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COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES AIR QUALITY PROGRAM

PLAN APPROVAL

DEC 28 1994

Permit No.	39-0011A	Source &	Cement Kilns No. 2 and No. 3
Gwner	Lafarge Corporation	Air	Fabric Collectors
Address	5160 Main Street	Cleaning	
	Whitehall, PA 18052	Device	
Attention:	Mr. Terry Dengler, Manager	Location	Whitehall Plant
	Communications & Environment		Whitehall Township Lehigh County

In accordance with provisions of the Air Pollution Control Act, the Act of January 3, 1960, P. L. 2119, as amended, and with Chapter 127 of the rules and regulations of the Department of Environmental Resources, the Department on <u>DEC 23 1994</u> approved plans for <u>the modification of</u> the above indicated air contamination source.

S PLAN APPROVAL expipes May 31, 1995

he plan Approval is subject to the following conditions:

(1) The source is to be modified in accordance with the plans submitted with the application (as approved herein).

(SEE ATTACHED)

Notify the person noted below when the installation is completed so that the source can be inspected for issuance of an OPERATING PERMIT.

NOTE: Babu H. Patel Chief, Engineering Services Air Quality Program Cross Valley Centre 667 North River Street Plains, PA 18705-1099

Thomas A. DiLazaro Program Manager Air Quality Program

- (2) Nothing in this permit shall be construed to supercede, amend or authorize violation of the provisions of any valid and applicable local law, ordinance or regulation, provided that said local law, ordinance or regulation is not preempted by the Pennsylvania Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, 35 P.S. §§4001-4015, et seq.
- (3) The permittee shall comply with the Pennsylvania Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, 35 P.S. §§4001-4015, et seq. and Title 25, Rules and Regulations, Article III, Air Resources promulgated thereunder.
- (4) This Plan Approval authorizes temporary operation of the source(s) covered by this Plan Approval provided the following conditions are met.
 - (a) The Department must receive written notice from the Owner/Operator of the completion of construction and the Operator's intent to commence operation at least five (5) working days prior to the completion of construction. The notice should state when construction will be completed and when Operator expects to commence operation.
 - (b) Operation is authorized only to facilitate the start-up and shakedown of sources and air cleaning devices, to permit operations pending the issuance of an Operating Permit or to permit the evaluation of the source(s) for compliance with all applicable regulations and requirements.
 - (c) This condition authorizes temporary operation of the source(s) for a period of 180 days from the date of commencement of operation, provided the Department receives notice from the Owner/Operator pursuant to subpart (a), above.
 - (d) The Owner/Operator may request an extension if compliance with all applicable regulations and Plan Approval requirements has not been established. The extension request shall be submitted in writing at least 15 days prior to the end of this period of temporary operation and shall provide a description of the compliance status of the source, a detailed schedule for establishing compliance, and the reasons compliance has not been established.
 - (e) The notice submitted by the Owner/Operator pursuant to subpart (a), above, prior to the expiration of this Plan Approval, shall modify the plan approval expiration date. The new plan approval expiration date shall be 180 days from the date of the written notice.
- (5) This Plan Approval is issued for the modification of cement kilns No. 2 and No. 3, said modification consists of the utilization of tire-derived-fuel (TDF) while the kilns are engaged in the commercial production of cement at the minimum production levels of 57.8 tons per hour (TPH) of dry solid fuel and 38.2 TPH of dry solid fuel respectively.

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- (6) The TDF feed rate to kiln No. 2 shall not exceed 2.2 TPH, based on an hourly average.
- (7) The TDF feed rate to kiln No. 3 shall not exceed 1.2 TPH, based on an hourly average.
- (8) The firing of bituminous coal, coke, and TDF, for each kiln, shall not exceed a combined sulfur input of 2.5%. Additionally, the sulfur content of the bituminous coal shall not exceed 2.5%.
- (9) The operation of cement kilns No. 2 and No. 3, when fired by TDF, shall never result in the emission of the following contaminants at rates exceeding the limits identified in pounds per hour and verified by annual stack testing or quarterly CEM reporting:

POLLUTANT	KILN No. 2 (1bs/hr)	KILN No. 3 (1bs/hr)
arsenic	0.00151	0.00098
cadmium	0.00125	0.00081
hexavalent chromium	0.00135	0.00088
lead	0.07	0.043
mercury	0.00744	0.00482
nickel	0.00189	0.01225
zinc	0.38689	0.25076
total VOC's	4.1	2.7
SO2 (3-hr. block avg.)	362.0	159.3
NOx (30-day rolling avg.)	128.0	166.0
NOx (24-hr. block avg.)	157.0	207.7
particulates	14.8	5.1

The final SO_2 and NOx emission limits shall be based on CEM data and will be incorporated in the operating permit.

(10) The operation of cement kilns No. 2 and No. 3, when not fired by TDF, shall never result in the emission of the following contaminants at rates exceeding the limits identified in pounds per hour.

POLLUTANT	KILN No. 2 (lbs/hr)	KILN No. 3 (1bs/hr)
NOx (30-day rolling avg.)	297.68	202.26

(11) The permittee shall perform stack sampling on cement kiln No. 2 while firing TDF in order to determine the emission rates for arsenic, cadmium, hexavalent chromium, lead, mercury, nickel, zinc, total VOC's, PAH, SO₂, NOx, and particulates. Plan Approval No. 39-0011A Lafarge Corporation Page <u>4 of 6</u>

- (12) The permittee may be required to conduct source tests on kiln No. 3 at any time or frequency as may be prescribed by the Department. At a minimum, source tests for arsenic, cadmium, hexavalent chromium, lead, mercury, nickel, zinc, total VOC's, PAH, and particulates shall be conducted on a yearly basis.
- (13) The permittee may be required to conduct source tests on kiln No. 2 at any time or frequency as may be prescribed by the Department. At a minimum, source tests for all pollutants identified in Condition 11, with the exception of SO₂ and NOx, of this Plan Approval shall be conducted on a yearly basis.
- (14) In addition to the stack tests specified in Condition 11 of this Plan Approval, a stack test shall be conducted for PCDD and PCDF (expressed as 2, 3, 7, 8 TCDD equivalents calculated according to the Department approved method).
- (15) For the stack test specified in Condition 12 of this Plan Approval, the tests shall be conducted in accordance with 25 Pa. Code Chapter 139 as per the Department's source testing procedures described in the latest Source Testing Manual or source testing procedures approved by the Department prior to testing.
- (16) For the stack tests specified in Conditions 11 and 14 of this Plan Approval, the tests shall be conducted in accordance with 25 Pa. Code Chapter 139 as per the Department's source testing procedures described in the latest Source Testing Manual or source testing procedures approved by the Department prior to testing. The stack tests shall be conducted within 60 days after achieving maximum firing rates, but no later than 180 days after start-up.
- (17) At least sixty (60) days prior to the tests, test procedures and sketches with dimensions including the location of sampling ports and other data to ensure the collection of representative samples shall be submitted to the Department for approval.
- (18) At least two (2) weeks prior to the tests, the Department shall be informed of the date and time of the tests.
- (19) Within sixty (60) days for all pollutants identified for kiln No. 2 in Condition 11 of this Plan Approval, and within ninety (90) days for PCDD/PCDF of conducting the required stack tests, two (2) copies of the complete test report, including all operating conditions, shall be submitted to the Department for approval.
- (20) Within sixty (60) days for all pollutants identified for kiln No. 3 in Condition 12 of this Plan Approval, two (2) copies of the complete test report, including all operating conditions, shall be submitted to the Department for approval.
- (21) The permittee shall record and maintain the following feed rates for cement kilns No. 2 and No. 3: 1. dry solids; 2. bituminous coal; 3. coke; and 4. TDF. This information shall be submitted to the Bethlehem District Office by March 31 of the following year.

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- (22) Records required under this Plan Approval shall be kept for a period of two(2) years and shall be made available to the Department upon its request.
- (23) Under no circumstances shall TDF be utilized during periods when the kilns are in other than a normal operating condition (i.e., start-up or malfunction).
- (24) Continuous monitoring requirements for kiln No. 2 are as follows:
 - (a) Continuous emission monitors for opacity, sulfur oxides and nitrogen oxides shall be installed, operated and maintained in accordance with 40 CFR Part 60, 25 Pa. Code Chapter 139 and the Department's latest <u>Continuous</u> <u>Source</u> <u>Monitoring</u> <u>Manual</u> (CEM Manual).
 - (b) Monitoring and recording of exhaust gas flow rate shall be conducted in accordance with the applicant's procedure submitted to and approved by the Department.
- (25) Continuous monitoring requirements for kiln No. 3 are as follows:
 - (a) The permittee shall operate and maintain the opacity continuous emission monitor No. 0298910, the sulfur dioxide continuous emission monitor No. 0069310 and the nitrogen oxides continuous emission monitor No. 0089310 in conformance with 40 CFR Part 60, 25 Pa. Code Chapter 139 and the Department's latest <u>Continuous</u> <u>Source Monitoring Manual</u> (CEM Manual).
 - (b) Monitoring and recording of exhaust gas flow rate shall be conducted in accordance with the applicant's procedure submitted to and approved by the Department.
- (26) Phase I Department approval must be obtained for the Continuous Emission Monitoring Systems required in Conditions 24(a) and 24(b) prior to initial firing of TDF. The information listed in the Phase I Section of the Department's latest <u>Continuous Source Monitoring Manual</u> (CEM Manual) should be submitted to the Department prior to the planned initial TDF firing date. Phase III Department approval of all CEM's must be obtained within 60 days of achieving the maximum TDF firing rate of the source, but not later than 180 days after initial firing of TDF. Department review time for the Phase III report (time between postmark of company's Phase III report and the postmark of the Department's response letter) and days during which the source was not operated at all will not be charged against the source in determining compliance with this condition. Information on obtaining Department approval is included in the CEM Manual.
 - (27) The continuous emission monitoring systems required in Conditions 24 and 25 must be operated and maintained in accordance with the quality assurance, recordkeeping and reporting requirements of 25 Pa. Code Chapter 139 of the CEM Manual.

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- (28) Recordkeeping and reporting requirements are as follows:
 - (a) The permittee shall maintain a file containing all records and other data that are required to be collected pursuant to the various provisions of the Plan Approval. This file shall include, but not be limited to: all air pollution control system performance evaluations and records of calibration checks, adjustments and maintenance performed on all equipment which is subject to this Plan Approval. All measurements, records, and other data required to be maintained by the permittee shall be retained for at least two (2) years following the date on which such measurements, records or other data are recorded.
 - (b) All CEM reports shall be submitted to the Department within thirty (30) days after each quarter but no later than the time frame established in the Department's latest <u>Continuous Source</u> <u>Monitoring Manual</u>. The Department reserves the right to require the report submissions in floppy disks with a format acceptable to the Department.
- (29) The permittee shall provide the Department with access to all continuous emission monitor information via telephone dial-up (modem). It will be the permittee's responsibility to provide all hardware, software, and funds required to this access at the permittee's location. The Department shall specify the acquisition configuration.
- (30) The company, within one (1) hour of occurrence, shall notify the Department, at (610)861-2070, of any malfunction of the source(s) or associated air cleaning device(s) which results in, or may possibly be resulting in, or emission of air contaminants in excess of the limitations specified in, or established pursuant to, any applicable rule or regulation contained in Article III of the Rules and Regulations of the Department of Environmental Resources. A written report shall be submitted to the Department within two (2) working days following the incident describing the malfunctions and corrective actions taken.