Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

October 25, 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Don Kelly
Plant Manager
Southdown, Inc.
Post Office Box 6
Brooksville, Florida 34605-0006

Re: DRAFT Permit No. 0530010-001-AC (PSD-FL-233)
Kilns and Coolers No. 1 and No. 2

Dear Mr. Kelly:

Enclosed is one copy of the Draft Air Construction Permit for the Southdown cement plants located at US Highway 98, Northwest of Brooksville, Hernando County. The Technical Evaluation and Preliminary Determination along with the Department's Intent to Issue Air Construction Permit and the "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT" must be published within 30 (thirty) days of receipt of this letter. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the alloted time may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please contact Teresa Heron or Mr. Linero at 904/488-1344.

Sincerely,

A. A. Linero P.E. for

C. H. Fancy, P.E., Chief,
Bureau of Air Regulation

CHF/th/h

Enclosures

In the Matter of an
Application for Permit by:

Southdown, Inc.
Post Office Box 6
Brooksville, Florida 34605-0006 /

DRAFT Permit No.:0570008-013-AC
PSD-FL-234
Brooksville Portland Cement Facility
Hernando County

INTENT TO ISSUE AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy of DRAFT Permit attached) for the proposed project, detailed in the application specified above and the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, Southdown, Inc., applied on February 22, 1996, to the Department for modification of the existing air construction permits for its Brooksville facility located at Highway 98 Northwest of Brooksville, Hernando County. The request is to revise permitted emission limits for two existing kilns and coolers.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that a new air construction permit is required to revise the emission limits as proposed.

The Department intends to issue this air construction permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT". The notice shall be published one time only within 30 (thirty) days in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 904/488-1344; Fax 904/ 922-6979) within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-103.150 (6), F.A.C.

The Department will issue the FINAL Permit, in accordance with the conditions of the enclosed DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT." Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the Department shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., or a party requests mediation as an alternative remedy under Section 120.573 F.S. before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing are set forth below, followed by the procedures for requesting mediation.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, telephone: 904/488-9730, fax: 904/487-4938. Petitions must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition (or a request for mediation, as discussed below) within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A person whose substantial interests are affected by the Department's proposed permitting decision, may elect to pursue mediation by asking all parties to the proceeding to agree to such mediation and by iling with the Department a request for mediation and the written agreement of all such parties to mediate the dispute. The request and agreement must be filed in (received by) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

A request for mediation must contain the following information: (a) The name, address, and telephone number of the person requesting mediation and that person's representative, if any; (b) A statement of the preliminary agency action; (c) A statement of the relief sought; and (d) Either an explanation of how the requester's substantial interests will be affected by the action or proposed action addressed in this notice of intent or a statement clearly identifying the petition for hearing that the requester has already filed, and incorporating it by reference.

The agreement to mediate must include the following: (a) The names, addresses, and telephone numbers of any persons who may attend the mediation; (b) The name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time; (c) The agreed allocation of the costs and fees associated with the mediation; (d) The agreement of the parties on the confidentiality of discussions and documents introduced during mediation; (e) The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen; (f) The name of each party's representative who shall have authority to settle or recommend settlement; and (g) The signatures of all parties or their authorized representatives.

As provided in Section 120.573 F.S., the timely agreement of all parties to mediate will toll the time limitations imposed by Sections 120.569 and 120.57 F.S.for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under Sections 120.569 and 120.57 F.S.remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

C.H. Fancy, P.E., Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE, Technical Evaluation and Preliminary Determination, Draft BACT Determination, and the DRAFT permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 10-25-96 to the person(s) listed:

Mr. Don Kelly, Southdown, Inc. *
Brian Beals, EPA
John Bunyak, NPS
John Koogler, P.E.
Amargit Gill, Southdown, Inc.
Bill Thomas, SWD
Tom Ellison, SWD
Lizanne Garcia, HCPD

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Kuni Jolzer 10-25-96
(Clerk) (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DRAFT Permit No.: 0530010-001-AC, (PSD-FL-233)
Southdown Brooksville Cement Manufacturing Facility
Hernando County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Southdown, Inc., for a revision of the emission limits applicable to its portland cement facility located on Highway 98, Northwest of Brooksville, Hernando County. A Best Available Control Technology (BACT) determination was required for particulate matter (PM/PM_{10}), and carbon monoxide (CO) pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The applicant's name and address are: Southdown, Inc. Post Office Box 6, Brooksville, Florida 34605-0006.

The new permit will replace four current construction permits for Cement Plants No. 1 and No. 2 which were originally permitted in 1973 and 1980, respectively. Each plant includes a coal/ liquid fuel/ gas-fired, dry process cement kiln with a preheater and clinker cooler. Air pollution control is achieved by fabric filters (baghouses) for PM/PM_{10} from the kilns and coolers; absorption of sulfur compunds and metals into the product; and combustion controls for CO, volatile organic compounds (VOC), and nitrogen oxides (NO_x).

The permit will account for increases in the permitted emissions of PM/PM_{10} from Coolers No. 1 and No. 2 and Kiln No. 2; decrease of permitted emissions of PM/PM_{10} from Kiln No. 1; increases in permitted emissions of CO and VOC from both kilns; and will set a permit limit for NO_x from Kiln No. 1. The final set of limits are among the lowest in Florida or any other state.

Total emissions of pollutants exhibiting PSD-significant increases shall not exceed the following limits:

Pollutant	Maximum Emissions Tons Per Year (TPY)
CO	1,441
PM/PM_{10}	331
VOC	110

An air quality impact analysis was conducted. Emissions from the facility will consume PSD increment but will not significantly contribute to or cause a violation of any state or federal ambient air quality standards. The maximum predicted PSD Class II PM_{10} increments consumed by all sources in the area, including this project, will be as follows:

PSD Class II Increment Consumed ($\mu g/m^3$)		Allowable Increment ($\mu g/m^3$)	Percent Increment Consumed
PM_{10}			
24-hour	24.0	30	80
Annual	13.8	17	81

The project has an insignificant impact on the Chassahowitzka PSD Class I area for the PM_{10} annual averaging time. The maximum predicted PSD Class I PM_{10} increment consumed by the project for the 24 hour averaging time is 1.02 $\mu g/m^3$ or 18% of the available 24 hour increment of 8 $\mu g/m^3$.

The Department will issue the FINAL Permit, in accordance with the conditions of the enclosed DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the Department shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

The Department will issue FINAL Permit with the attached conditions of the enclosed DRAFT Permit unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S. or a party requests mediation as an alternative remedy under Section 120.573 before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing are set forth below, followed by the procedures for requesting mediation.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, telephone: 904/488-9370, fax: 904/487-4938. Petitions must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition (or a request for mediation, as discussed below) within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information: (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by petitioner, if any; (e) A statement of the facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the Department's action or proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the Department to take with respect to the Department's action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A person whose substantial interests are affected by the Department's proposed permitting decision, may elect to pursue mediation by asking all parties to the proceeding to agree to such mediation and by filing with the Department a request for mediation and the written agreement of all such parties to mediate the dispute. The request and agreement must be filed in (received by) the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

A request for mediation must contain the following information: (a) The name, address, and telephone number of the person requesting mediation and that person's representative, if any; (b) A statement of the preliminary agency action; (c) A statement of the relief sought; and (d) Either an explanation of how the requester's substantial interests will be affected by the action or proposed action addressed in this notice of intent or a statement clearly identifying the petition for hearing that the requester has already filed, and incorporating it by reference.

The agreement to mediate must include the following: (a) The names, addresses, and telephone numbers of any persons who may attend the mediation; (b) The name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time; (c) The agreed allocation of the costs and fees associated with the mediation; (d) The agreement of the parties on the confidentiality of discussions and documents introduced during mediation; (e) The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen; (f) The name of each party's representative who shall have authority to settle or recommend settlement; and (g) The signatures of all parties or their authorized representatives.

As provided in Section 120.573 F.S., the timely agreement of all parties to mediate will toll the time limitations imposed by Sections 120.569 and 120.57 F.S. for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under Sections 120.569 and 120.57 F.S. remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

NOTICE TO BE PUBLISHED
IN THE NEWSPAPER

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida, 32301
Telephone: 904/488-1344
Fax: 904/922-6979

Department of Environmental Protection
Southwest District Office
Tampa, Florida 33619
Telephone: 813/744-6100
Fax: 813/744-6458

The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 904/488-1344, for additional information.

Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

P.E. Certification Statement

Permittee:
Southdown, Inc.,
Portland Cement Manufacturing Facility
Brooksville, Florida

Permit No.: 0530010-001 and PSD-Fl-233
Facility ID No.: 0530010

Project type: Permit Modification
Kilns and Coolers No. 1 and No. 2

I HEREBY CERTIFY that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

A.A. Linero, P.E. — Date 10/25/96
Registration Number: 26032

Department of Environmental Protection
Bureau of Air Regulation
New Source Review Section
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Phone (04) 488-1344
Fax (904) 922-6979

aaL 10/25

DEPARTMENT OF ENVIRONMENTAL PROTECTION
NEW SOURCE REVIEW SECTION
BUREAU OF AIR REGULATION
Telephone (904) 488-1344
Fax (904) 922-6979
Mail Station # 5505

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

Southdown, Inc.,
Brooksville, Hernando County, Florida

Air Construction Permit Number 0530010-001-AC (PSD-FL-233)
(Supersedes AC 27-258569, 258570, 258571, and 258572)
Kilns 1 and 2, Coolers 1 and 2

October 25, 1996

1. APPLICATION INFORMATION

1.1 Applicant Name and Address

Southdown, Inc.
U.S. Highway 98
Brooksville, Florida 34605

Authorized Representative:
Mr. Don Kelly, Plant Manager

1.2 Reviewing and Process Schedule

02-22-96: Date of Receipt of Application
03-08-96: Department's Preliminary Incompleteness Letter
03-21-96: Department's Incompleteness Letter
04-01-96: Southdown's Initial Response to Department's letter of March 8, 1996
06-17-96: Southdown's Response to Department's letters of March 8, 1996
06-17-96: Copy of Southdown's Title V Application as partial response to Department's letter of March 21, 1996
07-10-96: Department's Incompleteness Letter
07-24-96: Southdown's letter to EPA
08-23-96: Southdown's response to Department's letter of July 10, 1996
09-23-96: Department's Incompleteness Letter
10-02-96: Meeting with Southdown's representatives (submittal of netting calculations)
10-14-96: Southdown's response to Department's Incompleteness letter of September 23, 1996
10-17-96: Southdown's letter requesting to recant letter of October 14, 1996

2. FACILITY INFORMATION

2.1 Facility Location

Southdown, Inc.
Portland Cement Manufacturing Facility
UTM: Zone 17; 356 and 3169
Directions: Highway 98, Northwest of Brooksville in, Hernando County.

2.2 Standard Industrial Classification Code

Major Group Number	32	*Clay, Glass and Concrete Products*
Group Number	324	*Cement, Hydraulic*
Industry Number	*3241*	*Cement, Hydraulic*

2.3 Facility Category

This facility includes two existing cement plants consisting of two cement kilns and two clinker

coolers along with ancillary equipment. Air pollutant emissions are over 100 tons per year (TPY) of particulate matter (PM/PM_{10}), sulfur dioxide (SO_2), nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC). This is a Major Facility per Rule 62-210.200(171), F.A.C. and a Major (Title V) Source of Air Pollution per Rule 62-210.200(173). This industry is listed in Table 62-212.400-1, F.A.C., Major Facility Categories.

3. PROJECT DESCRIPTION

3.1 This project involves the following emissions units:

EMISSION UNIT NO.	EMISSION UNIT DESCRIPTION
001	Unit No. 1 - Kiln No. 1
002	Unit No. 2 - Kiln No. 2
003	Unit No. 3 - Cooler No. 1
004	Unit No. 4 - Cooler No. 2

Southdown requested the following:

1. To change the allowable emission rates for particulate matter (PM/PM_{10}) from Kilns Nos. 1 and 2 and Clinker Coolers Nos. 1 and 2. The permitted PM/PM_{10} limits would be increased for Kiln No. 2 from 13.5 pounds per hour (lb/hr) to 26.0 lb/hr, while PM/PM_{10} emissions for Kiln 1 are proposed to be decreased from 39.0 lb/hr to 26.0 lb/hr. The proposed limit for each cooler is 13.0 lb/hr. For the kilns, these limits are equivalent to 0.2 pounds of particulate matter per ton of feed to the kiln (lb/ton feed). For the coolers they are equivalent to 0.1 lb/ton feed.

2. To increase the existing CO emission limits for Kilns 1 from 57.7 lb/hr (while firing tires) to 169.9 lb/hr (under all conditions) and for Kiln 2 from 64.0 to 170 lb/hr.

3. To increase the existing VOC emission limit from 7.4 lb/hr to 13.0 lb/hr for Kiln 2.

No physical change in, change in the method of operation of, or change in annual operating hours of any of the emissions units is proposed. The proposed permit revisions will, however, result in significant net emission increases for PM/PM_{10} (Kilns 1 and 2 and Coolers 1 and 2) and for CO (Kilns 1 and 2) when comparing past actual with future potential emissions.

Background Information

Kiln and Cooler 1 were originally permitted 1973, while Kiln and Cooler 2 were originally permitted in 1980. Kilns 1 and 2 are currently permitted under permits AC 27-258571 and AC27-258572, respectively. Coolers 1 and 2 are permitted under AC 27-258569 and AC27-258570, respectively.

Both kilns are presently permitted for a maximum 1-hour kiln preheater feed rate of 165 tons per hour (TPH), a corresponding kiln feed rate of 148 TPH, a 30-day average kiln preheater feed rate of 145 TPH and a corresponding kiln feed rate of 130 TPH. The maximum heat input rate to each kiln is 300 MMBtu per hour. Each kiln utilizes a baghouse to control the emissions of particulate matter. There are no add-on controls for any of the other pollutants emitted from the cement kilns. Raw material properties, chemical reactions in the kiln, absorption into the clinker, and combustion controls minimize emissions of NO_x, SO_2, CO, and VOC.

Both coolers are permitted for a maximum 1-hour throughput rate of 90 TPH and, a 30-day average throughput rate of 84 TPH. Each clinker cooler utilizes a baghouse to control the emissions of particulate matter.

The applicant has requested removal of clinker production limits and that emission limits be based on feed to the kiln preheater instead of feed to the kiln.

4. PROCESS DESCRIPTION

4.1 General Information

Portland cement is a fine powder, usually gray in color, that consists of a mixture of dicalcium silicate, tricalcium silicate, tricalcium aluminate, and tricalcium aluminoferrite, and miscellaneous minerals to which one or more forms of calcium sulfate have been added. About 95% of the cement production in the U.S. is portland cement. Masonry cement, also produced at the portland cement plant, represents the balance of the domestic cement production.

There are several variations in cement manufacturing including the wet, dry, dry preheater and dry precalciner processes. The precalciner process also includes a preheater. These processes are essentially identical relative to the manufacture of cement from raw materials. However, the type of process does affect the equipment design, method of operation, and fuel consumption. Because of its lower fuel requirements, most new portland cement plants use the dry precalciner process.

The choice of fuel is based on economics. The most commonly used kiln fuels are coal, natural gas, and oil. Supplementary fuels such as petroleum coke, tires, used oil and various kinds of wastes are burned at many plants. Fuel combustion differs between the wet, dry, dry preheater and dry precalciner processes. In the first three, all fuel combustion typically occurs in the kiln. In the latter, some fuel combustion occurs in a separate calcining vessel located between the preheater and kiln. In

any of the processes, it is possible to introduce additional fuels such as tires directly into the kiln. Southdown uses the dry preheater process, a version of which is depicted in simplified form in figure 1 (from a portland cement association publication).

The production of portland cement is a four-step process: (1) raw materials acquisition and handling (2) kiln feed preparation for pyroprocessing, (3) pyroprocessing, and (4) finished cement grinding. The chemical reactions and physical processes that constitute the transformation are quite complex. The heart of the portland cement manufacturing process is the pyroprocessing system which includes the rotary kiln and suspension preheater/precalciner (when present). Several complex chemical reactions necessary to produce portland cement minerals take place in the pyroprocessing system.

Pyroprocessing (preheater process) may be conveniently divided into five stages, depending on location and temperature of the materials in the system.

1. Uncombined water evaporates from raw materials as material temperature increases to 100°C (212°F) in the upper preheater or raw materials roller mill.

2. As the material temperature increases from 100°C to approximately 430°C (800°F) in the preheater, combined water is liberated from argillaceous compounds.

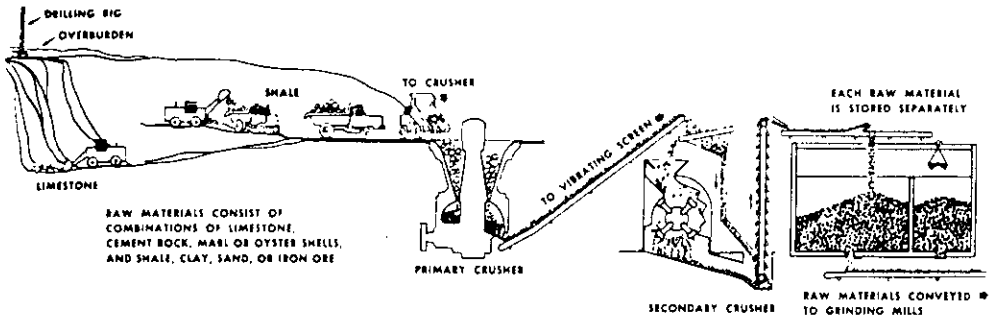
3. Between 430°C and 900°C (1650°F), partial calcination occurs in the lower preheater and is completed within the kiln. Carbon dioxide is liberated from the carbonates and calcium oxide (lime) is formed.

4. Following calcination, sintering of the oxides occurs in the burning zone of the rotary kiln at temperatures up to 1510°C (2750°F). Lime, silica, and iron and aluminum compounds react to form calcium silicates, aluminates, ferrites and aluminoferrites. Alkali sulfates and chlorides evaporate.

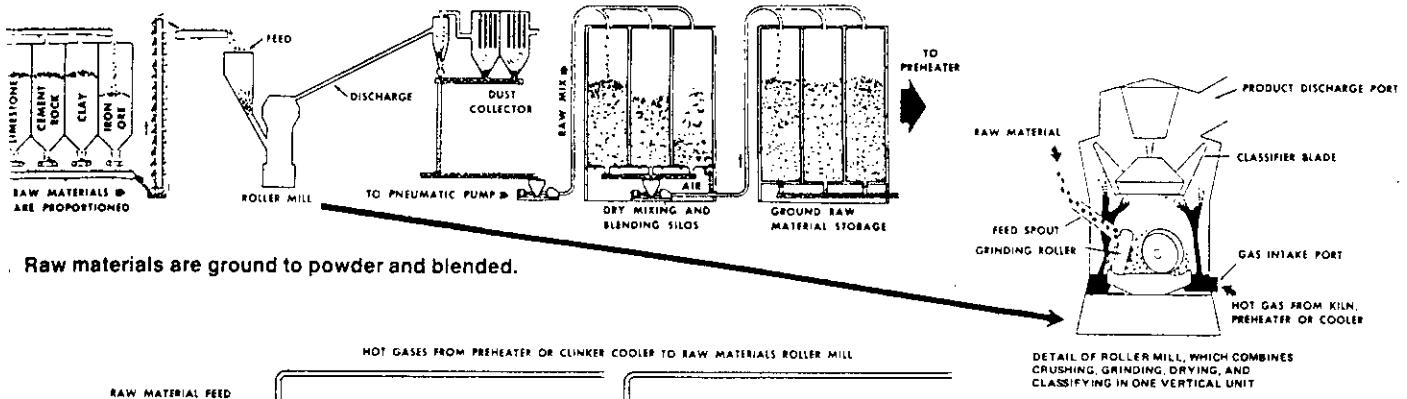
5. Following sintering, clinker nodules are produced as the temperature of the material decreases from 1510°C to 1370°C (2500°F).

The raw materials enter the pyroprocessing system in the uppermost preheater cyclones. They exit the preheater and enter the kiln at the elevated end. The rotation of the kiln causes the solid materials to be slowly transported downward from the front end. Fuel is supplied at the lower or discharge end of the kiln. The hot, gaseous combustion products move countercurrent to the materials flow, thereby transferring heat to solids in the kiln and preheater.

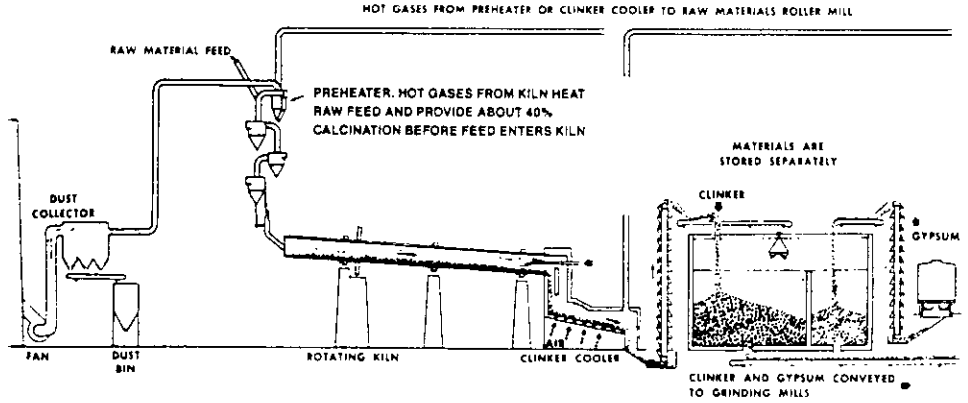
The product of the rotary kiln is known as clinker which enters a vessel where it is cooled by air. Hot air from the clinker cooler is recovered and returned to the pyroprocessing system as combustion air. The cooled clinker is mixed with a form of calcium sulfate, usually gypsum, and ground in ball or tube mills in the finish mill department to produce portland cement.



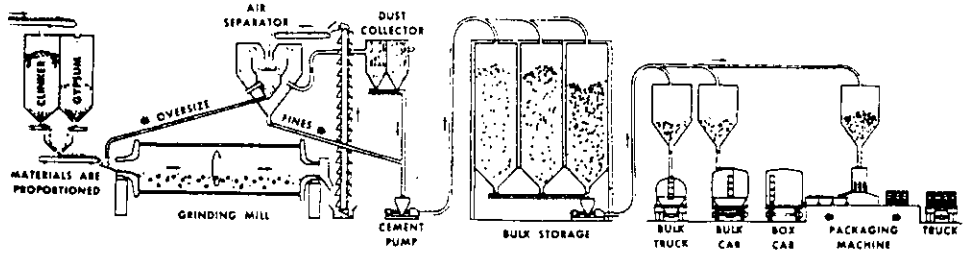
Stone is first reduced to 125 mm size, then to 20 mm, and stored.



Raw materials are ground to powder and blended.



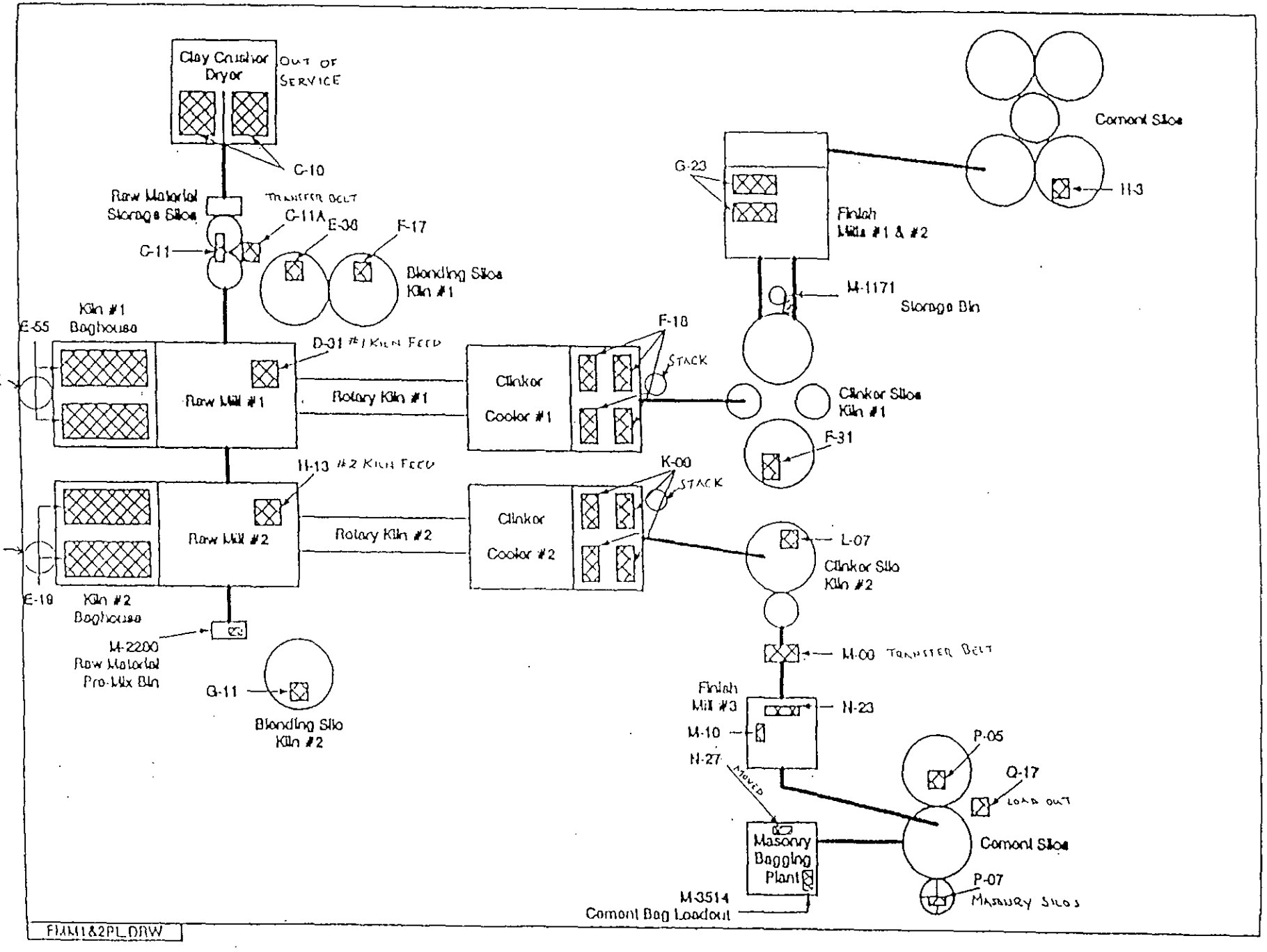
Burning changes raw mix chemically into cement clinker. Note four-stage preheater, flash furnaces, and shorter kiln.



Clinker with gypsum is ground into Portland cement and shipped.

Figure 1 New technology in dry-process cement manufacturing

FIGURE 2 PROCESS FLOW DIAGRAM.



Portland cement is shipped from the packhouse or shipping department in bulk or in paper bags by truck or rail.

A process flow diagram for this facility is presented in Figure 2.

5. RULE APPLICABILITY

The proposed project is subject to preconstruction review under the applicable provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). This facility is located in Hernando County, an area designated as attainment for all criteria pollutants in accordance with Rule 62-204.360, F.A.C.

The proposed project, increasing PM/PM_{10} emissions from Kilns 1 and 2 and Cooler 1 and 2 and CO emissions from Kilns 1 and 2, is subject to review under Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD), because the emission increases for both pollutants exceed the significant emission rates given in Table 62-212.400-2, F.A.C. This review consists of a determination of Best Available Control Technology (BACT) and, unless otherwise exempted, an analysis of the air quality impact of the proposed project's impacts on soils, vegetation and visibility along with air quality impacts resulting from associated commercial, residential and industrial growth.

A review of past permitting actions reveals that there have been production increases approved by the Department in the past for Kiln 1. PSD/BACT review was not conducted while establishing the first set of "federally enforceable" conditions for Kiln 1 in 1991 (from 120 to 130 TPH) or establishing an allowable process rate based on feed to the preheater instead of feed to the kiln (from 130 TPH to 145 TPH). Both of the increases are presumed by the Department to have resulted in actual increases of emissions of pollutants (NO_x and CO) not fully regulated in the present permit. Little reliable data presently exist to prove whether or not actual emission increases occurred. Instead of conducting a protracted review, the Department and Southdown have agreed to set limits for these uncontrolled emissions at levels which insure that present limits are no greater than past actual emissions or which reflect recent BACT determinations at similar facilities. A CO limit set in 1994 applicable only when burning tires will be removed as will the conditions which allow tire burning in Kiln 1.

The emission units affected by this modification shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations) and, specifically, the following chapters and rules:

- Chapter 62-4 Permits
- Rule 62-204.220 Ambient Air Quality Protection
- Rule 62-204.240 Ambient Air Quality Standards
- Rule 62-204.260 Prevention of Significant Deterioration Increments
- Rule 62-204.360 Designation of Prevention of Significant Deterioration Areas
- Rule 62-204.800 Federal Regulations Adopted by Reference

- Rule 62-210.300 Permits Required
- Rule 62-210.350 Public Notice and Comments
- Rule 62-210.370 Reports
- Rule 62-210.550 Stack Height Policy
- Rule 62-210.650 Circumvention
- Rule 62-210.700 Excess Emissions
- Rule 62-210.900 Forms and Instructions
- Rule 62-212.300 General Preconstruction Review Requirements
- Rule 62-212.400 Prevention of Significant Deterioration
- Rule 62-296.320 General Pollutant Emission Limiting Standards
- Rule 62-297.310 General Test Requirements
- Rule 62-297.400 EPA Methods Adopted by Reference
- Rule 62-297.401 EPA Test Procedures
- Rule 62-297.520 EPA Performance Specifications

Cement Plants 1 and 2 are subject to all applicable requirements of 40 CFR 60, NSPS for Portland Cement Plants, Subpart F.

These emission units shall comply with all applicable requirements of 40 CFR 60, General Provisions, Subpart A.

6. SOURCE IMPACT ANALYSIS

6.1 Emission Limitations

This facility emits the following PSD regulated pollutants: particulate matter, sulfur dioxide, nitrogen oxides, volatile organic compounds, carbon monoxide, sulfuric acid mist, fluorides, beryllium, mercury and lead. Cement Plant No. 2 has already gone through various PSD reviews [PSD-FL-063, PSD-FL-124, PSD-FL-124(A) and PSD-FL-188].

The new permit (0530010-001 AC - Section III. B) will address the increases in PM/PM_{10} from both Kiln and Cooler 1, establish a CO limit for Kiln 1 under all operating conditions, and establish for the first time NO_x and VOC emission limitations and include all other applicable conditions for Kiln and Cooler 1 from existing permits. The Department's proposed permitted emission and compliance requirements for Kiln and Cooler No. 1 are summarized in Tables 1-1, Air Pollutant Emission Standards and Terms, and Table 2-1, Compliance Requirements.

Permit 0530010-001 AC, Section III. C, will address the increases of PM/PM_{10}, from Kiln and Cooler 2, the increases in emissions of CO and VOC from Kiln 2, and include all other conditions for Kiln and Cooler 2 from existing permits. The Department's proposed permitted emissions and compliance requirements for Kiln and Cooler 2 are summarized in Tables 1-2, Air Pollutant Emission Standards and Terms, and Table 2-2, Compliance Requirements.

6.2 *Emission Summary*

CEMENT KILN No. 1 and COOLER No. 1 [1]

Pollutants	Current Allowable		Current Actual		New Allowable		Net Increase ton/yr	PSD Significant Level ton/yr
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr		
(kiln) PM/PM10	39	171	17.8 [4]	70.4 [4]	26	114	43.6	25/15
(cooler) PM/PM10	7.1	28.1	6.17 [4]	24.3 [4]	13	56.9	32.6	25/15
SO2	15	65.7	NA	NA	15	65.7	NA	40
NO_x	NA [6]	NA [6]	NA [6]	NA [6]	275	1205	NA	40
CO	57.7 [3]	234 [3]	31.6 [5]	138 [5]	170	744	606	100
VOC	NA	NA	NA	NA	13	56.9	< 40	40
Opacity (cooler)	10%				10%			
Opacity (kiln)	20%				20%			

CEMENT KILN No. 2 AND COOLER No. 2 [2]

Pollutants	Current Allowable		Current Actual [4]		New Allowable		Net Increase ton/yr	PSD Significant Level ton/yr
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr		
(kiln) PM/PM10	13.5	55.4	6.77	25.9	26	106.6	80.7	25/15
(cooler) PM/PM10	7.1	20.5	4.44	17.1	13	53.3	36.2	25/15
SO2	15	65.70	NA	NA	15	61.70	NA	40
NO_x	250	1025	NA	NA	250	1025	NA	40
CO	64	262	53	203	170	697	494	100
VOC	7.4	30.3	4.47	17.1	13	53.3	36.2	40
Opacity (cooler)	10%				10%			
Opacity (kiln)	10%				10%			

Footnotes:

[1] These units were originally permitted in 1973. Permit No. AC27- 2251.
[2] These units were originally permitted by EPA in 1980 (PSD-Fl-063).
[3] CO emission limits of 57.7 lbs/hr and 234.4 tons/yr were established while burning tires (WTDF) and coal.
[4] Kiln and Cooler No. 1 operated 8001 hours in 1994 and 7875 hours in 1995.
Kiln and Cooler No. 2 operated 7478 hours in 1994 and 7780 hours in 1995.
[5] Based on actual stack test conducted in 1993 while burning coal only. Continuous operation was assumed (8760 hours per year).
[6] There are no limits for NO_x from this kiln or reliable historical emissions data.

Southdown requested the Department to consider current allowable emissions for the baseline calculations instead of actual emissions because in some cases the actual emissions are greater and cannot be used to perform the calculations. However, the Department used actual emissions from the last two years (1994 and 1995) of operation. Actual emissions are based on the Department's records kept at the Southwest District Office in Tampa.

Enforcement Note: *The District has been negotiating a consent agreement with Southdown as a result of a number of excess opacity and stack test emissions violations.*

6.3 Control Technology Review

The Department and the U.S. EPA have made several previous BACT determinations (1980, 1988, 1993) for this cement manufacturing facility, specifically Cement Plant No. 2. Cement Plant 2 was built in accordance with a PSD/BACT review conducted in 1980. BACT reviews conducted since that time have been related to corrections of very stringent initial limits as well as to allow burning of different fuels. Because of these operational changes, BACT limits were developed and revised for Cement Plant 2. The actual controls have been use of fabric filters (baghouses) for particulate control and process optimization for control of CO, SO_2 NO_x, and VOC.

Southdown has curtailed a number of the operational changes which resulted in the PSD/BACT reviews conducted since the construction of Cement Plant 2. They plan to use the same technology that they always have used, but want to insure that the emissions limits are consistent with that technology and with the requirements of the Major Source (Title V) Program to insure that the facility continuously operate in compliance with applicable conditions.

The current revision for Cement Plant No. 2 (Kiln and Cooler No. 2) will consider a revision of the BACT emission limits for PM/PM_{10} and CO. In addition a new limit will be set for VOC emissions. The rationale for this change is explained in the BACT determination, a copy of which is attached to this document.

Cement Plant No. 1 was built prior to existence of the PSD program. Emission limits for PM/PM_{10}, NO_x, CO and VOC will be developed for Kiln 1 and PM/PM_{10} for Cooler 1. The PM/PM_{10} and CO

emissions limits will be based on PSD/BACT requirements for PM/PM_{10} and CO emissions.

6.3.1 Nitrogen Oxides (NO_x)

Nitrogen oxides will be limited to 275 lb/hr from Kiln 1 and equal to an emission factor of 1.9 pounds of NO_x per ton of feed to the preheater (lb NO_x/ton feed). The limit from Kiln 2 will remain at 250 lb/hr which is equal to a rate of 1.72 lb NO_x/ton feed. These limits will attained through process and combustion control.

6.3.2 Sulfur dioxide (SO_2)

Sulfur dioxide emissions from each kiln will remain limited to 15 lb/hr (0.10 lb SO_2/ton feed). These represent the lowest known rates from any kiln in the country. SO_2 emissions are minimized by maintaining proper ratios of sulfur and alkali in the pyroprocessing environment and intimate contact between raw materials and exhaust gases. Ultimately the sulfur oxides are incorporated into the clinker lattice structure, thus minimizing the amount emitted to the atmosphere. A small measure of SO_2 removal is theoretically possible in the baghouse although insufficient moisture is present to allow this mechanism to be significant.

6.3.3 Particulate Matter (PM/PM_{10})

Particulate emissions will be limited to 26 lb/hr from each kiln and 13 lb/hr from each cooler. These equate to 0.18 lb/ton feed and 0.09 lb/ton feed from the kiln and cooler respectively. These values are among the lowest at any cement plant in the country. The exhaust gases from both kilns and coolers are controlled by fabric filters (baghouses). When properly maintained, baghouses routinely achieve a particulate control efficiency greater than 99.9 percent.

6.3.4 Carbon Monoxide and Volatile Organic Compounds (CO and VOC)

Emissions from each kiln of carbon monoxide and volatile organic compounds will be limited to 170 lb CO/hr and 13 lb VOC/hr. These values correspond to emission factors of 1.17 lb CO/ton feed and 0.09 lb VOC/ton feed. These limits will be accomplished by combustion control.

6.4 Air Quality Analysis

6.4.1 Introduction

The proposed project will increase emissions of two pollutants at levels in excess of PSD significant amounts: PM/PM_{10}, and CO. The air quality impact analyses required by the PSD regulations for these pollutants include:

* An analysis of existing air quality for PM_{10}, and CO;

* A significant impact analysis for PM_{10} and CO;

* A PSD increment analysis for PM_{10} ;

* An Ambient Air Quality Standards (AAQS) analysis for PM_{10} and CO; and

* An analysis of impacts on soils, vegetation, and visibility and of growth-related air quality modeling impacts.

The analysis of existing air quality generally relies on preconstruction monitoring data collected with EPA-approved methods. The significant impact, PSD increment, and AAQS analyses depend on air quality dispersion modeling carried out in accordance with EPA guidelines.

Based on the required analyses, the Department has reasonable assurance that the proposed project, as described in this report and subject to the conditions of approval proposed herein, will not cause or significantly contribute to a violation of any AAQS or PSD increment. However, the following EPA-directed stack height language is included: "In approving this permit, the Department has determined that the application complies with the applicable provisions of the stack height regulations as revised by EPA on July 8, 1985 (50 FR 27892). Portions of the regulations have been remanded by a panel of the U.S. Court of Appeals for the D.C. Circuit in NRDC v. Thomas, 838 F. 2d 1224 (D.C. Cir. 1988). Consequently, this permit may be subject to modification if and when EPA revises the regulation in response to the court decision. This may result in revised emission limitations or may affect other actions taken by the source owners or operators." A discussion of the required analyses follows.

6.4.2 Analysis of Existing Air Quality and Determination of Background Concentrations

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD review unless otherwise exempted or satisfied. This monitoring requirement may be satisfied by using previously existing representative monitoring data, if available. An exemption to the monitoring requirement may be obtained if the maximum air quality impact resulting from the projected emissions increase, as determined by air quality modeling, is less than a pollutant-specific de minimus concentration. In addition, if an acceptable monitoring method for the specific pollutant has not been established by EPA, monitoring may not be required.

If preconstruction ambient monitoring is exempted, determination of background concentrations for PSD significant pollutants with established AAQS may still be necessary for use in any required AAQS analysis. These concentrations may be established from the required preconstruction ambient air quality monitoring analysis or from previously existing representative monitoring data. These background ambient air quality concentrations are added to pollutant impacts predicted by modeling and represent the air quality impacts of sources not included in the modeling.

The table below shows that PM_{10} impacts from the project are predicted to be greater than the de minimus level; therefore, preconstruction ambient air quality monitoring is required for PM_{10}. Previously existing representative monitoring data from a PM_{10} monitor in the vicinity of the facility were used to fulfill the PM_{10} monitoring requirement and to establish a PM_{10} background concentration for use in the AAQS analysis. Background concentrations established for PM_{10} are 105 and 35 ug/m3 for the 24-hour and annual averaging times, respectively. CO impacts from the project are predicted to be less than the de minimus level; therefore, no preconstruction ambient air quality monitoring is required for CO.

Maximum Project Air Quality Impacts for Comparison to the De Minimus Ambient Levels.

Pollutant	Avg. Time	Max Predicted Impact (ug/m^3)	Impact Greater Than De Minimus?	De Minimus Level(ug/m^3)
PM_{10}	24-hour	11.2	YES	10
CO	8-hour	146	NO	575

6.4.3 Models and Meteorological Data Used in Significant Impact, PSD Increment and AAQS Analyses

The EPA-approved Industrial Source Complex Short-Term (ISCST3) dispersion model was used to evaluate the pollutant emissions from the proposed project and other existing major facilities. The model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area, and volume sources. The model incorporates elements for plume rise, transport by the mean wind, Gaussian dispersion, and pollutant removal mechanisms such as deposition. The ISCST3 model allows for the separation of sources, building wake downwash, and various other input and output features. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options in each modeling scenario. Direction-specific downwash parameters were used for all sources for which downwash was considered. The stacks associated with this project all satisfy the good engineering practice (GEP) stack height criteria.

Meteorological data used in the ISCST3 model consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from the National Weather Service (NWS) stations at Tampa International Airport, Florida (surface data) and Ruskin, Florida (upper air data). The 5-year period of meteorological data was from 1987 through 1991. These NWS stations were selected for use in the study because they are the closest primary weather stations to the study area and are most representative of the project site. The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling.

Since five years of data were used in ISCST3, the highest-second-high (HSH) short-term predicted concentrations were compared with the appropriate AAQS or PSD increments. For the annual

averages, the highest predicted yearly average was compared with the standards. For determining the project's significant impact area in the vicinity of the facility and if there are significant impacts from the project on any PSD Class I area, both the highest short-term predicted concentrations and the highest predicted yearly averages were compared to their respective significant impact levels.

6.4.4 Significant Impact Analysis

Initially, the applicant conducted modeling using only the proposed project's emissions. Receptors were placed within 20 km of the facility, which is located in a PSD Class II area, and the Chassahowitzka National Wilderness Area (CNWA) which is a PSD Class 1 area located approximately 14 km to the west of the project at its closest point. For each pollutant subject to PSD and also subject to PSD increment and/or AAQS analyses, this modeling compared maximum predicted impacts due to the project with PSD significant impact levels to determine whether significant impacts due to the project were predicted in the vicinity of the facility or in the CNWA. The tables below show the results of this modeling. The radius of significant impact, if any, for each pollutant and applicable pollutant averaging time is also shown in the tables below.

Maximum Project Air Quality Impacts for Comparison to the PSD Class II Significant Impact Levels in the Vicinity of the Facility.

Pollutant	Avg. Time	Max Predicted Impact (ug/m^3)	Significant Impact Level (ug/m^3)	Significant Impact?	Radius of Significant Impact (km)
PM_{10}	Annual	1.3	1	YES	2.5
	24-hour	11.2	5	YES	2.5
CO	8-hour	146	500	NO	0.0
	1-hour	411	2000	NO	0.0

Maximum Project Air Quality Impacts for Comparison to the PSD Class I Significant Impact Levels (CNWA)

Pollutant	Averaging Time	Max. Predicted Impact at Class I Area (ug/m^3)	Significant Impact?	National Park Service (NPS) Significant Impact Level (ug/m^3)
PM_{10}	Annual	0.069	NO	0.08
	24-hour	1.02	YES	0.27

As shown in the tables the maximum air quality impacts due to PM_{10} emissions from the proposed project are greater than the significant impact levels in the vicinity of the facility and in the Class I area for the 24-hour averaging time. Therefore, the applicant was required to do further PM_{10}

modeling in the vicinity of the facility, within the applicable significant impact area, to determine the impacts of the project along with all other sources in the vicinity of the facility. The significant impact area is based upon the predicted radius of significant impact. Further modeling for Class I impacts was also required for the PM_{10} 24-hour averaging time. Further modeling for CO impacts was not required because maximum predicted CO impacts were less than the applicable significant impact levesls.

6.4.5 Receptor Networks For PSD Increment And AAQS Analyses

For the AAQS and PSD Class II analyses, receptor grids normally are based on the size of the significant impact area for each pollutant. For predicting maximum PM_{10} concentrations in the vicinity of the facility, a discrete receptor grid comprised of 369 receptors located along the property boundary and a polar receptor grid of 53 receptors located at radial distances of 2.5 and 3.0 km were used in these analyses. For the PSD Class I analysis, a receptor gird consisting of twenty receptors along the boundary of the CNWA was used. The results of these analyses are discussed below.

6.4.6 PSD Increment Analysis

The PSD increment represents the amount that new sources in an area may increase ambient ground level concentrations of a pollutant. The results of the PSD Class II increment analysis presented in the table below show that the maximum predicted PM_{10} impacts are less than the allowable increments.

PSD Class II Increment Analysis

Pollutant	Averaging Time	Max. Predicted Impact (ug/m^3)	Impact Greater Than Allowable Increment?	Allowable Increment (ug/m^3)
PM_{10}	Annual	13.8	NO	17
	24-hour	24.0	NO	30

The results of the PSD Class I increment analysis presented in the table below show that the maxmimum predicted PM_{10} impact for all sources within 120 km of the Class I area is greater than the allowable increment; however the analysis also shows that this project's contribution to any predicted exceedance of the increment is less than the National Park Service significant impact level

PSD Class I Increment Analysis

Pollutant	Averaging Time	Max. Predicted Impact[1] (ug/m^3)	Impact Greater Than Allowable Increment?	Allowable Increment (ug/m^3)	Maximum Southdown Contribution To Any Exceedance	National Park Service Significant Impact Level	Southdown Contribution Significant
PM_{10}	24-hour	8.2	YES	8	0.021	0.027	NO

6.4.7 AAQS Analysis

For pollutants subject to an AAQS review, the total impact on ambient air quality is obtained by adding a "background" concentration to the maximum modeled concentration. This "background" concentration takes into account all sources of a particular pollutant that are not explicitly modeled. The results of the AAQS analysis are summarized in the table below. As shown in this table, emissions from the proposed facility are not expected to cause or significantly contribute to a violation of an AAQS.

Ambient Air Quality Impacts

Pollutant	Averaging Time	Major Sources Impact (ug/m^3)	Background Conc. (ug/m^3)	Total Impact (ug/m^3)	Total Impact Greater Than AAQS	Florida AAQS (ug/m^3)
PM_{10}	Annual	6.4	35	41	NO	50
	24-hour	40.6	105	146	NO	150

6.5 Additional Impacts Analysis

6.5.1 Impacts On Soils, Vegetation, And Wildlife

The maximum ground-level concentrations predicted to occur for PM_{10} and CO as a result of the proposed project, including background concentrations and all other nearby sources, will be below the associated AAQS. The AAQS are designed to protect both the public health and welfare. As such, this project is not expected to have a harmful impact on soils and vegetation in the PSD Class II area. An air quality related values (AQRV) analysis was done by the applicant for the Class I area. No significant impacts on this area are expected.

6.5.2 Impact On Visibility

Visual Impact Screening and Analysis (VISCREEN), the EPA-approved Level I visibility computer model, was used to estimate the impact of the proposed project's stack emissions on visibility in the CNWA. The results indicate that the maximum visibility impacts do not exceed the screening criteria inside or outside this area. As a result, there is no significant impact on visibility predicted for this Class I area. In addition a regional haze analysis was done. This analysis predicted no adverse impacts upon regional haze.

6.5.3 Growth-Related Air Quality Impacts

There will be no growth-related impacts because no physical or operational modifications will occur and production will not change as a result of this permit action.

7. CONCLUSION

Based on the foregoing technical evaluation of the application and additional information submitted by Southdown, Inc., the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations provided the Department's Best Available Control Technology Determination is implemented and certain conditions are met. The General and Specific Conditions are listed in the attached draft conditions of approval.

Permit Engineer: T. Heron
Reviewed and approved by A. A. Linero, P.E.

DRAFT

Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

PERMITTEE:

Southdown, Inc.,
Brooksville Plant
Post Office Box 6
Brooksville, Florida 34605-0006

FID No.:	0530010
PSD No.:	PSD-FL-233
Permit No.:	0530010-001-AC
SIC No.:	3241
Expires:	October 31, 1997

Authorized Representative:
Don Kelly, Plant Manager

LOCATED AT:

Southdown, Inc., Brooksville Plant, Hernando County
Project: Portland Cement Manufacturing
Kilns Nos. 1 & 2 and Clinker Coolers 1 & 2

UTM: Zone 17 ; 356.0 km E ; 3169.9 km N
Directions: *Located on Highway 98, NW of Brooksville, Hernando County*

STATEMENT OF BASIS:

This draft construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, 62-297. The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Attached appendices made a part of this permit:

Table 1-1 and 1-2	Air Pollutants Standards and Terms
Table 2-1 and 2-2	Compliance Requirements
Appendix BD-1	BACT Determination
Appendix GC-1	Construction Permit General Conditions

EFFECTIVE DATE:

Howard L. Rhodes, Director
Division of Air Resources Management

SECTION I. FACILITY INFORMATION

FACILITY DESCRIPTION:

This facility consists of two identical portland cement manufacturing plants and associated equipment. These plants are identified as Cement Plant No. 1 and Cement Plant No. 2.

EMISSION UNITS

These permits address the following emission units:

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
001	Unit No. 1 - Kiln No. 1
002	Unit No. 2 - Kiln No. 2
003	Unit No. 3 - Cooler No. 1
004	Unit No. 4 - Cooler No. 2

REGULATORY CLASSIFICATION

This industry is listed in Table 62-212.400-1 of Chapter 62-212, F.A.C., "Major Facility Categories." Therefore, stack and fugitive emissions of over 100 tons per year of carbon monoxide, volatile organic compounds, sulfur dioxide, nitrogen oxides, or particulate matter characterize the installation as a major facility subject to the requirements of Rule 62-204.800, F.A.C., which incorporates 40 CFR Subpart F, the New Source Performance Standards (NSPS) for Portland Cement Plants. This facility is a Title V source.

PERMIT SCHEDULE:

- (DATE) Petition for an administrative hearing
- (DATE) Received proof of publication in **(DATE)** issue of Newspaper
- (DATE) Issued Notice of Intent to issue Permit
- 10/02/96 Application deemed complete

SECTION II. EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS

1.0 ADMINISTRATIVE

1.1 Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Department of Environmental Protection (DEP) Air Pollution Control Section of Hillsborough County located at 3804 Coconut Drive, Tampa, Florida 33619-8218, and phone number (813)744-6100. All applications for permits to construct or modify an emission unit(s) subject to the Prevention of Significant Deterioration requirements should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP) located at 2600 Blairstone Road, Tallahassee, Florida 32399-2400 and phone number (904)488-1344.

1.2 General Conditions: The owner and operator is subject to and shall be aware of and operate under the attached General Permit Conditions G.1 through G.15 listed in *Appendix GC* of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. **[Rule 62-4.160, F.A.C.]**

1.3 Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapter of the Florida Administrative Code.

1.4 Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C., when appropriate and follow the application procedures in Chapter 62-4, F.A.C. **[Rule 62-210.900, F.A.C.]**

1.5 Expiration: This air construction permit shall expire on October 31, 1997. **[Rule 62-210.300(1), F.A.C.]** The permittee may, for good cause, request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit. However, the permittee shall promptly notify the Southwest District office of any delays in completion of the project which would affect the startup day by more than 90 days. **[Rule 62-4.090, F.A.C].**

1.6 Application for Title V Permit: This air construction permit revise specific permit conditions to reflect the current applicable requirements, BACT and new permit emission limits. Stack testing of emissions that are required by this permit shall be performed to determine compliance with all new applicable permitted limits. A revision of the Title V operating permit application pursuant to Chapter 62-213, F.A.C., shall be submitted to the DEP District office in Tampa. **[Chapter 62-213]**

1.7 Applicable Regulations: Unless otherwise indicated, the construction and operation of these emission units shall be in accordance with the capacities and specifications stated in the application. Southdown, Inc., is subject to all applicable provisions of Chapter 403, F.S and Florida Administrative Code Chapters 62-4; 62-103; 62-204, 62-210, 62-212, 62-213, 62-296, 62-297; and the Code of Federal Regulations Section 40, Part 60. Specifically, this facility is subject to the New Source Performance Standards (NSPS) for Portland Cement Plants identified by the Code of Federal Regulations Section 40, Part 60, Subpart F, and incorporated by reference in the Florida Administrative Code regulation 62-204.800. Issuance of this

permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. **[Rule 62-210.300, F.A.C.]**

2.0 EMISSION LIMITING STANDARDS

2.1 General Visible Emissions Standard: **[Rule 62-296-320 (4)(b). F.A.C.]** Unless otherwise specified by rule or permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere any air pollutants from new or existing emissions units, the opacity of which is equal to:

- Visible emissions of all minor sources controlled by baghouses shall not exceed 5% opacity (BACT determination).
- Visible emissions from PM fugitive sources shall not exceed 10% opacity.

2.2 Unconfined Emissions of Particulate Matter **[Rule 62-296.320(4)(c), F.A.C.]**

(a) The owner or operators shall not cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any source whatsoever, including, but not limited to, vehicular movement, transportation of materials, construction, alteration, demolition or wrecking, or industrially related activities such as loading, unloading, storing or handling, without taking reasonable precautions to prevent such emission.

(b) Reasonable precautions shall include the following:

- All permanent haul roads shall be paved.
- Temporary haul road shall be watered or treated with chemical dust suppressants at regular intervals.
- Dry materials (moisture content < 14%) shall be stored below grade, in silos, or in enclosed structures.
- Coal stored at or above natural grade shall be compacted, turned and /or watered as necessary to maintain a minimum 8% moisture content in the surface layer, and shall be aligned with the predominant wind direction to minimize wind erosion.
- Abandoned haul road and other disturbed areas shall be revegetated within 60 days of the date that active service of the roads ends.
- All cement products shall be transferred to transport trucks with a sealed pneumatic conveying system which is either a closed system or exhausted through a bag filter.

NOTE: Facilities that cause frequent, valid complaints may be required by the Southwest District office in Tampa to take these or other reasonable precautions. In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or

practice, and the degree of reduction of emissions expected from a particular technique or practice.

2.3 General Pollutant Emission Limiting Standards: **[Rule 62-296.320 (1), F.A.C.]**

(a) The owner or operator shall not store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems.

(b) No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

NOTE: An objectionable odor is defined as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [F.A.C. 62-210.200(198)]

3.0 Operation and Maintenance

3.1 Changes/Modifications: The owner or operator shall submit to the Department of Environmental Protection, Bureau of Air Regulation and /or the Southwest District office in Tampa, for review and obtain approval for any changes in, or modifications to: the method of operation; process or pollution control equipment; increase in hours of operation; equipment capacities; or any change which would result in an increase in potential/actual emissions. Depending on the size and scope of the modification, it may be necessary to submit an application for, and obtain an air construction permit prior to making the desired change. FDEP will provide a clear point of entry for Hernando County and any other substantially affected parties to challenge any of FDEP's proposed determinations in this regard. *Routine maintenance of equipment would not constitute a modification of this permit.* **[Rule 62-4.030, 62-210.300 and 62-4.070(3), F.A.C.]**

3.2 Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the owner or operator shall notify the Southwest District office in Tampa as soon as possible, but at least within (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. **[Rule 62-4.130, F.A.C.]**

3.3 Circumvention: The owner or operator shall not circumvent any air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. **[Rules 62-210.650, F.A.C.]**

3.4 Excess Emissions Requirements **[Rule 62-210.700, F.A.C.]**

(a) Excess emissions resulting from start-up, shutdown or malfunction of these emissions units shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period unless specifically authorized by the Southwest District office for longer duration. **[Rule 62-210.700(1), F.A.C.]**

(b) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during start-up, shutdown, or malfunction shall be prohibited. **[Rule 62-210.700(4), F.A.C.]**

(c) In case of excess emissions resulting from malfunctions, the owner or operator shall notify the Air Pollution Control Section of the Southwest District office within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the problem; and the corrective actions being taken to prevent recurrence. **[Rule 62-210.700(6), F.A.C.]**

4.0 Monitoring of Operations

4.1 Determination of Process Variables:

(a) The permittee shall install, operate, and maintain equipment and /or instruments necessary to determine process variables, such as process weight input or heat input, when such data is needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards. **[Rule 62-297.310 (5), F.A.C.].**

(b) Equipment and /or instruments used to directly or indirectly determine such process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. **[Rule 62-297.310(5), F.A.C]**

5.0 TEST REQUIREMENTS

5.1 Test Performance: Within 60 days after achieving the maximum production rate at which this facility will be operated, but not later than 180 days after initial startup up and annually thereafter (except for VOC), the owner or operator shall conduct performance test(s) for PM/PM_{10}, NOx, SO_2, CO, VE and VOC (initial) pursuant to 40 CFR 60.8, Performance Tests, Rule 62-296.310 F.A.C., and 40 CFR 60, Appendix A. **[Rule 62-204.800, F.A.C and Rule 62-297.310, F.A.C.]**

5.2 Test Procedures and Test Reports shall meet all applicable requirements of the Florida Administrative Code Chapter 62-297. **[Rule 62-297.310, F.A.C.]**

5.3 Test Notification: The owner or operator shall notify the Southwest District office in Tampa in writing at least (30) days prior to each scheduled compliance test of the test date, the expected test time, the facility contact person for the test, and the person or company conducting test. The (30) day notification requirement may be waived at the discretion of the Department. Likewise, if circumstances prevent testing during the test window specified for the emission unit, the owner or operator may request an alternate test date before the expiration of this window. **[Rule 62-297.310 and 40 CFR 60.8, F.A.C.]**

5.4 Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in Rule 62-204, 62-210, 62 -212, 62-296 and 62-297, F.A.C. or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Southwest District office in Tampa. **[Rule 62-297.310, F.A.C.]**

5.5 Stack Testing Facilities: The owner or operator shall install stack testing facilities in accordance with **Rule 62-297.310, F.A.C.**

5.6 Exceptions and Approval of Alternate Procedures and Requirements: An Alternate Sampling Procedure (ASP) may be requested from the Bureau of Air Regulation of the Florida Department of Environmental Protection in accordance with the procedures specified in **Rule 62-297.620, F.A.C.**

6.0 REPORTS AND RECORDS

6.1 Duration: All reports and records required by this permit shall be kept for at least (5) years from the date the information was recorded. **[62-4.160(14)(b), F.A.C.]**

6.2 Emission Compliance Stack Test Reports:

(a) A test report indicating the results of the required compliance tests shall be filed with the Southwest District office in Tampa as soon as practical, but no later than 45 days after the last sampling run is completed. **[Rule 62-297.310, F.A.C.]**

(b) The report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in **Rule 62-297.310 (8), F.A.C.**

6.3 Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the Air Compliance Section of the Southwest District office within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, excess emissions shall also be reported in accordance with 40 CFR 60.7. **[Rules 62-4.130 and 62-210.700(6), F.A.C.]**

6.4 Annual Operating Report for Air Pollutant Emitting Facility: Before March 1st of each year, the owner or operator shall submit to the Department this required report [DEP Form No. 62-210.900(5)], which summarizes operations for the previous calendar year. **[Rule 62-210.370(3), F.A.C.]**

7.0 OTHER REQUIREMENTS

7.1 Waste Disposal: The owner or operator shall treat, store, and dispose of all liquid, solid, and hazardous wastes in accordance with all applicable Federal, State, and Local regulations. This air pollution permit does not preclude the permittee from securing any other types of required permits, licenses, or certifications.

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION A. COMMON CONDITIONS: 40 CFR 60 SUBPART A, GENERAL PROVISIONS

EMISSION UNITS

This permit addresses the following emission units.

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
001	Unit No. 1 - Kiln No. 1
002	Unit No. 2 - Kiln No. 2
003	Unit No. 3 - Cooler No. 1
004	Unit No. 4 - Cooler No. 2

These emission units shall comply with all applicable requirements of 40 CFR 60, General Provisions, Subpart A.

A1. [49 CFR 60.7, Notification and record keeping]
A2. [40 CFR 60.8, Performance tests]
A3. [40 CFR 60.11, Compliance with standards and maintenance requirements]
A4. [40 CFR 60.12, Circumvention]
A5. [40CFR 60.13, Monitoring requirements]
A6. [40 CFR 60.19, General notification and reporting requirements]

These emission units shall comply with all applicable provisions of the 40 CFR 60 New Source Performance Standards for Portland Cement Plants, Subpart F. **[Rule 62-204.800, F.A.C]**

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION B. SPECIFIC CONDITIONS:

The following Specific Conditions apply to the following emission units:

EMISSION UNIT NO.	EMISSION UNIT DESCRIPTION
001	Unit No. 1 - Kiln 1
003	Unit No. 3 - Cooler 1

EMISSION LIMITATIONS

B1. The emissions from these emission units shall not exceed the allowable emission rates listed in Table 1-1 Air Pollutant Standards and Terms (attached). **[Rule 62-210.200(198) and 62-212.400, F.A.C.]**

B2. In order to minimize excess emissions during startup/shutdown/malfunction this emission units shall adhere to best operational practices. **[Rule 62-210.700, F.A.C. and 40 CFR 60.7]**

OPERATIONAL LIMITATIONS

B3. These emission units are allowed to operate continuously (8760 hours/year). **[Rule 62-210.200, F.A.C. Definitions-Potential to emit (PTE)]**

B4. OPERATING RATES:

- Kiln preheater feed rate-- 165 tons/hour (one-hour maximum)
- Kiln preheater feed rate -- 145 tons/hour (30-day average)

[AC 27-186923, AC 27-258571 and Dr. John Koogler's letter of November 22, 1994]
[Rule 62-210.200 F.A.C., (PTE)]

B5. The No. 1 cement kiln fuel heat input rate shall not exceed 300 MMBtu/hr, or specifically:

(a). 24,000 pounds per hour of coal with a heating value of 12,500 Btu/hr

(b). 2,116 gallons/hour of No. 2 fuel oil with a heating value of 141, 300 Btu/gal

(c). 2,060 gallons/hour of No. 4 fuel oil with a heating value of 145,600 Btu/gal

(d). 2,016 gallons/hour of No. 5 fuel oil with a heating value of 148,800 Btu/gal

(e). 1,982 gallons/hour of No. 6 fuel oil with a heating value of 151,300 Btu/gal

(f). 92,683 cubic feet/hour of natural gas with a heating value of 1,025 Btu per cubic foot

Use of fuels other than those listed above is prohibited [Construction Permit No. AC27-186923 and AC27-212252 and Supplemental information received by DEP March 31, 1995]

B6. Any other operating parameters (including control equipment operating parameters) established during compliance testing and /or inspection that will confirm the proper operation of each emission unit shall be included in the operating permit. **[Rule 62-297.310, F.A.C. and 62-4.070, F.A.C.]**

MONITORING OF OPERATIONS

B7. The owner or operator shall record the daily production and preheater-kiln system feed rate. (Emission unit 001). **[Rule 62-204.800, F.A.C., 40 CFR 60.63(a)]**

B8. The owner or operator shall install, calibrate, maintain, and operate in accordance with 40 CFR 60.13 a *continuous opacity monitoring system* to measure the opacity of emissions from the cement kiln and clinker cooler control device stacks. **[Rule 62-204.800, F.A.C., 40 CFR 60.63(b)]**

B9. Continuos monitors with recorders shall also be installed, calibrated, maintained and operated for this kiln subject to approval by the Department for:

Nitrogen Oxides: During the annual test (30 days compliance performance period) to demonstrate compliance with the permit emission limit of 275 lbs/hour.

Carbon Monoxide: During the initial test [one(1) weeks period] to demonstrate compliance with the permit emission limit. Thereafter, continuous process monitors for CO and O_2 to optimize combustion conditions for pollution control shall be part of the process.
[Rules 62-212.400(1)(c), 62-212.400(6) and 62-4.070, F.A.C.]

B10. The monitoring devices shall meet the applicable requirements of **Chapter 62-204, F.A.C., 40 CFR 60, Appendix F**, and **40 CFR 60.13**, including certification of each device in accordance with **40 CFR 60, Appendix B**, Performance Specifications and **40 CFR 60.7(a)(5)** Notification Requirements. Data on monitoring equipment specifications, manufacturer, type calibration and maintenance requirements, and the proposed location of each monitor shall be provided to the Department's Southwest District office for review at least 90 days prior to installation of a new CEMS.

TEST METHODS AND PROCEDURES

B11. Emission Units 001 and 003 shall be tested in accordance with the EPA/reference method, testing time frequency, and minimum compliance test duration. Table 2-1. Compliance Requirements (attached) lists the EPA Methods.
No other test method shall be used unless approval from the Department has been received in writing. These emission units shall comply with applicable requirements of Rule 62-297.310, F.A.C., General Test Requirements and 40 CFR 60.8 Performance Tests.
[Rules 62-204.800, 62-297.310, 62-297.400, 62-297.401, 62-297.620 F.A.C, and 40 CFR 60 Appendix A, and 40 CFR 60.8, Subpart A]

B12. Compliance with the particulate matter standard contained in Table 1-1 Air Pollutant Standards and Terms (attached) shall be determined using EPA Method 5. The emission rate (E) of particulate matter shall be computed for each run using the following equation:

$E = (c_s \times Q_{sd})/(P \times K)$

where:

E	=	emission rate of particulate matter, kg/metric ton (lb/ton) of kiln feed
c_s	=	concentration of particulate matter, g/dscm (g/dscf),
Q_{sd}	=	volumetric flow rate of effluent gas, dscm/hr (dscf/hr)
P	=	total kiln feed (dry basis) rate, metric ton/hr (ton/hr)
K	=	conversion factor, 1000 g/kg (453.6 g/lb)

The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30.0 dscf) for the kiln and at least 60 minutes and 1.15 dscm (40.6 dscf) for the clinker cooler.
[Rules 62-204.800 and 62-297.401, F.A.C. 40 CFR 60.64(b)(1) - (3)]

B13. Suitable methods shall be used to determine the kiln feed rate (P), except fuels, for each run. Material balance over the production system shall be used to confirm the feed rate. **[40 CFR 60.64(3)]**

B14. The visible emissions test shall be conducted by a certified observer and be a minimum of 180 in duration. The test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. **[40 CFR 60.11 and Rule 62-297.310 (7), F.A.C.]**

B15. Testing of emissions shall be conducted with the source operating at permitted capacity. Permitted capacity is defined as 90-100% of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, each emission unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emission unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at

the permitted capacity. The initial compliance test results shall be submitted to the DEP Southwest District office with the application for an operating permit. **[Rule 62-4.070 (3), 62-297.310, 62-213, 62-4.055, 62-4.22, F.A.C.]**

B16. Operating procedures shall include good combustion practices and proper training of all operators and supervisors. The good combustion practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. **[Rule 62-4.070(3), F.A.C.]**

RECORDKEEPING AND REPORTING REQUIREMENTS

B17. The owner or operator shall submit reports of excess emissions based upon data from the continuous opacity monitoring system. Periods of excess emissions that shall be reported are defined as all 6 minute periods during which the average opacity exceeds that allowed in **40 CFR 60.62(a)(2)**. The content of these reports must comply with the requirements in **40 CFR 60.7(d)**. Such reports shall be submitted quarterly pursuant to **40 CFR 60.7 (c)**.
[Rule 62-204.800, F.A.C.; 40 CFR 60.63(d), 60.65(a) and 40 CFR 60.7]

B18. Daily sampling and recording of the baghouse dust for the No. 1 kiln is required. The concentration of thallium in the baghouse dust shall not exceed 1.5%. Compliance shall be demonstrated using the "Thallium Concentration Monitoring and Analysis Procedure" as described in Mr. Bob Roger's letter to Dr. John Koogler, dated January 12, 1994 (attachment #9 of Construction Permit No. AC27-240349].

B19. The following fuel records shall be maintained for a minimum of five (5) years and made available upon request:

1. Coal

   (a) the coal usage rate in tons/day
   (b) the average sulfur content and heating value (Btu/lb) of each coal shipment based upon analysis of a sample representative of the shipment (trainload);

2. Liquid Fuels

   (a) The fuel type (number) and usage rate in gal/day;
   (b) Records of the sulfur content and heating value (Btu/gal) of each oil shipment based upon analysis of a sample representative of the shipment

3. Natural Gas

   (a) The fuel usage rate in cubic feet per day.
   (b) The average heating value (Btu/Ft^3) provided by the gas supplier.

[Rule 62-4.070(3), F.A.C.]

B20. Two copies of the results of the emission tests for the pollutants listed in Condition 1 for these emission units shall be submitted within forty-five days of the last sampling run to the Department's Southwest District office. Reports shall be in a format consistent with and shall include the information in accordance with **Rule 62-297.310 (8), F.A.C. [Rule 62-210.370(3) and Rule 62-.297.310(8), F.A.C.]**

Daily Operation and Maintenance (O&M) Log:

B21. This facility shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit. Operators shall keep a daily O&M log to include, at a minimum, the following information.

(a) The data collected from in-stack monitoring instruments

(b) The records on daily feed rates and clinker production rate

(c) The amount and type of fuel burned per affected unit

(d) The results of all source tests

(e) Calibration logs for all instruments

(f) Maintenance/repair logs for any work performed on equipment or instrument which is subject to this permit; and,

(g) Analysis data.

All measurements, records, and other data required to be maintained by Southdown, shall be retained for at least five (5) years following the data on which such measurements, records, or data are recorded. This data shall be made available to the Department upon request. The Department's Southwest District office shall be notified in writing at least 15 days prior to the testing (auditing) of any instrument required to be operated by these specific conditions of certification in order to allow witnessing by authorized personnel. **[Rule 62-4.070(3), F.A.C.]**

Table 1-1. Air Pollutant Standards and Terms.

FACILITY ID NUMBER: 0530010

Permittee:

Southdown, Inc.

