



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center  
122 S. Front Street  
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049  
Columbus, OH 43216-1049

**RE: FINAL PERMIT TO INSTALL  
LAWRENCE COUNTY  
Application No: 07-00535**

**CERTIFIED MAIL**

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

**DATE:** 10/14/2003

McGinnis Inc. Synfuel  
Russell Painter  
P.O Box 534  
South Point, OH 456800534

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

PCHD



**Permit To Install  
Terms and Conditions**

**Issue Date: 10/14/2003  
Effective Date: 10/14/2003**

**FINAL PERMIT TO INSTALL 07-00535**

Application Number: 07-00535  
APS Premise Number: 0744000155  
Permit Fee: **\$750**  
Name of Facility: McGinnis Inc. Synfuel  
Person to Contact: Russell Painter  
Address: P.O Box 534  
South Point, OH 456800534

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**510 Riverside Dr  
Coal Grove, Ohio**

Description of proposed emissions unit(s):  
**Portable Barge-mounted Synthetic Fuel Processing Plant.**

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 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>
OC	3.25
PM	6.71
PM <sub>10</sub>	3.17

**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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F001 - Portable Barge-mounted Synthetic Fuel Processing Plant-coal handling and application of synfuel reagent	OAC rule 3745-31-05(A)(3)	<p>Organic compound (OC) emissions shall not exceed 17.82 lbs/day and 3.25 tpy.</p> <p>Particulate emissions(PM) shall not exceed 6.71 tpy.</p> <p>Emissions of particulate less than 10 microns (PM<sub>10</sub>) shall not exceed 3.17 tpy.</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.b and A.2.c below)</p>
	OAC rule 3745-21-07(G)	See Section B.1 below.
	OAC rule 3745-17-07(B)	Visible particulate fugitive emissions shall not exceed twenty percent opacity as a three minute average.
	OAC rule 3745-17-08(B)	The control measures established by this rule are equivalent to the control measures established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

**2.a** The material handling operations that are covered by this permit and subject to the above mentioned requirements are listed below:

- T1 - barge to crane clamshell
- T2 - crane clamshell to coal receiving hopper
- T3 - coal receiving hopper to coal feed conveyor
- T4- coal feed conveyor to synfuel binder applicator
- T5 - synfuel binder applicator to synfuel transfer conveyor
- T6 - synfuel transfer conveyor to briquetter
- T7 - briquetter to synfuel transfer conveyor
- T8 - synfuel transfer conveyor to left (port) synfuel transfer conveyor
- T9 - synfuel transfer conveyor to right (starboard) synfuel transfer conveyor
- T10 - left (port) synfuel unloading conveyor to barge
- T11 - right (starboard) synfuel unloading conveyor to barge

**2.b** The permittee shall employ best available control measures for the above identified material handling operations for the purpose of ensuring compliance with the above mentioned applicable requirements. In accordance with the permittee's permit application, the permittee shall install and maintain partial and full enclosures. These control measures shall be maintained to minimize particulate emissions to levels that will demonstrate compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

**2.c** Implementation of the above mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.

**B. Operational Restrictions**

**1.** The use of photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit is prohibited.

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

- 1.** The permittee shall collect and record the following information every month for the reagent application:
- a. The company identification of each reagent employed;
  - b. The number of gallons of each reagent employed;
  - c. The OC content of each reagent employed;
  - d. The total OC emission rate for all reagents employed, in pounds/day;

- e. The total number of days the emission unit was in operation; and
- f. The average hourly OC emission rate for all reagents, i.e., "d." divided by "e.", in pounds per day.

[Note: The reagent information must be for the reagent as employed.]

- 2. The permittee shall collect and record the following information for each month for this emissions unit:
  - a. The company identification for each organic compound material employed; and
  - b. Documentation for whether or not each organic compound is a photochemically reactive material as defined in OAC rule 3745-21-01(C)(5).

