To Southdown File (active)

**ENVIRONMENTAL AFFAIRS DEPARTMENT**
**Telecopy Number (713) 653-8567**

**High Priority** ✓ **Medium Priority** ____ **Normal Priority** ____

**DATE.** July 24, 1996 **TOTAL PAGES:** 3

**TO:** TERESA HERON T.H.

**AT:** FDEP

**FAX NO:** 904-922-6979

**FROM:** AMARJIT S. GILL

**If problems occur during transmission, please phone (713) 653-6852.**

**MESSAGE:**



**Environmental Affairs Group: George Caine / Ivone Garcia / Amarjit ("Jeet") S. Gill / David T. Hagerman / Daniel W. Heintz / Ellen Hofmann-Haynie / Janet Krolczyk / Michael A. Tilton**

[redacted]

July 24, 1996

Mr. Richard Biondi
MC 223A
US Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

Re: Definition Of Kiln Feed
Standards of Performance for Portland Cement Plants
40 CFR 60, Subpart F

Dear Mr. Biondi:

I spoke to you over the telephone on Monday, July 22, 1996 regarding the definition of "Kiln Feed" as it applies in 40 CFR 60.62(a)1 for kiln gases, and 40 CFR 60.62(b)1 for clinker cooler gases.

| | |
|---|---|
| 40 CFR 62(a): | On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this Subpart shall cause to be discharged into the atmosphere from any kiln any gases which: |
| 40 CFR 60.62(a)1: | Contain particulate matter in excess of 0.15 kg per **metric ton of feed** (dry basis) to the kiln (**0.30 lb per ton**). |
| 40 CFR 62(b): | On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this Subpart shall cause to be discharged into the atmosphere from any clinker cooler any gases which: |
| 40 CFR 60.62(b)1: | Contain particulate matter in excess of 0.05 kg per **metric ton of feed** (dry basis) to the kiln (**0.10 lb per ton**). |

Southdown owns and operates two preheater kilns at its cement manufacturing plant near Brooksville, Florida. The existing permits have the following limits on material handling rates:

**"The maximum material handling rates, based upon a rolling 30 production-day average, are as follows:**

| | |
|---|---|
| **Kiln preheater feed rate** | **= 145 tons/hour** |
| **Cement Kiln Feed Rate** | **= 130 tons/hour** |
| **Clinker production rate** | **= 79.6 tons/hour** |

Approximately 11% of the total feed entering the preheater tower is carried away by the counter flowing gases, which is collected in the dust collector and recycled. The remaining 89% enters the inclined horizontal section of the cement kiln. The two feed rates, i.e., preheater feed rate and the kiln feed rate have caused confusion as to which feed rate should be used in calculating the allowable particulate emissions.

If the 145 tons/hour is used, the allowable kiln particulate emission rate is 145*0.3 = 43.5 lb/hr, whereas, if 130 tons/hour is used, the allowable particulate emission rate is 130*0.3 = 39.0 lbs/hr. Similarly, the particulate emissions from the clinker cooler are 14.5 lbs/hr and 13.0 lbs/hr respectively. Southdown operates 9 other kilns in seven other states, and we have always used the preheater feed rate in calculating the allowable particulate emission rates.

In our discussion on Monday, we agreed that the intent of the NSPS was to use the preheater feed rate in calculating the allowable emission rates from a preheater/precalciner kiln. Could you be kind enough to give us USEPA's interpretation as to their understanding of kiln feed rate for a preheater kiln.

On a separate issue, 40 CFR 60.63(a), Monitoring of Operations states:

> "The owner or operator of any portland cement plant subject to the provisions of this part shall record the daily production rates and kiln feed rates."

If a limit on the feed rate is established, the production rate is also indirectly established depending on the conversion factor for a specific kiln. This conversion factor can vary from 0.54 to 0.62 ton of clinker for each ton of feed, and is dependant not only on the amount of material recycled, but also on air leakage into the preheater tower. Owners and operators strive hard to gain even the slightest production increases for a fixed feed rate. Therefore, is it necessary to establish both a front-end feed rate limit and a back-end production rate limit? Establishing just the feed rate limit does not prevent the owner/operator from recording the daily production rates and kiln feed rates.

An early response would be greatly appreciated. If you have any questions, or need additional information, please call ma at (713) 653-8098.

Sincerely,

Amarjit Singh Gill

Amarjit Singh Gill, PE
Director, Air Permitting

c: Clair Fancy, FDEP, Tallahassee, FL
Don Kelly, Southdown, Brooksville Plant
John Koogler, PhD, Koogler & associates

# Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary


July 10, 1996

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Re: Southdown Inc. Modification of Permits
Kilns 1 and 2, Coolers 1 and 2

Dear Mr. Kelly:

The Department has reviewed the information submitted subsequent to our completeness letters of March 8 and March 21. We received a letter on April 2 from your Houston office describing the purpose of the request. We received a thorough chronology on June 17 of previous permitting actions from your consultant, Koogler and Associates. We also received a diskette containing your Title V application. We have not yet been able to download the diskette and request a hard copy version if possible.

Based on our review, the application is still incomplete [Rule 62-4.055(3)]. The main reason is that it does not adequately describe the manner in which Southdown intends to operate its kilns to insure that the proposed limits will be met. The netting calculation for PSD applicability should have been based on comparisons of future potential emissions to past actual emissions. Southdown's calculations were based on comparisons of allowable emissions limits before and after the changes. If some of the emissions units were operating out of compliance, then it would be appropriate to use past allowable emission rates (for those units) together with past actual hours of operation for comparison with future potential emissions. Please provide a revised netting calculation [Rule 62-212.400(2)(e)]. This was specifically requested in the section entitled "Emissions Data" in our March 21 letter.

We need better information on historical actual emissions and knowledge on how these were or can be minimized to insure that emission rates reflective of Best Available Control Technology are selected. We cannot justify increases in selected emission limits based on recent BACT determinations alone. Those determinations also addressed other pollutants with tighter limits (e.g. nitrogen oxides) which Southdown does not seek to change at its facility.

We, are in fact, processing your application, but require the above information for the reasonable assurance needed by the Department prior to issuance of an Intent [Rule 62-4.070.(3), F.A.C.].

If you have any questions regarding this matter, please call me or Teresa Heron at (904)488-1344.

Sincerely,

A. A. Linero, P.E. Administrator
New Source Review Section

AAL/aal/l

cc: J. Harper, EPA
J. Bunyak, NPS
W. Thomas, SWD
A. Gill, Southdown
J. Koogler, K&A