Portland Cement Plant

DRAFT Permit No.: 0530010-001-AC

Kiln No.1 & Cooler No.1 PSD-FL-233

Emission Unit 001 - Kiln No. 1

Emission Unit 003 - Cooler No. 1

				Allowable Emissions			
E.U. ID#	Description	Pollutant ID	Fuel(s)	lb/ton $kiln_{ph}$ feed *	lb/hr	TPY	Regulation(s)
001	Kiln No. 1	PM/PM_{10}	Coal / Gas	0.18	26.0	113.88	Rule 62-212.400(6), F.A.C.
001	Kiln No. 1	SO_2 (1)	Coal / Gas	0.10	15.0	65.70	Rule 62-4.070(3), F.A.C.
001	Kiln No. 1	NO_x	Coal / Gas	1.90	275.0	1205.00	Rule 62-4.070(3), F.A.C.
001	Kiln No. 1	CO	Coal / Gas	1.17	170.0	744.60	Rule 62-212.400(6), F.A.C.
001	Kiln No. 1	VOC	Coal / Gas	0.09	13.0	56.94	Rule 62-4.070(3), F.A.C.
001	Kiln No. 1	20% VE	Coal / Gas				Rule 62-204.800, F.A.C.
003	Cooler No. 1	10% VE	Coal / Gas				Rule 62-204.800, F.A.C.
003	Cooler No. 1	PM/PM_{10}	Coal / Gas	0.09	13.0	56.94	Rule 62-204.800, F.A.C.

ALLOWABLE OPERATING RATES

		KILN No.1	Cooler No.1	
Hours of operation		8760	8760	
Kiln preheater feed rate	TPH	165		One-hour maximum
Kiln preheater feed rate *	TPH	145		(30 - day average)
Kiln Heat Input	MMBtu/hr	300		

NOTES

(1) Emissions of SO_2 will not exceed 15 lbs/hr. Annual testing is required in lieu of fuel sulfur restrictions. [AC27-258571]

Table 2-1. Compliance Requirements.

FACILITY ID NUMBER:	0530010

Permittee:
Southdown, Inc.
Portland Cement Plant

DRAFT Permit No.: 0530010-001-AC
PSD-FL-233 Kiln No. 1 & Cooler No. 1

E.U. ID#	Description	Pollutant Name or parameter	Fuel(s) [1]	EPA/Reference Method *	Testing Time Frequency	Min. Compliance Test Duration	CMS*
001	Kiln No.1	PM/PM_{10}	Coal / Gas	5	initial/annual	3 hr	
001	Kiln No.1	VE	Coal / Gas		continuous [4]		Yes
001	Kiln No.1	SO_2 [7]	Coal / Gas	6C	annual	3hr	
001	Kiln No.1	NOx [3]	Coal / Gas	7E	initial/annual [3]	3hr	30-days [3]
001	Kiln No.1	CO [5]	Coal / Gas	10	initial/annual	3hr	1 Week [5]
001	Kiln No.1	VOC [2]	Coal / Gas	25 or 25A	initial [5]	3hr	
003	Cooler No.3	PM/PM_{10}	Coal / Gas	5	initial/annual	3 hr	
003	Cooler No.3	VE	Coal / Gas		continuous [4]		Yes

Notes:

[1] Testing of emissions shall be conducted while burning coal or natural gas.

[2] VOC emission shall be tested initially to comply with the condition of this permit. Thereafter, compliance will be assumed provided the CO allowable emission rate is not exceeded.

[3] NO_x - CEMS data shall be used for the Kiln No.1 annual compliance test provided that the CEM calibration and maintenance during the 30-day period meet the applicable requirements of 40 CFR 60, Appendix B and Appendix F.

[4] Pursuant to Rule 62-4.070(3), 62-212.400(6) and 62-296.500 F.A.C., the kiln/cooler exhaust system shall be equipped with continuous monitors to record the opacity at the stack to indicate proper maintenance and operation. Compliance with the opacity standard shall be demonstrated by CEMs pursuant to 40 CFR 60.7(c) and 40 CFR 60.63.

[5] Continuous emissions monitors shall be installed for a period of one week to show compliance with the CO limits. CEMS shall meet the applicable requirements of 40 CFR 60 Appendix B and Appendix F. Thereafter, continuous process monitors for CO and O_2 to optimize combustion conditions for pollution control shall be part of the process.

[6] Both kilns are allowed to burn fuel oils (No.2,4,5, and 6) as auxiliary fuels. See specific conditions No. 5.

[7] Emissions of SO_2 will not exceed 15 lbs/hour. Annual testing is required in lieu of fuel sulfur restrictions. (Supplemental information received by DEP March 31, 1995).

* CMS [=] compliance demonstrated by CEMS.

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION C SPECIFIC CONDITIONS

The following Specific Conditions apply to the following emission units:

EMISSION UNIT NO.	EMISSION UNIT DESCRIPTION
002	Unit No. 2 Kiln No. 2
004	Unit No. 4 - Cooler No. 2

EMISSION LIMITATIONS

C1. The emissions from these emission units shall not exceed the allowable emission rates listed in Table 1-2 Air Pollutant Standards and Terms (attached). **[Rule 62-210.200(198) and 62-212.400, F.A.C.]**

C2. In order to minimize excess emissions during startup/shutdown/malfunction this emission units shall adhere to best operational practices. **[Rule 62-210.700, F.A.C. and 40 CFR 60.7]**

OPERATIONAL LIMITATIONS

C3. Cement Kiln No. 2 is allowed to operate 8200 hours/year [AC27-221252].

C4. *Process operating rates*:

- Kiln preheater feed rate -- 165 tons/hour (one hour maximum)
- Kiln preheater feed rate -- 145 tons/hour (30 production -day average)

[AC 27-186923, AC 27-258572 and Dr. John Koogler's letter of November 22, 1994]. **[Rule 62-210.233, F.A.C., (PTE)]**

C5. The cement kiln fuel heat input rate shall not exceed 300 MMBtu/hr, or specifically:

(a). 24,000 pounds per hour of coal with a heating value of 12,500 Btu/hr

(b). 2,116 gallons/hour of No. 2 fuel oil with a heating value of 141, 300 Btu/gal

(c). 2,060 gallons/hour of No. 4 fuel oil with a heating value of 145,600 Btu/gal

(d). 2,016 gallons/hour of No. 5 fuel oil with a heating value of 148,800 Btu/gal

(e). 1,982 gallons/hour of No. 6 fuel oil with a heating value of 151,300 Btu/gal

(f). 292,683 cubic feet/hour of natural gas with a heating value of 1,025 Btu per cubic foot

Use of fuels other than those listed above is prohibited [Construction Permit No. AC27-186923 and AC27-212252 and Supplemental information received by DEP March 31, 1995]

C6. Any other operating parameters (including control equipment operating parameters) established during compliance testing and /or inspection that will confirm the proper operation of each emission unit shall be included in the operating permit **[Rule 62-297.310, F.A.C. and 62-4.070, F.A.C.]**

MONITORING OF OPERATIONS

C7. The owner or operator shall record the daily production and preheater-kiln system feed rate. **[Rule 62-204.800, F.A.C., 40 CFR 60.63(a)]**

C8. The owner or operator shall install, calibrate, maintain, and operate in accordance with **40 CFR 60.13** a *continuous opacity monitoring system* to measure the opacity of emissions from the cement kiln and clinker cooler control device stack. **[Rule 62-204.800, F.A.C., 40 CFR 60.63(b)]**

C9. Continuos monitors with recorders shall also be installed, calibrated, maintained and operated for each kiln subject to approval by the Department for:

Nitrogen Oxides: During the annual test (30 days compliance performance period).

Carbon Monoxide: During the initial test [one(1) weeks period] to demonstrate compliance with the permit emission limit. Thereafter, continuous process monitors for CO and O_2 to optimize combustion conditions for pollution control shall be part of the process.
[Rules 62-212.400(1)(c), 62-212.400(5) and 62-4.070, F.A.C.]

C10. The monitoring devices shall meet the applicable requirements of **Chapter 62-204, F.A.C., 40 CFR 60, Appendix F, and 40 CFR 60.13**, including certification of each device in accordance with **40 CFR 60, Appendix B,** Performance Specifications and **40 CFR 60.7(a)(5)** Notification Requirements. Data on monitoring equipment specifications, manufacturer, type calibration and maintenance requirements, and the proposed location of each monitor shall be provided to the Department's Southwest District office for review at least 90 days prior to installation of a new CEMS.

TEST METHODS AND PROCEDURES

C11. Emission Units 001 and 002 shall be tested in accordance with the EPA/reference method, testing time frequency, and minimum compliance test duration. Table 2-2. Compliance Requirements (attached) list the EPA Methods.
No other test method shall be used unless approval from the Department has been received in writing.

These emission units shall comply with all applicable requirements of Rule 62-297.310, F.A.C., General Test Requirements.
[Rules 62-204.800, 62-297.310, 62-297.400, 62-297.401, F.A.C, and 40 CFR 60, Appendix A and 40 CFR 60.8, Subpart A]

C12. Compliance with the particulate matter standard contained in Table 1-2 Air Pollutant Standards and Terms (attached) shall be determined using EPA Method 5. The emission rate (E) of particulate matter shall be computed for each run using the following equation:

$E = (c_s \times Q_{sd})/(P \times K)$

where:

E	=	emission rate of particulate matter, kg/metric ton (lb/ton) of kiln feed
c_s	=	concentration of particulate matter, g/dscm (g/dscf)
Q_{sd}	=	volumetric flow rate of effluent gas, dscm/hr (dscf/hr)
P	=	total kiln feed (dry basis) rate, metric ton/hr (ton/hr)
K	=	conversion factor, 1000 g/kg (453.6 g/lb)

The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30.0 dscf) for the kiln and at least 60 minutes and 1.15 dscm (40.6 dscf) for the clinker cooler. **[Rules 62-204.800 and 62-297.401, F.A.C. 40 CFR 60.64(b)(1) - (3)]**

C13. Suitable methods shall be used to determine the kiln feed rate (P), except fuels, for each run. Material balance over the production system shall be used to confirm the feed rate. **[40 CFR 60.64(3)]**

C14. The visible emissions test shall be conducted by a certified observer and be a minimum of 180 in duration. The test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. **[40 CFR 60.11. and Rule 62-297.310 (7), F.A.C.]**

C15. Testing of emissions shall be conducted with the source operating at permitted capacity. Permitted capacity is defined as 90-100% of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, each emission unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emission unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. The initial compliance test results shall be submitted to the DEP Southwest District office with the application for an operating permit. **[Rule 62-4.070 (3), 62-297.310, 62-213, 62-4.055, 62-4.22, F.A.C.]**

C16. Operating procedures shall include good combustion practices and proper training of all operators and supervisors. The good combustion practices shall meet the guidelines and procedures as established by the

equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment. **[Rule 62-4.070(3), F.A.C.]**

RECORDKEEPING AND REPORTING REQUIREMENTS

C17. The owner or operator shall submit reports of excess emissions based upon data from the continuous opacity monitoring system. Periods of excess emissions that shall be reported are defined as all 6 minute periods during which the average opacity exceeds that allowed in **40 CFR 60.62(a)(2)**. The content of these reports must comply with the requirements in **40 CFR 60.7(d)**. Such reports shall be submitted quarterly pursuant to **40 CFR 60.7 (c). [Rule 62-204.800, F.A.C.; 40 CFR 60.63(d), 60.65(a) and 40 CFR 60.7]**

C18. The following Kiln No. 2 fuel records shall be maintained and made available upon request:

1. Coal

   (a) the coal usage rate in tons/day
   (b) the average sulfur content and heating value (Btu/lb) of each coal shipment based upon analysis of a sample representative of the shipment (trainload);

2. Liquid Fuels

   (a) The fuel type (number) and usage rate in gal/day;
   (b) Records of the sulfur content and heating value (Btu/gal) of each oil shipment based upon analysis of a sample representative of the shipment

3. Natural Gas

   (a) The fuel usage rate in cubic feet per day.
   (b) The average heating value (Btu/Ft^3) provided by the gas supplier
   [Rule 62-4.070(3), F.A.C.].

C19. Two copies of the results of the emission tests for the pollutants listed in Condition 1 for these emission units shall be submitted within forty-five days of the last sampling run to the Department's Southwest District office. Reports shall be in a format consistent with and shall include the information in accordance with **Rule 62-297.310 (8), F.A.C. [Rule 62-210.370 (3) and Rule 62-.297.310(8), F.A.C.]**

Daily Operation and Maintenance (O&M) Log:

C20 This facility shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit. Operators shall keep a daily O&M log to include, at a minimum, the following information:

(a) The data collected from in-stack monitoring instruments

(b) The records on daily feed rates and clinker production rate

(c) The amount and type of fuel burned per affected unit

(d) The results of all source tests

(e) Calibration logs for all instruments

(f) Maintenance/repair logs for any work performed on equipment or instrument which is subject to this permit

(g) Fuel analysis data.

All measurements, records, and other data required to be maintained by Southdown, shall be retained for at least five (5) years following the data on which such measurements, records, or data are recorded. This data shall be made available to the Department upon request. The Department's Southwest District office shall be notified in writing at least 15 days prior to the testing (auditing) of any instrument required to be operated by these specific conditions of certification in order to allow witnessing by authorized personnel. **[Rule 62-4.070(3), F.A.C.]**

Table 2-2. Compliance Requirements.

FACILITY ID NUMBER: 0530010

Permittee:
Southdown, Inc.
Portland Cement Plant

DRAFT Permit No.: 0530010-001-AC
PSD-FL-233 Kiln No. 2 & Cooler No.2

E.U. ID#	Description	Pollutant Name or parameter	Fuel(s) [1]	EPA/Reference Method *	Testing Time Frequency	Min. Compliance Test Duration	CMS*
002	Kiln No.2	PM/PM_{10}	Coal / Gas	5	initial/annual	3 hr	
002	Kiln No.2	VE	Coal / Gas		continuous [4]		Yes
002	Kiln No.2	SO_2 [7]	Coal / Gas	6C	annual	3hr	
002	Kiln No.2	NOx [3]	Coal / Gas	7E	annual [3]	3hr	30-days [3]
002	Kiln No.2	CO [5]	Coal / Gas	10	initial/annual [5]	3hr	1 Week [5]
002	Kiln No.2	VOC [2]	Coal / Gas	25 or 25A	initial	3hr	
004	Cooler No.4	PM/PM_{10}	Coal / Gas	5	initial/annual	3 hr	
004	Cooler No.4	VE	Coal / Gas		continuous [4]		Yes

Notes:

[1] Testing of emissions shall be conducted while burning coal or natural gas.

[2] VOC emission shall be tested initially to comply with the condition of this permit. Thereafter, compliance will be assumed provided the CO allowable emission rate is not exceeded.

[3] NO_x - CEMS data shall be used for the Kiln No.2 annual compliance test provided that the CEM calibration and maintenance during the 30-day period meet the applicable requirements of 40 CFR 60, Appendix B and Appendix F.

[4] Pursuant to Rule 62-4.070(3), 62-212.400(6) and 62-296. 500 F.A.C., the kiln/cooler exhaust system shall be equipped with continuous monitors to record the opacity at the stack to indicate proper maintenance and operation. Compliance with the opacity standard shall be demonstrated by CEMs pursuant to 40 CFR 60.7(c) and 40 CFR 60.63.

[5] Continuous emissions monitors shall be installed for a period of one week to show compliance with the CO limits. CEMS shall meet the applicable requirements of 40 CFR 60, Appendix B and Appendix F. Thereafter, continuous process monitors for CO and O2 to optimize combustion conditions for pollution control shall be part of the process.

[6] Both kilns are allowed to burn fuel oils (No.2,4,5, and 6) as auxiliary fuels. See specific conditions No. 5.

[7] Emissions of SO_2 will not exceed 15 lbs/hour. Annual testing is required in lieu of fuel sulfur restrictions. (Supplemental information received by DEP March 31, 1995).

* CMS [=] compliance demonstrated by CEMS.

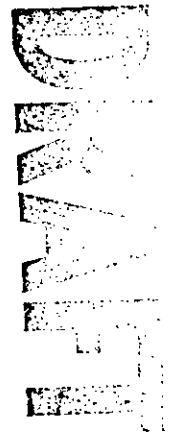


Table 1-2. Air Pollutant Standards and Terms.

FACILITY ID NUMBER: 0530010

Permittee:

Southdown, Inc.
Portland Cement Plant

DRAFT Permit No.: 0530010-001-AC
Kiln No. 2 & Cooler No. 2 PSD-FL-233

Emission Unit 002 - Kiln No. 2
Emission Unit 004 - Cooler No. 2

				Allowable Emissions			
E.U. ID#	Description	Pollutant ID	Fuel(s)	lb/ton dry $kiln_{ph}$ feed *	lb/hr	TPY	Regulation(s)
002	Kiln No. 2	PM/PM_{10}	Coal / Gas	0.18	26.0	107	Rule 62-212.400(6), F.A.C.
002	Kiln No. 2	SO_2 (1)	Coal / Gas	0.10	15.0	61.5	Rule 62-212.400(6), F.A.C.
002	Kiln No. 2	NO_x	Coal / Gas	1.72	250.0	1025	Rule 62-212.400(6), F.A.C.
002	Kiln No. 2	CO	Coal / Gas	1.17	170.0	697	Rule 62-212.400(6), F.A.C.
002	Kiln No. 2	VOC	Coal / Gas	0.09	13.0	53.3	Rule 62-4-070(3), F.A.C.
002	Kiln No. 2	10% VE	Coal / Gas				Rule 62-212.400(6), F.A.C.
004	Cooler No.2	10% VE	Coal / Gas				Rule 62-212.400(6), F.A.C.
004	Cooler No.2	PM/PM_{10}	Coal / Gas	0.09	13.0	53.3	Rule 62-212.400(6), F.A.C.

ALLOWABLE OPERATING RATES

		KILN No. 2	Cooler No. 2	
Hours of operation		8200	8200	
Kiln preheater feed rate	TPH	165		One-hour maximum
Kiln preheater feed rate *	TPH	145		(30 - day average)
Kiln Heat Input	MMBtu/hr	300		

NOTES

(1) Emissions of SO_2 will not exceed 15 lbs/hr. Annual testing is required in lieu of fuel sulfur restrictions. [AC27-258572]

SECTION IV. PERMITTING HISTORY AND RELEVANT DOCUMENTS

Permitting History

A detailed Permitting History of the emission units modified in this permit are found in Appendix PH.

December 18, 1973	Permit AC 27-2251 to construct Kiln No. 1 and Associated Equipment.
July 25, 1980	Permits AC 27-30444, 30446, 30447, 30449, 30450, 30451, 30453, 30454 and 30455 to construct Kiln No. 2 and Associated Equipment.
March 1981	PSD-FL-063 issued by EPA - Permit to Construct Kiln No. 2 and Associated Equipment.
November 3, 1987	Modification of Kiln No. 2: Increase NOx limits from 195.3 lbs/hr to 250 lbs/hr and SO_2 limits from 3 lbs/hr to 12 lbs/hr. Permit No. AC 27-138850 and PSD-FL-124.
July 20, 1990	Modifications of Kiln No. 2 to burn Flolite oil, increase operating rates and operate kiln without operating the raw mill, PSD-FL-124A Modification to burn tires in Kiln No. 1. This request was granted. Currently (1996) this facility is not burning tires.
July 25, 1990	AC 27-173474, NO_x emissions were reduced from 250 lbs/hr to 162.3 lbs/hr.
January 25, 1991	Modification of Kiln No. 2 Auxiliary Sources to coincide with recent changes in operation of No. 2 Kiln, AC 27-185898, 27-185900 through -185907.
March 8, 1991	Permit Issued to burn Flolite at Kiln No. 1 AC 27-186923. Allow testing while burning TDF. Conditions of permit remain unchanged.
February 24, 1992	Request to burn waste classified as hazardous waste was withdrawn. This request was filed with the U.S. EPA, Region IV.
January 26, 1993	Modification to allow an increase in cement Kiln No. 2. NO_x emissions from 162.3 lbs/hr to 250 lbs/hr, 30 days rolling average. This increase was to reflect previous BACT limit (PSD-FL-124). Permit allows use of Flolite. New permits, PSD-FL-188 and AC 27-212252, were issued.
April 15, 1994	Permit issued to allow the use of TDF to provide 20% of heat input. AC27-240349, Kiln No. 1.

SECTION IV. PERMITTING HISTORY AND RELEVANT DOCUMENTS

August 13, 1995	Permits issued at the Southwest District office (AC-27-258569, AC27-258570, AC258571, AC27-258572) to allow the burning of natural gas, fuel oils Nos. 2 , 4, 5 and 6. Deletes use of flolite in Kilns No. 1 and No. 2.
February 22, 1996	Request to modify cement Kiln No. 1 and No. 2. The request is to increase emissions of CO, VOC and to increase/decrease TSP. A detailed project description is listed in the Technical Evaluation and Preliminary Determination. Permit Nos. PSD-FL-233 and 0530010-001-AC.

NOTE: This permit revises and supersedes air construction permits numbers AC27- 258589, 258570, 258571, and 258572.

Relevant Documents:

1. Application received February 22, 1996.
2. Department's letters dated March 8, March 21, July 10, July 25, September, 1996.
3. Southdown Inc. letters dated April 1, June 17, July 22, August 26, October 2, (netting calculations) October 14, 1996.
4. National Park Service's letter dated April 11, 1996
5. EPA's letter dated
6. Hernando County Planning Department's letter dated March 8, 1996
7. Appendix PH. Southdown permitting history.

SOUTHDOWN, INC.
PORTLAND CEMENT FACILITY
PERMIT 0530010-001 AC (PSD-FL-233)
Hernando County

The applicant, Southdown Inc. (SI), owns a portland cement manufacturing facility in Brooksville. It consists of two kilns with a preheater design and two clinker coolers along with raw mill, finish mill, cement and clinker handling equipment, coal handling equipment, silos, and air pollution control equipment. A process description is included in the Technical Evaluation and Preliminary Determination.

Each kiln/cooler is permitted to process 165 tons per hour (TPH) of raw material fed to the preheater, 148 TPH to the kiln, and 90 TPH from the cooler on a 1-hr basis. Each is also permitted to process 145 TPH to the preheater, 130 TPH to the kiln, and 84 TPH from the cooler on a 30-day basis.

A single, large, fabric filter system (baghouse) is already in use to capture particulate matter from each kiln and cooler. Baghouses are also used to limit particulate emissions from other process emission points. All the emission units controlled by baghouses are listed in a Best Available Control Technology (BACT) determination performed for Cement Plant 2 in 1980. Kiln 2 has three (3) additional BACT determinations on file with the Department (1980, 1988 and 1993). No previous BACT determinations have been performed on Kiln 1.

Southdown requested to revise the allowable emissions limits for their kilns and coolers. Specifically, it was requested to increase emissions limits for particulate matter (PM/PM_{10}), carbon monoxide (CO), visible emissions (VE) and volatile organic compounds (VOC) from Kiln 2; decrease PM/PM_{10} (allowable emissions) and increase CO emission limits for Kiln 1; and increase the PM/PM_{10} limits for Coolers 1 and 2. The stated reason is to allow for fluctuations in emission rates during the normal operation.

The project and rule applicability are described in the separate Technical Evaluation and Preliminary Determination. A Best Available Control Technology (BACT) determination pursuant to Prevention of Significant Deterioration (PSD) is required for each pollutant exceeding the significant emission rates in Table 62-212.400-2, F.A.C., "Regulated Air Pollutants Significant Emissions Rates." The increase in emissions will subject Kilns 1 and 2 to PSD review for particulate matter and carbon monoxide and Coolers 1 and 2 to PSD review for particulate matter. The increase in the VOC emission limit for Kiln 2 will not trigger PSD. In this case, the determinations will be for particulate matter (PM/PM_{10}), and carbon monoxide (CO).

Following is the BACT determination proposed by the applicant. These are on the basis of feed to the kiln.

BACT DETERMINATION REQUESTED BY THE APPLICANT - KILN FEED BASIS:

POLLUTANT	EMISSION LIMIT
Particulate Matter (PM/PM_{10}) (kilns)	0.2 lb./ton of dry kiln feed
Particulate Matter (PM/PM_{10})(coolers)	0.1 lb/ton of dry kiln feed
Carbon Monoxide (kilns)	1.30 lb/ton dry kiln feed
Volatile Organic Compounds (Kiln 2)	0.1 lb/ton dry kiln feed
Visible Emissions (Kiln 2)	20 percent

The above limits are expressed in terms of pollutant emitted per ton of material reaching the kiln. Following a review of past permits, the exact process, requirements of the applicable NSPS for cement plants, and discussions with Southdown, the Department will limit only raw material fed to the kiln preheater. This is the most accurate and reliable measure of kiln operating rate in a preheater or precalciner kiln, particularly when there are no bypass streams and when little or no cement kiln dust is wasted. All limits will be expressed in terms of pounds of pollutant per ton of material fed to the kiln preheater ($kiln_{ph}$). Where appropriate, equivalent factors in terms of pounds of pollutant per ton of clinker produced will also be given for reference and comparison with industry or EPA reporting conventions. The above table is therefore adjusted as follows:

BACT DETERMINATION REQUESTED BY THE APPLICANT - PREHEATER BASIS:

POLLUTANT	EMISSION LIMIT
Particulate Matter (PM/PM_{10}) (kilns)	0.18 lb./ton of dry $kiln_{ph}$ feed
Particulate Matter (PM/PM_{10})(coolers)	0.09 lb/ton of dry $kiln_{ph}$ feed
Carbon Monoxide (kilns)	1.17 lb/ton dry $kiln_{ph}$ feed
Volatile Organic Compounds (Kiln 2)	0.09 lb/ton dry $kiln_{ph}$ feed
Visible Emissions (Kiln 2)	20 percent

DATE OF RECEIPT OF A BACT APPLICATION:

February 22, 1996

REVIEW GROUP MEMBERS:

Teresa Heron, and A. A. Linero of the New Source Review Section.

BACT DETERMINATION PROCEDURE:

In accordance with Chapter 62-212, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that, in making the BACT determination, the Department shall give consideration to:

(a) Any Environmental Protection Agency determination of BACT pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources or 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants.

(b) All scientific, engineering, and technical material and other information available to the Department.

(c) The emission limiting standards or BACT determination of any other state.

(d) The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine, for the emission unit in question, the most stringent control available for a similar or identical emission unit or emission unit category. If it is shown that this level of control is technically or economically infeasible for the emission unit in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

The air pollutant emissions from this facility can be grouped into categories based upon the control equipment and techniques that are available to control emissions from these emission units. Using this approach, the emissions can be classified as follows:

- Particulate matter from kilns and coolers (PM/PM_{10}, and VE). Controlled generally by add-on particulate collection equipment such as baghouses or electrostatic precipitators.

- Products of combustion and incomplete combustion (e.g., SO_2, NO_x, CO, VOC). Control is largely achieved by good combustion practices and reactions with clinker and raw materials.

o Emissions from materials handling, conveyance, and storage (primarily PM). Controlled generally by fabric filters and reasonable precautions.

Grouping the pollutants in this manner facilitates the BACT analysis because it enables the equipment available to control the type or group of pollutants emitted and the corresponding energy, economic, and environmental impacts to be examined on a common basis. Although all of the pollutants addressed in the BACT analysis may be subject to a specific emission limiting standard as a result of PSD review, the control of "non-regulated" air pollutants is considered in imposing a more stringent BACT limit on a "regulated" pollutant (i.e., PM, SO_2, H_2SO_4, fluorides, etc.), if a reduction in "non-regulated" air pollutants can be directly attributed to the control device selected as BACT for the abatement of the "regulated" pollutants.

BACT ANALYSIS

PARTICULATE MATTER (PM/PM_{10})

Particulate Matter is generated by the various physical and chemical processes at a cement manufacturing plant. Sources of particulate matter at cement plants include (1) quarrying and crushing, (2) raw material storage, (3) grinding and blending, 4) clinker production, 5) finish grinding, and 6) packaging and loading. Additional sources of PM are raw material storage piles, conveyers, storage silos, and unloading facilities.

