



State of Ohio Environmental Protection Agency

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George v. Voinovich
Governor
Donald R. Schregardus
Director

November 4, 1993

CERTIFIED MAIL

Re: Modification to Permit to Install No. 08-1411
Greene County

Southdown, Inc.
P. O. Box 191
Fairborn, Ohio 45324

Attention: Brad Phillips

Enclosed please find a modification to the Ohio EPA Permit to Install referenced above which will modify the terms and conditions.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after 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 Board. An appeal may be filed with the Environmental Board of Review at the following address: Environmental Board of Review, 236 East Town Street, Room 300, Columbus, OH 43215.

Very truly yours,

A handwritten signature in black ink that reads "Thomas G. Rigo".

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

Enclosure

cc: US EPA
Regional Air Pollution Control Agency

Permit to Install Terms and Conditions

Issuance Date: November 4, 1993

Effective Date: November 4, 1993

OHIO ENVIRONMENTAL PROTECTION AGENCY

MODIFICATION TO PERMIT TO INSTALL

Name of Applicant: Southdown, Inc.
Address: State Route 235 & Dayton-Yellow Springs Road
City: Bath Township, Ohio

The Ohio EPA has received a request for a modification for the Ohio EPA Permit to Install referenced above.

The Permit to Install issued to Southdown, Inc. (PTI No. 08-1411) is hereby modified in the following manner:

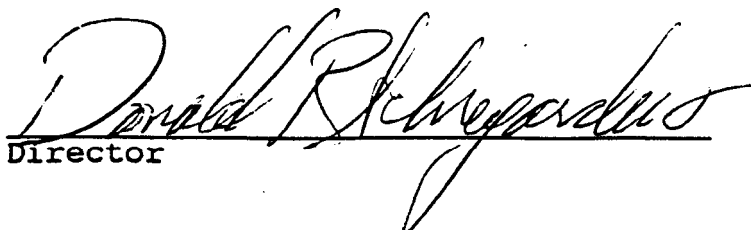
Terms and Conditions of Permit to Install issued June 28, 1989.

The reason for the modification is:

To incorporate changes as recommended from the public comments received during the hearing June 10, 1993.

The above named entity is hereby granted a modification to the permit to install described above pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this modification 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 source(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 included in the application, the above described source(s) of pollutants will be granted the necessary operating permits.

Ohio Environmental Protection Agency



Director

Substantial construction for installation must take place within eighteen months of the effective date of this permit. This deadline may be extended by up to twelve 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.

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, examining records or reports pertaining to the construction, modification or installation of the above-described source of environmental pollutants.

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.

The specified permit fee must be remitted within 15 days of the effective date of this permit to install.

The proposed source 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.

EMISSION SUMMARY

The air contaminant sources listed below comprise the Permit to Install for located in County. The sources listed below shall not exceed the emissions limits/control requirements contained in the following table:

<u>Ohio EPA Source Number</u>	<u>Source Identification</u>	<u>BAT Determination</u>	<u>Applicable Ohio EPA Rule</u>	<u>Allowable Emissions (lb/hr, lb/MMBTU, gr/DSCF, etc.)</u>
PO03	Cement preheater/ kiln (F12) & alkali bypass (E100); modifica- tion to receive,	Compliance w/ specified allowable emission limitations	3745-31-0s 3745-17-07 3745-17-11 3745-18-35(I)	Part: 0.07 lb/ton of kiln feed (dry); 11.0 lbs/hr at max. capacity 0.015 gr/ dscf from the

Ohio EPA Source Number	Source Identification	BAT Determination	Applicable Ohio EPA Rule	Allowable Emissions (lb/hr, lb/MMBTU, gr/DSCF, etc.)
(cont.)	blend, & burn liquid hazardous Waste fuel (LHWF), used oil, virgin oil & rubber fuel (TDF)	& 99.99% DRE for POHC's ; compliance w/ all additional terms and conditions		bypass and kiln stacks combined so*: 9.0 lbs/ton of product; 900.0 lbs/hr at max. cap. HCL: the larger of 4.0 lbs/hr <u>or</u> 1.0% of the uncontrolled HCl emission rate, at maximum capacity Lead (Pb): 0.023 lb/hr at max. cap. DRE: 99.99% for POHC's visible emissions: 15% opacity 30 ng/dscm sum of all tetra-octa dioxin and furan congeners from the main and bypass stacks combined

SUMMARY

TOTAL NEW SOURCE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>
Particulate	48.2
so2	2,950.0
Organic compounds	87.8
HCl	17.5
Pb	0.1

The allowable emission rate **for** organic compounds (87.8 tons/year) is now comprised of the emissions from both the liquid hazardous waste materials and raw materials used to produce the **portland** cement. The previous allowable organic compound emission rate (8.4 tons/year) only included the emissions associated with the liquid hazardous waste materials. Although the tons per year figure has increased, the actual organic compound emissions from the process have not. The modified allowable emission rate more accurately reflects the organic compound emissions from the process.

The allowable emission rate for hydrogen chloride has also been modified. The allowable emission rate (17.5 tons/year) is now based upon the maximum hourly emission rate (4.0 pounds/hour) multiplied by the maximum annual operating hours (8760 hours/year). The previous allowable emission rate 12.0 tons/year) was based upon the maximum annual clinker production rate (600,000 tons/year) divided by the maximum hourly production rate (100 tons/hour) and multiplied by the maximum allowable hourly emission rate. Using the maximum hourly emission rate multiplied by the maximum annual operating hours is consistent with the procedure used to calculate the other allowable emission rates.

This condition in no way limits the applicability of any other state or federal regulation.

NSPS REQUIREMENTS

The following sources are subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

<u>Source No.</u>	<u>Source Description</u>	<u>NSPS Resulation (Subpart)</u>
P003	Portland Cement Plant	Subpart F

The application and enforcement of these standards are delegated to the Ohio EPA. The requirement of 40 CFR Part 60 are also federally enforceable.

WASTE DISPOSAL

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport, and disposal of any waste material generated by the operation of the sources.

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.

(Continued)

ADDITIONAL SPECIAL TERMS AND CONDITIONS

1. Approval to operate the above identified source is hereby granted to Southdown, Inc. d.b.a. Southwestern Portland Cement (Southdown), subject to the conditions expressed herein and consistent with the materials and data included in the application filed by the company. Any departure from the conditions of this approval or the terms expressed in the application must receive prior written authorization of the Regional Air Pollution Control Agency (RAPCA) and the Ohio EPA.
2. The term "supplemental fuels" in this permit refers to pumpable or liquid hazardous waste fuel (LHWF), used oil, and tire derived fuel (TDF). The term "primary fuels" used in this permit refers to coal, petroleum coke, coke breeze, and virgin no. 2 fuel oil.

EMISSION LIMITATIONS

3. The following rules establish the applicable emission limitations and/or control requirements for this source. (This condition in no way limits the applicability of other requirements of the Ohio Administrative Code to this source).

OAC rule 3745-31-05 (A)(3) (Ref: PTI 08-1411)
OAC rule 3745-17-11
OAC rule 3745-17-07
OAC rule 3745-18-35 (I)

40 CFR Part 60, Subpart F (New Source Performance Standard)
40 CFR Part 266, Subpart H (Boiler and Industrial Furnace Rule)
4. The main stack and alkali bypass stack of the kiln shall not discharge any gases which exhibit greater than 15 percent opacity, in accordance with U.S. EPA Reference Method 9.
5. The particulate matter emission rates shall not exceed the following:
 - a. 11 pounds per hour (**lbs/hr**) combined from the main and and bypass stacks; and
 - b. 0.015 grains/dry standard cubic foot (gr/dscf)*, corrected to 7% oxygen, from the main and bypass stacks combined.

6. The sum of all tetra through **octa** dioxin and **furan congeners**, shall not exceed 30 nanograms per dry standard cubic meter (ng/dscm)*, corrected to 7% oxygen, from the main and bypass stacks combined.
7. Sulfur dioxide emissions shall not exceed 9.0 pounds per ton of product.
8. The kiln combustion process shall achieve at least a 99.99% destruction/removal efficiency (DRE) for the principal organic hazardous constituents (**POHCs**) as in Appendix VIII of 40 CFR Part 261.
9. The emissions of hydrogen chloride (**HCl**) from the cement kiln shall not exceed the larger of either 4.0 pounds per hour or 1.0% of the uncontrolled **HCl** emissions, in accordance with the modified U.S. EPA Reference Method 26 employed in the April, 1991, stack test.
10. Emissions of metals from the main stack and alkali bypass stack combined shall not exceed the specified allowable emission rates listed below:

	<u>Allowable Emission Rate, lb/hr</u>
Antimony	4.6E-04
Arsenic	1.4E-04
Barium	3.2E-03
Beryllium	6.43-06
Cadmium	1.1E-03
Chromium VI	4.73-04
Lead	2.33-02
Mercury	1.3E-02
Nickel	2.6E-03
Silver	3.4E-04
Thallium	1.0E-03
Zinc	8.0E-03

* The Ohio EPA is currently imposing these standards as interim limits, pending promulgation of U.S./Ohio EPA requirements that will determine final emission limits.

A demonstration of compliance with the limits specified in T&C #5 & #27 shall be deemed a demonstration of compliance with the metals emission rates in pounds per hour (**lbs/hr**), listed in T&C # 10.

LIOUID HAZARDOUS WASTE FUEL (LHWF) PREOUALIFICATIONS

11. All **LHWF** burned by Southdown shall comply with the specifications listed on Attachment No. 1.

12. All used oil burned by Southdown shall comply with the specifications listed on Attachment No. 2.
13. Southdown shall not accept LHWF from generators or blenders inconsistent with any Waste Analysis Plan approved by Ohio EPA.
14. Southdown shall **receive a** chemical analysis with each incoming load of LHWF. The analysis shall be performed in accordance with the test methods specified by OAC rule 3745-54-13 and 40 CFR Part 264.13 and, at a minimum, include:
 - a. Btu/lb of the LHWF;
 - b. chlorine content;
 - c. sulfur content;
 - d. trace metals concentrations: antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, nickel, silver, thallium, and zinc;
 - e. **PCBs** concentration;
 - f. **pH**; and
 - g. viscosity.

The analyses shall be kept for a minimum of three (3) years and shall be made available to RAPCA and Ohio EPA on request.

15. Southdown shall **receive** the following load information with each incoming load of LHWF:
 - a. the date the incoming load was placed into the tanker truck for shipment to Southdown;
 - b. the load record number provided by the generator or blender;
 - c. the tanker truck number;
 - d. the number and size of the **storage** tank which was storing the LHWF or used oil prior to placement into the tanker truck;
 - e. the number of gallons shipped in the load;
 - f. the load number in relation to the total number of loads shipped from each storage tank;
 - g. the corresponding manifest number; and
 - h. the seal number.

The load information shall be kept for a minimum of three (3) years and shall be made available to RAPCA and Ohio EPA on request.

16. Southdown shall receive a chemical analysis with each incoming load of used oil. The analysis shall be performed in accordance with the test methods specified by OAC rule 3745-54-13 and 40 CFR Part 264.13 and, **at a** minimum, include: