



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
GREENE COUNTY**

**CERTIFIED MAIL**

Street Address:

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:  
Lazarus Gov.  
Center

**Application No: 08-04127**

**DATE: 06/07/00**

Southdown Inc  
Stacey Coburn  
3250 Linebaugh Rd  
Xenia, OH 45385-0000

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 Director's 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  
Field Operations and Permit Section  
Division of Air Pollution Control

CC: USEPA

RAPCA



**Permit To Install  
Terms and Conditions**

**Issue Date: 06/07/2000  
Effective Date: 06/07/2000**

**FINAL PERMIT TO INSTALL 08-04127**

Application Number: 08-04127  
APS Premise Number: 0829700165  
Permit Fee: **\$2,000**  
Name of Facility: Southdown Inc  
Person to Contact: Stacey Coburn  
Address: 3250 Linebaugh Rd  
Xenia, OH 45385-0000

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**3250 Linebaugh Rd  
Xenia, Ohio**

Description of proposed emissions unit(s):  
**Raw material handling systems to accept, store and move material to the kiln and finish mill.**

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

**A. State and Federally Enforceable Permit To Install General Terms and Conditions**

**1. Monitoring and Related Recordkeeping and Reporting Requirements**

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. 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.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be

**Southdown Inc**  
**PTI Application: 08-04127**  
**Issued: June 7, 2000**

**Facility ID: 0829700165**

made to the appropriate Ohio EPA District Office or local air agency. The written 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. See B.11 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

## **2. 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, i.e., upset, 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. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to 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 emission unit(s) that is (are) served by such control system(s).

## **3. Risk Management Plans**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

## **4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

## **5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

## **6. General Requirements**

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. 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 request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

## **7. 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.

**Southdown Inc**

**Facility ID: 0829700165**

**PTI Application: 08-04127**

**Issued: June 7, 2000**

**8. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

**9. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

**Southdown Inc**

**Facility ID: 0829700165**

**PTI Application: 08-04127**

**Issued: June 7, 2000**

- i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
- ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

**10. Permit To Operate Application**

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. 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 source(s) covered by this permit.

**Southdown Inc**  
**PTI Application: 08-04127**  
**Issued: June 7, 2000**

**Facility ID: 0829700165**

**B. State Only Enforceable 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 of state-only enforceable 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 state-only required 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. 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.

**4. 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.

**5. Termination of Permit To Install**

**Southdown Inc**  
**PTI Application: 08-04127**  
**Issued: June 7, 2000**

**Facility ID: 0829700165**

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.

**6. 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.

**7. 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.

**8. 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).

**9. Best Available Technology**

**Southdown Inc**  
**PTI Application: 08-04127**  
**Issued: June 7, 2000**

**Facility ID: 0829700165**

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.

**10. 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.

**11. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

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.

**C. 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>
particulate emissions	5.0

**Southdown Inc**

**Facility ID: 0829700165**

**PTI Application: 08-04127**

**Issued: June 7, 2000**

**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

None.

**B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions**

None.

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

**A. State and Federally Enforceable Section**

**I. 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>
P925 - Fly Ash and Silica Material Handling and Storage; Hopper, Enclosed System: Bucket Elevator, Belt Conveyor, Silo with Filter, Rotary Feeder, & Weigh Feeder; Partially Enclosed Belt Conveyor	OAC rule 3745-31-05 (A)(3)	3.63 lbs/hr particulate emissions
	OAC rule 3745-31-05 (D)	The visible emission opacity shall not exceed 10 percent, as a six minute average.
	40 CFR Part 60, Subpart F 40 CFR Part 63, Subpart LLL	4.4 TPY particulate emissions, on a rolling 12-month basis; See A.2.b.
	OAC rule 3745-17-08 (B) OAC rule 3745-17-07	The limits based on these regulations are equivalent to OAC rule 3745-31-05 (A)(3).  See A.2.c.

**2. Additional Terms and Conditions**

- 2.a The 3.63 lbs/hr particulate emissions limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with this limit.
- 2.b In order to avoid Prevention of Significant Deterioration (PSD) review for particulate

emissions, the permittee has opted to limit the potential-to-emit from this emissions unit by limiting the amount of material handled per year and thereby limiting the annual emission rate.

- 2.c This emissions unit is not located in an Appendix A area, as specified in OAC rule 3745-17-08, and as such it is not subject to reasonably available control measures (RACM) in OAC rule 3745-17-08 (B) or the visible emission limitations in OAC rule 3745-17-07.

Issued: June 7, 2000

**II. Operational Restrictions**

1. The maximum annual amount of material handled in this emissions unit shall not exceed 303,779 tons per year, on a rolling 12- month basis.
2. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following table:

<u>Month(s)</u>	<u>Emissions of Particulates, in tons</u>	<u>Maximum Allowable Cumulative</u>
1	2.2	
1-2	2.2	
1-3	2.2	
1-4	2.2	
1-5	2.2	
1-6	2.2	
1-7	2.57	
1-8	2.93	
1-9	3.29	
1-10	3.66	
1-11	4.03	
1-12	4.4	

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual emission limitation for particulates shall be based upon a rolling, 12-month summation of the monthly emissions.

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

1. The permittee shall maintain monthly records of the amount of material handled in this emissions unit on a rolling 12-month basis.

**IV. Reporting Requirements**

Issued: June 7, 2000

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitations for particulates and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. The permittee shall submit the deviation (excursion) reports in accordance with paragraph A.1.c. in the general terms and conditions.
  
2. Pursuant to the NSPS 40 CFR Part 60, Subpart F, and the MACT 40 CFR Part 63, Subpart LLL the source owner/operator is required to report the following milestones:
  - a. date of commencement of construction ( no later than 30 days after such date);
  - b. anticipated date of initial start-up (not more than 60 days or less than 30 days prior to such date);
  - c. actual date of initial start-up (within 15 days after such date); and,
  - d. date of performance testing (at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency  
 DAPC - Air Quality Modeling and Planning  
 P.O. Box 1049  
 Columbus, OH 43216-1049

and

**Regional Air Pollution Control Agency**  
**451 West Third Street**  
**Dayton, OH 45422**

**V. Testing Requirements**

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation-
 

3.63 lbs/hr particulate emissions

Applicable Compliance Method-  
 The 3.63 lbs/hr particulate emissions limitation was developed by multiplying the maximum hourly handling rate of 125 tons/hr by the emission factor of 0.029 lb/ton, as

Emissions Unit ID: P925  
specified in USEPA reference document  
AP-42, Table 11.12-2, dated 10/86,  
reformatted1/95.

b. Emission Limitation-

4.4 TPY particulate emissions, on a rolling  
12-month basis

Applicable Compliance Method-

The 4.4 TPY particulate emissions limitation  
was developed by multiplying the sum of the  
12 monthly handling rates as determined in  
section A.III.1. by the emission factor of  
0.029 lb/ton, as specified in USEPA  
reference document AP-42, Table 11.12-2,  
dated 10/86, reformatted1/95, and divided by  
2000 lbs/ton.

c. Emission Limitation-

10 % opacity, as a 6-minute average

Applicable Compliance Method-  
Compliance shall be determined by visible  
emission evaluations performed in  
accordance with OAC rule 3745-17-03  
(B)(3) using the methods and procedures  
specified in 40 CFR Part 60, Appendix A,  
Method 9.

**VI. Miscellaneous Requirements**

1. Terms A.I.2.b., A.II.1., A.II.2. and A.III.1. are federally enforceable.

Issued: June 7, 2000

**B. State Only Enforceable Section**

**I. 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>
P925 - Fly Ash and Silica Material Handling and Storage; Hopper, Enclosed System: Bucket Elevator, Belt Conveyor, Silo with Filter, Rotary Feeder, & Weigh Feeder; Partially Enclosed Belt Conveyor	None	None

**2. Additional Terms and Conditions**

- 2.a None.

**II. Operational Restrictions**

None.

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

None.

**IV. Reporting Requirements**

None.

**V. Testing Requirements**

None.

**VI. Miscellaneous Requirements**

None.

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. 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>
P926 - Slag Handling and Storage; Hopper; Partially Enclosed Conveyor; Totally Enclosed System: Bucket Elevator, Silo with Filter; Weigh Feeder & Screw Conveyor; 2-Screw Conveyors, Bucket Elevator	OAC rule 3745-31-05 (A)(3)  OAC rule 3745-31-05 (D)  40 CFR Part 60, Subpart F 40 CFR Part 63, Subpart LLL  OAC rule 3745-17-08 (B) OAC rule 3745-17-07	0.74 lbs/hr particulate emissions  The visible emission opacity shall not exceed 10 percent, as a six minute average.  0.20 TPY particulate emissions, on a rolling 12-month basis; See A.I.2.b.  The limits based on these rules are less stringent than that required by OAC rule 3745-31-05 (A)(3).  See A.2.c. below

**2. Additional Terms and Conditions**

- 2.a The 0.74 lb/hr particulate emissions limitation was established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop

Southdown Inc

PTI Application: 08 04127

Issued

Facility ID: 0829700165

Emissions Unit ID: P926  
record keeping and/or reporting requirements to ensure compliance with this limit.

- 2.b** In order to avoid Prevention of Significant Deterioration (PSD) review for particulate emissions, the permittee has opted to limit the potential-to-emit from this emissions unit by limiting the amount of material handled per year and thereby limiting the annual emission rate.
- 2.c** This emissions unit is not located in an Appendix A area, as specified in OAC rule 3745-17-08, and as such it is not subject to reasonably available control measures (RACM) in OAC rule 3745-17-08 (B) or the visible emission limitations in OAC rule 3745-17-07.

## II. Operational Restrictions

- The maximum annual amount of material handled in this emissions unit shall not exceed 110,000 tons per year, on a rolling 12- month basis.
- To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following table:

<u>Month(s)</u>	<u>Emissions of Particulates, in tons</u>	<u>Maximum Allowable Cumulative</u>
1	0.1	
1-2	0.1	
1-3	0.1	
1-4	0.1	
1-5	0.1	
1-6	0.1	
1-7	0.12	
1-8	0.14	
1-9	0.15	
1-10	0.17	
1-11	0.19	

Issued: June 7, 2000

1-12                      0.20

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual emission limitation for particulates shall be based upon a rolling, 12-month summation of the monthly emissions.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the amount of material handled in this emissions unit on a rolling 12-month basis.

### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitations for particulates and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. The permittee shall submit the deviation (excursion) reports in accordance with paragraph A.1.c. in the general terms and conditions.
2. Pursuant to the NSPS 40 CFR Part 60, Subpart F, and the MACT 40 CFR Part 63, Subpart LLL the source owner/operator is required to report the following milestones:
  - a. date of commencement of construction ( no later than 30 days after such date);
  - b. anticipated date of initial start-up (not more than 60 days or less than 30 days prior to such date);
  - c. actual date of initial start-up (within 15 days after such date); and,
  - d. date of performance testing (at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency  
DAPC - Air Quality Modeling and Planning  
P.O. Box 1049  
Columbus, OH 43216-1049

and

**Regional Air Pollution Control Agency**  
**451 West Third Street**  
**Dayton, OH 45422**

**V. Testing Requirements**

1. Compliance with the emission limitations in section A.I. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation-

0.74 lbs/hr particulate emissions

Applicable Compliance Method-

The 0.74 lbs/hr particulate emissions limitation was developed in the following manner:

- i. Multiply the maximum hourly handling rate of 200 tons/hr by the uncontrolled emission factor of 0.0029 lb/ton, as specified in USEPA reference document AP-42, Table 11.12-2, dated 10/86, reformatted1/95.
- ii. Multiply the maximum hourly handling rate of 200 tons/hr by the controlled emission factor of 0.0001 lb/ton, as specified in USEPA reference document AP-42, Table 11.12-2, dated 10/86, reformatted1/95, then multiply the product by 8 for the number of uncontrolled transfer points.
- iii. Sum the products from i. and ii.

