



State of Ohio Environmental Protection Agency

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**RE: FINAL PERMIT TO INSTALL**

**STARK COUNTY**

**Application No: 15-01650**

**Fac ID: 1576000096**

**DATE: 4/1/2008**

PCC Airfoils, LLC  
David Hadzinsky  
25201 Chagrin Blvd., Suite 290  
Beachwood, OH 44122

**CERTIFIED MAIL**

	TOXIC REVIEW
	PSD
	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

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 of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 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. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. 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, OH 43215

Sincerely,

*Michael W. Ahern* 

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

CC: USEPA

Canton LAA



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Permit To Install  
Terms and Conditions

Issue Date: 4/1/2008  
Effective Date: 4/1/2008

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**FINAL PERMIT TO INSTALL 15-01650**

Application Number: 15-01650  
Facility ID: 1576000096  
Permit Fee: **\$200**  
Name of Facility: PCC Airfoils, LLC  
Person to Contact: David Hadzinsky  
Address: 25201 Chagrin Blvd., Suite 290  
Beachwood, OH 44122

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**3860 Union Avenue SE**  
**Minerva, Ohio**

Description of proposed emissions unit(s):  
**Installation of a new 6mmBtu/hr natural gas fired mold firing furnace 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

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Chris Korleski  
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 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 (i.e., postmarked) quarterly 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 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.

#### 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	0.9
NOx	2.6
CO	2.2
VOC	0.4
SO2	0.02
Combined HAPs	0.26

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

**A. Applicable Emissions Limitations and/or Control Requirements**

- 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 - (N006) - Pacific Kiln 6mmBtu natural gas fired mold firing furnace with thermal oxidizer**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05-(A)(3)	<p>Total emissions from all Hazardous Air Pollutants (HAPs) combined shall not exceed 0.26 tons per year (tpy). See Section A.2.a below.</p> <p>Visible particulate emissions (VE) from any stack shall not exceed 5 percent opacity as a six-minute average.</p> <p>See Section A.2.b below</p>
OAC rule 3745-17-07-(A)(1)	The emissions limitation specified by this rule is less stringent than the emissions limitation pursuant to OAC rule 3745-31-05-(A)(3)
OAC rule 3745-17-09(B)	Particulate Emissions (PE) shall not exceed 0.10 pound per 100 pounds of liquid, semi-solid, or solid refuse and salvageable material charged into the incinerator.
OAC rule 3745-17-09(C)	See Section A.2.c below
OAC rule 3745-18-06(E)	Exempt. See Section A.2.d below
40 CFR Part 52.1881(b)(9)(viii)	See Section A.2.e below
OAC rule 3745-21-08(B)	See Section A.2.f below
ORC 3704.03(T)(4)	See Section A.2.g below.

**2. Additional Terms and Conditions**

- 2.a Total HAPs consists of styrene, benzene, naphthalene, and toluene generated from the wax burn-out and controlled by the thermal oxidizer.
- 2.b Compliance with Best Available Technology (BAT), OAC rule 3745-31-05(A)(3), shall be the use of a thermal oxidizer and natural gas fuel firing only in the furnace and thermal oxidizer. Compliance with BAT shall also include compliance with the terms and conditions of this permit.
- 2.c Incinerators, including all associated equipment and grounds, shall be designed, operated, and maintained so as to prevent the emission of objectionable odors.
- 2.d The unit is exempt from OAC 3745-18-06(E) and OAC 3745-18-82 pursuant to OAC 3745-18-06(C) because the process weight rate is less than 1000 lb/hr:
- 2.e The SO<sub>2</sub> emissions limit of 80 lb/ton pursuant to 40 CFR Part 52.1881(b)(9)(viii) is greater than the uncontrolled potential to emit SO<sub>2</sub>. Therefore it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.
- 2.f The design of the emissions unit and the technology associated with the operating practices satisfy the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B).

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

- 2.g The Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05-(A)(3) do not apply to PE, NO<sub>x</sub>, CO, SO<sub>2</sub>, and VOC emissions from this emissions unit since the Potential To Emit (PTE) for each of these pollutants is less than 10 tpy.

## B. Operational Restrictions

- 1. The permittee shall burn only natural gas as fuel for the furnace and thermal oxidizer.
- 2. The furnace gases shall exhaust to a thermal oxidizer equipped with a temperature sensor and alarm system. The thermal oxidizer shall be operated for the first hour of each cycle

whenever molds are being processed in the furnace. When operating, the temperature of the exhaust gases within the thermal oxidizer shall be maintained at a minimum temperature of 1500 degrees Fahrenheit for at least 1.5 seconds residence time.

