November 11, 1996

Mr. A. A. Linero, P.E., Administrator
New Source Review Section
Bureau Of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

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

Dear Mr. Linero

We have the following comments, in addition to those transmitted to you in our letter dated November 5, 1996. In establishing guidelines for conducting emission tests at our Brooksville Plant, we realized that the permits, as drafted, could be interpreted as having set three emission limits in Tables 1-1 and 1-2 of the "DRAFT" permits. These limits are shown in ATTACHMENT 1. The first column sets a limit based on lbs/ton of preheater feed rate, the second column sets a limit in lbs/hour and the third column sets an annual limit in tons per year. It was our understanding that we would have only one set of limits, i.e., lbs/hour. The Florida Department of Environmental Protection (FDEP) should explain that each limit is based on a BACT emission factor for each criteria pollutant, in lbs/ton of preheater feed rate, and a preheater feed rate of 145 tons/hr. ATTACHMENT 1 also shows our understanding of the corresponding test methods and test/frequency and duration for each criteria pollutant. Thank you for this opportunity to provide additional comments on the DRAFT permit. We expect the "Public Notice" to be published this week, a copy of which is attached.

Sincerely,

Amarjit Singh Gill

Amarjit Singh Gill, PE
Director, Air Permitting

c: Don Kelly
John Koogler
Dave Repasz
Dan Heintz

cc: Teresa Heron

Southdown, Inc. ▬ 1200 SMITH STREET ▬ SUITE 2400 ▬ HOUSTON, TEXAS 77002 ▬ (713) 650-6200

Pollutants	New Allowable Lb/Ton Feed*	New Allowable Lb/Hr	New Allowable Tons/Yr	Ref Method	Duration/ Frequency
PM/PM10, Kiln	0.18	26	114	5	3 1-Hr Runs
PM/PM10, Cooler	0.09	13	56.9	5	3 1-Hr Runs
SO2	0.10	15	65.7	6C	3 1-Hr Runs
NOx	1.90	275	1205	7E	3 1-Hr Runs
CO (while using TDF)	1.17	170	745	10	3 1-Hr Runs
VOC	0.09	13	56.9	25 or 25A	3 1-Hr Runs
Opacity, Cooler %	10	10		9	180 Min
Opacity, Kiln %	20	20		9	180 Min

Cement Kiln No. 1 And Cooler No. 1

Pollutants	New Allowable Lb/Ton Feed*	New Allowable Lb/Hr	New Allowable Tons/Yr	Ref Method	Duration/ Frequency
PM/PM10, Kiln	0.18	26	106.6	5	3 1-Hr Runs
PM/PM10, Cooler	0.09	13	53.3	5	3 1-Hr Runs
SO2	0.10	15	61.5	6C	3 1-Hr Runs
NOx	1.90	250	1025	7E	3 1-Hr Runs
CO	1.17	170	697	10	3 1-Hr Runs
VOC	0.09	13	53.3	25 or 25A	3 1-Hr Runs
Opacity, Cooler %	10	10		9	180 Min
Opacity, Kiln %	10	10		9	180 Min

Cement Kiln No. 2 And Cooler No. 2

Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

November 1996

Mr. Amarjit Singh Gill, P.E.
Director, Air Permitting
Southdown, Inc.
1200 Smith Street, Suite 2400
Houston, Texas 77002

Dear Mr. Gill:

RE: Excess Emissions Due to Equipment Malfunctions

As a follow-up to our phone conversation of November 1, 1996, this letter serves to further explain the Southwest District Office Air Program's reasons that we could not approve your request of August 5, 1996 for authorization to be allowed up to 8 hours excess emissions due to malfunctions in any 24 hour period in lieu of the Rule 62-210.700(1), F.A.C. requirement of 2 hours in any 24 hour period.