- b. Emission Limitation-

0.20 TPY particulate emissions, on a rolling 12-month basis

**Southdown Inc****PTI Application: 08-04127****Issued****Facility ID: 0829700165**

Emissions Unit ID: P926

**Applicable Compliance Method-**

The 0.20 TPY particulate emissions limitation was developed by multiplying the sum of the 12 monthly handling rates, as determined in section A.III.1. by the emission factor of 0.0029 lb/ton for uncontrolled units, and the emission factor of 0.0001 lb/ton for controlled units, as specified in USEPA reference document AP-42, Table 11.12-2, dated 10/86, reformatted 1/95, and divided by 2000 lbs/ton.

- c. **Emission Limitation-**  
10 % opacity, as a 6-minute average

**Applicable Compliance Method-**

Compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03 (B)(3) using the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

**VI. Miscellaneous Requirements**

Terms A.I.2.b., A.II.1., A.II.2. and A.III.1. are federally enforceable.

Issued: June 7, 2000

**B. State Only Enforceable Section**

**I. 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>
P926 - Slag Handling and Storage; Hopper; Partially Enclosed Conveyor; Totally Enclosed System: Bucket Elevator, Silo with Filter; Weigh Feeder & Screw Conveyor; 2-Screw Conveyors, Bucket Elevator	None	None

**2. Additional Terms and Conditions**

- 2.a None.

**II. Operational Restrictions**

None.

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

None.

**IV. Reporting Requirements**

None.

**V. Testing Requirements**

None.

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04127

Facility ID: 0829700165

FACILITY NAME Southdown Inc

FACILITY DESCRIPTION Raw material handling systems to accept, store and move material to the kiln and finish mill. CITY/TWP Xenia

Emissions Unit ID: P926

**VI. Miscellaneous Requirements**

None.

SIC CODE 3241 SCC CODE 3-05-006-07 EMISSIONS UNIT ID P925

EMISSIONS UNIT DESCRIPTION Fly Ash and Silica Material Handling and Storage; Hopper, Enclosed System: Bucket Elevator, Belt Conveyor, Silo with Filter, Rotary Feeder, & Weigh Feeder; Partially Enclosed Belt Conveyor

DATE INSTALLED when receive PTI

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	3.63 lbs/hr	4.4	3.63 lbs/hr	4.4
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

## APPLICABLE FEDERAL RULES:

NSPS? Subpart F: NESHAP? **Subpart LLL:** PSD?

OFFSET POLICY?

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

**Enter Determination:** Compliance with the applicable state and federal regulations; limitations on the amount of material handled per year and the emissions limitations; recordkeeping; reporting; 10% visible emissions opacity

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

**NEW SOURCE REVIEW FORM B**

PTI Number: 08-04127 Facility ID: 0829700165

FACILITY NAME Southdown Inc

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FACILITY DESCRIPTION	Raw material handling systems to accept, store and move material to the kiln and finish mill.	CITY/TWP	Xenia
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IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

**2 NEW SC**

PTI Num

FACILITY

Emissions Unit ID: P926

FACILITY DESCRIPTION Raw material handling systems to accept, store and move material to the kiln and finish mill.

CITY/TWP Xenia

SIC CODE 3241 SCC CODE 3-05-006-07 EMISSIONS UNIT ID P926

EMISSIONS UNIT DESCRIPTION Slag Handling and Storage; Hopper; Partially Enclosed Conveyor; Totally Enclosed System: Bucket Elevator, Silo with Filter; Weigh Feeder & Screw Conveyor; 2-Screw Conveyors, Bucket Elevator

DATE INSTALL when PTI issued

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	0.74 lbs/hr	0.204	0.74 lbs/hr	0.204
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? Subpart F: NESHP? Subpart LLL: PSD? Portland Cement Portland Cement

OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION? Enter Determination Compliance with the applicable state and federal regulations; limitations on the amount of material handled per year and the emissions limitations; recordkeeping; reporting; 10% visible emissions opacity

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: 08-04127

Facility ID: 0829700165

FACILITY NAME Southdown Inc

FACILITY DESCRIPTION Raw material handling systems to accent. CITY/TWP Xenia

Emissions Unit ID: P926

**Please describe any hard copy information is being submitted with this recommendation (Please send hard copy information to Pam McGraner, DAPC Central Office - Air Quality Modeling and Planning):**

NONE

**Please provide any additional permit specific notes as you deem necessary:**

NONE

**Permit To Install Calculations and NSR Discussion****Calculations:**P925: Fly Ash/Silica Handling and Storage System

Use the emission factor from AP-42 EF Fifth Edition, Table 11.12-2 for concrete batching of 0.029 lb PE/ton for sand and aggregate transfer to elevated bin

Silica (sand) handled = 123,779 TPY Max hourly = 125 TPH

Fly Ash handled = 180,000 TPY

Total material handled = 303,779 TPY

Annual:  $(303,779 \text{ TPY})(0.029 \text{ lb/ton})(\text{ton}/2000 \text{ lbs}) = 4.4 \text{ TPY}$  Particulate emissions (PE)Hourly:  $(125 \text{ TPH})(0.029 \text{ lb/ton}) = 3.63 \text{ lbs/hr PE}$ PTE:  $(3.63 \text{ lbs/hr})(8760 \text{ hrs/yr})/(2000 \text{ lbs/ton}) = 15.9 \text{ TPY PE}$ P926: Slag Handling and Storage System

AP-42 EF from the Fifth Edition, Table 11.19.2-2 for crushed stone processing for **uncontrolled** conveyor points = 0.0014 lb PM-10/ton of material handled, per footnote c, total particulate can be estimated by multiplying the PM-10 factor by 2.1; therefore  $(0.0014 \text{ lb PM-10})(2.1) = 0.0029 \text{ lb PE/ton}$  of material handled, transferred

For **controlled** conveyor points =  $(4.8 \text{ }^{-5} \text{ lb PM-10/ton})(2.1) = 0.00010 \text{ lb PE/ton}$ 

Slag handled = 110,000 TPY

Max. Hourly: 200 TPH

EF used is for uncontrolled conveyor transfer points: 0.0029 lb/ton

**Controlled 0.0001 lb/ton =  $(4.8 \text{ }^{-5})(2.1)$**  **$(200 \text{ TPH})(0.0001 \text{ lb/ton}) = (0.02 \text{ lb/hr})(8760 \text{ hrs/yr})/2000 \text{ lbs/ton} = 0.0876 \text{ TPY}$** 

Uncontrolled:

Annual:  $(110,000 \text{ TPY})(0.0029 \text{ lb/ton})(\text{ton}/2000 \text{ lbs}) = 0.16 \text{ TPY PE}$ Hourly:  $(200 \text{ TPH})(0.0029 \text{ lb/ton}) = 0.58 \text{ lbs/hr PE}$ PTE:  $(0.58 \text{ lbs/hr})(8760 \text{ hrs/yr})/(2000 \text{ lbs/ton}) = 2.54 \text{ TPY PE}$

**NEW SC**

PTI Num

**FACILITY**

FACILITY DESCRIPTION

Raw material handling systems to accept, store and move material to the kiln and finish mill.

Emissions Unit ID: P926

CITY/TWP Xenia

Controlled: 8 conveyor transfer points are controlled  
Annual:  $(110,000 \text{ TPY})(0.0001 \text{ lb/ton})(8)(\text{ton}/2000 \text{ lbs}) = 0.044 \text{ TPY PE}$   
Hourly:  $(200 \text{ TPH})(0.0001 \text{ lb/ton})(8) = 0.16 \text{ lb/hr PE}$

PTE:  $(0.16 \text{ lb/hr})(8760 \text{ hrs/yr})/(2000 \text{ lbs/ton}) = 0.70 \text{ TPY}$

Slag PTE =  $0.70 \text{ TPY} + 2.54 \text{ TPY} = 3.24 \text{ TPY PE}$   
Total Controlled and Uncontrolled Hourly Rates:  $0.58 \text{ lb/hr} + 0.16 \text{ lb/hr} = 0.74 \text{ lb/hr PE}$   
Total Controlled and Uncontrolled TPY Rates:  $0.16 \text{ TPY} + 0.044 \text{ TPY} = 0.204 \text{ TPY PE}$

