the baghouse hopper into collection drums, then tap on the baghouse hopper to ensure that bridging of particulates is not happening (replacing full drums as needed); and
  - b. Listen for proper operation of the pulse cleaning jets.

The results of the above checks shall be recorded in a log book.

3. The permittee shall perform daily checks when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack and any non-stack egress point (e.g., windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible particulate emissions shall be noted in an operations log. If visible particulate emissions are observed, the permittee shall also note the following in the operations log:
  - a. The location and color of the emissions;
  - b. Whether the emissions are representative of normal operations;
  - c. If the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. The total duration of any visible particulate emission incident; and
  - e. Any corrective actions taken to eliminate the visible particulate emissions.
4. A preventative maintenance plan for this baghouse shall be developed and implemented.
5. The permittee shall calculate and maintain monthly records of the following information for this

emissions unit:

- a. Amount of molds blasted;
- b. The rolling, 12-month summation of the amount of molds blasted;
- c. The PE and PM<sub>10</sub> fugitive emissions, in tons; and
- d. The rolling, 12-month fugitive PE and PM<sub>10</sub> emissions, in tons.

#### **D. Reporting Requirements**

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports which:
  - a. Identify all days during which any visible particulate emissions were observed from the baghouse stack and/or any non-stack egress point serving this emissions unit; and
  - b. Describe any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted by January 31 and July 31 of each year and shall cover the previous 6-month period.

3. The permittee shall submit quarterly deviation reports that identify all exceedances:
  - a. The rolling, 12-month summation molds blasted limitation; and
  - b. The rolling, 12-month emissions limitation for PE and PM<sub>10</sub>.
4. The permittee shall notify the Canton City Health Department, Air Pollution Control Division, 420 Market Avenue N., Canton, Ohio 44702, of quarterly deviation reports. A copy of such record shall be sent within 45 days after the excursion occurs.

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

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

- a. Emissions Limitation:  
There shall be no visible particulate emissions from the baghouse exhaust stack.
- Applicable Compliance Method:  
Compliance shall be determined using the requirements established in 40 CFR Part 60, Appendix A, Method 22.
- b. Emissions Limitation:  
Visible particulate emissions of fugitive dust shall not exceed 20% opacity as a 3-minute average.
- 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)(3). The points of observation for visible particulate fugitive emissions shall include any non-stack egress points serving this emissions unit. Such egress points shall include, but are not limited to, doorways, windows, and roof monitors.
- c. Emissions Limitation:  
0.010 gr/dscf (outlet from the baghouse)
- Applicable Compliance Method:  
If required, compliance shall be determined through stack testing performed using the requirements established in 40 CFR Part 60, Appendix A, Methods 1-5 and the procedures specified in OAC rule 3745-17-03(B)(10).
- d. Emissions Limitation:  
The particulate emissions (PE) and PM<sub>10</sub> rate from the baghouse shall not exceed 0.26 lb/hr and 1.14 tons/yr.
- Applicable Compliance Method:  
allowable = 0.010 gr/dscf  
3000 dscf  
 $0.010 \text{ gr/dscf} \times 3,000 \text{ dscf/min} \times 60 \text{ min/hr} \times \text{lb}/7000\text{gr} \times \text{ton}/2000 = 0.26 \text{ lb PE and PM}_{10}/\text{hr}$   
 $0.26 \text{ lb PE and PM}_{10}/\text{hr} \times 8,760 \text{ hrs/yr} \times 1 \text{ ton}/2000 \text{ lbs} = 1.14 \text{ tons PE and PM}_{10}/\text{yr}$
- e. Emissions Limitation:

Emissions Unit ID: P037

The fugitive PE and PM<sub>10</sub> emission rate shall not exceed 0.05 ton/yr.

Applicable Compliance Method:

95% capture

emission factor = 0.64 lb/mold

2,880 molds/yr

$0.64 \text{ lb PE and PM}_{10}/\text{mold} \times 2,880 \text{ molds/yr} \times \text{ton}/2000 \text{ lbs} \times (1 - 0.95) = 0.05 \text{ tpy PE and PM}_{10}$

2. Compliance with the usage restrictions and operational limitations in section A.I.2 of these terms and conditions shall be determined in accordance with the following methods:

- a. Usage Restrictions:  
2,880 molds blasted per rolling, 12-month period

Applicable Compliance Method:

Compliance shall be demonstrated based upon the monthly record keeping requirements specified in section C.5.

3. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 6 months after issuance of this permit and within 6 months prior to permit expiration.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable visible fugitive particulate emissions limitation and the allowable mass emission rate for particulates from the baghouse exhaust.
- c. The following parameters also shall be monitored and recorded during the emissions testing: the process weight rate (in tons per hour) and the pressure drop across the baghouse.
- d. The following test method(s) shall be employed to demonstrate compliance:
- i. For the visible fugitive particulate emissions, Method 9 of 40 CFR Part 60, Appendix A; and
  - ii. For the mass emission rate for particulates, Method 5 of 40 CFR Part 60, Appendix A.

- e. The test(s) shall be conducted while this emissions unit is being operated at maximum capacity, unless otherwise approved by the Canton LAA.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Canton LAA. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit's 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 Canton LAA's refusal to accept the results of the emission test(s).

Personnel from the Canton LAA 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 Canton LAA within 30 days following completion of the test(s).

**F. Miscellaneous Requirements**

None

**NEW SOURCE REVIEW FORM B**

PTI Number: 15-01545

Facility ID: 1576050177

FACILITY NAME United Foundries Incorporated

FACILITY DESCRIPTION Sandblaster

CITY/TWP Canton

Emissions Unit ID: **P037**

SIC CODE 3547

SCC CODE 30400350

EMISSIONS UNIT ID P037

EMISSIONS UNIT DESCRIPTION CC Mold Sandblaster

DATE INSTALLED 1989

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              |                       |               | stack<br>0.010 gr/dscf<br>0.26 lb/hr | stack<br>1.14<br>fugitive<br>0.05 |
| PM <sub>10</sub>   | Attainment              |                       |               | stack<br>0.010 gr/dscf<br>0.26 lb/hr | stack<br>1.14<br>fugitive<br>0.05 |
| Sulfur Dioxide     |                         |                       |               |                                      |                                   |
| Organic Compounds  |                         |                       |               |                                      |                                   |
| Nitrogen Oxides    |                         |                       |               |                                      |                                   |
| Carbon Monoxide    |                         |                       |               |                                      |                                   |
| 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 baghouse

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

NO

IDENTIFY THE AIR CONTAMINANTS: