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Division of Air
Resources Management

Ms. Jewell A. Harper, Chief
Air Enforcement Branch
Air, Pesticides, and Toxics
Management Division
U.S. EPA - Region IV
345 Courtland Street, N.E.
Atlanta, GA 30365

Mr. Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Florida Department of Environmental Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Reactivation of Kiln No. 6
Lafarge Corporation, Tampa, Florida

Dear Ms. Harper and Mr. Fancy:

On June 5, 1990 representatives from Lafarge Corporation met with Clair Fancy and Barry Andrews of FDER and, Jerry Campbell and Kay Strother of the Environmental Protection Commission of Hillsborough County. Several questions were raised about PSD and NSPS issues which FDER was unable to definitively answer and were to be differed to EPA Region IV. This resulted in Clair Fancy's June 28, 1990 letter to Jewell A. Harper, and EPA's subsequent response dated August 23, 1990.

Unfortunately, Clair's original letter did not convey the complete circumstances surrounding the reactivation of Kiln No. 6 in Tampa and the intent of this letter is to provide each agency with a thorough discussion of the background of events and clearly state the issues for which we are seeking guidance. We hope this information will allow EPA to issue new comments in the form of such a guidance letter.

Temporary Vs Permanent Shutdown:

Kiln 6 was built in 1961 and was operated until February 20, 1985 when it was temporarily shut down due to economic consideration. With regard to the EPA and FDER's concern about the temporary shutdown of Kiln No. 6, the following is a discussion of events and

9/9/52
Patty
ck with Estler, EPA & see
if this still has any
relevance - Clair

9/25
Clair,
Jim said this one is
almost dead - He may hear
from them again, but likely
not - He can file this away &
wait & see - I have the file -
Patty

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facts to support Lafarge's contention of the "temporary" shutdown as well as correct some misinformation.

The cement industry, like many other industries, is dependent on the rules of supply and demand, but in a limited area around each manufacturing facility. This limit is the result of transportation costs for cement which are always handled in large bulk quantities. Therefore, two manufacturing plants that are in different geographic areas will not compete directly because freight to move one product to the competitor's area would result in a non-competitive price. The two major costs of manufacturing cement are labor and energy. Trends for these two costs have indicated steady increases in the United States for quite some time. There are numerous countries in the world where these costs are not significant when looking at total cost for producing a commodity. Cement production in Mexico is a prime example. It is common knowledge that labor costs in Mexico are extremely low. It may or may not be widely known that energy costs for industry, namely natural gas, are low because natural gas is a by-product of their oil production and a nuisance to them, so it is provided to industry at a very low or no cost. Add to this the fact that ocean freight rates are the cheapest available and you can distribute foreign produced cement in coastal areas cheaper than they can be produced domestically. Imported cement to the U.S. had been on the rise in the Florida area since the early eighties and as a result, most cement companies were constantly monitoring their position in the market. This generated possible projects to modernize or construct new plants to lower production costs. New plants were built, others modernized, and some were coupled with co-generation in an effort to reduce production costs.

With the projected increase in imports to continue, General Portland took the position that a new plant or even a modernized plant would be a poor decision for an area that was already over saturated with available cement production and imports. General Portland made the decision to temporarily close the Tampa facility and import clinker, the primary intermediate product that consumes the most energy. This shutdown the kiln and raw grind systems. Some time after this, General Portland decided to import cement rather than clinker, again to minimize energy usage (electric power) in the finish grinding system. The logic in the "temporary shutdown" of Tampa was that if any of the variable that made Tampa non-competitive changed, and it again became viable, we would restart Kiln No. 6. We also realized that changes such as this would be the result of world economics and therefore, might not

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happen overnight. As General Portland, and its successor, Lafarge Corporation, monitored these variables, circumstances began the change. Ocean freight rates began to increase much more than expected, and an anti-dumping lawsuit was filed with the U.S. International Trade Commission concerning Mexican cement imports.

In late 1989 Lafarge began investigating restarting the Tampa facility since Lafarge expected the ITC to rule against the Mexicans. As we had predicted, the final ruling came out at the end of August, 1990 against the Mexican imports. In addition to this, the ITC has made an affirmative preliminary anti-dumping determination on cement from Japan. Lafarge has every reason to believe that this investigation will end in the same result. Actions such as this have impacted the competitive pressures in all coastal market areas. Running parallel to these activities were our investigations to restart the Tampa plant. These studies have shown that the economics of our market area have changed enough that we might be competitive if the plant was restarted as a cogeneration facility. For these economic reasons, we are strongly considering returning the plant to an active status as opposed to it's temporary shutdown status.

