



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: 15-01533**

**DATE: 5/1/2003**

U.S. Technology Block Plant  
Chris McCoy  
1446 W. Tuscarawas Street  
Canton, OH 44702

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,

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: 5/1/2003  
Effective Date: 5/1/2003**

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**FINAL PERMIT TO INSTALL 15-01533**

Application Number: 15-01533  
APS Premise Number: 1576051760  
Permit Fee: **\$1600**  
Name of Facility: U.S. Technology Block Plant  
Person to Contact: Chris McCoy  
Address: 1446 W. Tuscarawas Street  
Canton, OH 44702

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**220 7th Street SE  
Canton, Ohio**

Description of proposed emissions unit(s):  
**portable polymer block 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 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 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.

**U.S. Technology Block Plant**  
**PTI Application: 15-01533**  
**Issued: 5/1/2003**

**Facility ID: 1576051760**

**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	2.52

**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

P901 - Polymer Concrete Block  
Plant

Cement and Plastic Silos

Transfer of Sand and Limestone to  
Hopper

Transfer from sand, limestone,  
cement and plastic to mixer

<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
OAC rule 3745-31-05(A)(3)	Combined particulate emissions (PE) shall not exceed 2.52 tons/yr from the operation and equipment which constitute this emissions unit.
OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack serving this emissions unit shall not exceed 10% opacity, as a six-minute average.
OAC rule 3745-17-11	Visible emissions of fugitive dust from any portion of this emissions unit shall not exceed 10% opacity, as a three-minute average.
OAC rule 3745-31-05(A)(3)	See sections A.2.a, A.2.b, A.2.c and A.2.d below.
OAC rule 3745-17-07(B)(1)	The drop height of the front-end bucket shall be minimized to the extent possible in order to minimize or eliminate visible emissions of fugitive dust.
OAC rule 3745-17-07(B)(1)	The visible emission limitation specified in this rule is less stringent than that established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-08(B)	The control measure requirements specified in this rule are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-08(B)	The silos shall be adequately enclosed and vented to the fabric filter: the

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**PTI A**

**Issued: 5/1/2003**

Emissions Unit ID: **P901**

enclosure shall be sufficient to eliminate visible emissions of fugitive dust at the point of capture.

The fabric filter shall achieve an outlet emission rate of not greater than 0.030 grain of particulate per dry standard cubic feet of exhaust gases.

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

The control measure requirements specified in this rule are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3).

The mixer should be adequately enclosed; the enclosure shall be sufficient to eliminate visible emissions.

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

The control measure requirements specified in this rule are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3).

## **2. Additional Terms and Conditions**

**2.a** 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. These control measures are listed below.

<u>Material Handling Operation</u>	<u>Control Measures</u>
Transfer of sand and limestone to hopper Silos	Drop height front-end loader Fabric filter(s)
Transfer Conveying cement, plastic, sand and limestone	Wet suppression

Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

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(A)(3).

- 2.b** The permittee shall employ the following best available control measures for the above-identified cement silo for the purpose of ensuring compliance with the above-mentioned applicable requirements:
- i. Cement shall be transferred pneumatically to the cement silo(s). The pneumatic system shall be adequately enclosed so as to eliminate at all times visible emissions of fugitive dust. Any visible emissions of cement dust emanating from the delivery vehicle during transfer shall be cause for the immediate halt of the unloading process and the refusal of the cement load until the situation is corrected.
  - ii. The cement silo vent(s) shall be adequately enclosed and vented to a fabric filter. The enclosure shall be sufficient so as to eliminate at all times visible emissions of fugitive dust at the point of capture.
- 2.c** The permittee shall employ the following best available control measures for the above-identified plastic silo for the purpose of ensuring compliance with the above-mentioned applicable requirements:
- i. Plastic shall be transferred pneumatically to the plastic silo(s). The pneumatic system shall be adequately enclosed so as to eliminate at all times visible emissions of fugitive dust. Any visible emissions of cement dust emanating from the delivery vehicle during transfer shall be cause for the immediate halt of the unloading process and the refusal of the cement load until the situation is corrected.

Emissions Unit ID: **P901**

- ii. The plastic silo vent(s) shall be adequately enclosed and vented to a fabric filter. The enclosure shall be sufficient so as to eliminate at all times visible emissions of fugitive dust at the point of capture.

- 2.d** The permittee shall employ the following best available control measures for the above-identified weigh hopper(s) for the purpose of ensuring compliance with the above-mentioned applicable requirements:

The weigh hopper(s) shall be sufficiently enclosed so as to minimize or eliminate at all times visible emissions of fugitive dust.