Your submittal requested prior authorization for up to 8 hours in any 24 hour period for excess emissions resulting from any malfunction. This is a 400% increase from the rule provisions and potentially represents operating in an excess emissions mode for 33% of the time on any given day. The rule does allow for longer durations when specifically authorized by the Department. This authorization would be based upon a showing that the other requirements of the above rule had been met - that best operational practices to minimize the magnitude and duration of excess emissions had been implemented and that the malfunction had not been caused in part by poor maintenance, poor operation or any other failure which may reasonably be prevented - and is appropriately applied by the Department on a specific case-by case basis. To give across the board approval for a greatly expanded malfunction excess emission exemption for all malfunctions would greatly diminish the incentive to keep malfunctions to a minimum. Your submittal failed to adequately justify the need for such a significant increase in excess emission allowances for all malfunctions and fails to provide reasonable assurance that the rule requirement to minimize excess emissions would be met by your current excess emission response and O&M/preventative maintenance procedures.

If you feel that the basic nature of operational and equipment constraints in the cement manufacturing industry makes complying with the 2 hours in any 24 hour period excess emission requirement unreasonable and impractical, then this should be true of the other cement manufacturers in the state as well and this issue is better addressed on a consistent industry-wide basis by requesting a change to the excess emission rule to allow for special excess emission requirements for the cement industry. Changes to the excess emission rule similar to this are currently being considered by the Department for the Pulp and Paper Association for recovery boilers and lime kilns as part of the planned "Compliance Simplification" - rulemaking. The SWD will forward your letter to the Division of Air Resource Management (DARM) in Tallahassee for their information and attention. A more detailed formal request to DARM from all of the cement manufacturers or your industry association would be an appropriate way to insure that this request gets the proper consideration.

If you have any questions concerning this please call either me at (813) 744-6100 extension 107, or David Zell of my staff at extension 118.

Sincerely,

Gerald Kissel, P.E.
District Air Engineer

DRZ/

Copies to:
Al Linero, DARM/New Source Review
Larry George, DARM/Policy Analysis & Program Mgmt.
Jim Pennington, DARM/Compliance & Assurance

sthdwnex.ltr

November 5, 1996

Mr. A. A. Linero, P.E., Administrator
New Source Review Section
Bureau Of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

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

Dear Mr. Linero

Thank you for a copy of the Draft Air Construction Permit for the Southdown cement plant located at US Highway 98, Northwest of Brooksville, Hernando County. We also received 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." We have reviewed these documents and have the following comments:

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

Third Paragraph, Page 1, states:

> "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 the lowest in Florida or any other state."

COMMENT 1

> It incorrectly implies that there is a limit for CO and VOC from Kiln No. 1 at the present time. The CO limit applies only when burning tires and there is VOC limit. During our meeting on October 2, 1996, it was our understanding no VOC limit would be set for Kiln No. 1. Therefore, we suggest the following language:
>
> "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 Kiln No. 2; will set a CO limit for Kiln No. 1 (under all conditions);** and will set a permit limit for NO_x from Kiln No. 1. The final set of limits are the lowest in Florida or any other state."

Southdown, Inc. ■ 1200 SMITH STREET ■ SUITE 2400 ■ HOUSTON, TEXAS 77002 ■ (713) 650-6200

First Paragraph, Page 2.

"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 in terms or conditions."

COMMENT 2

The word "enclosed" in the above paragraph should be deleted.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATIONS

COMMENT 3

In Section 3.1, under "PROJECT DESCRIPTION", change item 2 of the Southdown requested changes from:

"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 170.0 lb/hr."

to:

"2 To increase the existing CO emission limits for Kilns 1 from 57.7 lb/hr (while firing tires) to **170.0 lb/hr** (under all conditions) and for Kiln 2 from 64.0 to 170.0 lb/hr."

COMMENT 4

The last sentence in the third paragraph, in Section 3, "RULE APPLICABILITY", states:

"...A CO limit set in 1994 applicable only when burning tires will be removed as will the conditions which allow tire burning in Kiln No. 1."