In support of the argument the facility was closed temporarily, the kiln was lubricated and rotated on a routine basis to maintain it's ability to operate after shutdown in 1985. After a lengthy time of this "mothballed" state of readiness, it was determined that the lubricated surfaces did not require this type of activity to retain their serviceability. The lubricants used were very heavy in nature and did not "runoff" and leave the bearing surfaces exposed to the elements. The fact is, a "mothballing" operation was undertaken to protect the equipment until it was determined that it was unnecessary.

Partial Dismantling and Removal of Pollution Control Equipment:

In Mr. Fancy's June 28, 1990 letter, a statement was made that "this kiln is about one quarter dismantled and the air pollution control equipment removed." This misconception that the kiln has been partially dismantled must be corrected.

The kiln is intact and has not been dismantled. We have enclosed recent photographs showing the kiln to be intact. The Electrostatic Precipitator (ESP) pollution control device has been removed. The unit in question was installed at the same time as the kiln in 1961. It has been the experience within General

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Portland and Lafarge that ESPs generally need to be replaced after 20 to 30 years. These devices are subject to elevated temperatures and high volumes of dust laden gases. These dusts are abrasive in nature. When the ESP was shutdown in 1985, it was 24 years old, in the range of it's life expectancy. After having been idle for a few years, the high humidity and proximity to the salt sea breeze had seriously corroded the structure. It became a serious safety consideration and because of a strong safety conscientiousness of our company, the unit was demolished. We recognized that when the kiln was to be restarted, whether it be in one year or ten years, Lafarge would require a new ESP or equally efficient control device because of the original ESP's age anyway.

Reactivation of Kiln No. 6:

Lafarge Corporation is considering reactivation of Kiln No. 6 as it is currently configured, installing a new baghouse with a greater removal efficiency than the previous ESP and installing a waste heat recovery boiler fired on coal with a similar sulfur content as that which was fired in the kiln. Attached is a diagram of the proposed configuration of the kiln and waste heat boiler. The projected emissions from the reactivation with a waste heat boiler are not expected to create a net increase in emission above the PSD significance levels and therefore not trigger extensive PSD NSR requirements. The cogeneration unit would have a 15 megawatt capacity. The company is considering the use of an existing boiler to avoid some of the requirements of the New Source Performance Standards.

In EPA's letter of August 23, 1990, some concerns were raised whether the cogeneration facility would be considered a separate facility under the state's PSD rules. In order to provide clarification on this issue, the following information is being provided:

1. The cogeneration facility and the cement plant would be under common control.
2. The cogeneration facility and the cement plant would be located on continuous property currently owned by Lafarge Corporation.
3. The cogeneration facility belongs to the same industrial grouping as the cement plant, since the cogeneration

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plant relies most heavily on the fuel input of the cement plant.

NSPS - Reconstruction:

The cost to build a new cement plant with a cogeneration facility would be \$150 million. To restart the existing facility with a new baghouse and cogeneration would be approximately \$40 million. Therefore, reconstruction provisions would not apply.

NSPS - Modification:

Pursuant to EPA's August 23, 1990 letter, the modification provisions of NSPS is based on "two tests, namely there must be 1) a physical or operational change in the existing facility and, 2) an increase to the atmosphere or a regulated pollutant".

1. As discussed previously, the only equipment removed from the facility was the ESP because of its age and condition. A new control device would have to be installed anyway and thus would be considered a routine replacement and would not extend the useful life of the kiln.
2. Per EPA's letter, "In order to determine if there is an emission increase due to a physical change, a comparison between the emission rate at the current actual capacity to the emission rate after the physical change must be made. The emission rate before physical change is based upon the operational condition of the existing facility just prior to the physical change. Since the No. 6 kiln is currently considered not operational, there will obviously be an increase in the emission rate of the regulated pollutant (particulate matter)".

Since the kiln was still "operational" prior to the removal of the ESP, the actual emissions must be based on the stack test conducted prior to temporarily shutting down the unit. The removal of the ESP started "the initiation of the physical change", which would not be complete until a new control device was installed, be it one year to ten years. Replacement of a control device by a device of equal or greater efficiency would not increase the actual hourly emission rates and thus not constitute a modification under NSPS.

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PSD Applicability Determinations:

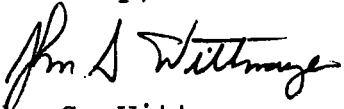
If the proposed reactivation fell under PSD review, would the actual emissions be determined based on the limited production in 1985 when the kiln was temporarily shutdown? Lafarge proposed to FDER to use production figures between 1982 and 1984 as more representative years. These values would be more representative than when the unit was phasing down due to the economics situation previously discussed.

