

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
AIR QUALITY PROGRAM

28 1994

OPERATING PERMIT

In accordance with provisions of the Air Pollution Control Act, the Act of January 8, 1960, P. L. 2119, as amended, and after due consideration of an application received under Chapter 127 of the rules and regulations of the Department of Environmental Resources, the Department hereby issues this permit for the operation of the air contamination source described below.

Permit No.	<u>48-0005</u>	Source &	<u>See Attached</u>
Owner	<u>Hercules Cement Company</u>	Air	<u></u>
Address	<u>P. O. Box 69</u>	Cleaning	<u>Norblo Fabric Collectors (3)</u>
	<u>Stockertown, PA 18083</u>	Device	<u></u>
Attention:	<u>Mr. Steven Sandbrook</u>	Location	<u>Stockertown</u>
	<u>Environmental & Safety Engineer</u>		<u>Northampton County</u>

This permit is subject to the following conditions:

- (1) That the source and any associated air cleaning devices are to be:
 - (a) operated in such a manner as not to cause air pollution;
 - (b) in compliance with the specifications and conditions of the plan approvals previously issued for this facility;
 - (c) operated and maintained in a manner consistent with good operating and maintenance practices.
- (2) This permit is valid only for the specific equipment, location and owner named above.

SEE ATTACHED.

Failure to comply with the conditions placed on this permit is in violation of Section 127.25. Violation of this or any other provision of Article III of the rules and regulations of the Department of Environmental Resources will result in suspension or revocation of this permit and/or prosecution under Section 9 of the Air Pollution Control Act.

Issued SEP 23 1994

Expires May 31, 1999

Thomas A. DiLazaro
Thomas A. DiLazaro
Program Manager
Air Quality Program

- (3) In accordance with Sections 6.3(e) and 6.3(j) of the Pennsylvania Air Pollution Control Act (as amended) a two hundred fifty dollar (\$250.00) annual operating permit administrative fee is required each year. This administrative fee is to be submitted thirty (30) days prior to the anniversary date of this operating permit; and is to be submitted with the attached transmittal form.
- (4) This Operating Permit is valid for a limited time and may be renewed before its expiration. Requests for an Operating Permit Renewal must be in writing and must be accompanied by a permit fee in the amount of five hundred dollars (\$500.00) payable to the "Commonwealth of Pennsylvania - Clean Air Fund" (\$250.00 application processing fee and \$250.00 annual administrative fee). The request should be made on an Interim Application for Renewal of a Permit to Operate form and must be received by the Department along with a completed Compliance History form no later than the first of the month in which the permit expires.
- (5) This Operating Permit is issued for three (3) Raw Mills and two (2) HB Smith Boilers.
- (6) This Operating Permit superseded and consolidates existing Operating Permit No. 48-309-075.
- (7) NOx RACT for the three (3) Raw Mills and two (2) HB Smith Boilers shall be the installation, maintenance and operation of the sources according to manufactures specifications in accordance with presumptive RACT emission limitations as found in 25 Pa. Code, Chapter 129.93(c)(1).
- ~~(8) The company shall keep on hand a sufficient quantity of spare fabric collector bags for the fabric collector(s) associated with the three (3) Raw Mill Furnaces in order to be able to immediately replace any bags requiring replacement due to deterioration resulting from routine operation of the source(s) and fabric collector(s).~~
- ~~(9) The fabric collector(s) must be equipped with a device for monitoring the pressure differential across the collector(s).~~
- (10) The three (3) Raw Mill Furnaces may be operated and used only so long as any associated air pollution control devices are operated and maintained in accordance with the specifications set forth in the respective plan approval(s), and the application(s) submitted for said plan approval(s) (as approved by the Department), and in accordance with any conditions set forth herein.

- (11) 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.
- (12) If at any time the permittee causes, permits or allows any modification (as that term is defined in Chapter 121 of Title 25, the Rules and Regulations of the Department of Environmental Resources) of the three (3) Raw Mill Furnaces, the operation and use of which is authorized by this permit, or causes, permits or allows any modifications, malfunction or removal of any air pollution control device required as a condition of this permit, then and that event, this permit shall be suspended, and the permittee shall not thereafter continue to operate or use said air contamination source(s).
- (13) The company shall maintain records in accordance with the record keeping requirements of 25 Pa. Code, Chapter 129.95.
- (14) The expiration date shown on this RACT Operating Permit is for State purposes. For Federal Enforcement purposes the Operating Permit shall remain in effect as part of the State Implementation Plan (SIP) until replaced pursuant to 40 CFR 51 and approved by the US Environmental Protection Agency (EPA). The Operating Permit shall become enforceable by the US EPA upon its approval of the above as a revision to the SIP.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

ANNUAL OPERATING PERMIT ADMINISTRATION FEE TRANSMITTAL FORM

OPERATING PERMIT NO. 48-0005

28 1994

Permittee: Hercules Cement Company Source &: See Attached
Address: P. O. Box 69 Air:
Stockertown, PA 18083 Cleaning: Norblo Fabric Collectors (3)
Attention: Mr. Steven Sandbrook Device:
Environmental & Safety Engineer Location: Stockertown
Operating Permit: Northampton County

Issue Date: DEC 10 1994

Expiration Date: May 31, 1999

In accordance with Sections 6.3(d) and 6.3(j) of the Pennsylvania Air Pollution Control Act (as amended) the two hundred fifty dollars (\$250.00) annual Operating Permit administrative fee is being submitted.

A check in the amount of two hundred fifty dollars (\$250.00) payable to the "Commonwealth of Pennsylvania - Clean Air Fund" is enclosed.

Return this form and check annually to:

Department of Environmental Resources
Air Quality Program
Northeast Regional Office
Cross Valley Centre
667 North River Street
Plains, PA 18705-1099
Attn: Air Quality Operations Chief

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
AIR QUALITY PROGRAM

PLAN APPROVAL

DEC 28 1994

Permit No.	<u>48-0005A</u>	Source &	<u>Clinker Operations</u>
Owner	<u>Hercules Cement Company</u>	Air	<u>Fabric Collectors (6)</u>
Address	<u>P. O. Box 69</u>	Cleaning	<u></u>
	<u>Stockertown, PA 18083</u>	Device	<u></u>
Attention:	<u>Mr. Steven Sandbrook</u>	Location	<u>Stockertown</u>
	<u>Environmental & Safety Engineer</u>		<u>Northampton County</u>

In accordance with provisions of the Air Pollution Control Act, the Act of January 8, 1960, P. L. 2119, as amended, and with Chapter 127 of the rules and regulations of the Department of Environmental Resources, the Department on DEC 23 1994 approved plans for the modification of the above indicated air contamination source.

This PLAN APPROVAL expires May 31, 1995.

The 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

RECEIVED
Air & Radiation Programs
Branch (3AT10)

JAN 13 1995

EPA, REGION III

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 modifications of the clinker burning operation as described in the application and supplemental information submitted to the Department. The modifications will result in an increase of clinker production from 2400 short tons per day to 2950 short tons per day.

- (6) This Plan Approval covers the following sources and their associated air cleaning devices:
- (a) No. 1 preheater cement kiln
 - (b) No. 3 preheater cement kiln and roller mill, John Hoard fabric collector
 - (c) No. 3 clinker cooler; Fuller fabric collector
 - (d) No. 3 kiln alkali bypass; Fuller fabric collector
 - (e) Raw material transfer system; Fuller fabric collector
 - (f) Raw mill proportioning system; Fuller fabric collector
 - (g) Material storage building; Fuller fabric collector
- (7) The No. 3 preheater cement kiln and clinker cooler are subject to Subpart F of the Standards of Performance for New Stationary Sources and shall comply with all applicable requirements of this Subpart. 40 CFR §60.4 requires submission of copies of all requests, reports, applications, submittals and other communications to both EPA and the Department. The EPA copies shall be forwarded to:
- Director
Air, Toxics and Radiation Division
US EPA, Region III
841 Chestnut Street
Philadelphia, PA 19107
- (8) The aforementioned sources, including the No. 1 preheater cement kiln, are limited to a total annual clinker production rate of 1,076,750 tons per year.
- (9) The company shall record process raw material used, fuel used, clinker produced and operating hours to show compliance with Condition (8). These records shall be submitted to the Regional Air Quality Program Manager by January 31 of the following year.
- (10) The following allowable emission limits are established for the operation of the No. 3 preheater cement kiln, including the No. 1 preheater cement kiln, in Mode 1 (alkali bypass off, roller mill on):
- ~~(a) Particulate matter emissions shall not exceed 39.33 lbs/hour.~~
 - ~~(b) Sulfur oxide emissions shall not exceed 500 ppm.~~
 - (c) Nitrogen oxide emissions shall not exceed 492.0 lbs/hour.
 - ~~(d) Visible air contaminants shall not be emitted in such a manner that the opacity of the emissions is equal to or greater than 20% for a period or periods aggregating more than 3 minutes in any hour; or equal to or greater than 60% at any time.~~