**Total permit allowable from both the Fly Ash/Silica System and the Slag System:**

P925 = 4.40 TPY  
P926 = 0.16 TPY uncontrolled  
P926 = 0.044 TPY controlled  
5.0 TPY PE

**Total PTE for major new source review applicability from both the Fly Ash/Silica System and the Slag System**

$15.9 + 3.24 = 19.14 \text{ TPY Particulate}$   
 $\text{PM-10} = 19.14 \text{ TPY PE}/2.1 = 9.11 \text{ TPY PM-10}$

PSD major modification thresholds are 25/15 for Particulate/PM-10. Therefore, this project's potential is less than the major PSD modification thresholds.

Allowable emission rates based on the SIP, OAC 3745-17-11 (B). Table I is more stringent in both cases.

Flyash/Silica: 125 TPH  
 $E = 55(125)^{0.11} - 40 = 53.5 \text{ lbs/hr PE}$

Slag: 200 TPH  
 $E = 55(200)^{0.11} - 40 = 58.5 \text{ lbs/hr PE}$

**NSR Discussion:**

Southdown, Inc. operates a cement production facility in Greene County. The facility is currently major for PSD and Title V permitting. Southdown has submitted this PTI to request the installation of two raw material handling and storage systems. One system is for the Fly Ash/Silica material (P925) and the other is for the Slag material (P926).

**30 NEW SOURCE REVIEW FORM B**

PTI Number: 08-04127

Facility ID: 0829700165

FACILITY NAME Southdown Inc

FACILITY DESCRIPTION Raw material handling svstems to accent. CITY/TWP Xenia

Emissions Unit ID: P926

The Fly Ash/Silica system includes the following: hopper; enclosed system: bucket elevator, belt conveyor, silo with filter, rotary feeder, and weigh feeder; partially enclosed system: belt conveyor. The raw material is loaded from a front loader into a hopper, which is unloaded by a bucket elevator, conveyed by a belt conveyor to be stored in a silo. The silo is unloaded by a rotary feeder to a weigh feeder, to a belt conveyor which empties onto the currently used belt conveyor that carries feed to the kiln.

The Slag system includes the following: hopper; conveyor that is partially enclosed; totally enclosed system: bucket elevator, silo with a filter, weigh feeder and screw conveyor. The raw material is loaded from a front loader or truck into a hopper, conveyed to a bucket elevator, and stored in a silo. It is then gravity fed to a weigh feeder, a screw conveyor, and then goes to existing equipment consisting of a screw conveyor, bucket elevator, and is fed by screw conveyor to the kiln.

Because the potential emissions are calculated based on the maximum hourly amount of material loaded or unloaded from a truck into a hopper, the emissions are much higher than their actual annual emission rates. But for this reason, this permit is being written as a synthetic minor. The facility will accept federally enforceable limitations on the amount of material handled on a 12-month rolling basis. With the federally enforceable restrictions, the annual emission rate will be limited to 5 TPY particulate emissions, which is below the major source modification thresholds for PSD permitting requirements for particulate and PM-10 (25/15 TPY).

The facility uses the fly ash/silica as a substitute raw material in their process. The slag is used as a pre-calcined material in the cement manufacturing process. It provides the following qualities without degrading the quality of their product:

- 1) Contributes to a lowering of specific CO2 emissions in pounds per ton of clinker and/or ton of cement produced.
- 2) Contributes to a lowering of specific heat consumption in mmBtu per ton of clinker.
- 3) Contributes to the increased production per ton of total feed to the kiln.
- 4) Results in no net increase in emissions of criteria pollutants in pounds per ton of clinker.

The facility had been using these materials and storing them on ground previously, so the installation of this handling and storage equipment will reduce the particulate emissions from these materials.

This permit is recommended for approval. Jennifer Marsee 1/27/00

**Please fill in the following for this permit:**

**TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
particulate emissions	5.0