



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL CERTIFIED MAIL  
JEFFERSON 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: 06-06192**

**DATE: 7/11/00**

PF Environmental Technologies Inc  
Pat J Copple  
1135 Butler Ave  
New Castle, PA 16101

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

SEDO



**Permit To Install**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**FINAL PERMIT TO INSTALL 06-06192**

Application Number: 06-06192  
APS Premise Number: 0641150248  
Permit Fee: **\$800**  
Name of Facility: PF Environmental Technologies Inc  
Person to Contact: Pat J Copple  
Address: 1135 Butler Ave  
New Castle, PA 16101

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**South Third Street Extension**  
**Steubenville, Ohio**

Description of proposed emissions unit(s):  
**Iron and Steel By Product Briquetting Operation Cement Silo.**

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.

**PF Environmental Technologies Inc**  
**PTI Application: 06-06192**  
**Issued: 7/11/00**

**Facility ID: 0641150248**

**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	0.59

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

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

- 1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F002 - Iron and Steel By Product Briquetting Operation Cement Silo.	OAC rule 3745-31-05  OAC rule 3745-17-07 OAC rule 3745-17-08	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-08;  0.030 gr/dscf or no visible emissions; 0.59 ton PM/yr

**2. Additional Terms and Conditions**

- 2.a Cement shall be transferred pneumatically to the storage silo. The pneumatic system shall be adequately enclosed so as to eliminate at all times visible emissions of fugitive dust. Any visible emissions of cement from the delivery vehicle shall be cause for the immediate halt of the unloading process and the refusal of the cement load until the situation is corrected.
- 2.b The cement silo vents shall be adequately enclosed and vented to a fabric filter. The enclosure shall be sufficient to minimize or eliminate at all times visible emissions.
- 2.c PF Environmental shall ensure that all activities (other than the cement storage silo) are adequately enclosed to prevent fugitive emissions. All doors, windows, and openings shall be closed at all times during operation of any equipment. Alternately, PF Environmental shall ensure that the production building is maintained with adequate negative pressure to prevent fugitive emissions from any building openings and all exhaust air is routed through the bin vent filter outlet.

**B. Operational Restrictions**

1. PF Environmental shall ensure that the bin vent filter is correctly installed and in good condition at all times of operation. Defective, torn, or incorrectly installed filters shall be replaced immediately.

### C. Monitoring and/or Recordkeeping Requirements

1. PF Environmental shall make daily observations of the bin vent filter outlet for excessive fugitive emissions during normal operations.
2. PF Environmental shall observe the bin vent filter outlet for excessive fugitive emissions during each silo loading event.
3. The permittee shall maintain records of the following:
  - a. The date and time of observations made per C.1 and/or C.2, above;
  - b. The cause of any excessive emissions;
  - c. Actions taken to correct the cause of any excessive emissions;
  - d. The date and time that any necessary repairs were made;
  - e. The name of the individual making the observations.

### D. Reporting Requirements

1. The permittee shall report, on an annual basis, all days when observations indicated excessive fugitive emissions from the bin vent filter outlet for the previous calendar year. PF Environmental shall also submit copies of information recorded per C.3, above for those days.

### E. Testing Requirements

1. Emission Limitation: 0.030 gr PM/dscf or no visible emissions

Compliance Method: Compliance with the 0.030 gr/dscf limit shall be determined through the following method:

From (AP-42, 13.2.4.3, equation 1):

$$EF = k (0.0032) ((u/5)^{1.3}) / ((m/2)^{1.4})$$

k = 0.74  
 u = 6.19 mph  
 m = 7.5% (mill scale)  
 4.0% © scrap  
 25.0% (filter cake)  
 1.0% (flue dust)  
 7.5% (coke breeze)

2.0% (portland cement)

Utilizing the above equation with appropriate moisture contents for each material, the following EFs (lb/ton) are obtained:

mill scale EF = 0.0005  
c scrap EF = 0.0012  
filter cake EF = 0.0001  
flue dust EF = 0.0082  
coke breeze EF = 0.0005  
portland cement EF = 0.0031