- 3. Except as otherwise provided in this section, for material handling operations that are not adequately enclosed, the permittee shall perform inspections of such operations in accordance with the following minimum frequencies:

<u>material handling operation(s)</u>	<u>minimum inspection frequency</u>
All	daily

- 4. The above-mentioned inspections shall be performed during representative, normal operating conditions.
- 5. The permittee may, upon receipt of written approval from the Portsmouth Local Air Agency, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
- 6. The permittee shall maintain records of the following information:
  - a. The date and reason any required inspection was not performed;
  - b. The date of each inspection where it was determined by the permittee that it was necessary to implement additional control measure(s);
  - c. The dates the additional control measure(s) was (were) implemented; and
  - d. On a calendar quarter basis, the total number of days the additional control measures were implemented.

The information in 5.d. shall be kept separately for each material handling operation identified above, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which the average daily total OC emissions exceeded 17.82 lbs/day, and the actual average daily OC emissions for such day. These reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.
2. The permittee shall submit deviation reports that identify any of the following occurrences:
  - a. Each day during which an inspection was not performed by the required frequency; and
  - b. Each instance when a control measure, that was to be performed as a result of an inspection, was not implemented.

These reports shall be submitted to the Portsmouth Local Air Agency by January 21 and July 31 of each year and shall cover the previous 6 month period .

3. The permittee shall notify the Director, in writing of any daily record showing that photochemically reactive material (as defined in OAC rule 3745-21-01(C)(5) was employed in this emissions unit. The permittee shall identify the cause for the use of the photochemically reactive materials. The notification shall include a copy of such record and shall be sent to a representative of the Director (Portsmouth City Health Department) within 30 days after the event 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:  
  
Organic compound (OC) emissions shall not exceed 17.82 lbs/day.  
  
Applicable Compliance Method:  
  
Compliance shall be determined by multiplying the amount of reagent applied (gallons) per ton of coal by the amount of coal processed (tons/day) by the OC content of the reagent (lbs/gallon).
  - b. Emission Limitation:

Organic compound (OC) emissions shall not exceed 3.25tpy.

Applicable Compliance Method:

Compliance shall be determined by multiplying the amount of reagent applied (gallons) per ton of coal by the amount of coal processed (tons/year) by the OC content of the reagent (lbs/gallon), and dividing by 2000 lbs/ton.

c. Emission Limitation:

Particulate emissions (PM) shall not exceed 1.0 tpy.

Applicable Compliance Method:

Compliance shall be determined based on the sum of the emissions from each transfer point. Emission from each transfer point shall be determined by multiplying the annual throughput in tons per year, times the emission factor from each transfer point (calculated using the information below) in pounds per ton, times the control efficiency.

The emission factor shall be calculated using AP-42 section 13.2-4, January 1995 as follows:

$$E = k(0.0032)(U/5)^{1.3}/(M/2)^{1.4}$$

E = emission factor in lb/ton

k = particle size multiplier = 0.74 for PM

U = wind speed = 6.6 miles per hour

M = material moisture content(%) = 5.84% for coal, 7.0% for synfuel

E(uncontrolled) coal = 0.000758 lb/ton

E (uncontrolled) synfuel = 0.000588 lb/ton

maximum annual throughput = 4,380,000 tpy

Control efficiency = 50% for partial enclosure

90% for full enclosure

d. Emission Limitation:

Particulate emission less than 10 microns (PM<sub>10</sub>) shall not exceed tpy.

Applicable Compliance Method:

Compliance shall be determined based on the sum of the emissions from each transfer point. Emission from each transfer point shall be determined by multiplying the annual throughput in tons per year, times the emission factor from each transfer point (calculated using the information below) in pounds per ton, times the control efficiency.

The emission factor shall be calculated using AP-42 section 13.2-4, January 1995 as follows:

$$E = k(0.0032)(U/5)^{1.3}/(M/2)^{1.4}$$

E = emission factor in lb/ton

k = particle size multiplier = 0.35 for PM<sub>10</sub>

U = wind speed = 6.6 miles per hour

M = material moisture content(%) = 5.84% for coal, 7.0% for synfuel

e. Emission Limitation:

Visible particulate fugitive emissions shall not exceed twenty percent opacity as a three minute average.

Applicable Compliance Method:

If required, compliance shall be demonstrated using the methods and procedures specified in Method 9 of 40 CFR Part 60, Appendix A.

## F. Miscellaneous Requirements

1. Pursuant to Ohio Administrative Code (OAC) rule 3745-31-03 (A)(1)(p)(i), the permittee of a portable or mobile emissions unit may relocate within the State of Ohio without first obtaining a PTI providing the following criteria are met:
  - a. The portable emissions unit is equipped with the best available technology for such portable emissions unit ;
  - b. The portable emissions unit is operating pursuant to a currently effective permit to install, permit to operate or registration;
  - c. The applicant has provided proper notice of intent to relocate the portable emissions unit to the Portsmouth Local Air Agency and the appropriate field office having jurisdiction over the new site within a minimum of thirty days prior to the scheduled relocation; and
  - d. In the Portsmouth Local Air Agency's and the appropriate field office's judgement, the proposed site is acceptable under the rule 3745-15-07 of the Administrative Code.
  
2. In the alternative, pursuant to OAC rule 3745-31-03(A)(1)(p)(ii), the permittee of a portable or mobile emissions unit may relocate within the State of Ohio without first obtaining a PTI providing the following criteria of OAC rule 3745-31-05(F) are met:

- a. The portable emission unit permittee possesses an Ohio EPA PTI, PTO or registration;
  - b. The portable emissions unit is equipped with best available technology;
  - c. The portable emissions unit owner has identified the proposed site to Ohio EPA;
  - d. Ohio EPA has determined that the portable emissions unit, at the proposed site, will have an acceptable environmental impact;
  - e. A public notice, consistent with Chapter 3745-47 of the Administrative Code, is published in the county where the proposed site is located;
  - f. The owner of the proposed site has provided the portable emissions unit owner with approval or equivalent declaration that it is acceptable to the site owner to move the portable emissions unit to the proposed site, and;
  - g. The portable emissions unit owner has provided the Ohio EPA within fifteen days written notice of the relocation.
- 3.** Any site approvals issued by the Ohio EPA, pursuant to section F.2. above, shall be valid for no longer than three years and are subject to renewal.

In order for the Portsmouth Local Air Agency and the appropriate field office having jurisdiction over the new site to determine compliance with all of the above criteria, the owner or operator of the portable or mobile emissions unit must file a "Notice of Intent to Relocate", within the specified time frame (30 or 15 days) prior to the relocation of the emissions unit with the Portsmouth Local Air Agency (605 Washington St., Third Fl., Portsmouth, OH 45662) and the appropriate field office having jurisdiction over the new site. Upon receipt of the notice, the Portsmouth Local Air Agency and/or appropriate field office having jurisdiction over the new site, will evaluate the request in accordance with the above criteria.

Failure to submit said notification and to receive Ohio EPA approval prior to the relocation of the emissions unit may result in fines and civil penalties.

**NEW SOURCE REVIEW FORM B**

PTI Number: 07-00535

Facility ID: 0744000155

FACILITY NAME McGinnis Inc. Synfuel

FACILITY DESCRIPTION Portable Barge-mounted Synthetic Fuel Processing Plant CITY/TWP Coal Grove

SIC CODE 4491 SCC CODE 30501011 EMISSIONS UNIT ID F001

EMISSIONS UNIT DESCRIPTION Portable Barge-mounted Synthetic Fuel Processing Plant

DATE INSTALLED November 2003

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		6.71 tpy		6.71 tpy
PM <sub>10</sub>	attainment		3.17tpy		3.17tpy
Sulfur Dioxide					
Organic Compounds	attainment	17.82 lbs/day	3.25 tpy	17.82 lbs/day	3.25 tpy
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? N NESHAP? N PSD? N OFFSET POLICY? N

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

**Enter Determination** use of full and partial enclosures for control of particulates

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? N

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: \_\_\_\_\_