The largest emission source of PM within cement plants is the pyroprocessing system that includes the kiln and clinker cooler exhaust stacks (in this case, common kiln/cooler stack). Emissions from kilns are affected by several factors, including differences in convective patterns, material movement patterns, burner locations and insertion lengths, heat transfer mechanisms, and the type of clinker cooler that supplies secondary air to the kiln for combustion. Typically, dust from the pollution control equipment servicing the kiln and cooler is collected and recycled into the kiln and thus incorporated into the clinker. Southdown has stated that the great majority of the cement kiln dust (CKD) captured in the baghouse is returned to the pyroprocessing system as raw material.

Common control devices for stack gases include settling chambers, inertial separators, impingement separators, wet scrubbers, fabric filters, and electrostatic precipitators. Fabric filters (baghouses) and electrostatic precipitator (ESPs) are generally considered equivalent for particulate control. Both types of devices can achieve removal efficiencies of over 99 percent. ESPs and baghouses are used extensively as control devices at cement plants. ESPs are generally specified for kiln and clinker cooler exhaust gases because of their ability to operate effectively at varying temperatures. Baghouses are also used at various facilities for particulate control from kilns and coolers. Both types of control equipment provide for the recovery/recycling of collected dust back into the process stream. Baghouses are also used to control particulate emissions from most other material processing operations at cement plants.

Common controls to limit particulate emissions from fugitive sources (such as roadways, stockpiles, and material processing and conveying equipment) include wet suppression, sweeping, application of

surfactants, paving of roads and covering of stockpiles to reduce wind erosion. Wet suppression of fugitive particulate emissions is considered as BACT for most material handling operations and unpaved roads. Dust from stockpiles can be minimized by relatively high material moisture content with additional water spraying as necessary.
A review of the BACT Clearinghouse shows that baghouses and ESPs are widely used to control particulate matter from process emission units at cement plants. They are commonly accepted as BACT. This facility, particulate matter sources are controlled by baghouses.

Southdown has proposed to change the allowable emission rates for particulate matter (PM/PM_{10}) from Kilns 1 and. 2 and Clinker Coolers 1 and 2 to allow for the fluctuations in emission rates during normal operating conditions. The permitted PM/PM_{10} limits would be increased for Kiln 2 from 13.5 pounds per hour (lb/hr) to 26.0 lb/hr, while PM/PM_{10} emissions for Kiln 1 are proposed to be decreased from 39.0 lb/hr (allowable emissions) to 26.0 lb/hr. The proposed limit for the two clinker coolers would be increased from 7.13 lb/hr (kiln 1) and 5.0 lb/hr (kiln 2) to 13.0 lb/hr. The proposed kiln particulate emission limits are equivalent to 0.18 pounds per ton of dry feed to each kiln preheater (lb/ton $feed_{ph}$). This is a standard lower than the New Source Performance Standard NSPS limit of 0.3 pounds per ton of dry feed (kiln). For the coolers the proposed limits are equivalent to 0.09 lb/ton $feed_{ph}$ which is less than the applicable NSPS limit.

Southdown also requested to increase VE (which is largely linked to particulate emissions) from 10 percent for Kiln 2 to 20 percent.

PRODUCTS OF COMBUSTION AND INCOMPLETE COMBUSTION

Carbon Monoxide and Nitrogen Oxides

Carbon monoxide (CO) is a pollutant formed by the incomplete combustion (oxidation) of carbon containing compounds in the cement kiln fuel and during the transformation of cement raw materials to cement clinker. When insufficient oxygen is provided, more CO and less CO_2 are formed than under excess air conditions. Substantial quantities of CO and CO_2 are also generated through calcining of limestone and other calcareous material. This calcining process thermally decomposes $CaCO_3$ to CaO and CO_2. The calcining of limestone in the cement manufacturing process liberates large amounts of CO_2, which is available for dissociation into CO.

Flyash, a constituent of the raw feed mix, contains unburnt carbon which can vary in concentration depending on the source of the flyash. As the raw feeds travels down the preheater tower, most of the carbon present in the flyash is burned off. However, some of it is emitted as carbon monoxide. This contributes to fluctuations in carbon monoxide emissions.

Although this specific application does not necessitate a PSD review and BACT determination for nitrogen oxides (NO_x), past changes in production rates in Kiln 1 presumably caused concurrent increases in this pollutant. Unless specific measures were taken at the time to insure NO_x emissions increases were kept at less than significant levels, such a review and determination would have been required. The Department is using the opportunity to resolve this outstanding issue by setting a non-BACT emission limit which can be reasonably assumed to be lower than emissions prior to the changes which were not subjected to appropriate review. Southdown has agreed that this limit should be no greater than 275 lb/hr (1.9 lb NO_x/ton $feed_{ph}$).

Southdown is not proposing any changes for Kiln 2 NO_x emissions. Currently, the emission level of 250 lb NO_x/hr is being met (equivalent to 1.72 lb NO_x/ton $feed_{ph}$)

The generation of CO and NO_x is inversely related to that of NO_x and is linked to the oxygen level that is present in the kiln system. As the oxygen level increases, the formation of NO_x increases and the formation of CO decreases. Conversely, when the oxygen level decreases, the formation of NO_x decreases and the formation of CO increases. Southdown will meet CO and NO_x emission levels by controlling excess oxygen in the kiln to a level between one and one-half to three percent excess oxygen. A continuous CO process monitor will assist in the control of the CO content in the kiln.

Emissions of CO can potentially be reduced at portland cement plants through utilization of proper combustion practices to maximize the oxidation of CO to CO_2 and reducing the quantity of CO in the flue gas stream (flue gas control). The high temperatures and control of excess air and fuel, typically results in simultaneous optimization for CO and NO_x. The applicant proposes proper combustion practices as BACT to control emissions of CO from this plant. A review of the BACT Clearinghouse reveals that for cement plants, BACT for CO is proper combustion practices.

The applicant proposes a CO limit of 1.17 lb/ton of $feed_{ph}$ and good combustion practice as BACT for CO for each Kiln. This represents an emission increases for Kiln 1 from 57.7 lb/hr to 169.9 lb/hr and for Kiln 2 from 64.0 to 169.9 lb/hr respectively. This increase is proposed in order to allow for more representative on a year-round basis compared with what is achievable during an annual test. It also accounts for fluctuations due to normal process oscillations and varying characteristics of raw materials and fuels.

Volatile Organic Compounds

VOC is also a pollutant formed due to incomplete combustion of fuel and organic material in the feed material to the kiln system. Limestone contains very low levels of VOCs. An additional source of VOC is oil from mill scale which is sometimes used as a raw material for its iron.

Southdown will reduce the VOC emissions by controlling the temperatures in the kiln system. In the kiln, the feed material will reach about 2700 degrees Fahrenheit. The temperature of the gases in the kiln will reach between 3700 to 3800 degrees Fahrenheit. At these high temperatures, virtually all VOCs will be

consumed or destroyed regardless of their source (limestone, mill scale, coal, fuel oil, etc.). Clinker production requires certain temperatures, residence time, and turbulence within the kiln. These factors are sufficient to ensure the destruction of almost all VOCs at cement plants.

Emissions of VOC can also be controlled by add-on control devices, by the mechanisms of adsorption, absorption, or incineration (afterburning). Incineration processes include flame incineration, thermal incineration, and catalytic incineration. No add-on controls for VOC have been demonstrated for cement plants.

A review of the BACT Clearinghouse reveals that for cement plants, BACT for VOCs is proper combustion practices. The applicant estimates low emissions of VOC such that the kilns will not be subject to BACT for this pollutant.

For VOC, the applicant has estimated 13.0 lb/hr (an increase of 8.0 lb/hr) for Kiln 2. The applicant is utilizing good combustion practices for both kilns to reduce VOCs emissions.

BACT DETERMINATION RATIONALE:

The existing BACT VE limit of 10 percent for Kiln 2 is more stringent than the NSPS for Portland Cement Plant, 40 CFR 60, Subpart F for Kiln 2. It is also consistent with various recent BACT determinations made throughout Florida. There is no good basis for considering the higher VE limit proposed by Southdown than the one already established. Although Kiln 1 has a VE limit of 20 percent, the kilns are operated similarly and will have identical PM limits. The efforts to maintain the lower Opacity limit at Kiln 2 will probably result in fairly low opacity from Kiln 1.

BACT for PM (0.2 lb/ton kiln feed) from Kilns 1 and 2 proposed by Southdown is more stringent than the NSPS for Portland Cement Plants, 40 CFR 60, Subpart F. The basis is the BACT determinations made by the Department for Florida Rock Industries and Florida Crushed Stone and the original BACT determination for Southdown (then FM&M). The Department accepts the applicant's proposed limit (as corrected to 0.18 lb/ton $kiln_{ph}$ feed) for both Kiln 1 and 2.

BACT for PM (0.1 lb/ton $kiln_{ph}$) feed from Coolers 1 and 2 proposed by Southdown is equal to that given in the NSPS for Portland Cement Plants. Southdown was unable to achieve lower limits set in the past as a result of permit conditions they agreed to comply with in order to avoid PSD/BACT. The basis is also the BACT determinations made by the Department for Florida Rock Industries and Florida Crushed Stone. The Department accepts the applicant's proposed limit (corrected to 0.09 lb/ton $kiln_{ph}$ feed) for both Cooler 1 and 2 with the understanding that it is being met at all times rather than just during annual emission tests.

During this review, the Department discovered that, miscellaneous PM sources (other than the kilns and coolers) controlled by baghouses were limited in the original permit (July 1, 1980) for Cement Plant 2 to "0" percent Opacity. These values have been changed in subsequent operating permit reviews, but the original enforceable permit was not changed. Since a 0 percent Opacity limitation is not generally feasible to achieve or demonstrate, the Department is rectifying the value in this construction permit. For each small baghouse associated with Cement Plant 2, the exhaust gases must not exhibit greater than 5 percent opacity. The Department has determined that 5 percent opacity is BACT and is attainable with a baghouse. This is consistent with recent BACT determinations.

BACT for CO was proposed by Southdown to be 1.17 lb/ton $kiln_{ph}$ feed (2.0 lb/ton clinker at a clinker production rate of 84 TPH) for both Kilns. This value will provide sufficient flexibility to minimize NO_x and SO_2 emissions. The value is with the Department's recent BACT determination to Florida Crushed Stone (FCS) with a CO limit of 2.0 lb/ton clinker. However the Department encourages Southdown to continue to be judicious in selecting sources of coal ash. Some of the local power companies are trying to recover the unburned carbon in the coal ash by reburning it, taking advantage of the heat content, and producing a more salable coal ash for customers such as the cement industry. If Southdown revises its specifications and accepts poor quality flyash, it can be counter-productive for this pollution prevention effort affecting both industries.

No BACT determination was required for VOC for either Kiln. The Department accepts the limit requested by Southdown which will result in annual emissions less than the PSD threshold. It will allow Southdown sufficient flexibility in control for all combustion products.

No BACT determination was requested or required for metals such as mercury, beryllium, lead arsenic, fluorides and sulfuric acid mist (PSD pollutants). Original emission estimates submitted for previous applications provided assurance that emissions of these pollutants are less than the PSD significant threshold values.

No new BACT determinations were requested for NO_x and SO_2. The actual BACT emission levels of 250 lb NO_x/hr and 15 lb SO_2/hr for Kiln 2 are being met. These are equal to 1.72 lb NO_x/ton $kiln_{ph}$ feed and 0.10 lb SO_2/ton $kiln_{ph}$ feed. For comparison with industry conventions, these values are equal to 2.98 lb NO_x/ton clinker and 0.18 lb SO_2/ton clinker at a production rate of 84 TPH. A new non-BACT emission limit of 275 lb NO_x/hr (equal to 1.9 lb/ton $kiln_{ph}$ feed or 3.27 lb/ton of clinker at a production rate of 84 TPH) is being set for Kiln 2. Kiln 1 also meets the same SO_2 limit as Kiln 2.

BACT DETERMINATION BY DEP:

Based on the information provided by the applicant and the information searches conducted by the Department, the BACT emission levels are established as follows:

POLLUTANT	EMISSION LIMIT
Particulate Matter (PM/PM_{10}) (kilns)	0.18 lb./ton $kiln_{ph}$ feed
Particulate Matter (PM/PM_{10})(coolers)	0.09 lb/ton $kiln_{ph}$ feed
Carbon Monoxide (kilns)	1.17 lb/ton $kiln_{ph}$ feed
Nitrogen Oxides (Kiln 1)	1.9 lb/ton $kiln_{ph}$ feed (30 day, non-BACT)
Volatile Organic Compounds (kilns)	0.09 lb/ton $kiln_{ph}$ feed (non-BACT)
Visible Emissions (Kiln 2)	10 percent (no change)
Minor points sources with baghouses	5 percent

COMPLIANCE

Compliance with the particulate emission limitations shall be in accordance with the EPA Reference Method 5 as contained in Appendix A, 40 CFR 60, and set forth in Subsection 60.64 of the NSPS for Portland Cement Plants, 40 CFR 60.

Compliance with opacity standards (minor sources controlled by baghouses) shall be determined by conducting observations in accordance with 40 CFR 60, Appendix A, Method 9.

Continuous opacity monitors (kilns and coolers) shall meet the requirements of the 40 CFR 60, NSPS Subpart F for Portland Cement Plants. Compliance with the opacity standard for the Kilns and Clinker Coolers No. 1 and No. 2 shall be demonstrated by CEMs.

Compliance with the CO limitations shall be demonstrated by 3 one-hour tests using EPA Method 10.

Pursuant to Rules 62-4.070(3), 62-212.400(6), and 62-297.520, F.A.C., the kiln/cooler exhaust stack system shall also be equipped with continuous monitors process monitors to record CO and/or O_2 to indicate proper maintenance, operation, and to optimize combustion for pollution control.

Compliance with the new Kiln 1 NO_x limitation shall be demonstrated annually by a 30 day test using a CEM which meets the requirements of 40 CFR 60, Appendix B and Appendix F.

Compliance with the VOC limitations shall be demonstrated (on a one time basis) by three one hour stack tests using Method 25 or 25A to confirm emission rate is less than the PSD significant emission rate.

DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

Teresa Heron, Review Engineer,
A. A. Linero, Administrator, New Source Review Section
Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended By:

C. H. Fancy, P.E., Chief
Bureau of Air Regulation

Date:

Approved By:

Howard L. Rhodes, Director
Division of Air Resources Management

Date: