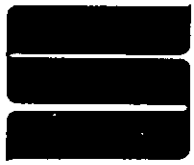

January 30, 1997

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

Dear Mr. Linero

Southdown continuously evaluates its production needs at its plants based on market demands and forecasts. Based on these studies, we need to maintain a feed rate to both kilns that would average out at 150 tons/hour over a 30-day average instead of the present 145 tons/hour. The following changes will insure that this feed can be maintained on a 30-day rolling average.:

1) Modify preheater exit gas cyclones to increase cyclone efficiency above the present 89%, which will reduce heat loss and lower the pressure drop.

2) Replace Kiln ID fan with a high efficiency design, so that higher air flows can be achieved without increasing the drive motor horsepower.

3) Add two additional modules to the Kiln #1 baghouse. This will allow us to maintain a low air-to-cloth ratio when a module has been isolated for maintenance.

4) Improve the clinker cooler efficiency by upgrading the clinker cooler fans and adding static grates.

5) Increase kiln feed system capability to insure the 150-ton per hour feed rate on a continuous basis. Even though our actual feed rate will average 150 tons/hour, the system has to be designed for 160 tons/hour.

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

6) Add drying drum to the #1 raw mill and increase the mill fan capacity to recuperate the waste heat from the preheater gas.

These changes are designed to increase the overall thermal efficiency, and the maximum heat input to the kiln will not exceed the existing limit of 300 MMBtu/Hr. The above referenced permits are based on a feed rate of 145 tons/hr, 30-day rolling average. Kiln #1 is allowed to operate 8760 hours per year and Kiln #2 is allowed to operate 8200 hours per year. To accomodate the increased feed rate, and to minimize the net annual emissions increase, we are requesting that the operating hours be changed for both kilns to 8350 hours per year. The attached spreadsheet summarizes the emissions from each kiln based on the allowable limits in the pending permits. An alternate scenario, based on 150 tons/hour, annual average, and 8350 hours/year operation for each kiln is also included to show the increases in emissions.

Sincerely,

Amarjit Singh Gill.

Amarjit Singh Gill, PE
Director, Air Permitting

c: Don Kelly
John Koogler
Dave Repasz
Dan Heintz

Pollutants	New Allowable	Allowable @ 145 TPH	Allowable @ 150 TPH	Allowable @ 145 TPH & 8760	Allowable @ 150 TPH & 8350	Present Permits Kilns 1 & 2	Proposed Kilns 1 & 2
	Lb/Ton Feed	Lb/Hr	Lb/Hr	TPY	TPY	TPY	TPY
PM/PM10, Kiln	0.18	26.1	27.0	114.3	112.7	221.3	225.5
PM/PM10, Cooler	0.09	13.1	13.5	57.2	56.4	110.7	112.7
SO2	0.10	14.5	15.0	63.5	62.6	123.0	125.3
NOx	1.90	275.5	285.0	1206.7	1189.9	2229.2	2267.0
CO	1.17	169.9	175.8	744.3	734.0	1441.1	1467.9
VOC	0.09	13.1	13.5	57.2	56.4	110.7	112.7
Opacity, Cooler %	10	10					
Opacity, Kiln %	20	20					

Cement Kiln No. 1 And Cooler No. 1

Pollutants	New Allowable	Allowable @ 145 TPH	Allowable @ 150 TPH	Allowable @ 145 TPH & 8200	Allowable @ 150 TPH & 8350	Ref Method	Duration/ Frequency
	Lb/Ton Feed*	Lb/Hr	Lb/Hr	TPY	TPY		
PM/PM10, Kiln	0.18	26.1	27.0	107.0	112.7	5	3 1-Hr Runs
PM/PM10, Cooler	0.09	13.1	13.5	53.5	56.4	5	3 1-Hr Runs
SO2	0.10	14.5	15.0	59.5	62.6	6C	3 1-Hr Runs
NOx	1.72	249.4	258.0	1022.5	1077.2	7E	3 1-Hr Runs
CO	1.172	169.9	175.8	696.8	734.0	10	3 1-Hr Runs
VOC	0.09	13.1	13.5	53.5	56.4	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

COMPARISON OF 145 TPH VS 150 TPH FEED

Pollutants	New Allowable Lb/Ton Feed	Allowable @ 145 TPH Lb/Hr	Allowable @ 150 TPH Lb/Hr	Allowable @ 145 TPH & 8760 TPY	Allowable @ 150 TPH & 8350 TPY	Present Permits Kilns 1 & 2 TPY	Proposed Kilns 1 & 2 TPY
PM/PM10, Kiln	0.18	26.1	27.0	114.3	112.7	221.3	225.5
PM/PM10, Cooler	0.09	13.1	13.5	57.2	56.4	110.7	112.7
SO2	0.10	14.5	15.0	63.5	62.6	123.0	125.3
NOx	1.90	275.5	285.0	1206.7	1189.9	2229.2	2267.0
CO	1.17	169.9	175.8	744.3	734.0	1441.1	1467.9
VOC	0.09	13.1	13.5	57.2	56.4	110.7	112.7
Opacity, Cooler %	10	10					
Opacity, Kiln %	20	20					

Cement Kiln No. 1 And Cooler No. 1

Pollutants	New Allowable Lb/Ton Feed*	Allowable @ 145 TPH Lb/Hr	Allowable @ 150 TPH Lb/Hr	Allowable @ 145 TPH & 8200 TPY	Allowable @ 150 TPH & 8350 TPY	Ref Method	Duration/ Frequency
PM/PM10, Kiln	0.18	26.1	27.0	107.0	112.7	5	3 1-Hr Runs
PM/PM10, Cooler	0.09	13.1	13.5	53.5	56.4	5	3 1-Hr Runs
SO2	0.10	14.5	15.0	59.5	62.6	6C	3 1-Hr Runs
NOx	1.72	249.4	258.0	1022.5	1077.2	7E	3 1-Hr Runs
CO	1.172	169.9	175.8	696.8	734.0	10	3 1-Hr Runs
VOC	0.09	13.1	13.5	53.5	56.4	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

COMPARISON OF 145 TPH VS 150 TPH FEED

January 31, 1997

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

Dear Mr. Linero

As a follow up to our meeting of January 30, 1997, the following justification is provided to amend the above referenced pending permit, which has gone through the public notification process and is about to be issued by the Florida Department of Environmental Protection (FDEP):

1) The increase in production will be realized through thermal efficiency improvements with no increase in heat input above the present 300 MMBtu/hr for each kiln.

1) The peak feed rate limit of 165 tons/hour to the preheater will not exceed that allowed under the pending permit.

2) The pending permit allows Kiln #1 to operate 8760 hours/year and Kiln #2 to operate 8200 hours/year. By adjusting the operating hours for each kiln to 8350/year, the combined net increase in emissions for each criteria pollutant from both kilns collectively, above that allowed in the pending permit, is below significant level. These increases are summarized in the attached spreadsheet.

   The use of allowable emissions in netting calculations is permitted in 40 CFR 52.24.13(iii), which states: "The Administrator may presume that source-specific allowable emissions are equivalent to the actual emissions of the unit." This is particularly true where actual emissions, under the pending permit, have not been established or verified as yet.

Since this change is not subject to the PSD review, the 30 day public commenting period is not required. If, however, FDEP determines that a public notification for a shorter duration is necessary, Southdown will publish the notice as directed.

During the meeting yesterday, we informed you that Southdown plans to implement the following

changes to insure that a feed rate of 150 tons/hour can be maintained on a 30-day rolling average:

1) Modify preheater exit gas cyclones to increase cyclone efficiency above the present 89%, which will reduce heat loss and lower the pressure drop.

2) Replace Kiln ID fan with a high efficiency design, so that higher air flows can be achieved without increasing the drive motor horsepower.

3) Add two additional modules to the Kiln #1 baghouse. This will allow us to maintain a low air-to-cloth ratio when a module has been isolated for maintenance.

4) Improve the clinker cooler efficiency by upgrading the clinker cooler fans and adding static grates.

5) Improve the kiln feed system capability to insure the 150-ton per hour feed rate on a continuous basis.

6) Add a drying drum to the #1 raw mill and increase the mill fan capacity to recuperate the waste heat from the preheater gas.

Cement kilns generally burn their on-site generated, non-hazardous wastes, such as used oil, lubrication oil, grease and rags in the kilns. This has been a practice at our Brooksville Plant for a number of years and was authorized in the early eighties by a letter from the FDEP. Unfortunately, we cannot locate a copy of this letter at this time.

Therefore, we request that a provision be included in our permit (in Sections B5 & C5) to burn such non-hazardous wastes. We use approximately 25,000 gallons of lubricants annually at this plant. A good portion of the spent lubricants is burned in the kiln and the remainder is used for other lubricating purposes.

Southdown will submit any additional fees deemed necessary by the FDEP for this permit change. If you have any questions or need additional information, please call me at (713) 653-8098.

Sincerely,

Amarjit Singh Gill

Amarjit Singh Gill, PE
Director, Air Permitting

c: Don Kelly
John Koogler
Dave Repasz
Dan Heintz