- (11) The following allowable emission limits are established for the operation of the No. 3 preheater cement kiln, including the No. 1 preheater cement kiln, in Mode 2 (alkali bypass on, roller mill on):
- ~~(a) Particulate matter emissions shall not exceed 39.33 lbs/hour.~~
 - ~~(b) Sulfur oxide emissions shall not exceed 500 ppm.~~
 - (c) Nitrogen oxide emissions shall not exceed 460.0 lbs/hour.
 - ~~(d) Visible air contaminants shall not be emitted in such a manner that the opacity of the emissions is equal to or greater than 20% for a period or periods aggregating more than 3 minutes in any hour; or equal to or greater than 60% at any time.~~
- (12) The following allowable emission limits are established for the operation of the No. 3 preheater cement kiln, including the No. 1 preheater cement kiln, in Mode 3 (alkali bypass off, roller mill off):
- ~~(a) Particulate matter emissions shall not exceed 28.0 lbs/hour.~~
 - ~~(b) Sulfur oxide emissions shall not exceed 500 ppm.~~
 - (c) Nitrogen oxide emissions shall not exceed 492.0 lbs/hour.
 - ~~(d) Visible air contaminants shall not be emitted in such a manner that the opacity of the emissions is equal to or greater than 20% for a period or periods aggregating more than 3 minutes in any hour; or equal to or greater than 60% at any time.~~
- (13) The following allowable emission limits are established for the operation of the No. 3 preheater cement kiln, including the No. 1 preheater cement kiln, in Mode 4 (alkali bypass on, roller mill off):
- ~~(a) Particulate matter emissions shall not exceed 28.0 lbs/hour.~~
 - ~~(b) Sulfur oxide emissions shall not exceed 500 ppm.~~
 - (c) Nitrogen oxide emissions shall not exceed 460.0 lbs/hour.
 - ~~(d) Visible air contaminants shall not be emitted in such a manner that the opacity of the emissions is equal to or greater than 20% for a period or periods aggregating more than 3 minutes in any hour; or equal to or greater than 60% at any time.~~

- ~~(14) The following allowable emission limits are established for the operation of the No. 3 clinker cooler:~~
- ~~(a) Particulate matter emissions shall not exceed 1.46 lbs/hour.~~
 - ~~(b) Visible air contaminants shall not be emitted in such a manner that the opacity of the emissions is equal to or greater than 10% for a period or periods aggregating more than 3 minutes in any hour; or equal to or greater than 30% at any time.~~
- ~~(15) The following allowable emission limits are established for the operation of the No. 3 alkali bypass system:~~
- ~~(a) Particulate matter emissions shall not exceed 0.02 grains/DSCFT.~~
 - ~~(b) Sulfur oxide emissions shall not exceed 84.0 lbs/hour.~~
- (16) The final RACT emission limits (30 day rolling average and 24 hour maximum) shall be based on CEM data and will be incorporated in the RACT operating permit.
- (17) Continuous monitoring requirements are as follows:
- (a) Continuous emission monitors for sulfur oxides, NO_x, and opacity shall be installed, operated, and maintained in accordance with the Department's "Continuous Source Monitoring Manual" (Revision No. 5 - March 1993) for both the Nos. 1 and 3 preheater cement kilns.
 - (b) Continuous emission monitor for opacity shall be installed, operated, and maintained in accordance with the Department's "Continuous Source Monitoring Manual" (Revision No. 5 - March 1993) for the No. 3 clinker cooler.
 - (c) Continuous emission monitors for opacity and sulfur oxides shall be installed, operated and maintained in accordance with the Department's "Continuous Source Monitoring Manual" (Revision No. 5 - March 1993) for the No. 3 kiln alkali bypass.
 - (d) Continuous monitoring shall be conducted in accordance with 25 PA Code Chapter 139 and 40 CFR 60, Subpart F and be approved by the Department.

(18) Testing requirements are as follows:

- (a) Source tests for the No. 3 preheater cement kiln shall be conducted for particulate, SO_x , and NO_x in Mode 1, Mode 2, Mode 3, and Mode 4. The aforementioned tests must be conducted when the No. 1 preheater cement kiln is in operation.
- (b) Source tests for the No. 3 clinker cooler shall be conducted for particulate.
- (c) Source tests for the No. 3 kiln alkali bypass shall be conducted for particulate, SO_x and NO_x .
- (d) Source 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.
- (e) At least 90 days prior to the test, test procedures and sketches with dimensions indicating the location of sampling ports and other data to ensure the collection of representative samples shall be submitted to the Department for approval.
- (f) At least two (2) weeks prior to the tests, the Department shall be informed of the date and time of the tests.
- (g) Within 60 days after completion of the tests, three (3) copies of the complete test reports, including all operating conditions shall be submitted to the Department for approval.

(19) The Department reserves the right to require the company to conduct source tests, as described in Conditions (18)(a), (18)(b), and (18)(c), in the future, if warranted.

(20) The Department reserves the right to establish and impose more stringent limits than those stated in Conditions 10(b), 10(c), 11(b), 11(c), 12(b), 12(c), 13(b), and 13(c) of this Plan Approval based on the test results from each stack test performed and Continuous Emission Monitoring results as specified in Condition (17) of this Plan Approval.

- ~~(21) The company shall keep on hand a sufficient quantity of spare fabric collector bags for the fabric collector(s) associated with the aforementioned source(s) in order to be able to immediately replace any bags requiring replacement due to deterioration resulting from routine operation of the sources(s) and fabric collector(s).~~
- ~~(22) The fabric collector(s) must be equipped with a device for monitoring the pressure differential across the collector(s).~~
- ~~(23) Paving shall be added to the roadway sections and internal areas identified in the application.~~
- ~~(24) In order to prevent fugitive particulate matter resulting from the use of in-plant roads from becoming airborne, the company shall adhere to the following plan:
 - ~~(a) All paved in-plant roads shall be swept a minimum of two (2) times per week, weather permitting.~~
 - ~~(b) Prior to start-up of the operation, submit to the Department for approval the use and frequency of water and chemicals to be applied on all paved and unpaved in-plant roads.~~
 - ~~(c) The company shall keep a log of the dates of road sweeping or cleaning.~~~~
- (25) The Department shall be notified by telephone within one (1) hour following any failure of process equipment, failure of air pollution control equipment or a process operational error which results in an increase in emissions above any allowable emissions. In addition, the Department shall be notified in writing within five (5) days following such failure. The notification shall, as a minimum, include a statement of the exact time the failure occurred, its duration, and measures taken to correct the problem. The Department may take enforcement action for any violations of the applicable standards set forth in this Plan Approval.
- (26) Record keeping and reporting requirements are as follows:
 - (a) The company 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 company shall be retained for at least two years following the date on which such measurements, records or 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 Continuous Source Manual. The Department reserves the right to require the report submissions in floppy disks with a format acceptable to the Department.
- (27) Issuance of a Operating Permit is contingent upon satisfactory compliance with conditions of this Plan Approval, upon the source(s) being constructed and operated as stated in the application, and upon satisfactory demonstration that the emission(s) from the source(s) will not be in violation of applicable rules and regulations of the Department.
- (28) 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.
- (29) 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.
- (30) This Plan Approval authorizes temporary operation of the source(s) covered by the Plan Approval provided the following conditions are met.
- (a) Operation is authorized only to facilitate the 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.
- (b) This condition authorizes temporary operation of the source(s) for a period of 120 days from the date of issuance of this Plan Approval extension.
- ~~(c) 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.~~

Plan Approval No. 48-0005A
Hercules Cement Company
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- (31) Any information required to be submitted as part of the above conditions should be sent to:

Regional Air Quality Program Manager
Department of Environmental Resources
Cross Valley Centre
667 North River Street
Plains, PA 18705-1099
(717) 826-2531