The EF's shall be multiplied by the appropriate average hourly throughput of each individual material. For purposes of compliance determination, PF Environmental shall utilize throughputs as follows:

mill scale = 7.67 TPH  
c scrap = 20.41 TPH  
filter cake = 5.08 TPH  
flue dust = 7.67 TPH  
coke breeze = 5.08 TPH  
portland cement = 8.10 TPH

Utilizing a 98% control efficiency for the bin vent filter with four "drop points", the effective number of drop points becomes:

$$4 - (4 * 0.98) = 0.08$$

$$\text{and for the cement only, } 2 - (1 * 0.98) = 0.02$$

The appropriate hourly emissions for each individual material shall be found by multiplying the individual throughputs by the emission factor. The total hourly emissions are added and multiplied by the effective number of drop points:

$$[(0.0005*7.67) + (0.0012*20.41) + (0.0001*5.08) + (0.0082*7.67) + (0.0005*5.08)] * 0.08 + (0.0031*8.10*0.02) = 0.0080 \text{ lb/hr} = 0.0018 \text{ gr/dscf}$$

Compliance with the visible emissions limitation shall be determined through daily visible emissions observations required per C.1 and C.2, above. Compliance with the visible emissions requirement shall be determined in accordance with Method 9

as described in 40 CFR 60 Appendix A.

2. Emission Limitation: 0.59 ton PM/yr

Compliance Method: Compliance with the 0.59 ton PM/yr limit shall be determined through the following method:

OAC rule 3745-17-08(3)(b) limit of 0.030 gr/dscf shall be multiplied by 525 dscf/min, multiplied by 60 min/hr, and divided by 7000 gr/lb. This number shall then be multiplied by 8760 hr/yr. Divide by 2000 lb/ton to obtain tons PM/yr:

$$\begin{aligned} & [(0.030 \text{ gr/dscf})(525 \text{ gr/dscf})(60 \text{ min/hr})(8760 \text{ hr/yr})] / [(7000 \text{ gr/lb})(2000 \text{ lb/ton})] \\ & = \\ & 0.59 \text{ ton/yr} \end{aligned}$$

#### F. Miscellaneous Requirements

None

**NEW SOURCE REVIEW FORM B**

PTI Number: 06-06192 Facility ID: 0641150248

FACILITY NAME PF Environmental Technologies Inc

FACILITY DESCRIPTION Iron and Steel By-Product Briquetting CITY/TWP Steubenville  
 Operation Cement Silo.

SIC CODE 3312 SCC CODE 30300812 EMISSIONS UNIT ID F002

EMISSIONS UNIT DESCRIPTION Cement Silo.

DATE INSTALLED July 30, 2000

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		0.030 gr/dscf	0.59	0.030 gr/dscf	0.59
PM <sub>10</sub>					
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** BAT based on 3745-17-08(B)(1)(b), bin vent filter achieves VE and grain loading limit.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? No

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

**TOXIC AIR CONTAMINANTS**

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

AIR TOXICS MODELING PERFORMED\*?        YES   X   NO

IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

**NEW SOURCE REVIEW FORM B**

PTI Number: 06-06192

Facility ID: 0641150248

FACILITY NAME PF Environmental Technologies Inc

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

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

	<u>Electronic</u>	<u>Additional information File Name Convention (your PTI # plus this letter)</u>	<u>Hard Copy</u>	<u>None</u>
<u>Calculations (required)</u>	<input checked="" type="checkbox"/>	066192c.wpd	<input checked="" type="checkbox"/>	
<u>Modeling form/results</u>	<input type="checkbox"/>	0000000s.wpd	<input type="checkbox"/>	<input type="checkbox"/>
<u>PTI Application (complete or partial)*</u>	<input type="checkbox"/>	0000000a.wpd	<input type="checkbox"/>	<input type="checkbox"/>
<u>BAT Study</u>	<input type="checkbox"/>	0000000b.wpd	<input type="checkbox"/>	<input type="checkbox"/>
<u>Other/misc.</u>	<input checked="" type="checkbox"/>	066192t.wpd	<input type="checkbox"/>	<input type="checkbox"/>

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

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

NSR Discussion

NONE

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

**Synthetic Minor Determination and/or**  **Netting Determination**

Permit To Install ENTER PTI NUMBER HERE

- A. Source Description
- 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	0.59