While it is true that Southdown has suspended its tire burning operations at the Brooksville plant at this time, Southdown has not ruled out the possibility of resuming tire burning in Kiln No. 1 and did not propose or request that tire burning be removed from our permit for Kiln No. 1. Therefore, we respectfully request that tire burning be left intact in our permit.

COMMENT 5

Although the end conclusion remains unchanged, we are submitting an Emission Summary Table for Section 6.2 based on the 1995 test results and the 1995 operating hours.

AIR CONSTRUCTION PERMIT 0530010-001-AC AND PSD-FL-233
SECTION II. EMISSION UNIT(S) COMMON SPECIFIC CONDITIONS.

2.0 Emission Limiting Standards, First Bullet:

"Visible emissions of all minor sources controlled by baghouses shall not exceed 5% opacity (BACT determination).

COMMENT 6

We need clarification as to which "minor" sources controlled by baghouses this refers to. We have permits for many other sources controlled by baghouses at this facility, which specify 10% opacity.

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

Specific Condition B5.

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

(a) 24,000 pounds of coal with a heating value of 12,500 Btu/hr
(b) 2,116 gallons/hr of No. 2 fuel oil with a heating value of 141,300 Btu/gal
(c) 2,060 gallons/hr of No. 4 fuel oil with a heating value of 145,600 Btu/gal
(d) 2,016 gallons/hr of No. 5 fuel oil with a heating value of 148,800 Btu/gal
(e) 1,982 gallons/hr 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/cubic foot

COMMENT 7

Since the heat input rate is limited to 300 MMBtu/hr, is it really necessary to list the gallons/hr and heating value for each fuel? What happens if the heating value is different from that listed above? Will we be allowed to make the corresponding adjustments, up or down, in the lbs/hr, gallons/hr or the cubic feet/hour based on variations in the heat content? In item (a) the units for the heating value for coal should be "Btu/lb" instead of "Btu/hr". In (f) above, the cubic/feet per for natural gas should be "292,683" instead of "92,683". Tire-Derived-Fuel (TDF) should be included in the list of authorized fuels.

Specific Condition B9.

"Continuous 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 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.]"

Specific Condition 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 90 days prior to installation of new CEMS.

COMMENT 8

Southdown does not intend to install permanently mounted continuous emission monitors for NO_x and CO for continuous monitoring purposes. It is Southdown's intent to show compliance with the NO_x limit by conducting three (3) 1-hour tests per US EPA Method 7E. If the results from the 3 test runs indicate an exceedance, then conduct a 24-hour test. If the 24-hour test shows an exceedance then conduct a 5-day test. If the results from the 5-day test still indicates an exceedance, then conduct the 30-day test. The same emission monitor that is used in Method 7E, would be used in the above sequence. Since the outside testing firm will already have its monitor set up for collecting the data, the 90 day lead time for review and approval would add unnecessary time to the overall testing schedule. Southdown requests the FDEP to delete reference to the "90 days prior to installation". If the FDEP approves of the above testing sequence for NO_x, then appropriate changes need to be made in Table 2-1. Conditions B10 needs to be either re-written to cover opacity monitors only, or deleted entirely.

TABLE 2-1. Compliance Requirements.
Kiln No.1 and Cooler No. 1

In the column titled "Description", "Cooler No. 3" should be "Cooler No. 1".

In the Column titled "EPA/Reference Method *", for VE, Method 9 should be included for Kiln No. 1 and Cooler No. 1. Based on a conversation between Teresa Heron of FDEP and Amarjit Gill of Southdown, it was determined that compliance for VE would be demonstrated annually using Method 9, and the continuous opacity monitors were there to satisfy the requirements under the Federal New Source Performance Standards.

In the column titled "Testing Time Frequency", "continuous" should be replaced by "annual" for VE for Kiln No. 1 and for Cooler No. 1.

In the column titled "Min. Compliance Test Duration", "3 hr" should be replaced by "3 1-hr tests". For VE, this duration should be "180 minutes".

The column titled "CMS*" should be deleted entirely. Appropriate changes to the footnotes should be made. Any changes made here may necessitate corresponding changes in APPENDIX BD, Best Available Control Technology (BACT).

Specific Condition C5.

The No. 2 cement fuel heat input rate shall not exceed 300 MMBtu/hr, or specifically:

(a) 24,000 pounds of coal with a heating value of 12,500 Btu/hr
(b) 2,116 gallons/hr of No. 2 fuel oil with a heating value of 141,300 Btu/gal
(c) 2,060 gallons/hr of No. 4 fuel oil with a heating value of 145,600 Btu/gal
(d) 2,016 gallons/hr of No. 5 fuel oil with a heating value of 148,800 Btu/gal
(e) 1,982 gallons/hr 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/cubic foot

COMMENT 9

Since the heat input rate is limited to 300 MMBtu/hr, is it really necessary to list the gallons/hr and heating value for each fuel? What happens if the heating value is different from that listed above? Will we be allowed to make the corresponding adjustments, up or down, in the lbs/hr, gallons/hr or the cubic feet/hour based on variations in the heat content? In item (a) the units for the heating value for coal should be "Btu/lb" instead of "Btu/hr".

Specific Condition C9.

"Continuous 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).

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 O2 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.]**

Specific Condition 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 90 days prior to installation of new CEMS.

COMMENT 10

Southdown does not intend to install permanently mounted continuous emission monitors for NO_x and CO for continuous monitoring purposes. It is Southdown's intent to show compliance with the NO_x limit by conducting three (3) 1-hour tests per US EPA Method 7E. If the results from the 3 test runs indicate an exceedance, then conduct a 24-hour test. If the 24-hour test shows an exceedance then conduct a 5-day test. If the results from the 5-day test still indicates an exceedance, then conduct the 30-day test. The same emission monitor that is used in Method 7E, would be used in the above sequence. Since the outside testing firm will already have its monitor set up for collecting the data, the 90 day lead time for review and approval would add unnecessary time to the overall testing schedule. Southdown requests the FDEP to delete reference to the "90 days prior to installation". If the FDEP approves of the above testing sequence for NO_x, then appropriate changes need to be made in Table 2-2. Conditions C10 needs to be either re-written to cover opacity monitors only, or deleted entirely.

TABLE 2-2. Compliance Requirements.
Kiln No. 2 and Cooler No. 2

In the column titled "Description", "Cooler No. 4" should be "Cooler No. 2".

In the Column titled "EPA/Reference Method *", for VE, Method 9 should be included for Kiln No. 2 and Cooler No. 2. Based on a conversation between Teresa Heron of FDEP and Amarjit Gill of Southdown, it was determined that compliance for VE would be demonstrated annually using Method 9, and the continuous opacity monitors were there to satisfy the requirements under the Federal New Source Performance Standards.

In the column titled "Testing Time Frequency", "continuous" should be replaced by "annual" for VE for Kiln No. 2 and for Cooler No. 2.

In the column titled "Min. Compliance Test Duration", "3 hr" should be replaced by "3 1-hr tests". For VE, this duration should be "180 minutes".

The column titled "CMS*" should be deleted entirely. Appropriate changes to the footnotes should be made. Any changes made here may necessitate corresponding changes in APPENDIX BD, Best Available Control Technology (BACT).

Thank you for this opportunity to provide comments on the DRAFT permit. We will proceed with the "Public Notice" publication as soon as we hear from you.

Sincerely,

Amarjit Singh Gill

Amarjit Singh Gill, PE
Director, Air Permitting

c: Don Kelly
John Koogler
Dave Repasz
Dan Heintz

cc: J. Heron, BAR
EPA
NPS
SWD
Hernando Co.