After the first hour of each cycle, unless there is a low temperature alarm, the thermal oxidizer does not have to be operated. If a low temperature occurs, the thermal oxidizer shall be kept in continuous operation for a minimum of 1 hour beyond the time of the alarm.

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

1. The permittee shall operate and maintain a continuous temperature sensor and alarm which measures the temperature of the exhaust gases within the thermal oxidizer when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring device shall be capable of accurately measuring the desired parameter. The temperature monitor shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The device shall activate an alarm which alerts the operator to a low temperature condition (<1500 degrees F) in the thermal oxidizer.

The permittee shall collect and record the following information each day:

- a. the occurrence of a low-temperature episode within the thermal oxidizer during the first hour of each operating cycle and what remedial action was taken to correct the problem;
  - b. a log or record of operating time for the thermal oxidizer, monitoring equipment, and the associated emissions unit; and
  - c. a log or record which shows the number of mold batches charged into the emissions unit each day.
2. The permittee shall perform an annual inspection of the thermal oxidizer which shall include, but is not limited to, the following check points:
    - a. refractory condition
    - b. burner condition
    - c. pressure seals condition
    - d. shell condition
    - e. auxiliary fuel piping train
    - f. interlocks, electrically operated valves, shutoff dampers, gauges, continuous recorders, and thermocouples.

The permittee shall record notes in a bound log book of the condition(s) for each of the above items and note any corrective actions which were taken to maintain the thermal oxidizer in peak operating condition. The recorded entry shall include the name of the person performing the inspection, date and time, identification of the afterburner, and signature of the inspector. It is recommended that the forms contained in Ohio EPA's Operation and Maintenance (O&M) Guidelines for Air Pollution Control equipment be used as an aid to compiling the information required for this Condition.

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be

noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the 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 emission incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the weekly check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

4. 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 quarterly deviation (excursion) reports that identify any first-hour period of a cycle during which the temperature of the exhaust gases within the thermal oxidizer did not comply with the temperature limitation specified above.
2. The permittee shall submit annual reports by January 15 which summarize the inspection and actions taken in accordance with Condition C.2 above during the previous calendar year.
3. The permittee shall submit semiannual written reports that (a) identify all weeks during which any visible particulate emissions were observed from the stack and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

4. 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 limitations in Section A of these terms and conditions shall be determined in accordance with the following methods:

- a. Emissions Limitation:

Total emissions from all Hazardous Air Pollutants (HAPs) combined shall not exceed 0.26 ton per year (tpy).

Applicable Compliance Method:

The total HAP emissions are based on a wax burnout analysis, provided by the permittee, which contained an emission concentration for each HAP as follows:

0.0165 lb styrene/100 lb wax, 1.7 lb benzene/100 lb wax,  
1.7 lb naphthalene/100 lb wax, 1.8 lb toluene/100 lb wax

The maximum annual wax burnout is 81,760 lb wax from the permit application. The total annual HAP emissions is demonstrated by multiplying each HAP emission concentration by the maximum annual wax burnout and adding the results of each product obtained. The summation is then multiplied by (1.0-0.90) to account for the 90% control efficiency of the thermal oxidizer, and then multiplied by a margin of 1.25 to arrive at the 0.26 tpy HAP's limit.

If required, the permittee shall demonstrate compliance with the emission limitation through Ohio EPA approved test methods. The test method(s) shall be submitted to the Canton local air agency for approval.

- b. Emissions Limitation:

Visible particulate emissions from any stack shall not exceed 5 percent opacity as a six-minute average, except as specified by rule.

Applicable Compliance Method

Compliance shall be determined through visible emission 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).

- c. Emissions Limitation:

Particulate Emissions (PE) shall not exceed 0.10 pound per 100 pounds of liquid, semi-solid, or solid refuse and salvageable material charged into the incinerator.

Applicable Compliance Method:

If required, compliance shall be demonstrated using 40 CFR Part 60, Appendix A, Methods 1 through 5, for total filterable PE, and 40 CFR Part 51, Appendix M, Method 202 for condensible PE.

Alternative U.S.EPA approved test methods may be used with prior approval from Ohio EPA or the Canton local air agency.

d. Emissions Limitation:

Incinerators, including all associated equipment and grounds, shall be designed, operated, and maintained so as to prevent the emission of objectionable odors.

Applicable Compliance Method:

Compliance shall be demonstrated by operating the thermal oxidizer in accordance with the manufacturer's operating instructions and by the monitoring and record keeping requirements in Section II.C.

**F. Miscellaneous Requirements**

None