NSPS - Waste Heat Boiler:

Lafarge is considering the use of an existing boiler to avoid the stringent New Source Performance Standards. According to EPA's August 23, 1990 letter, if Lafarge "decides to install an existing boiler, at the site, NSPS should not apply provided that the boiler has not been modified or reconstructed as defined in 60.14 or 60.15 respectively." We assume FDER and EPA still abides by this opinion.

We appreciate your cooperation in this regard and look forward to your response. If there are questions, please contact me.

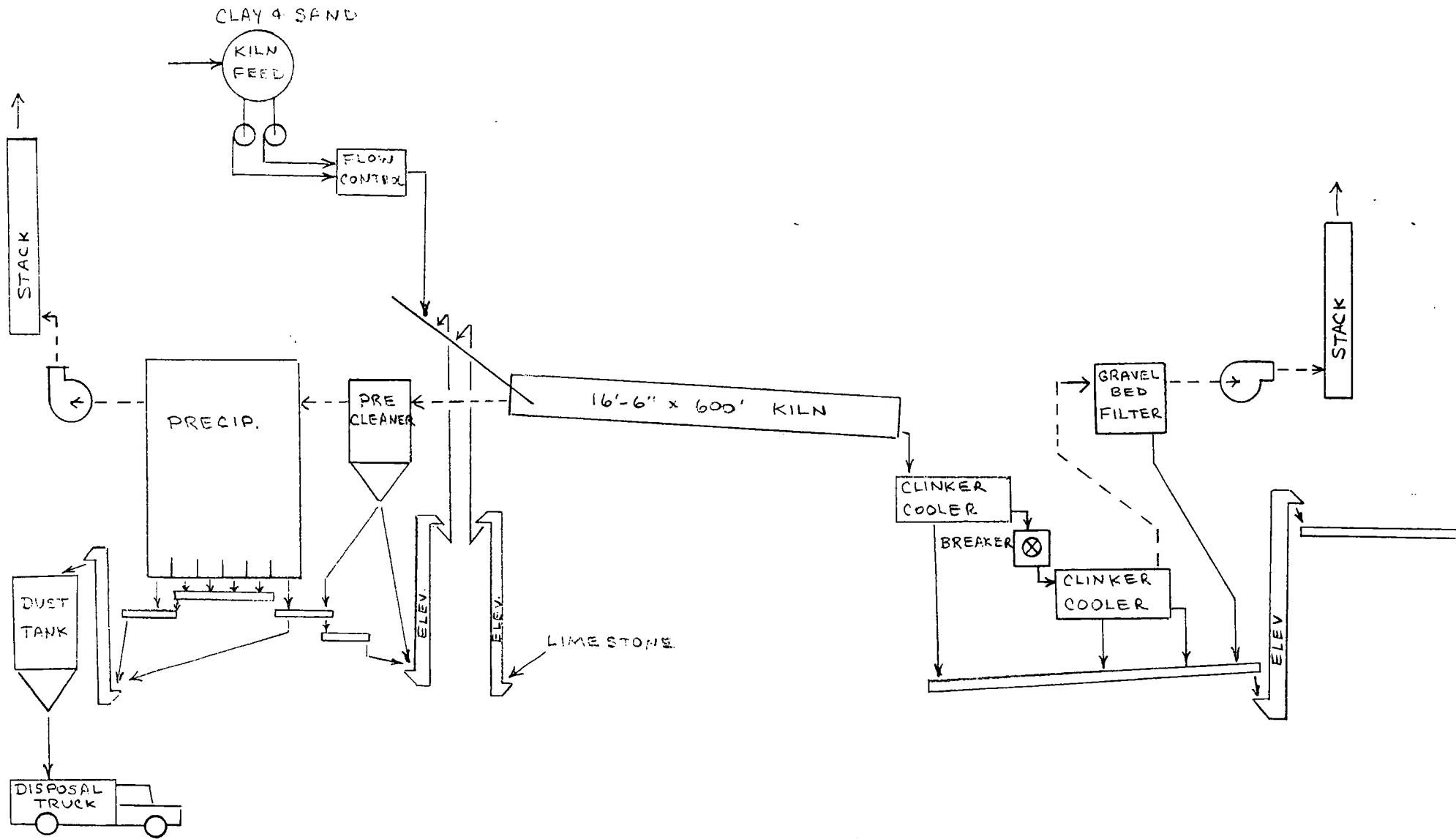
Sincerely,



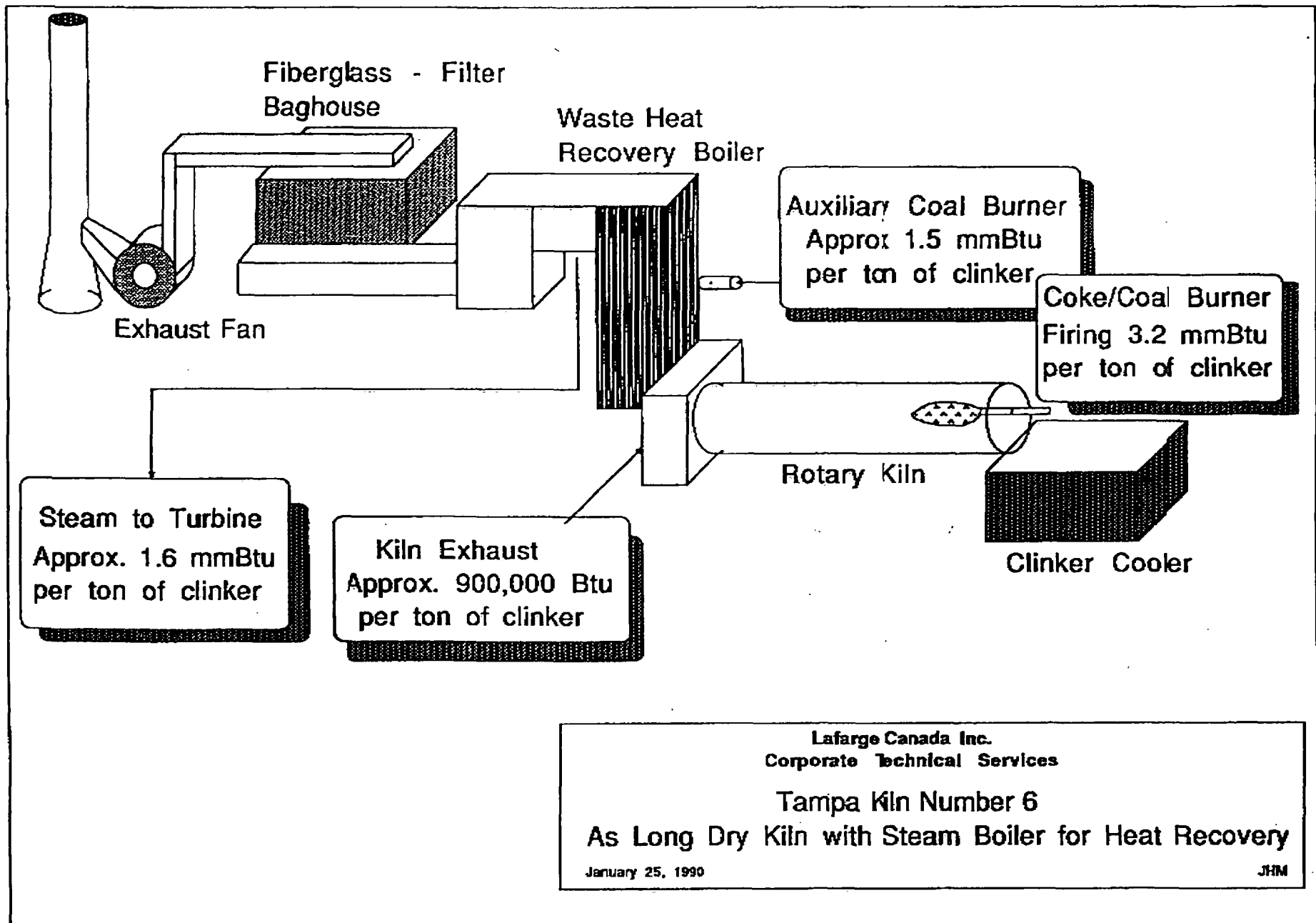
John S. Wittmayer
Environmental Manager

JSW:dlm
encs.

cc: Jerry Campbell, P.E., EPC of Hillsborough County
Jim Estler, Environmental Engineering Consultants, Inc.
William B. Taylor, IV, Attorney, McFarland & Ferguson
W. C. Thomas, P.E., FDER - Tampa



Kiln System Configuration at Time of Shutdown - 1985



Lafarge Canada Inc.
Corporate Technical Services

Tampa Kiln Number 6
As Long Dry Kiln with Steam Boiler for Heat Recovery

January 25, 1990

JHM



I. Side view of kiln showing space between stack and feed end of kiln where ESP was before removal. Note seal extension (smaller diameter) on kiln demonstrating that kiln remains at full length.



II. Axial view of kiln taken from burner floor looking uphill.