6.2 Emission Summary

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

	Current	Current	1995	1995	New	New	Net	PSD
Pollutants	Allowable	Allowable	Actual	Actual	Allowable	Allowable	Increase	Sig. Level
	Lb/Hr	Tons/Yr	Lb/Hr	Tons/Yr	Lb/Hr	Tons/Yr	Tons/Yr	Tons/Yr
PM/PM10, Kiln	39	171	25.6	100.8	26	114	13.1	25 / 15
PM/PM10, Cooler	7.1	28.1	12.20	48.0	13	56.9	8.9	25 / 15
SO2	15	65.7	NA	NA	15	65.7	NA	40
NOx	Not Applic.	Not Applic.	Not Applic.	Not Applic.	275	1205	Not Avail.	40
CO (while using TDF)	57.7	234	Not Applic.	Not Applic.	170	745	510.6	100
VOC	Not Applic.	Not Applic.	Not Applic.	Not Applic.	13	56.9	Not Avail.	40
Opacity, Cooler %	10				10			
Opacity, Kiln %	20				20			
			Cement Kiln No. 1 and Cooler No. 1					
	Current	Current	1995	1995	New	New	Net	PSD
Pollutants	Allowable	Allowable	Actual	Actual	Allowable	Allowable	Increase	Sig. Level
	Lb/Hr	Tons/Yr	Lb/Hr	Tons/Yr	Lb/Hr	Tons/Yr	Tons/Yr	Tons/Yr
PM/PM10, Kiln	13.5	55.4	16.80	65.4	26	106.6	41.2	25 / 15
PM/PM10, Cooler	5.0	20.5	9.00	35.0	13	53.3	18.3	25 / 15
SO2	15	65.7	NA	NA	15	61.5	NA	40
NOx	250	1025	NA	NA	250	1025	NA	40
CO	64	262	55.8	217.1	170	697	480	100
VOC	7.4	30.3	5.1	19.8	13	53.3	33.5	40
Opacity, Cooler %	10				10			
Opacity, Kiln %	10				10			
			Cement Kiln No. 2 and Cooler No. 2					

AS PREPARED BY SOUTHDOWN

6.2 Emission Summary

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Pollutants	Current Allowable Lb/Hr	Current Allowable Tons/Yr	Current Actual Lb/Hr	Current Actual Tons/Yr	New Allowable Lb/Hr	New Allowable Tons/Yr	Net Increase Tons/Yr	PSD Sig. Level Tons/Yr
PM/PM10, Kiln	39	171	17.8 [4]	70.4 [4]	26	114	43.6	25 / 15
PM/PM10, Cooler	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
NOx	NA [6]	NA [6]	NA [6]	NA [6]	275	1205	NA	40
CO	57.7 [3]	234 [3]	31.6 [5]	138 [5]	170	745	606.0	100
VOC	NA	NA	NA	NA	13	56.9	< 40	40
Opacity, Cooler %	10				10			
Opacity, Kiln %	20				20			

Cement Kiln No. 1 and Cooler No. 1

Pollutants	Current Allowable Lb/Hr	Current Allowable Tons/Yr	Current Actual Lb/Hr	Current Actual Tons/Yr	New Allowable Lb/Hr	New Allowable Tons/Yr	Net Increase Tons/Yr	PSD Sig. Level Tons/Yr
PM/PM10, Kiln	13.5	55.4	6.77	25.9	26	106.6	80.7	25 / 15
PM/PM10, Cooler	7.1	20.5	4.44	17.1	13	53.3	36.2	25 / 15
SO2	15	65.7	NA	NA	15	61.5	NA	40
NOx	250	1025	NA	NA	250	1025	NA	40
CO	64	262	53.0	203	170	697	494	100
VOC	7.4	30.3	4.5	17.1	13	53.3	36.2	40
Opacity, Cooler %	10				10			
Opacity, Kiln %	10				10			

Cement Kiln No. 2 and Cooler No. 2