## **B. Operational Restrictions**

None

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

1. The permittee shall maintain annual records of the tons of blocks produced and transported from the facility.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions from any stack (outlet of any control equipment) serving this emissions unit and for any visible fugitive dust emissions from 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 visible emissions;
  - d. the total duration of any abnormal visible emission incident; and
  - e. any corrective actions taken to eliminate the abnormal visible emissions.

## **D. Reporting Requirements**

1. The permittee shall submit annual reports indicating the number of total tons of block produced. These reports shall be submitted to the Canton local air agency by January 31 of each year.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any abnormal visible particulate emissions were observed from the stack serving this emissions unit or any abnormal visible fugitive dust emissions were observed from this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions or visible fugitive dust emissions. These reports shall be submitted to the Canton local air agency by

January 31 and July 31 of each year and shall cover the previous six-month period.

**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 Limitations:  
PE shall not exceed shall not exceed 2.52 tons/yr.

Applicable Compliance Method:  
Sand and limestone transfer to weigh hopper  
Assumptions/emission factors:  
Maximum annual sand production 18,560 tons/yr  
Maximum annual limestone production 6,400 tons/yr  
Emission factor (AP-42, Chapter 11, Section 12, Table 11.12-2, 1/95) -  
Emission factor = sand and aggregate transfer to elevated bin = 0.029 lb/ton

PTE calculations:

sand:

feed hopper loading:  $18,560 \text{ tons/hr} * 0.029 \text{ lb/ton} * 1 \text{ ton}/2000 \text{ lbs} = 0.27$   
ton/yr

conveyor to mixer:  $18,560 \text{ tons/hr} * 0.029 \text{ lb/ton} * 1 \text{ ton}/2000 \text{ lbs} = 0.27$   
ton/yr

limestone:

feed hopper loading:  $6400 \text{ tons/hr} * 0.029 \text{ lb/ton} * 1 \text{ ton}/2000 \text{ lbs} = 0.09 \text{ ton/yr}$

conveyor to mixer:  $6400 \text{ tons/hr} * 0.029 \text{ lb/ton} * 1 \text{ ton}/2000 \text{ lbs} = 0.09 \text{ ton/yr}$

Total  $0.27 + 0.27 + 0.09 + 0.09 = 0.72 \text{ ton/yr}$

Cement silo stack

Allowable = 0.03 gr/dscf

Flow rate = 375 cf/dscf

$375 \text{ cf/min} * 60 \text{ min/hr} * 0.03 \text{ gr/dscf} * 1 \text{ lb}/7000 \text{ grains} = 0.1 \text{ lb/hr}$

$0.1 \text{ lb/hr} * 8760 \text{ hrs/yr} * 1 \text{ ton}/2000 \text{ lbs} = 0.44 \text{ ton/yr}$

Plastic silo stack

Allowable = 0.03 gr/dscf

Flow rate = 375 cf/dscf

$375 \text{ cf/min} * 60 \text{ min/hr} * 0.03 \text{ gr/dscf} * 1 \text{ lb}/7000 \text{ grains} = 0.1 \text{ lb/hr}$

Emissions Unit ID: **P901**

$$0.1 \text{ lb/hr} \times 8760 \text{ hrs/yr} \times 1 \text{ ton}/2000 \text{ lbs} = 0.44 \text{ ton/yr}$$

Transfer cement to mixer

Emission factor (AP-42, Chapter 11, Section 12, Table 11.12-2, 1/95)

Emission factor = 0.24 lb/ton

$$3,840 \text{ ton/yr} \times 0.24 \text{ lb/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 0.46 \text{ ton/yr}$$

Transfer plastic to mixer

Emission factor (AP-42, Chapter 11, Section 12, Table 11.12-2, 1/95)

Emission factor = 0.24 lb/ton

$$3,840 \text{ ton/yr} \times 0.24 \text{ lb/ton} \times 1 \text{ ton}/2000 \text{ lbs} = 0.46 \text{ ton/yr}$$

$$\text{Total } 0.72 + 0.44 + 0.44 + 0.46 + 0.46 = 2.52 \text{ tpy}$$

b. Emission Limitations:

Visible particulate emissions from any stack serving this emissions unit shall not exceed 10% opacity, as a six-minute average.

Applicable Compliance Method:

Compliance with the emission limitation shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

c. Emission Limitations:

Visible emissions of fugitive dust from any portion of this emissions unit shall not exceed 10% opacity, as a three-minute average.

Applicable Compliance Method:

Compliance with the emission limitations shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources").

**F. Miscellaneous Requirement**

None