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1.0 SOURCE IDENTIFICATION

1.1 Source

Lone Star Industries
Portland Avenue
Oglesby, Illinois 61348
815/883-8431

I.D. No.: 099816AAF
Standard Industrial Classification: 3241, Cement Hydraulic

1.2 Owner/Parent Company

Lone Star Industries
10401 North Meridian Street, Suite 400
Indianapolis, Indiana 46290

1.3 Operator

Lone Star Industries
P.O. Box 130
Oglesby, Illinois 61348-0130

Richard Zimmel
815/883-8431

1.4 General Source Description

The manufacture of Portland Cement consists of several distinct steps. In process flow order the steps associated with manufacture are: Quarrying and Raw Material Handling and Grinding; Kiln Processing; Cooling; Storage, Finish Grinding and Shipment; Handling of Solid Fuels, Handling of Gypsum and Alternate Raw Materials and Handling of Cement Kiln Dust (CKD).

The largest material throughputs are associated with six processes. There is minor material handling which must be done to support the six major steps in the preparation of the final product. First there is the handling of the fuel to support the kiln processing system. In the case of Lone Star Industries, coal and coke are the primary fuels used for firing the kiln system, and natural gas and oil are used during startup. Chipped tire derived fuel (TDF) can be used as a fuel and is blown into the hot end of the kiln. Whole tires are also used as a fuel source, and these are delivered mid-kiln.

In the finishing grinding area, gypsum, either as natural rock gypsum, synthetic gypsum, or blended gypsum product, is used to modify the characteristics of the ground clinker. The amount of gypsum used is variable, but it is approximately 7% of the finished product by weight. Other materials such as lime-stone, slag, fly ash and other pozzolonic materials may be added to the clinker in the finish mill system.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ACMA	Alternative Compliance Market Account
ATUs	Allotment Trading Units
BAT	Best Available Technology
Btu	British thermal unit
°C	Degrees Celsius
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CFR	Code of Federal Regulations
CO	Carbon Monoxide
cm	Centimeter
ERMS	Emission Reduction Market System
°F	Degrees Fahrenheit
ft ²	Feet square
ft ³	Cubic foot
gal	Gallon
gm	Gram
HAP	Hazardous Air Pollutant
Hp	Horse power
hr	Hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
Illinois EPA	Illinois Environmental Protection Agency
in	Inch
°K	degrees Kelvin
kg	kilogram
KW	Kilowatts
kPa	Kilopascals
lb	Pound
MACT	Maximum Available Control Technology
mmcf	Million cubic feet
MG	Mega Gram
M	Meter
mmBtu	Million British thermal units
mmHg	Millimeters of mercury
mo	Month
MW	Mega Watts
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards
OM	Organic Material
PM	Particulate Matter
PM ₁₀	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods

ppm	parts per million
PSD	Prevention of Significant Deterioration
psia	Pounds per square inch absolute
RMP	Risk Management Plan
scf	Standard cubic foot
SO ₂	Sulfur Dioxide
T	Ton
T1	Title I - identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New - identifies Title I conditions that are being established in this permit
T1R	Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOL	Volatile Organic Liquid
VOM	Volatile Organic Material
wt.	Weight
yr	Year

3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a)(1) and 201.211, as follows:

None

3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a)(2) or (a)(3), as follows:

15000-Gallon and 13000-Gallon Mixing Tanks
(Diethanolamine)

3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a)(4) through (18), as follows:

Number of Activities	Activity Description	35 IAC Regulatory Citation
31	Comfort Heaters, Natural Gas	201.210(a)(4A)
6	Water Heaters	201.210(a)(4A)
2	Diesel Storage Tank 8000-Gallon	201.210(a)(10)
3	LP Gas Storage Tanks	201.210(a)(10)
6	Transmission Oil Storage Tanks	201.210(a)(11)
1	Used Oil Storage Tank 6000-Gallon	201.210(a)(11)
1	Clean Burn Furnace 200,000 Btu/Hr	201.210(a)(4C)
1	200-HP Engine Emergency Kiln Drive	201.210(a)(16)
1	Diesel Dispensing Tank	201.210(a)(10)
1	Thermogas Dispensing	201.210(a)(10)
1	8,000-Gallon Diesel Tank	201.210(a)(10)
2	1,000-Gallon LP Tanks	201.210(a)(10)
2	Transmission Oil Barrels	201.210(a)(11)
2	200-Gallon Oil Totes	201.210(a)(11)
1	6,000-Gallon Used Oil Tank	201.210(a)(11)
2	500-Gallon Oil Storage Tanks	201.210(a)(11)
2	1,000-Gallon Oil Storage Tanks	201.210(a)(11)
2	Coal Bin Gas Torches	201.210(a)(3)
1	Gasoline Dispensing Tank	201.210(a)(3)
1	38K Btu/hr Natural Gas Heater	201.210(a)(4)(A)
2	125K Heil Space Heaters	201.210(a)(4)(A)
1	120K Btu/hr Natural Gas Modine Space Heater	201.210(a)(4)(A)
1	120K Btu/hr Natural Gas Modine Space Heater	201.210(a)(4)(A)
1	120K Btu/hr Hot Water Tank	201.210(a)(4)(A)

Number of Activities	Activity Description	35 IAC Regulatory Citation
1	200K Btu/hr Hot Water Tank	201.210(a)(4)(A)
1	Small Propane Heater	201.210(a)(4)(A)
1	120K Btu/hr Natural Gas Furnace	201.210(a)(4)(A)
2	40K Btu/hr Hot Water Heaters	201.210(a)(4)(A)
1	90K Btu/hr Furnace	201.210(a)(4)(A)
1	120K Btu/hr Natural Gas Furnace	201.210(a)(4)(A)
1	60K Btu/hr Star Temp Furnace	201.210(a)(4)(A)
1	105K Btu/hr Modine Space Heater	201.210(a)(4)(A)
1	125K Btu/hr Heater/Furnace	201.210(a)(4)(A)
1	90K Btu/hr Heater/Furnace	201.210(a)(4)(A)
1	200K Btu/hr Hot Water Heater	201.210(a)(4)(A)
2	105K Btu/hr Modine Space Heaters	201.210(a)(4)(A)
1	120K Btu/hr Natural Gas Furnace	201.210(a)(4)(A)
4	Modine, 120K Btu/hr Natural Gas Heaters	201.210(a)(4)(A)
1	American Standard, 120K Btu/hr Natural Gas Heater	201.210(a)(4)(A)
1	Natural Gas Furnace	201.210(a)(4)(A)
1	120K Btu/hr Natural Gas Furnace	201.210(a)(4)(A)
2	140K Btu/hr Trane Heaters	201.210(a)(4)(A)

3.1.4 The Permittee has activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).

3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.2.2), the Permittee shall comply with the following requirements, as applicable:

3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182, 218.182, or 219.182.

3.2.2 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.

3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, 218.301, or 219.301, which requires that organic material emissions not exceed 8.0 pounds per hour

or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

3.3 Addition of Insignificant Activities

- 3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).
- 3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.
- 3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE*

Emission Unit	Description	Emission Control Equipment
01	Aggregate Crushing: North Quarry - Primary Crusher South Quarry - Crusher Screens, Conveyors, and Storage Building	Water Spray & Foam Dust Suppression North Quarry: Baghouses (13-035 and 13-049) South Quarry: Baghouses (13-380, 13-450, 13-570, 13-810, 13-830, 13-930 - 13-820, and 13-940)
02	Fuller-Loesche Roller Mill	Baghouse (21-330)
	Raw Feed System: Raw Blending, Raw Mix Storage, Kiln Feed Tank	Baghouses (21-205, 21-215, 21-223, 21-241, 21-375, and 21-610)
	Kiln No. 3 and CKD Handling System	M5 Electrostatic Precipitator, Baghouses (33-071, 30-520 and 33-088)
	Clinker Cooler and Clinker Handling System	M6 Electrostatic Precipitator, Baghouses (33-165, 33-174, 33-330, 33-340 and 33-175)
	#4 Finish Mill	Baghouses (41-081, 41-046, 41-106, 41-088, 41-060, 41-220, and 41-475)
	Cement Storage and Loading	Baghouses (41-101, 83-085, 83-057, 83-060, 83-213, 83-216, 83-218, 83-360, 83-180, 83-460, 83-091, 83-710, 83-735 and 83-184)
03	Gasoline Storage Tanks	Submerged Loading
04	Fugitive Emissions: Roads, Raw Material and Fuel Storage Piles	Roads in Plant are Sprayed with Water or Swept

* The above list of emission units may not include units constructed after the submittal of the original application. However, any such units are identified in the attached state construction and operating permits that are incorporated here in (See Attachment 4). These units are permitted to operate under this permit in accordance with the conditions of these attached permits. This list will be revised to include such units in subsequent reopening of this permit in accordance with the timely submittal of the necessary information.

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of NO_x, PM, SO₂, and HAPS emissions.

5.2 Applicable Regulations

5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.

5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:

- a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.
- b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

5.2.3 Fugitive Particulate Matter Operating Program

- a. This source shall be operated under the provisions of a Fugitive Emission Control Program prepared by the Permittee and submitted to the Illinois EPA for its review. Such program shall be designed to significantly reduce fugitive particulate matter emissions [35 IAC 212.309(a)].
- b. The Fugitive Emission Control Program shall be amended from time to time by the Permittee so that the program is current. Such amendments shall be consistent with the requirements set forth by this Condition and shall be submitted to the Illinois EPA [35 IAC 212.312].
- c. All normal traffic pattern roads and parking facilities located at this source shall be paved or treated with water, oils, or chemical dust suppressants. All paved areas shall be cleaned on a

regular basis. All areas treated with water, oils, or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the Fugitive Emission Control Program [35 IAC 212.306].

5.2.4 Ozone Depleting Substances

The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

5.2.5 Risk Management Plan

Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the Accidental Release Prevention regulations in 40 CFR Part 68, then the owner or operator shall submit [40 CFR 68.215(a)(2)(i) and (ii)]:

- a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or
- b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan (RMP), as part of the annual compliance certification required by 40 CFR Part 70 or 71.

- 5.2.6 a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual

compliance certification, as required by 40 CFR Part 70 or 71.

- b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable requirements of any potentially applicable regulation which was promulgated after the date issued of this permit.

5.2.7 Episode Action Plan

- a. The source is required to have an episode action plan pursuant to 35 IAC 244.142. The Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.
- b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.
- c. If a change occurs at the source and it requires a revision of the plan (e.g., operational change, change in the source contact person), a copy of the revised plan shall be submitted to the Illinois EPA for review within 30 days of the change. Such plans shall be further revised if disapproved by the Illinois EPA.
- d. For sources required to have a plan pursuant to 35 IAC 244.142, a copy of the original plan and any subsequent revisions shall be sent to Illinois EPA, Compliance Section.

5.2.8 CAM Plan

This stationary source has a pollutant-specific emissions unit that is subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources. The source must submit a CAM plan for each affected pollutant-specific emissions unit upon application for renewal of the initial CAAPP permit, or upon a significant modification to the CAAPP permit for the construction or modification of a large pollutant-specific emissions unit which has the potential post-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

5.3 Non-Applicability of Regulations of Concern

None

5.4 Source-Wide Operational and Production Limits and Work Practices

In addition to the source-wide requirements in the Standard Permit Conditions in Section 9, the Permittee shall fulfill the following source-wide operational and production limitations and/or work practice requirements:

None

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

Emission limitations are not set for this source for the purpose of permit fees. The Permittee shall be required to pay the maximum fee of \$100,000.00 per year, pursuant to Section 39.5(18)(a)(ii)(A) of the Act.

5.5.2 Emissions of Hazardous Air Pollutants

Source-wide emission limitations for HAPs as listed in Section 112(b) of the CAA are not set. This source is considered to be a major source of HAPs.

5.5.3 Other Source-Wide Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to either the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, Illinois EPA rules for Major Stationary Sources Construction and Modification, 35 IAC Part 203, or Section 502(b)(10) of the CAA. However, there may be unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

5.6 General Recordkeeping Requirements

5.6.1 Emission Records

The Permittee shall maintain records of the following items for the source to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

Total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions) of this permit.

5.6.5 Records for Operating Scenarios

N/A

5.6.6 Retention and Availability of Records

- a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
- b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

5.7 General Reporting Requirements

5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(iii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous calendar year.

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating Emissions

Compliance with the source-wide emission limits specified in Condition 5.5 shall be based on the recordkeeping and reporting requirements of Conditions 5.6 and 5.7, and compliance procedures in Section 7 (Unit Specific Conditions) of this permit.

6.0 NOT APPLICABLE TO THIS PERMIT

7.0 UNIT SPECIFIC CONDITIONS

7.1 Unit 01: Quarry operation

7.1.1 Description

Lone Star Industries has limestone and shale deposits to the North, East and South of the plant which provide the minerals necessary for successful clinker production. The North limestone and shale quarry is connected to the cement plant by an overland material conveying system. The South quarry is connected to the plant by a separate conveying system which crosses the Vermillion River. The conveyors from both quarries feed into the raw material storage silos. The North quarry began operations about 1980; it is operated under IEPA permit 86060054. The South quarry began initial operation in 2001 under IEPA permit issued March 16, 2001. The quarry operation may alternate between the North and South Quarry pursuant to the IEPA permit issued on March 16 2001, until such time as the North Quarry is shut down.

During the quarry operation, an explosive charge is detonated and fractures the face of the exposed limestone layer. The loose rock is picked up by a loader and placed into haul trucks. The trucks travel between the working face of the quarry and the primary rock crusher.

A vibrating feeder is used to control the rock delivery rate into the primary crusher. Emissions from the crushing operation are controlled using water spray and/or foam.

Rock from the primary crusher is conveyed to a scalping screen, where oversized rock is removed and returned to the crusher for reprocessing. In the North quarry, the remaining rock is moved to a surge pile; there is no surge pile associated with the South quarry.

Rock may be further processed to remove the fines from the coarsely graded material. A series of conveyor belts is used to move rock through the gradation process, which includes a screen to separate material. In the North quarry, the smaller material is moved into a covered storage area, and the larger material is placed in an uncovered storage pile. All storage associated with the South quarry is inside the quarry storage building.

Shale is also removed from the quarry. It is loaded into trucks and taken to the primary crusher. From the crusher it is conveyed to a covered storage silo.

The sized materials are transferred to the plant using a conveyor belt system. Material from the North quarry is

conveyed on a 42-inch belt that is approximately 4,500 feet long. Material from the South quarry is transferred across the Vermillion River on a 36-inch belt that is approximately 660 feet long. Both of these systems discharge into the raw material storage bins.

The quarry operations vary between four and six days a week, and up to ten hours per working day. Days when the quarry equipment is not in operation are used for maintenance of the equipment and for transferring materials to the raw material storage bins.

7.1.2 List of Emission Units and Pollution Control Equipment*

Description	Emission Control Equipment	Date Constructed
NORTH QUARRY		
North Quarry - Primary Crusher (800 TPH, Max.)	Water Spray and/or Foam Suppression	Pre-1980
North Quarry screen (800 TPH)		Pre-1980
Conveyor Systems		Pre-1980
	Baghouse 13-035	Pre-1980, Replaced (In Kind) 1990
	Baghouse 13-049	Pre-1980, Replaced (In Kind) 1990
SOUTH QUARRY		
South Quarry - Primary Crusher (900 TPH)		2001
	Baghouse 13-380	2001
South Quarry Screen (1,000_TPH)		2001
	Baghouse 13-450	2001
	Baghouse 13-570	2001
Conveyor Systems		2001
	Baghouse 13-810	2001
	Baghouse 13-830	2001
	Baghouse 13-930	2001
	Baghouse 13-940	2001

* The above list of emission units may not include units constructed after the submittal of the original application. However, any such units are identified in the attached state construction and operating permits that are incorporated here in (see Attachment 4). These units are permitted to operate under this permit in accordance with the conditions of these attached permits. This list will be revised to include such units in subsequent reopening of this permit in accordance with the timely submittal of the necessary information.

7.1.3 Applicability Provisions and Applicable Regulations

- a. An "affected aggregate crushing" process, for the purpose of these unit-specific conditions, is the emission unit located at both quarries as described in Conditions 7.1.1 and 7.1.2.
- b. The affected aggregate crushing processes at both quarries are subject to the emission limits identified in Condition 5.2.2.
- c. The affected aggregate crushing operations located at South Quarry are subject to 40 CFR 60 Subparts A and OOO--Standards of Performance for Nonmetallic Mineral Processing Plants. The Illinois EPA is administering NSPS in Illinois on behalf of the USEPA under a delegation agreement. This regulation is attached hereto and incorporated herein by reference (see Attachment 1).
- d. The affected aggregate crushing operations at both quarries are subject to 35 IAC Part 212 Subpart L, Particulate Matter Emissions From Process Emission Sources. This regulation is attached hereto and incorporated herein by reference (see Attachment 3).
- e. The affected aggregate crushing operations at both quarries are subject to 35 IAC Part 212 Subpart Q, Particulate Matter Emissions From Stone, Clay, Glass and Concrete Manufacturing. This regulation is attached hereto and incorporated herein by reference (see Attachment 3).

7.1.4 Non-Applicability of Regulations of Concern

- a. The affected aggregate crushing operations are not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM₁₀, as identified in 35 IAC 212.324(a)(1).
- b. The affected aggregate crushing operations located at North Quarry are not subject to 40 CFR 60 Subparts A and OOO--Standards of Performance for Nonmetallic Mineral Processing Plants, because its operations precede the regulatory applicability date.

7.1.5 Operational and Production Limits and Work Practices

- a. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate the affected aggregate crushing system at the South Quarry

including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source [40 CFR 60.11(d)].

- b. The Permittee shall follow good operating practices for the dust collection systems, including periodic inspection, routine maintenance and prompt repair of defects.

7.1.6 Emission Limitations

In addition to Condition 5.2.2 the affected aggregate crushing is subject to the following:

- a. The affected aggregate crushing is subject to emission limitations established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (see Attachment 4). In the event that there are conflicting provisions in the incorporated State Construction and Operating Permits, the most recently issued permit conditions shall apply.
- b. The limitations in the State Construction and Operating Permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permits do not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].
- c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.1.7 Testing Requirements

- a. The affected aggregate crushing system at the South Quarry is subject to the applicable testing requirements in 40 CFR 60.675. This regulation is attached hereto and incorporated herein by reference (See Attachment 1).

- b. The affected aggregate crushing systems at both quarries are subject to the applicable testing requirements in 35 IAC Part 212 Subpart A. This regulation is attached hereto and incorporated herein by reference (See Attachment 3).
- c. The affected aggregate crushing systems at both quarries are subject to the applicable testing requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachment 4).

7.1.8 Monitoring Requirements

None

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected aggregate crushing systems to demonstrate compliance with Conditions 5.5.1, 7.1.3, and 7.1.6, pursuant to Section 39.5(7)(b) of the Act:

- a. The affected aggregate crushing systems at both quarries are subject to the applicable recordkeeping requirements in 35 IAC Part 212, Subparts A and Q. These regulations are attached hereto and incorporated herein by reference (See Attachment 3).
- b. The affected aggregate crushing systems at both quarries are subject to the applicable recordkeeping requirements established in State Construction and Operating Permits, which have been attached hereto and incorporated herein by reference (See Attachment 4).
- c. Records addressing use of good operating practices for the dust collection systems:
 - i. Records for periodic inspection of the dust collection systems with date, individual performing the inspection, and nature of inspection; and
 - ii. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
- d. Monthly and aggregate annual PM emissions from the affected aggregate crushing systems at both quarries shall be maintained, based on aggregate throughput

and the applicable emission factors, with supporting calculations.

7.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected aggregate crushing systems at either quarry with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. The affected aggregate crushing systems at both quarries are subject to the applicable reporting requirements in 35 IAC Part 212, Subparts A and Q. These regulations are attached hereto and incorporated herein by reference (see Attachment 3).
- b. The affected aggregate crushing systems at both quarries are subject to the applicable reporting requirements established in State Construction and Permits, which have been attached hereto and incorporated herein by reference (See Attachment 4).
- c. Emissions of PM in excess of limits in Condition 7.1.6 within 30 days of such an occurrence.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.1.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.1.9 and the emission factors and formulas listed below:

To determine compliance with Conditions 5.5.1, 7.1.3 and 7.1.6, PM emissions from the affected aggregate crushing plant shall be calculated based on the emission rates from the State Construction and Operating Permits (See Attachment 4) and/or applicable emission factors from AP-42, Volume I, Fifth Edition, Supplement D, January, 1995 and subsequent revisions.

7.2 Unit 02: Cement Plant

7.2.1 Description

Kiln Processing (Includes Roller (Raw) Mill, Blending Silos, and Kiln)

The kiln is fed raw materials at the upper (cold) end, primary fuel (coal and coke) is fed at the lower (hot) end, tire-derived fuel (TDF) can be blown into the hot end, and whole tires are delivered mid-kiln. The raw materials are fed counter-flow to the combustion gases, resulting in thermal efficiency. No additional processing step is, therefore, required to dry the raw materials.

The kiln is a refractory-lined, steel cylinder 15 to 17 feet in diameter and 520 feet long. The kiln is slightly inclined from horizontal so that the raw material can cascade from the cold to the hot end.

The kiln is fired using coal and coke that are ground in the coal mill system and blown into the hot end of the kiln. Natural gas or fuel oil is used to preheat the kiln during startup. The vertical roller mill (raw mill) generally operates when the kiln does, but the kiln can operate for up to 48 consecutive hours without the raw mill.

Tire-derived fuel (TDF) can be used to reduce the amount of coal/coke used in the kiln. Tire-derived fuel (TDF) is introduced into the kiln by a method known as "insufflations". The chipped tires are blown pneumatically in through the hot end of the kiln. The purpose of propelling these 1- to 4- inch tire chips into the kiln is to allow enough residence time to assure complete combustion of the tire material. Whole tires are introduced to the kiln at the mid-point and result in a lower level of NO_x emissions (this system was installed in 2002 under an IEPA construction permit dated June 6, 2002). The steel cords in some of the tires provide elemental iron, which is an essential element to the manufacturing process.

The four kiln processing steps are: (a) heating of raw materials to evaporate uncombined water, (b) dehydration of mineral forms, (c) calcinations (or the release of carbon dioxide), and (d) solid-state chemical reaction of oxides to produce clinker. The drying occurs at temperatures up to 212 degrees F, calcinations at temperatures up to 1,800 degrees F, and clinker formation at temperatures up to 2,700 degrees F. The majority of the evaporation takes place in the raw mill. The rest of the drying, as well as all the other three processing steps, takes place in the kiln.

Kiln gases are cooled by a water spray at the kiln feed end, pass through a gas-conditioning cooling tower and then enter the electrostatic precipitator. The amount of water used in the conditioning tower varies based on process and weather conditions. The cooling tower was installed (1994) to condition the gases before they enter the five-stage ESP. The original ESP was replaced in 1994 with the five-stage ESP.

The kiln normally operates with a portion of the exhaust gases passing through the vertical roller mill (raw grinding). Kiln gases are diverted to the roller mill using a diverter gate on the pressure side of the induced draft (ID) fan. However, when the mill is not operating, all gases are exhausted through the kiln stack. The entire kiln system operates under a negative pressure, which is induced by a draft fan located between the electrostatic precipitator (ESP) and the kiln stack.

Cooling

Once the raw material has attained adequate temperature and residence time to form the clinker, it is discharged from the hot end of the kiln. The material as discharged from the kiln is in excess of 2,000 degrees F and is glowing from its innate heat content. The material drops into a chamber where ambient air is drawn in through reciprocating grates. This is called a clinker cooler. Seven fans draw in ambient air to cool the newly formed clinker. The clinker is cooled to approximately 200 degrees F and passes through a hammer mill style clinker breaker before it is conveyed to the clinker storage silos. Some of the clinker cooler dilution air flow is diverted to the coal mill to dry the coal and improve the thermal efficiency of the kiln by preheating the combustion air. A portion of the clinker cooler air is returned to the kiln as secondary air. The remainder of the clinker cooler air stream passes through the multiclone mechanical collector. The multiclone reduces the particulate loading on the clinker cooler electrostatic precipitator (M6). Clinker is either transported directly to the finish mill bin or diverted to one of several storage silos or bins, the clinker storage building or outside clinker storage piles. If clinker is hot or off quality, it will be diverted to the kick out bin. If the clinker silos become full or if clinker is received from an outside source, there may be temporary storage of clinker on the paved areas near the mill building. There may be additional fugitive emissions during these periods, or when the outside clinker is reclaimed to the finish mill circuit through a reclaim belt.

In addition to the cyclone and precipitator, there are a number of bag houses located throughout the system to control emissions from clinker handling. These are itemized in Section 7.2.2.

Finish Grinding

The finishing step in cement manufacturing requires clinker to be mixed with gypsum and/or slag, limestone, flyash, or other pozzolins. The gypsum can be rock gypsum, synthetic gypsum or blended gypsum product. Blended gypsum is manufactured onsite in a blending facility that was constructed in 2002 pursuant to an Illinois EPA permit issued on June 3, 2002. The various types of gypsum are stored in piles at various locations around the plant. A horizontal ball mill is used to process these materials.

Clinker is conveyed to the finishing mill from the clinker cooler, silos, storage bins, clinker storage building or outside clinker storage piles; gypsum is transported to the mill by a conveyor system. The portions of gypsum and clinker are metered by weigh belts and fed into the ball mill. The ground clinker and gypsum are classified by a high-efficiency (H.E.) air separator (OSEPA). The oversized material is returned to the feed end of the finish grinding ball mill while the material with the fineness required by the cement grade being produced is pneumatically pumped to either the St. Paul or the Illinois Central (IC) cement storage silos. Grinding aids and entraining aids are used in the finish mill to control the characteristics of the finished ground cement, and water spray is used to control the temperature in the mill. At times, the grinding will generate sufficient heat that the ground cement must be cooled before being pneumatically transferred to the cement storage and shipping silos.

Emissions from the finish mill area, transfer systems, and associated storage silos and bins are controlled by a series of bag houses. These have been itemized in Section 7.2.2. Emissions from the clinker storage building and outside clinker storage piles are controlled as discussed in the facility Fugitive Emissions Control Program.

Storage and Shipment

The finished cement is pneumatically moved to one of two storage areas for staging in silos. The St. Paul silos were constructed in 1920 and are located halfway up the river bluff. The IC silos were constructed in 1960 and are located adjacent to the rail spur at the top of the bluff. Most of the loading (both to railcars or trucks) is completed at the IC silo area.

The cement is pneumatically transported in pipes, which discharge into the silos. Telescoping loading chutes are used to load product in to the truck or railcar. The emissions from these silos and the cement transfer operations are controlled through various bag houses (See Section 7.2.2).

Miscellaneous Materials Management

In addition to the limestone, slag, clinker, and cement, additional material handling activities are associated with the fuels (i.e., coal and/or coke and tires), gypsum products, cement kiln dust (CKD), slag, and other raw materials such as flyash, bottom ash, limestone fines, CLKD, LKD and other alternate raw materials. The material management activities can create fugitive dust emissions.

Coal and coke are received at the St. Paul silo area (located halfway up the bluff). These materials are primarily stored under roof in piles. They are transported using a loader to a hopper and conveyor system that discharges the material into a storage bin. The material then is transported to the coal mill. The fuel is transported to the kiln hot end using a conveyor system. There are no emissions from this system.

The tire-derived fuel storage, when used, is adjacent to the kiln burner building near the hot end of the kiln. A small front-end loader is used to load the material into a hopper. The tire chips are then blown into the kiln through a pipe located in the hot section of the kiln. This activity does not generate process emissions due to the large size of the shredded tire bits. The tire firing rate is up to 15% of the fuel (weight basis).

An outside contractor manages the whole tire fuel delivery system. Trailers are received in a fenced, bermed area located at the top of the hill and adjacent to the plant outside parts storage area. Trailers, loaded with whole tires, are moved to the loading area (adjacent to the kiln) on an as-needed basis. Tires are placed on the conveying system, and then automatically fed into the kiln at the permitted rate (see Illinois EPA construction permit dated June 6, 2002).

Gypsum is received in rock, powder, and synthetic forms, and stored outside in piles. The blended gypsum processing system was constructed in 2002 (Illinois EPA construction permit issued June 3, 2002) and is located near the coal/coke storage shed. It is managed by an outside contractor. The blended gypsum is delivered to the plant through a conveying system. Gypsum rock and powder are stored in outside piles prior to processing.

The initial storage areas can produce fugitive emissions.

The kiln precipitator (ESP) is an efficient particle collection device. Most of the solids captured are reintroduced to the kiln along with the raw feed. At times it is necessary to draw off a portion of the captured particles to avoid undesirable constituents in the clinker; this material is referred to as waste cement kiln dust or CKD. This waste dust is collected in a bin located near the kiln precipitator. The dust is either loaded through a telescoping chute to a pneumatic truck and delivered to the CKD storage silo located at the blended gypsum system, or the CKD is blended in the pugmill and then trucked to the on-site CKD landfill. The CKD landfill is located near the plant across the Vermilion River to the south of the processing plant.

7.2.2 List of Emission Units and Pollution Control Equipment*

Source	Description	Control Equipment	Date Constructed
Raw Mill	Vertical Roller Mill		March 1991
		Baghouse 21-330	1989
Feed System	Silos, Conveying System		
		Baghouse 21-205	1990
		Baghouse 21-215	1990
		Baghouse 21-223	1990
		Baghouse 21-241	1990
		Baghouse 21-375	1989
		Baghouse 21-610	1998
Kiln	Rotary Kiln		Prior to 1972
		ESP 33-036	The Pre-1971 ESP was Replaced with a 5-Field ESP in 1994
		Baghouse 33-071	Pre-1972
		Baghouse 33-088	Pre-1972
Clinker Cooler			Prior to 1972
		ESP 33-142	Pre-1972
		Multi-Clone	Pre-1972
		Baghouse 33-165	Modified 1988
		Baghouse 33-174	Modified 1994
		Baghouse 33-175	Modified 1992
		Baghouse 33-330	1995
		Baghouse 33-340	1995

Source	Description	Control Equipment	Date Constructed
Finish Mill	Horizontal Ball Mill, Silos		Prior to 1972
		Baghouse 41-046	Modified 1983
		Baghouse 41-060	Modified 1983
		Baghouse 41-081	Modified 1992
		Baghouse 41-088	Modified 1992
		Baghouse 41-106	Modified 1992
		Baghouse 41-220	Modified 1990
Storage and Shipping	Conveying System and Silos		Prior to 1972
		Baghouse 41-101	Modified 1987
		Baghouse 83-057	Modified 1986
		Baghouse 83-060	Modified 1984
		Baghouse 83-085	Pre-1972
		Baghouse 83-091	1990
		Bag house 83-180	Modified 1993
		Bag house 83-184	Modified 1993
		Bag house 83-213	Modified 1981
		Bag house 83-216	Modified 1981
		Bag house 83-218	Modified 1988
		Bag house 83-360	Modified 1994
		Bag house 83-460	Modified 1994
		Bag house 83-710	2000
		Bag house 83-735	2000

* The above list of emission units may not include units constructed after the submittal of the original application. However, any such units are identified in the attached state construction and operating permits that are incorporated here in (See Attachment 4). These units are permitted to operate under this permit in accordance with the conditions of these attached permits. This list will be revised to include such units in subsequent reopening of this permit in accordance with the timely submittal of the necessary information.

7.2.3 Applicability Provisions and Applicable Regulations

- a. An "affected Cement Plant" for the purpose of these unit-specific conditions is an emission unit described in conditions 7.2.1 and 7.2.2.
- b. The affected Cement Plant is subject to the emission limits identified in Condition 5.2.2.
- c. The affected Cement Plant is subject to 35 IAC Part 212 Subpart L, Particulate Matter Emissions From Process Emission Sources. This regulation is

attached hereto and incorporated herein by reference (See Attachment 3).

- d. The affected Cement Plant is subject to 35 IAC Part 212 Subpart Q, Particulate Matter Emissions From Stone, Clay, Glass and Concrete Manufacturing. This regulation is attached hereto and incorporated herein by reference (See Attachment 3).
- e. The affected Cement Plant is subject to 35 IAC Part 214 Subpart K, Sulfur Limitations from Process Emission Sources. This regulation is attached hereto and incorporated herein by reference (see Attachment 3).
- f. The affected Cement Plant is subject to 35 IAC Part 217 Subpart T, Cement kilns, which control the emissions of nitrogen oxides.
- g. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from an affected Cement Plant, except as provided in Sections 215.302, 215.303, 215.304 of this Part and the following exception: If no odor nuisance exists the limitation of this Subpart shall apply only to photochemically reactive material (See Attachment 3).
- h. The affected Cement Plant is subject to 40 CFR 60 Subparts A and y--Standards of Performance for new pulverized solid fuel firing system under coal preparation plants. The Illinois EPA is administering NSPS in Illinois on behalf of the USEPA under a delegation agreement. This regulation is attached hereto and incorporated herein by reference (See Attachment 1).
- i. The affected cement plant is subject to the NESHAP for the Portland cement manufacturing industry, 40 CFR 63 Subparts A and LLL. The Illinois EPA is administering NESHAP in Illinois on behalf of the USEPA under a delegation agreement. This regulation is attached hereto and incorporated herein by reference (See Attachment 2).

7.2.4 Non-Applicability of Regulations of Concern

- a. The affected Cement Plant is not subject to 35 IAC 212.324, Process Emission Units In Certain Areas, because the source is not located in a non-attainment area for PM₁₀, as identified in 35 IAC 212.324(a)(1).
- b. The affected cement kiln is not subject to 35 IAC 216.121 for emissions of carbon monoxide because the

kiln is not by definition a fuel combustion emission unit.

- c. The affected cement kiln is not subject to 35 IAC 217.121 for emissions of nitrogen oxides because the kiln is not by definition a fuel combustion emission unit.
- d. This permit is issued based on the affected Cement Plant not being subject to 40CFR Part 60 Subparts A and F--Standards of Performance for Portland Cement Plants pursuant to 40CFR 63.1356.

7.2.5 Operational and Production Limits and Work Practices

- a. The affected facilities shall operate in compliance with the facility Startup, Shutdown and Malfunction Plan (40 CFR 63 Subpart LLL).
- b. The Permittee shall follow good operating practices for the emission control systems, including periodic inspection, routine maintenance and prompt repair of defects.

7.2.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected Cement Plant is subject to the following:

- a. The affected Cement Plant is subject to emission limitations established in State Construction and operating permits, which have been attached hereto and incorporated herein by reference (See Attachment 4). In the event that there are conflicting provisions in the incorporated state construction and operating permits, the most recently issued permit conditions shall apply.
- b. The limitations in the state construction and operating permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD) [T1].
- c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.2.7 Testing Requirements

- a. The affected Cement Plant is subject to the applicable testing requirements in 40 CFR 60.675.

This regulation is attached hereto and incorporated herein by reference (See Attachment 1).

- b. The affected Cement Plant is subject to the applicable testing requirements in 35 IAC Part 212 Subpart A. This regulation is attached hereto and incorporated herein by reference (See Attachment 3).
- c. The affected cement plant is subject to the applicable testing requirements in 35 IAC Part 212 Subpart Q (See Attachment 3).
- d. The affected Cement Plant is subject to the applicable testing requirements established in state construction and operating permits, which have been attached hereto and incorporated herein by reference (See Attachment 4).

7.2.8 Monitoring Requirements

- a. The affected cement plant is subject to the applicable monitoring requirements in 40 CFR 60 and 40 CFR 63. These regulations are attached hereto and incorporated herein by reference (See Attachment 1).

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected cement plant to demonstrate compliance with Conditions 5.5.1, 7.2.3, and 7.2.6, pursuant to Section 39.5(7)(b) of the Act:

- a. The affected cement plant is subject to the applicable recordkeeping requirements in 35 IAC Part 212, Subparts A and Q. These regulations are attached hereto and incorporated herein by reference (See Attachment 3).
- b. The affected cement plant is subject to the applicable recordkeeping requirements established in state construction and operating permits, which have been attached hereto and incorporated herein by reference (See Attachment 4).
- c. Records addressing use of good operating practices for the dust collection systems:
 - i. Records for periodic inspection of the dust collection systems with date, individual performing the inspection, and nature of inspection; and

- ii. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
- d. The affected cement plant is subject to the applicable recordkeeping requirements in 40 CFR 60.65 and 40 CFR 63 Subpart LLL. These regulations are attached hereto and incorporated herein by reference (See Attachment 1).
- e. Monthly and aggregate annual NO_x, PM, SO₂, and VOM emissions from the affected cement plant shall be maintained, based on material throughput/production, fuel usage and the applicable emission factors, with supporting calculations.

7.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected Cement Plant with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. The affected cement plant is subject to the applicable reporting requirements in 35 IAC Part 212, Subparts A and Q. These regulations are attached hereto and incorporated herein by reference (See Attachment 3).
- b. The affected cement plant is subject to the applicable reporting requirements established in state construction and permits, which have been attached hereto and incorporated herein by reference (See Attachment 4).
- c. The affected cement plant is subject to the applicable reporting requirements in 40 CFR 60 and 40 CFR 63 Subpart LLL. These regulations are attached hereto and incorporated herein by reference (See Attachment 1).
- d. Emissions of NO_x, PM, SO₂, and/or VOM in excess of limits in Condition 7.2.6 within 30 days of such an occurrence.

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.2.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 7.2.9 and the emission factors and formulas listed below:

To determine compliance with Conditions 5.5.1, 7.2.3 and 7.2.6, emissions from the affected cement plant shall be calculated based on the emission rates from the state construction and operating permits (See Attachment 4) and/or applicable emission factors from AP-42, Volume I, Fifth Edition, Supplement D, January, 1995 and subsequent revisions.

7.3 Unit 03: Gasoline Storage Tanks

7.3.1 Description

These tanks are used for storing gasoline.

7.3.2 List of Emission Equipment and Pollution Control Equipment

Description	Emission Control	Date Constructed
1 1,000-Gallon	Submerged Loading	1996
1 500-Gallon	Submerged Loading	1995

7.3.3 Applicability Provisions

- a. The "affected storage tank", for the purpose of these unit-specific conditions is an emission unit described in Conditions 7.3.1 and 7.3.2.
- b. No person shall cause or allow the loading of any organic material in any stationary tank having a storage capacity of greater than 946 liter (250 gallon), unless such tank is equipped with a permanent submerged loading pipe [35 IAC 215.122(b)]. Except as provided in the following exemptions: If the tank is a pressure tank then the limitations of 35 IAC 215.122(b) shall not apply [35 IAC 215.121(a)] or if no odor nuisance exists then the limitation of 35 IAC 215.122(b) shall only apply when the tank is used to store a volatile organic liquid with a vapor pressure of 2.5 psia or greater at 70°F.
- c. No person shall cause or allow the transfer of gasoline from any delivery vessel into any stationary tank at gasoline dispensing operation, unless such tank is equipped with a submerged loading pipe [35 IAC 215.583(a)(1)] (See Attachment 3).

7.3.4 Non-Applicability of Regulations of Concern

- a. The affected storage tanks are not subject to the requirements of 35 IAC 215.121, because the tanks are less than 40,000 gal.
- b. The affected storage tanks are not subject to the requirements of 35 IAC 215.122(a), because the tanks are less than 40,000 gal.

7.3.5 Operational and Production Limits and Work Practices

Each affected storage tank is subject to the applicable provisions of Condition 7.6.3. The affected storage tank

shall be equipped and operated with a submerged loading pipe for submerged fill.

7.3.6 Emission Limitations

In addition to Condition 5.2.2, the affected storage tank is subject to the following:

None

Emission limits are not set for the affected storage tank, as potential to emit in the absence of permit limit is less than the significant and major source thresholds for any pollutant pursuant to Title I of the CAA, specifically 40 CFR 52.21, Prevention of Significant Deterioration (PSD).

7.3.7 Testing Requirements

None

7.3.8 Inspection and Monitoring Requirements

None

7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected tank to demonstrate compliance with Condition 7.6.5 and 7.6.6 pursuant to Section 39.5(7) of the Act:

- a. Design information for the tank showing the presence of a submerged loading pipe or submerged fill;
- b. Maintenance and repair records for the tank, as related to the repair or replacement of the loading pipe;
- c. The throughput of the affected storage tanks, gal/yr; and
- d. The annual VOM emissions from the affected storage tanks based on the material stored, the tank throughput, and the applicable emission factors and formulas with supporting calculations.

7.3.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected storage tank with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports

shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- a. Any loading of gasoline or other VOL into an affected tanks that is not in compliance with Condition 7.3.5, e.g., an inoperative or no "submerged loading pipe or submerged fill" within five days of becoming aware of the noncompliance status. This notification shall include a description of the event, the cause for the noncompliance, actions taken to correct the noncompliance and the steps taken to avoid future noncompliance.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to an affected tank without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

- a. Changes to components related to either the "submerged loading pipe or submerged fill", including addition of new components and repair and replacement of components; and
- b. Changes in the material stored in a tank provided the tank continue to comply with the Conditions of Section 7.6.5 of this permit.

7.3.12 Compliance Procedures

Compliance with the emission limits in Condition 5.5 and 7.3.6 shall be based on the recordkeeping requirements in Condition 7.3.9 and the emission factors and formulas listed below:

For the purpose of estimating VOM emissions from the affected storage tank, the current version 4.09 of the TANKS program is acceptable, or any subsequent program submitted by the Permittee and accepted by Illinois EPA.

7.4 Unit 04 - Fugitive Emissions

7.4.1 Description

Fugitive emissions are defined as those emissions, which would not reasonably pass through a stack, vent or other functionally equivalent opening.

7.4.2 List of Emission Units

Description	Control methods
<p>Fugitive Emissions-Quarry:</p> <p>Over- Burden Removal Scraper Transport Scraper Unloading Wet Drilling Blasting Shovel Loading to Truck Truck Transport to Crusher Truck Loadout at Crusher Primary Crusher Primary Screening Conveyor Belt to Stockpile Conveyor to Screening Secondary Screening Stockpile Conveyor Loader Stockpile Storage Piles</p>	<p>Foam applied at the crusher outlet has residual control effect and water is sprayed at the dump hopper. Watering of storage piles and haul roads.</p>
<p>Fugitive Emissions-Plant:</p> <p>Storage Piles Raw Materials and Fuels Clinker Loading to Finish Mill Paved Road at St. Paul Loading Station Paved Road Into Plant Paved Road at I.C. Loading Station Paved Haul Road Into Plant Paved Haul Road Out of Plant Paved Road From Entrance to Office Unpaved Road for Kiln Dust Hauling Paved Road for Kiln Dust Hauling CKD Discharge to Landfill</p> <p>Loader Operations at Storage Piles And Blended Gypsum Facility</p>	<p>Watering or covering of storage piles, watering of unpaved haul roads and sweeping of paved roads</p>

7.4.3 Applicability Provisions and Applicable Regulations

- a. The "affected fugitive emission sources" for the purpose of these unit-specific conditions, are emission sources described in Conditions 7.4.1 and 7.4.2.

- b. The affected fugitive emission sources are subject to the emission limits identified in Condition 5.2.2.
- c. The affected fugitive emission sources are subject to 35 IAC Part 212 Subpart Q, Particulate Matter Emissions From Stone, Clay, Glass and Concrete Manufacturing. This regulation is attached hereto and incorporated herein by reference (See Attachment 3).
- d. The affected fugitive emission sources are subject to 35 IAC Part 212 Subpart K, Fugitive Particulate Matter. This regulation is attached hereto and incorporated herein by reference (See Attachment 3).

7.4.4 Non-Applicability of Regulations of Concern

- a. The affected fugitive emission sources of PM are not subject to the requirements of 35 IAC 212.321, Emissions of Particulate Matter from Process Emission Units. Due to the unique nature of this process, such rules cannot reasonably be applied.

7.4.5 Operational and Production Limits and Work Practices

None

7.4.6 Emission Limitations

In addition to Condition 5.2.2, the affected fugitive emission sources are subject to the following:

- a. The affected fugitive emission sources are subject to emission limitations established in state construction and operating permits, which have been attached hereto and incorporated herein by reference (See Attachment 4). In the event that there are conflicting provisions in the incorporated state construction and operating permits, the most recently issued permit conditions shall apply.
- b. The limitations in the state construction and operating permits were established pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD) [T1].
- c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1].

7.4.7 Testing Requirements

None

7.4.8 Inspection Requirements

None

7.4.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected fugitive emission sources to demonstrate compliance with Conditions 5.5.1, 7.4.3, and 7.4.6, pursuant to Section 39.5(7)(b) of the Act:

- a. The affected fugitive emission sources are subject to the applicable recordkeeping requirements in 35 IAC Part 212, Subparts A and Q. These regulations are attached hereto and incorporated herein by reference (See Attachment 3).
- b. The affected fugitive emission sources are subject to the applicable recordkeeping requirements established in state construction and operating permits, which have been attached hereto and incorporated herein by reference (See Attachment 4).

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected fugitive emission source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.4.12 Compliance Procedures

Compliance with the limits in Conditions 5.5.1 shall be based on the recordkeeping requirements in Condition 7.7.9 and the emission factors listed below:

- a. To determine compliance with Conditions 5.5.1, 7.4.3 and 7.4.6, PM emissions from the affected fugitive emission sources shall be calculated based on the applicable emission factors for Fugitive dust sources, Section 13.2, AP-42, Volume I, Fifth Edition, Supplement D, January, 1995 and subsequent revisions.

8.0 GENERAL PERMIT CONDITIONS

8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after September 25, 2002 (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is not an affected source under Title IV of the CAA and is not subject to requirements pursuant to Title IV of the CAA.

8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

As of the date of issuance of this permit, there are no such economic incentive, marketable permit or emission trading programs that have been approved by USEPA.

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without

applying for or obtaining an amendment to this permit, provided that [Section 39.5(12)(a)(i) of the Act]:

- a. The changes do not violate applicable requirements;
- b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;
- c. The changes do not constitute a modification under Title I of the CAA;
- d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and
- e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:
 - i. Describe the physical or operational change;
 - ii. Identify the schedule for implementing the physical or operational change;
 - iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;
 - iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and
 - v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods unless other Methods have been previously approved by Illinois EPA. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Condition 8.6.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

If monitoring is required by any applicable requirements or conditions of this permit, a report summarizing the required monitoring results, as specified in the conditions of this permit, shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]:

<u>Monitoring Period</u>	<u>Report Due Date</u>
January - June	September 1
July - December	March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

- a. The name and identification of the affected unit(s);
- b. The person(s) who will be performing sampling and analysis and their experience with similar tests;
- c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;
- d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;
- e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;
- f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and

- g. Any proposed use of an alternative test method, with detailed justification.

8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

- a. The name and identification of the affected unit(s);
- b. The date and time of the sampling or measurements;
- c. The date any analyses were performed;
- d. The name of the company that performed the tests and/or analyses;
- e. The test and analytical methodologies used;
- f. The results of the tests including raw data, and/or analyses including sample calculations;
- g. The operating conditions at the time of the sampling or measurements; and
- h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

8.6.4 Reporting Addresses

- a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:
 - i. Illinois EPA - Air Compliance Section

Illinois Environmental Protection Agency
Bureau of Air
Compliance Section (MC 40)
P.O. Box 19276
Springfield, Illinois 62794-9276
 - ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency
Division of Air Pollution Control
5415 North University
Peoria, Illinois 61614

iii. Illinois EPA - Air Permit Section

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506

iv. USEPA Region 5 - Air Branch

USEPA (AE - 17J)
Air & Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604

- b. Unless otherwise specified in the particular provision of this permit, reports shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.

8.7 Obligation to Comply with Title I Requirements

Any term, condition, or requirement identified in this permit by T1, T1R, or T1N is established or revised pursuant to 35 IAC Part 203 or 40 CFR 52.21 ("Title I provisions") and incorporated into this permit pursuant to both Section 39.5 and Title I provisions. Notwithstanding the expiration date on the first page of this permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].

9.1.2 In particular, this permit does not alter or affect the following:

- a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;
- b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
- c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and
- d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.

9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless such malfunction or breakdown is allowed by a permit condition [Section 39.5(6)(c) of the Act].

9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated thereunder.

9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(a) and (p)(ii) of the Act and 415 ILCS 5/4]:

- a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control

equipment), practices, or operations regulated or required under this permit;

- d. Sample or monitor any substances or parameters at any location:
 - i. At reasonable times, for the purposes of assuring permit compliance; or
 - ii. As otherwise authorized by the CAA, or the Act.
- e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and
- f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

9.4 Obligation to Comply with Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

9.5 Liability

9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any

loss due to damage, installation, maintenance, or operation of the source.

9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(o)(iv) of the Act].

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes [Section 39.5(12)(b)(iv) of the Act].

9.6.3 Retention of Records

- a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].
- b. Other records required by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance

certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 - Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

- a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.
- b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.
- c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [Section 39.5(7)(o)(ii) of the Act].

9.10.2 Emergency Provision

- a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:
 - i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency.

Normally, an act of God such as lightning or flood is considered an emergency;

- ii. The permitted source was at the time being properly operated;
 - iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
 - iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.
- b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing of a request by the Permittee for a permit modification, revocation, and reissuance, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

- a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;
- b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;
- c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and
- d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under Section 39.5(15)(b) of the Act.

9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements

underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5)(1), (n), and (o) of the Act].

10.0 ATTACHMENTS

The following permits and attachments contain applicable requirements to this source and are an integral part of this permit. The permit conditions contained in these attachments should be thoroughly reviewed and complied with, including all emission limitations, monitoring, record keeping and reporting. Any requirements these permits and attachments that conflict with those requirements found in Sections 3 through 9 are superseded by those found in Sections 3 through 9.

10.1 Attachment 1 - Applicable New Source Performance Standards (NSPS)

10.1.1 40 CFR 60 Subpart 000 -- Standards of Performance for Nonmetallic Mineral Processing Plants

10.1.2 40 CFR 60 Subpart Y -- Standards of Performance for Coal Preparation Plants

10.2 Attachment 2 - Applicable National Emission Standards for
Hazardous Air Pollutants (NESHAP)

10.2.1 40 CFR 63 Subpart LLL--National Emission Standards for
Hazardous Air Pollutants: Portland Cement Manufacturing
Industry

10.3 Attachment 3- Applicable Regulations from 35 Illinois
Administrative Code, Subtitle B: Air Pollution,
Chapter I: Pollution Control Board

10.3.1 35 IAC Part 212, Emission Standards and Limitations for
Visible and Particulate Matter Emissions from Stationary
Sources

SUBPART A: GENERAL

Section 212.100 Scope and Organization

- a) This Part contains standards and limitations for visible and particulate matter emissions from stationary emission units.
- b) Permits for sources subject to this Part may be required pursuant to 35 Ill. Adm. Code 201.
- c) Notwithstanding the provisions of this Part, the air quality standards contained in 35 Ill. Adm. Code 243 may not be violated.
- d) This Part includes Subparts which are arranged as follows:
 - 1) Subpart A: General Provisions;
 - 2) Subpart B: Visible Emissions;
 - 3) Subparts C-J: Incinerators and Fuel Combustion Emission Units;
 - 4) Subparts K-M: Fugitive and Process Emission Units;
 - 5) Subparts N-T: Site specific and industry specific rules; and
 - 6) Subpart U: Additional control measures.
- e) Rules have been grouped for the convenience of the public; the scope of each is determined by its language and history.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.107 Measurement Method for Visible Emissions

For both fugitive and nonfugitive particulate matter emissions, a determination as to the presence or absence

of visible emissions from emission units shall be conducted in accordance with Method 22, 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Subpart, except that the length of the observing period shall be at the discretion of the observer, but not less than one minute. This Subpart shall not apply to Section 212.301 of this Part.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.108 Measurement Methods for PM-10 Emissions and Condensable PM-10 Emissions

- a) Emissions of PM-10 shall be measured by any of the following methods at the option of the owner or operator of an emission unit.
 - 1) Method 201, 40 CFR part 51, Appendix M, incorporated by reference in Section 212.113 of this Subpart.
 - 2) Method 201A, 40 CFR part 51, Appendix M, incorporated by reference in Section 212.113 of this Subpart.
 - 3) Method 5, 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Subpart, provided that all particulate matter measured by Method 5 shall be considered to be PM-10.
- b) Emissions of condensable PM-10 shall be measured by Method 202, 40 CFR part 51, Appendix M, incorporated by reference in Section 212.113 of this Subpart.
- c) The volumetric flow rate and gas velocity for stack test methods shall be determined in accordance with Methods 1, 1A, 2, 2A, 2C, 2D, 3, or 4, 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Subpart.
- d) Upon a written notification by the Illinois Environmental Protection Agency (Agency), the owner or operator of a PM-10 emission unit subject to this Section shall conduct the applicable testing for PM-10 emissions, condensable PM-10 emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Agency within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Agency.

- e) A person planning to conduct testing for PM-10 or condensable PM-10 emissions to demonstrate compliance shall give written notice to the Agency of that intent. Such notification shall be given at least thirty (30) days prior to initiation of the test unless a shorter pre-notification is agreed to by the Agency. Such notification shall state the specific test methods from subsection (a) of this Section that will be used.
- f) The owner or operator of an emission unit subject to this Section shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.
- g) This Section shall not affect the authority of the United States Environmental Protection Agency (USEPA) under Section 114 of the Clean Air Act (CAA) (42 U.S.C. § 7414 (1990)).

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.109 Measurement Methods for Opacity

Except as otherwise provided in this Part, and except for the methods of data reduction when applied to Sections 212.122 and 212.123 of this Part, measurements of opacity shall be conducted in accordance with Method 9, 40 CFR part 60, Appendix A, and the procedures in 40 CFR 60.675(c) and (d), if applicable, incorporated by reference in Section 212.113 of this Subpart, except that for roadways and parking areas the number of readings required for each vehicle pass will be three taken at 5-second intervals. The first reading shall be at the point of maximum opacity and second and third readings shall be made at the same point, the observer standing at right angles to the plume at least 15 feet away from the plume and observing 4 feet above the surface of the roadway or parking area. After four vehicles have passed, the 12 readings will be averaged.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.110 Measurement Methods For Particulate Matter

- a) Measurement of particulate matter emissions from stationary emission units subject to this Part shall be conducted in accordance with 40 CFR part 60, Appendix A, Methods 5, 5A, 5D, or 5E, as incorporated by reference in Section 212.113 of this Subpart.
- b) The volumetric flow rate and gas velocity shall be determined in accordance with 40 CFR part 60, Appendix A, Methods 1, 1A, 2, 2A, 2C, 2D, 3, and 4,

incorporated by reference in Section 212.113 of this Subpart.

- c) Upon a written notification by the Agency, the owner or operator of a particulate matter emission unit subject to this Part shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Agency within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Agency.
- d) A person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Agency of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Agency. Such notification shall state the specific test methods from this Section that will be used.
- e) The owner or operator of an emission unit subject to this Part shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.
- f) This Section shall not affect the authority of the USEPA under Section 114 of the CAA.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.111 Abbreviations and Units

- a) The following abbreviations are used in this Part:

Btu	British thermal units (60 1/4°F)
dscf	dry standard cubic foot
ft	foot
ft ²	square feet
fpm	feet per minute
gal	gallon
gr	grains
gr/scf	grains per standard cubic foot
gr/dscf	grains per dry standard cubic foot
hr	hour
J	Joule
kg	kilogram
kg/MW-hr	kilograms per megawatt-hour
km	kilometer
l	liter
lbs	pounds
lbs/hr	pounds per hour
lbs/mmBtu	pounds per million Btu

m	meter
m ²	square meters
mph	miles per hour
mg	milligram
mg/scm	milligrams per standard cubic meter
mg/dscm	milligrams per dry standard cubic meter
mg/L	milligrams per liter
Mg	megagram, metric ton or tonne
mi	mile
mmBtu	million British thermal units
mmBtu/hr	million British thermal units per hour
MW	megawatt; one million watts
MW-hr	megawatt-hour
µg	nanogram; one billionth of a gram
µg/J	nanograms per Joule
scf	standard cubic foot
scfm	standard cubic feet per minute
scm	standard cubic meter
T	short ton (2000 lbs)
yd ²	square yards

b) The following conversion factors have been used in this Part:

English	Metric
2.205 lb	1 kg
1 T	0.907 Mg
1 lb/T	0.500 kg/Mg
mmBtu/hr	0.293 MW
1 lb/mmBtu	1.548 kg/MW-hr or 430 µg/J
1 mi	1.61 km
1 gr	64.81 mg
1 gr/scf	2289 mg/scm
1 ft ²	0.0929 m ²
1 ft	0.3048 m
1 gal	3.785 L

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.112 Definitions

The definitions of 35 Ill. Adm. Code 201 and 211 apply to this Part.

(Source: Added and codified at 7 Ill. Reg. 13591)

Section 212.113 Incorporations by Reference

The following materials are incorporated by reference. These incorporations do not include any later amendments or editions.

- a) 40 CFR part 60, Appendix A (1991):
- 1) Method 1: Sample and Velocity Traverses for Stationary Sources;
 - 2) Method 1A: Sample and Velocity Traverses for Stationary Source with Small Stacks or Ducts;
 - 3) Method 2: Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S pitot tube);
 - 4) Method 2A: Direct Measurement of Gas Volume Through Pipes and Small Ducts;
 - 5) Method 2C: Determination of Stack Gas Velocity and Volumetric Flow Rate in Small Stacks or Ducts (Standard Pitot Tube);
 - 6) Method 2D: Measurement of Gas Volumetric Flow Rates in Small Pipes and Ducts;
 - 7) Method 3: Gas Analysis for Carbon Dioxide, Oxygen, Excess Air, and Dry Molecular Weight;
 - 8) Method 4: Determination of Moisture Content in Stack Gases;
 - 9) Method 5: Determination of Particulate Emissions From Stationary Sources;
 - 10) Method 5A: Determination of Particulate Emissions From the Asphalt Processing and Asphalt Roofing Industry;
 - 11) Method 5D: Determination of Particulate Matter Emissions From Positive Pressure Fabric Filters;
 - 12) Method 5E: Determination of Particulate Emissions From the Wool Fiberglass Insulation Manufacturing Industry;
 - 13) Method 9: Visual Determination of the Opacity of Emissions from Stationary Sources;
 - 14) Method 22: Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares.
- b) 40 CFR part 51 Appendix M (1994):
- 1) Method 201: Determination of PM-10 Emissions;

- 2) Method 201A: Determination of PM-10 Emissions (Constant Sampling Rate Procedure);
- 3) Method 202: Determination of Condensable Particulate Emissions from Stationary Sources.
- c) 40 CFR 60.672(b), (c), (d) and (e) (1991).
- d) 40 CFR 60.675(c) and (d) (1991).
- e) ASAE Standard 248.2, Section 9, Basis for Stating Drying Capacity of Batch and Continuous-Flow Grain Dryers, American Society of Agricultural Engineers, 2950 Niles Road, St. Joseph, MI 49085.
- f) U.S. Sieve Series, ASTM-E11, American Society of Testing Materials, 1916 Race Street, Philadelphia, PA 19103.
- g) Standard Methods for the Examination of Water and Wastewater, Section 209C, "Total Filterable Residue Dried at 103 - 105° C," 15th Edition, 1980, American Public Health Association, 1015 Fifteenth Street, N.W., Washington, D.C. 20005.
- h) "Guideline on the Identification and Use of Air Quality Data Affected by Exceptional Events," U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards Monitoring and Data Analysis Division, Research Triangle Park, N.C. 27711, EPA-450/4-86-007 July 1986.
- i) "Guideline on Air Quality Models (Revised)," U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, EPA-450/2-78-027R July 1986.
- j) 40 CFR 50, Appendix K (1992), "Interpretation of the National Ambient Air Quality Standard for Particulate Matter".

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

SUBPART B: VISIBLE EMISSIONS

Section 212.121 Opacity Standards (Repealed)

(Source: Repealed at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.122 Visible Emissions Limitations for Certain Emission Units For Which Construction or Modification Commenced On or After April 14, 1972

- a) No person shall cause or allow the emission of smoke or other particulate matter into the atmosphere from any fuel combustion emission unit for which construction or modification commenced on or after April 14, 1972, with actual heat input greater than 73.2 MW (250 mmBtu/hr), having an opacity greater than 20 percent.
- b) The emissions of smoke or other particulate matter from any such emission unit may have an opacity greater than 20 percent but not greater than 40 percent for a period or periods aggregating 3 minutes in any 60 minute period, providing that such opaque emission permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person and provided further that such opaque emissions permitted from each such fuel combustion emission unit shall be limited to 3 times in any 24 hour period.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.123 Visible Emissions Limitations for All Other Emission Units

- a) No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to Section 212.122 of this Subpart.
- b) The emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.124 Exceptions

- a) Sections 212.122 and 212.123 of this Subpart shall apply during times of startup, malfunction and breakdown except as provided in the operating permit granted in accordance with 35 Ill. Adm. Code 201.
- b) Sections 212.122 and 212.123 of this Subpart shall not apply to emissions of water or water vapor from an emission unit.
- c) An emission unit which has obtained an adjusted opacity standard pursuant to Section 212.126 of this Subpart shall be subject to that standard rather than the limitations of Section 212.122 or 212.123 of this Subpart.
- d) Compliance with the particulate regulations of this Part shall constitute a defense.
 - 1) For all emission units which are not subject to Chapters 111 or 112 of the CAA and Sections 212.201, 212.202, 212.203 or 212.204 of this Part but which are subject to Sections 212.122 or 212.123 of this Subpart: the opacity limitations of Sections 212.122 and 212.123 of this Subpart shall not apply if it is shown that the emission unit was, at the time of such emission, in compliance with the applicable particulate emissions limitations of Subparts D through T of this Part.
 - 2) For all emission units which are not subject to Chapters 111 or 112 of the CAA but which are subject to Sections 212.201, 212.202, 212.203 or 212.204 of this Part:
 - A) An exceedance of the limitations of Section 212.122 or 212.123 of this Subpart shall constitute a violation of the applicable particulate limitations of Subparts D through T of this Part. It shall be a defense to a violation of the applicable particulate limitations if, during a subsequent performance test conducted within a reasonable time not to exceed 60 days, under the same operating conditions for the unit and the control devices, and in accordance with Method 5, 40 CFR part 60, incorporated by reference in Section 212.113 of this Part, the owner or operator shows that the emission unit is in compliance with the particulate emission limitations.

- B) It shall be a defense to an exceedance of the opacity limit if, during a subsequent performance test conducted within a reasonable time not to exceed 60 days, under the same operating conditions of the emission unit and the control devices, and in accordance with Method 5, 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Part, the owner or operator shows that the emission unit is in compliance with the allowable particulate emissions limitation while, simultaneously, having visible emissions equal to or greater than the opacity exceedance as originally observed.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.125 Determination of Violations

Violations of Sections 212.122 and 212.123 of this Subpart shall be determined:

- a) By visual observations conducted in accordance with Section 212.109 of this Part; or
- b) By the use of a calibrated smoke evaluation device approved by the Agency as specified in Subpart J of 35 Ill. Adm. Code 201; or
- c) By the use of a smoke monitor located in the stack and approved by the Agency as specified in Subpart J or L of 35 Ill. Adm. Code 201.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.126 Adjusted Opacity Standards Procedures

- a) Pursuant to Section 28.1 of the Environmental Protection Act (Act) [415 ILCS 5/28.1], and in accordance with 35 Ill. Adm. Code 106, Subpart E, provisions for adjusted standards for visible emissions for emission units subject to Sections 212.201, 212.202, 212.203, or 212.204 of this Part shall be granted by the Board to the extent consistent with federal law based upon a demonstration by such owner or operator that the results of a performance test conducted pursuant to this Section, Section 212.110 of this Part, and Methods 5 and 9 of 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Part, show that the emission unit meets the applicable particulate emission limitations at the

same time that the visible emissions exceed the otherwise applicable standards of Sections 212.121 through 212.125 of this Subpart. Such adjusted opacity limitations:

- 1) Shall be specified as a condition in operating permits issued pursuant to 35 Ill. Adm. Code 201 and Section 39.5 of the Act;
 - 2) Shall substitute for that limitation otherwise applicable;
 - 3) Shall not allow an opacity greater than 60 percent at any time; and
 - 4) Shall allow opacity for one six-minute averaging period in any 60 minute period to exceed the adjusted opacity standard.
- b) For the purpose of establishing an adjusted opacity standard, any owner or operator of an emission unit which meets the requirements of subsection (a) of this Section, may request the Agency to determine the average opacity of the emissions from the emission unit during any performance tests conducted pursuant to Section 212.110 of this Part and Methods 5 and 9 of 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Part. The Agency shall refuse to accept the results of emissions tests if not conducted pursuant to this Section.
- c) Any request for the determination of the average opacity of emissions shall be made in writing, shall include the time and place of the performance test and test specifications and procedures, and shall be submitted to the Agency at least thirty (30) days before the proposed test date.
- d) The Agency will advise the owner or operator of an emission unit which has requested an opacity determination of any deficiencies in the proposed test specifications and procedures as expeditiously as practicable but no later than ten (10) days prior to the proposed test date so as to minimize any disruption of the proposed testing schedule.
- e) The owner or operator shall allow Agency personnel to be present during the performance test.
- f) The method for determining an adjusted opacity standard is as follows:

- 1) A minimum of 60 consecutive minutes of opacity readings obtained in accordance with Test Method 9, 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Part, shall be taken during each sampling run. Therefore, for each performance test (which normally consists of three sampling runs), a total of three sets of opacity readings totaling three hours or more shall be obtained. Concurrently, the particulate emissions data from three sampling runs obtained in accordance with Test Method 5, 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Part, shall also be obtained.
- 2) After the results of the performance tests are received from the emission unit, the status of compliance with the applicable particulate emissions limitation shall be determined by the Agency. In accordance with Test Method 5, 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Part, the average of the results of the three sampling runs must be less than the allowable particulate emission rate in order for the emission unit to be considered in compliance. If compliance is demonstrated, then only those test runs with results which are less than the allowable particulate emission rate shall be considered as acceptable test runs for the purpose of establishing an adjusted opacity standard.
- 3) The opacity readings for each acceptable sampling run shall be divided into sets of 24 consecutive readings. The six (6) minute average opacity for each set shall be determined by dividing the sum of the 24 readings within each set by 24.
- 4) The second highest six (6) minute average opacity obtained in subsection (f)(3) of this Section shall be selected as the adjusted opacity standard.
- g) The owner or operator shall submit a written report of the results of the performance test to the Agency at least thirty (30) days prior to filing a petition for an adjusted standard with the Board.
- h) If, upon review of such owner's or operator's written report of the results of the performance tests, the Agency determines that the emission unit is in

compliance with all applicable emission limitations for which the performance tests were conducted, but fails to comply with the requirements of Section 212.122 or 212.123 of this Subpart, the Agency shall notify the owner or operator as expeditiously as practicable, but no later than twenty (20) days after receiving the written report of any deficiencies in the results of the performance tests.

- i) The owner or operator may petition the Board for an adjusted visible emission standard pursuant to 35 Ill. Adm. Code 106.Subpart E. In addition to the requirements of 35 Ill. Adm. Code 106.Subpart E, the petition shall include the following information:
 - 1) A description of the business or activity of the petitioner, including its location and relevant pollution control equipment;
 - 2) The quantity and type of materials discharged from the emission unit or control equipment for which the adjusted standard is requested;
 - 3) A copy of any correspondence between the petitioner and the Agency regarding the performance tests which form the basis of the adjusted standard request;
 - 4) A copy of the written report submitted to the Agency pursuant to subsection (g) of this Section;
 - 5) A statement that the performance tests were conducted in accordance with this Section and the conditions and procedures accepted by the Agency pursuant to Section 212.110 of this Part;
 - 6) A statement regarding the specific limitation requested; and
 - 7) A statement as to whether the Agency has sent notice of deficiencies in the results of the performance test pursuant to subsection (h) of this Section and a copy of said notice.
- j) In order to qualify for an adjusted standard the owner or operator must justify as follows:
 - 1) That the performance tests were conducted in accordance with Test Methods 5 and 9, 40 CFR part 60, Appendix A, incorporated by reference in Section 212.113 of this Part, and the conditions and procedures accepted by the

Agency pursuant to Section 212.110 of this Part;

- 2) That the emission unit and associated air pollution control equipment were operated and maintained in a manner so as to minimize the opacity of the emissions during the performance tests; and
 - 3) That the proposed adjusted opacity standard was determined in accordance with subsection (f) of this Section.
- k) Nothing in this Section shall prevent any person from initiating or participating in a rulemaking, variance, or permit appeal proceeding before the Board.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

SUBPART K: FUGITIVE PARTICULATE MATTER

Section 212.301 Fugitive Particulate Matter

No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.302 Geographical Areas of Application

- a) Sections 212.304 through 212.310 and 212.312 of this Subpart shall apply to all mining operations (SIC major groups 10 through 14), manufacturing operations (SIC major groups 20 through 39 except for those operations subject to Subpart S of this Part (Grain-Handling and Grain-Drying Operations) that are outside the areas defined in Section 212.324(a)(1) of this Part), and electric generating operations (SIC group 491), which are located in the areas defined by the boundaries of the following townships, notwithstanding any political subdivisions contained therein, as the township boundaries were defined on October 1, 1979, in the following counties:

Cook:	All townships
Lake:	Shields, Waukegan, Warren
DuPage:	Addison, Winfield, York
Will:	DuPage, Plainfield, Lockport, Channahon, Peotone, Florence, Joliet

Peoria:	Richwoods, Limestone, Hollis, Peoria, City of Peoria
Tazewell:	Fondulac, Pekin, Cincinnati, Groveland, Washington
Macon:	Decatur, Hickory Point
Rock Island:	Blackhawk, Coal Valley, Hampton, Moline, South Moline, Rock Island, South Rock Island
LaSalle:	LaSalle, Utica
Madison:	Alton, Chouteau, Collinsville, Edwardsville, Fort Russell, Godfrey, Granite City, Nameoki, Venice, Wood River
St. Clair	Canteen, Caseyville, Centerville, St. Clair, Stites, Stookey, Sugar Loaf, Millstadt.

- b) In the geographical areas defined in Section 212.324(a)(1) of this Part, Sections 212.304 through 212.310, 212.312, and 212.316 of this Subpart shall apply to all emission units identified in subsection (a) of this Section, and shall further apply to the following operations: grain-handling and grain-drying (Subpart S of this Part), transportation, communications, electric, gas, and sanitary services (SIC major groups 40 through 49). Additionally, Sections 212.304 through 212.310, 212.312, and 212.316 of this Subpart shall apply to wholesale trade-farm supplies (SIC Industry No. 5191) located in the vicinity of Granite City, as defined in Section 212.324(a)(1)(C) of this Part.
- c) Emission units must comply with subsection (b) of this Section by May 11, 1993, or upon initial start-up, whichever occurs later.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.304 Storage Piles

- a) All storage piles of materials with uncontrolled emissions of fugitive particulate matter in excess of 45.4 Mg per year (50 T/yr) which are located within a source whose potential particulate emissions from all emission units exceed 90.8 Mg/yr (100 T/yr) shall be protected by a cover or sprayed with a surfactant solution or water on a regular basis, as needed, or treated by an equivalent method, in accordance with the operating program required by Sections 212.309, 212.310 and 212.312 of this Subpart.
- b) Subsection (a) of this Section shall not apply to a specific storage pile if the owner or operator of that pile proves to the Agency that fugitive particulate emissions from that pile do not cross the

property line either by direct wind action or reentrainment.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.305 Conveyor Loading Operations

All conveyor loading operations to storage piles specified in Section 212.304 of this Subpart shall utilize spray systems, telescopic chutes, stone ladders or other equivalent methods in accordance with the operating program required by Sections 212.309, 212.310 and 212.312 of this Subpart.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.306 Traffic Areas

All normal traffic pattern access areas surrounding storage piles specified in Section 212.304 of this Subpart and all normal traffic pattern roads and parking facilities which are located on mining or manufacturing property shall be paved or treated with water, oils or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program required by Sections 212.309, 212.310 and 212.312 of this Subpart.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.307 Materials Collected by Pollution Control Equipment

All unloading and transporting operations of materials collected by pollution control equipment shall be enclosed or shall utilize spraying, pelletizing, screw conveying or other equivalent methods.

(Source: Amended at 3 Ill. Reg. 45, p. 100, effective October 26, 1979)

Section 212.308 Spraying or Choke-Feeding Required

Crushers, grinding mills, screening operations, bucket elevators, conveyor transfer points, conveyors, bagging operations, storage bins and fine product truck and railcar loading operations shall be sprayed with water or a surfactant solution, utilize choke-feeding or be treated by an equivalent method in accordance with an operating program.

(Source: Amended at 3 Ill. Reg. 45, p. 100, effective October 26, 1979)

Section 212.309 Operating Program

- a) The emission units described in Sections 212.304 through 212.308 and Section 212.316 of this Subpart shall be operated under the provisions of an operating program, consistent with the requirements set forth in Sections 212.310 and 212.312 of this Subpart, and prepared by the owner or operator and submitted to the Agency for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions.
- b) The amendment to this Section incorporating the applicability of Section 212.316 shall apply by May 11, 1993, or upon initial start-up, whichever occurs later.

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.310 Minimum Operating Program

As a minimum the operating program shall include the following:

- a) The name and address of the source;
- b) The name and address of the owner or operator responsible for execution of the operating program;
- c) A map or diagram of the source showing approximate locations of storage piles, conveyor loading operations, normal traffic pattern access areas surrounding storage piles and all normal traffic patterns within the source;
- d) Location of unloading and transporting operations with pollution control equipment;
- e) A detailed description of the best management practices utilized to achieve compliance with this Subpart, including an engineering specification of particulate collection equipment, application systems for water, oil, chemicals and dust suppressants utilized and equivalent methods utilized;
- f) Estimated frequency of application of dust suppressants by location of materials; and
- g) Such other information as may be necessary to facilitate the Agency's review of the operating program,

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.312 Amendment to Operating Program

The operating program shall be amended from time to time by the owner or operator so that the operating program is current. Such amendments shall be consistent with this Subpart and shall be submitted to the Agency for its review.

(Source: Amended at 3 Ill. Reg. 45, p. 100, effective October 26, 1979)

Section 212.313 Emission Standard for Particulate Collection Equipment

If particulate collection equipment is operated pursuant to Sections 212.304 through 212.310 and 212.312 of this Subpart, emissions from such equipment shall not exceed 68 mg/dscm (0.03 gr/dscf).

(Source: Amended at 20 Ill. Reg.7605, effective May 22, 1996)

Section 212.314 Exception for Excess Wind Speed

Section 212.301 of this Subpart shall not apply and spraying pursuant to Sections 212.304 through 212.310 and 212.312 of this Subpart shall not be required when the wind speed is greater than 40.2 km/hr (25 mph). Determination of wind speed for the purposes of this rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site. In cases where the duration of operations subject to this rule is less than one hour, wind speed may be averaged over the duration of the operations on the basis of on-site wind speed instrument measurements.

(Source: Amended at 20 Ill. Reg. 7605, effective May 22, 1996)

Section 212.315 Covering for Vehicles

No person shall cause or allow the operation of a vehicle of the second division as defined 625 ILCS 5/1-217, or a semi-trailer as defined by 625 ILCS 5/1-187, without a covering sufficient to prevent the release of particulate matter into the atmosphere, provided that this rule shall not pertain to automotive exhaust emissions.

(Board Note: Pursuant to Section 10(E) of the Act, Section 212.315 cannot be more strict than Section 15-109 of the Vehicle Code [625 ILCS 5/15-109.1],)

(Source: Repealed at 20 Ill. Reg. 7605, effective May 22, 1996)

Section 212.316 Emissions Limitations for Emission Units in Certain Areas

- a) Applicability. This Section shall apply to those operations specified in Section 212.302 of this Subpart and that are located in areas defined in Section 212.324(a)(1) of this Part.
- b) Emission Limitation for Crushing and Screening Operations. No person shall cause or allow fugitive particulate matter emissions generated by the crushing or screening of slag, stone, coke or coal to exceed an opacity of 10 percent.
- c) Emission Limitations for Roadways or Parking Areas. No person shall cause or allow fugitive particulate matter emissions from any roadway or parking area to exceed an opacity of 10 percent, except that the opacity shall not exceed 5 percent at quarries with a capacity to produce more than 1 million T/yr of aggregate.
- d) Emission Limitations for Storage Piles. No person shall cause or allow fugitive particulate matter emissions from any storage pile to exceed an opacity of 10 percent, to be measured four ft from the pile surface.
- e) Additional Emissions Limitations for the Granite City Vicinity as Defined in Section 212.324(a)(1)(C) of this Part.
 - 1) Emissions Limitations for Roadways or Parking Areas Located at Slag Processing Facilities or Integrated Iron and Steel Manufacturing Plants. No person shall cause or allow fugitive particulate matter emissions from any roadway or parking area located at a slag processing facility or integrated iron and steel manufacturing plant to exceed an opacity of 5 percent.
 - 2) Emissions Limitations for Marine Terminals.
 - A) No person shall cause or allow fugitive particulate matter emissions from any loading spouts for truck or railcar to exceed an opacity of 10 percent; and
 - B) No person shall cause or allow fugitive particulate matter emissions generated at barge unloading, dump pits, or conveyor transfer points including, but not

limited to, transfer onto and off of a conveyor to exceed an opacity of 5 percent.

- f) Emission Limitation for All Other Emission Units. Unless an emission unit has been assigned a particulate matter, PM-10, or fugitive particulate matter emissions limitation elsewhere in this Section or in Subparts R or S of this Part, no person shall cause or allow fugitive particulate matter emissions from any emission unit to exceed an opacity of 20 percent.
- g) Recordkeeping and Reporting
 - 1) The owner or operator of any fugitive particulate matter emission unit subject to this Section shall keep written records of the application of control measures as may be needed for compliance with the opacity limitations of this Section and shall submit to the Agency an annual report containing a summary of such information.
 - 2) The records required under this subsection shall include at least the following:
 - A) The name and address of the source;
 - B) The name and address of the owner and/or operator of the source;
 - C) A map or diagram showing the location of all emission units controlled, including the location, identification, length, and width of roadways;
 - D) For each application of water or chemical solution to roadways by truck: the name and location of the roadway controlled, application rate of each truck, frequency of each application, width of each application, identification of each truck used, total quantity of water or chemical used for each application and, for each application of chemical solution, the concentration and identity of the chemical.
 - E) For application of physical or chemical control agents: the name of the agent, application rate and frequency, and total quantity of agent and, if diluted,

percent of concentration, used each day;
and

- F) A log recording incidents when control measures were not used and a statement of explanation.
- 3) Copies of all records required by this Section shall be submitted to the Agency within ten (10) working days after a written request by the Agency and shall be transmitted to the Agency by a company-designated person with authority to release such records.
- 4) The records required under this Section shall be kept and maintained for at least three (3) years and shall be available for inspection and copying by Agency representatives during working hours.
- 5) A quarterly report shall be submitted to the Agency stating the following: the dates any necessary control measures were not implemented, a listing of those control measures, the reasons that the control measures were not implemented, and any corrective actions taken. This information includes, but is not limited to, those dates when controls were not applied based on a belief that application of such control measures would have been unreasonable given prevailing atmospheric conditions, which shall constitute a defense to the requirements of this Section. This report shall be submitted to the Agency thirty (30) calendar days from the end of a quarter. Quarters end March 31, June 30, September 30, and December 31.
- h) Compliance Date. Emission units shall comply with the emissions limitations and recordkeeping and reporting requirements of this Section by May 11, 1993, or upon initial start-up, whichever occurs later.

(Source: Amended at 20 Ill. Reg. 7605, effective May 22, 1996)

**SUBPART L: PARTICULATE MATTER EMISSIONS FROM PROCESS
EMISSION SOURCES**

**Section 212.321 Process Emission Units For Which
Construction or Modification Commenced On or After
April 14, 1972**

- a) Except as further provided in this Part, no person shall cause or allow the emission of particulate

matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of this Section.

- b) Interpolated and extrapolated values of the data in subsection (c) of this Section shall be determined by using the equation:

$$E = A (P)^B$$

Where:

P = Process weight rate; and
E = Allowable emission rate; and,

- 1) Up to process weight rates of 408 MG/hr (450 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534

- 2) For process weight rate greater than or equal to 408 Mg/hr (450 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16

- c) Limits for Process Emission Units For Which Construction of Modification Commenced On or After April 14, 1972

Metric		English	
P	E	P	E
Mg/hr	kg/hr	T/hr	lbs/hr
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.20	1.10
0.3	0.64	0.30	1.35
0.4	0.74	0.40	1.58
0.5	0.84	0.50	1.75
0.7	1.00	0.75	2.40
0.9	1.15	1.00	2.60

Metric		English	
P	E	P	E
Mg/hr	kg/hr	T/hr	lbs/hr
1.8	1.66	2.00	3.70
2.7	2.1	3.00	4.60
3.6	2.4	4.00	5.35
4.5	2.7	5.00	6.00
9.	3.9	10.00	8.70
13.	4.8	15.00	10.80
18.	5.7	20.00	12.50
23.	6.5	25.00	14.00
27.	7.1	30.00	15.60
32.	7.7	35.00	17.00
36.	8.2	40.00	18.20
41.	8.8	45.00	19.20
45.	9.3	50.00	20.50
90.	13.4	100.00	29.50
140.	17.0	150.00	37.00
180.	19.4	200.00	43.00
230.	22.	250.00	48.50
270.	24.	300.00	53.00
320.	26.	350.00	58.00
360.	28.	400.00	62.00
408.	30.1	450.00	66.00
454.	30.4	500.00	67.00

Where:

P = Process weight rate in metric or T/hr, and
E = Allowable emission rate in kg/hr or lbs/hr.

(Source: Amended at 20 Ill. Reg. 7605, effective May 22, 2996)

Section 212.322 Process Emission Units For Which Construction or Modification Commenced Prior to April 14,1972.

- a) Except as further provided in this Part, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14,1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of this Section.
- b) Interpolated and extrapolated values of the data in subsection (c) of this Section shall be determined by using the equation:

$$E = C + A(P)^B$$

Where:

P = Process weight rate; and,
 E = Allowable emission rate; and,

- 1) For process weight rates up to 27.2 Mg/hr (30 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.985	4.10
B	0.67	0.67
C	0	0

- 2) For process weight rates in excess or 27.2 Mg/hr (30 T/hr):

	Metric	English
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	25.21	55.0
B	0.11	0.11
C	-18.4	-40.0

- c) Limits for Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972

P Mg/hr	Metric	English	
	E kg/hr	P T/hr	E lbs/hr
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.20	1.40
0.3	0.89	0.30	1.83
0.4	1.07	0.40	2.22
0.5	1.25	0.50	2.58
0.7	1.56	0.75	3.38
0.9	1.85	1.00	4.10
1.8	2.9	2.00	6.52
2.7	3.9	3.00	8.56
3.6	4.7	4.00	10.40
4.5	5.4	5.00	12.00
9.	8.7	10.00	19.20
13.	11.1	15.00	25.20
18.	13.8	20.00	30.50
23.	16.2	25.00	35.40
27.2	18.15	30.00	40.00
32.0	18.8	35.00	41.30
36.0	19.3	40.00	42.50

	Metric	English	
P	E	P	E
Mg/hr	kg/hr	T/hr	lbs/hr
41.0	19.8	45.00	43.60
45.0	20.2	50.00	44.60
90.0	23.2	100.00	51.20
140.0	25.3	150.00	55.40
180.0	26.5	200.00	58.60
230.0	27.7	250.00	61.00
270.0	28.5	300.00	63.10
320.0	29.4	350.00	64.90
360.0	30.0	400.00	66.20
400.0	30.6	450.00	67.70
454.0	31.3	500.00	69.00

Where:

P = Process weight rate in Mg/hr or T/hr, and
E = Allowable emission rate in kg/hr or lbs/hr.

(Source: Amended at 20 Ill. Reg. 7605, effective May 22, 1996)

Section 212.323 Stock Piles

Sections 212.321 and 212.322 of this Subpart shall not apply to emission units, such as stock piles of particulate matter, to which, because of the disperse nature of such emission units, such rules cannot reasonably be applied.

(Source: Amended at 20 Ill. Reg. 7605, effective May 22, 1996)

Section 212.324 Process Emission Units in Certain Areas

a) Applicability.

1) This Section shall apply to any process emission unit located in any of the following areas:

A) That area bounded by lines from Universal Transmercator (UTM) coordinate 428000mE, 4631000mN, east to 435000mE, 4631000mN, south to 435000mE, 4623000mN, west to 428000mE, 4623000mN, north to 428000mE, 4631000mN, in the vicinity of McCook in Cook County, as shown in Illustration D of this Part;

B) That area bounded by lines from Universal Transmercator (UTM) coordinate 445000mE, 4622180mN, east to 456265mE, 4622180mN, south to 456265E, 4609020N, west to

445000mE, 4609020mN, north to 445000mE, 4622180mN, in the vicinity of Lake Calumet in Cook County, as shown in Illustration E of this Part;

- C) That area bounded by lines from Universal Transmercator (UTM) coordinate 744000mE, 4290000mN, east to 753000mE, 4290000mN, south to 753000mE, 4283000mN, west to 744000mE, 4283000mN, north to 744000mE, 4290000mN, in the vicinity of Granite City in Madison County, as shown in Illustration F of this Part.
- 2) This Section shall not alter the applicability of Sections 212.321 and 212.322 of this Subpart.
 - 3) The emissions limitations of this Section are not applicable to any emission unit subject to a specific emissions standard or limitation contained in any of the following Subparts of this Part:
 - A) Subpart N, Food Manufacturing;
 - B) Subpart Q, Stone, Clay, Glass and Concrete Manufacturing;
 - C) Subpart R, Primary and Fabricated Metal Products and Machinery Manufacture; and
 - D) Subpart S, Agriculture.
 - b) General Emission Limitation. Except as otherwise provided in this Section, no person shall cause or allow the emission into the atmosphere, of PM-10, from any process emission unit to exceed 68.7 mg/scm (0.03 gr/scf) during any one hour period.
 - c) Alternative Emission Limitation. In lieu of the emission limit of 68.7 mg/scm (0.03 gr/scf) contained in subsection (b) of this Section, no person shall cause or allow the emissions from the following emission units to exceed the corresponding limitations in the following table:

	Emissions Units	Emissions Limit	
		Metric	English
1)	Shotblasting emissions units in the Village of McCook equipped with fabric filters as of June 1, 1991	22.9 mg/scm	0.01 gr/scf

	Emissions Units	Emissions Limit	
		Metric	English
2)	All process emissions units at manufacturers of steel wool with soap pads located in the Village of McCook	5% opacity	5% opacity
d)	Exceptions. The mass emission limits contained in subsections (b) and (c) of this Section shall not apply to those emission units with no visible emissions other than fugitive particulate matter; however, if a stack test is performed, this subsection is not a defense finding of a violation of the mass emission limits contained in subsections (b) and (c) of this Section.		
e)	Special Emissions Limitation for Fuel-Burning Process Emission Units in the Vicinity of Granite City. No person shall cause or allow emissions of PM-10 into the atmosphere to exceed 12.9 µg/J (0.03 lbs/mmBtu) of heat input from the burning of fuel other than natural gas at any process emission unit located in the vicinity of Granite City as defined in subsection (a)(1)(C) of this Section.		
f)	Maintenance and Repair. For any process emission unit subject to subsection (a), of this Section, the owner or operator shall maintain and repair all air pollution control equipment in a manner that assures that the emission limits and standards in this Section shall be met at all times. This Section shall not affect the applicability of 35 Ill. Adm. Code 201.149. Proper maintenance shall include the following minimum requirements:		
	1)	Visual inspections of air pollution control equipment;	
	2)	Maintenance of an adequate inventory of spare parts; and	
	3)	Expeditious repairs, unless the emission unit is shutdown.	
g)	Recordkeeping of Maintenance and Repair.		
	1)	Written records of inventory and documentation of inspections, maintenance, and repairs of all air pollution control equipment shall be kept in accordance with subsection (f) of this Section.	
	2)	The owner or operator shall document any period during which any process emission unit	

was in operation when the air pollution control equipment was not in operation or was malfunctioning so as to cause an emissions level in excess of the emissions limitation. These records shall include documentation of causes for pollution control equipment not operating or such malfunction and shall state what corrective actions were taken and what repairs were made.

- 3) A written record of the inventory of all spare parts not readily available from local suppliers shall be kept and updated.
 - 4) Copies of all records required by this Section shall be submitted to the Agency within ten (10) working days after a written request by the Agency.
 - 5) The records required under this Section shall be kept and maintained for at least three (3) years and shall be available for inspection and copying by Agency representatives during working hours.
 - 6) Upon written request by the Agency, a report shall be submitted to the Agency for any period specified in the request stating the following: the dates during which any process emission unit was in operation when the air pollution control equipment was not in operation or was not operating properly, documentation of causes for pollution control equipment not operating or not operating properly, and a statement of what corrective actions were taken and what repairs were made.
- h) Compliance Date. Emission units shall comply with the emissions limitations and recordkeeping and reporting requirements of this Section by May 11, 1993, or upon initial start-up, whichever occurs later.

(Source: Amended at 20 Ill. Reg. 7605, effective May 22, 1996)

SUBPART Q: STONE, CLAY, GLASS AND CONCRETE MANUFACTURING

Section 212.421 Portland Cement Processes For Which Construction of Modification Commenced On or After April 14, 1972

No person shall cause or allow the emission of smoke or other particulate matter from any Portland cement process for which construction or modification commenced on or after April 14, 1972, into the atmosphere having an opacity greater than 10 percent.

(Source: Amended at 20 Ill. Reg. 7605, effective May 22, 1996)

Section 212.422 Portland Cement Manufacturing Processes

Section 212.321 of this Part shall not apply to the kilns and coolers of Portland cement manufacturing processes.

- a) The kilns and clinker coolers of Portland cement manufacturing processes for which construction commenced prior to April 14, 1972, shall comply with the emission standards and limitations of Section 212.322 of this Part.
- b) The kilns and clinker coolers of Portland cement manufacturing processes for which construction or modification commenced on or after April 14, 1972, shall comply with the following emission standards and limitations:
 - 1) No person shall cause or allow the emission of particulate matter into the atmosphere from any such kiln that exceeds 0.3 lbs/T of feed to the kiln.
 - 2) No person shall cause or allow the emission of particulate matter into the atmosphere from any such clinker cooler to exceed 0.1 lbs/T of feed to the kiln.

(Source: Amended at 20 Ill. Reg. 7605, effective May 22, 1996)

Section 212.423 Emissions Limits for the Portland Cement Manufacturing Plant Located in LaSalle County, South of the Illinois River

- a) This Section shall apply to the Portland cement manufacturing plant in operation before September 1, 1990 located in LaSalle County, south of the Illinois River. This Section shall not alter the applicability of Sections 212.321 and 212.322 of this Part to Portland cement manufacturing processes other than those for which alternate emission limits are specified in subsection (b) of this Section. This Section shall not become effective until April 30, 1992.
- b) No person shall cause or allow emissions to exceed the emission limits set forth below for each process.

		PM-10 Emissions Limits	
		Rate	Concentration
		kg/hr	mg/scm
		(lbs/hr)	(gr/scf)
A)	Clinker Cooler	4.67 (10.3)	28.147 (0.012)

		PM-10 Emissions Limits	
		Rate	Concentration
		kg/hr	mg/scm
		(lbs/hr)	(gr/scf)
B)	Finish Mill High	2.68	26.087
	Efficiency Air Separator	(5.90)	(0.011)

		PM-10 Emissions Limits Including Condensable PM-10	
		Rate	Concentration
		kg/hr	mg/scm
		(lbs/hr)	(gr/scf)
A)	Raw Mill		
	Roller Mill (RMRM)	6.08	27.5
		(13.4)	(0.012)
B)	Kiln without RMRM Operating	19.19	91.5
		(42.3)	(0.040)
C)	Kiln with RMRM	11.43	89.2
		(25.2)	(0.039)

c) No person shall cause or allow any visible emissions from any Portland cement manufacturing process emission unit not listed in subsection (b) of this Section.

d) The owner or operator of any process emission unit subject to subsection (b) or (c) of this Section shall maintain and repair all air pollution control equipment in a manner that assures that the applicable emission limits and standards in subsection (b) or (c) of this Section shall be met at all times. Proper maintenance shall include at least the following requirements:

- 1) Visual inspections of air pollution control equipment shall be conducted;
- 2) An adequate inventory of spare parts shall be maintained;
- 3) Prompt and immediate repairs shall be made upon identification of the need; and
- 4) Written records of inventory and documentation of inspections, maintenance, and repairs of all air pollution control equipment shall be kept in accordance with subsection (e) of this Section.

e) Recordkeeping of Maintenance and Repair.

- 1) Written records shall be kept documenting inspections, maintenance, and repairs of all air pollution control equipment. All such records required under this Section shall be kept and maintained for at least three (3) years, shall be available for inspection by the Agency, and, upon request, shall be copied and furnished to Agency representatives during working hours.
 - 2) The owner or operator shall document any period during which any process emission unit was in operation when the air pollution control equipment was not in operation or was not operating properly. These records shall include documentation of causes for pollution control equipment not operating or not operating properly, and shall state what corrective actions were taken and what repairs were made. In any quarter during which such a malfunction should occur, the owner or operator shall mail one copy of the documentation to the Agency.
 - 3) A written record of the inventory of all spare parts not readily available from local suppliers shall be kept and updated.
 - 4) Upon written request by the Agency, the owner or operator shall submit any information required pursuant to this Subpart, for any period of time specified in the request. Such information shall be submitted within ten (10) working days from the date on which the request is received.
- f) Testing to determine compliance with the emission limits specified for PM-10, condensable PM-10, and detection of visible emissions shall be in accordance with the measurement methods specified in Sections 212.107 and 212.108 (a) and (b) of this Part. Ammonium chloride shall be excluded from the measurement of condensable PM-10.

(Source: Amended at 20 Ill. Reg. 7605, effective May 22, 1996)

Section 212.424 Fugitive Particulate Matter Control for the Portland Cement Manufacturing Plant and Associated Quarry Operations Located in LaSalle County, South of the Illinois River.

- a) Applicability. This Section shall apply to the Portland cement manufacturing plant in operation before September 1, 1990 and associated quarry operations located in LaSalle County, south of the Illinois River. Associated quarry operations are those operations involving the removal and disposal of overburden, and the extraction, crushing, sizing, and transport of limestone and shale for usage at the Portland cement manufacturing plant. This Section shall not become effective until April 30, 1992.
- b) Applicability of Subpart K of this Part. This Section shall not alter the applicability of Subpart K: Fugitive Particulate Matter.
- c) Fugitive Particulate Matter Control Measures For Roadways at the Plant.
 - 1) For the unpaved access roadway to the Illinois Central Silos Loadout, the owner or operator shall spray a 30 percent solution of calcium chloride once every 16 weeks at an application rate of at least 1.58 L/m⁽²⁾ (0.35 gal/yd⁽²⁾) followed by weekly application of water at a rate of at least 1.58 L/m⁽²⁾ (0.35 gal/yd⁽²⁾). This subsection shall not apply after the roadway is paved.
 - 2) The owner or operator of the Portland cement manufacturing plant shall keep written records in accordance with subsection (e) of this Section.
- d) Fugitive Particulate Matter Control Measures for Associated Quarry Operations.
 - 1) For the primary crusher, the primary screen, the #3 conveyor from the primary screen to the surge pile, and the surge pile feeders to the #4 conveyor, the owner or operator shall spray a chemical foam spray of at least 1 percent solution of chemical foaming agent in water continuously during operations at a rate of at least 1.25 L/Mg (0.30 gal/T) of rock processed.
 - 2) The owner or operator shall water all roadways traveled by trucks to and from the primary crusher in the process of transporting raw

limestone and shale to the crusher at an application rate of at least 0.50 L/m² (0.10 gal/yd²) applied once every eight hours of operation except under conditions specified in subsection (d)(3) of this Section. Watering shall begin within one hour of commencement of truck traffic each day.

- 3) Subsection (d)(2) of this Section shall be followed at all times except under the following circumstances:
 - A) Precipitation is occurring such that there are no visible emissions or if precipitation occurred during the previous 2 hours such that there are no visible emissions;
 - B) If the ambient temperature is less than or equal to 0°C (32° F); or
 - C) If ice or snow build-up has occurred on roadways such that there are no visible emissions.
 - 4) The owner or operator of the associated quarry operations shall keep written records in accordance with subsection (e) of this Section.
- e) Recordkeeping and Reporting
- 1) The owner or operator of any Portland cement manufacturing plant and/or associated quarry operations subject to this Section shall keep written daily records relating to the application of each of the fugitive particulate matter control measures required by this Section.
 - 2) The records required under this Section shall include at least the following:
 - A) The name and address of the plant;
 - B) The name and address of the owner or operator of the plant and associated quarry operations;
 - C) A map or diagram showing the location of all fugitive particulate matter emission units controlled including the location, identification, length, and width of roadways;

- D) For each application of water or calcium chloride solution, the name and location of the roadway controlled, the water capacity of each truck, application rate of each truck, frequency of each application, width of each application, start and stop time of each application, identification of each water truck used, total quantity of water or calcium chloride used for each application, including the concentration of calcium chloride used for each application;
 - E) For application of chemical foam spray solution, the application rate and frequency of application, name of foaming agent, and total quantity of solution used each day;
 - F) Name and designation of the person applying control measures; and
 - G) A log recording all failures to use control measures required by this Section with a statement explaining the reasons for each failure and, in the case of a failure to comply with the roadway watering requirements of subsection (d)(2) of this Section, a record showing that one of the circumstances for exceptions listed in subsection (d)(3) of this Section existed during the period of the failure. Such record shall include, for example, the periods of time when the measured temperature was less than or equal to 0°C (32°F).
- 3) Copies of all records required by this Section shall be submitted to the Agency within ten (10) working days after a written request by the Agency.
 - 4) The records required under this Section shall be kept and maintained for at least three (3) years and shall be available for inspection and copying by Agency representatives during working hours.
 - 5) A quarterly report shall be submitted to the Agency stating the following: the dates required control measures were not implemented, the required control measures, the reasons that the control measures were not

implemented, and the corrective actions taken. This report shall include those times when subsection (d) of this Section is involved. This report shall be submitted to the Agency thirty (30) calendar days from the end of a quarter. Quarters end March 31, June 30, September 30, and December 31.

(Source: Amended at 20 Ill. Reg. 7605, effective May 22, 1996)

10.3.2 35 IAC Part 215, Emission Standards and Limitations for Organic Material Emissions from Stationary Sources

SUBPART B: ORGANIC EMISSIONS FROM STORAGE AND LOADING OPERATIONS

Section 215.121 Storage Containers

No person shall cause or allow the storage of any volatile organic liquid with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3 K (70 F) or any gaseous organic material in any stationary tank, reservoir or other container of more than 151 cubic meters (40,000 gal) capacity unless such tank, reservoir or other container:

- a) Is a pressure tank capable of withstanding the vapor pressure of such liquid or the pressure of the gas, so as to prevent vapor or gas loss to the atmosphere at all times; or,
- b) Is designed and equipped with one of the following vapor loss control devices:
 - 1) A floating roof which rests on the surface of the volatile organic liquid and is equipped with a closure seal or seals between the roof edge and the tank wall. Such floating roof shall not be permitted if the volatile organic liquid has a vapor pressure of 86.19 kPa (12.5 psia) or greater at 294.3° K (70° F). No person shall cause or allow the emission of air contaminants into the atmosphere from any gauging or sampling devices attached to such tanks, except during sampling or maintenance operations.
 - 2) A vapor recovery system consisting of:
 - A) A vapor gathering system capable of collecting 85% or more of the uncontrolled volatile organic material that would be otherwise emitted to the atmosphere; and,
 - B) A vapor disposal system capable of processing such volatile organic material so as to prevent its emission to the atmosphere. No person shall cause or allow the emission of air contaminants into the atmosphere from any gauging or sampling devices attached to such tank, reservoir or other container except during sampling.

- 3) Other equipment or means of equal efficiency approved by the Agency according to the provisions of 35 Ill. Adm. Code 201.

(Source: Amended at 12 Ill. Reg. 815, effective December 24, 1987)

Section 215.122 Loading Operations

- a) No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere during the loading of any organic material from the aggregate loading pipes of any loading facility having through-put of greater than 151 cubic meters per day (40,000 gal/day) into any railroad tank car, tank truck or trailer unless such loading facility is equipped with submerged loading pipes, submerged fill, or a device that is equally effective in controlling emissions and is approved by the Agency according to the provisions of 35 Ill. Adm. Code 201.
- b) No person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 l (250 gal), unless such tank is equipped with a permanent submerged loading pipe, submerged fill, or an equivalent device approved by the Agency according to the provisions of 35 Ill. Adm. Code 201 or unless such tank is a pressure tank as described in Section 215.121(a) or is fitted with a recovery system as described in Section 215.121(b)(2).
- c) Exception: If no odor nuisance exists the limitations of this Section shall only apply to the loading of volatile organic liquid with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F).

(Source: Amended at 14 Ill. Reg. 9173, effective May 23, 1990)

Section 215.123 Petroleum Liquid Storage Tanks

- a) The requirements of subsection (b) below shall not apply to any stationary storage tank:
 - 1) Equipped before January 1, 1979 with one of the vapor loss control devices specified in Section 215.121(b) of this Part, except Section 215.121(b)(1) of this Part;
 - 2) With a capacity of less than 151.42 cubic meters;

- 3) With a capacity of less than 1,600 cubic meters (422,400 gallons) and used to store produced crude oil and condensate prior to custody transfer;
 - 4) With a capacity of less than 1,430 cubic meters (378,000 gallons) and used to store produced oil or condensate in crude oil gathering;
 - 5) Subject to new source performance standards for storage vessels of petroleum liquid, 40 CFR 60, incorporated by reference in Section 215.105 of this Part. *The provisions of Section 111 of the Clean Air Act...relating to standards of performance for new stationary sources...are applicable in this State and are enforceable under [The Environmental Protection Act].* (Ill. Rev. Stat., Ch. 111 1/2, par. 1009.1(b)).
 - 6) In which volatile petroleum liquid is not stored; or
 - 7) Which is a pressure tank as described in Section 215.121(a) of this Part.
- b) Subject to subsection (a) above no owner or operator of a stationary storage tank shall cause or allow the storage of any volatile petroleum liquid in the tank unless:
- 1) The tank is equipped with one of the vapor loss control devices specified in Section 215.121(b) of this Part;
 - 2) There are no visible holes, tears or other defects in the seal or any seal fabric or material of any floating roof;
 - 3) All openings of any floating roof deck, except stub drains, are equipped with covers, lids or seals such that:
 - A) The cover, lid or seal is in the closed position at all times except when petroleum liquid is transferred to or from the tank;
 - B) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and

- C) Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting;
 - 4) Routine inspections of floating roof seals are conducted through roof hatches once every six months;
 - 5) A complete inspection of the cover and seal of any floating roof tank is made whenever the tank is emptied for reasons other than the transfer of petroleum liquid during the normal operation of the tank, or whenever repairs are made as a result of any semi-annual inspection or incidence of roof damage or defect; and
 - 6) A record of the results of each inspection conducted under subsection (b)(4) or (b)(5) above is maintained.
- c) Owners and operators of petroleum liquid storage tanks were required to have compliance schedules as summarized in Appendix C of this Part.

(Source: Amended at 16 Ill. Reg. 13849, effective August 24, 1992)

Section 215.124 External Floating Roofs

- a) In addition to meeting the requirements of Section 215.123(b), no owner or operator of a stationary storage tank equipped with an external floating roof shall cause or allow the storage of any volatile petroleum liquid in the tank unless:
 - 1) The tank has been fitted with a continuous secondary seal extending from the floating roof to the tank wall (rim mounted secondary seal) or any other device which controls volatile organic material emissions with an effectiveness equal to or greater than a remounted secondary seal;
 - 2) Each seal closure device meets the following requirements:
 - A) The seal is intact and uniformly in place around the circumference of the floating roof between the floating roof and tank wall; and
 - B) The accumulated area of gaps exceeding 0.32 centimeter (1/8 inch) in width

between the secondary seal and the tank wall shall not exceed 21.2 square centimeters per meter of tank diameter (1.0 square inches per foot of tank diameter).

- 3) Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers across at least 90 percent of the area of the opening;
 - 4) Openings are equipped with projections into the tank which remain below the liquid surface at all times;
 - 5) Inspections are conducted prior to May 1 of each year to insure compliance with subsection (a);
 - 6) The secondary seal gap is measured prior to May 1 of each year;
 - 7) Records of the types of volatile petroleum liquid stored, the maximum true vapor pressure of the liquid as stored, the results of the inspections and the results of the secondary seal gap measurements are maintained and available to the Agency, upon verbal or written request, at any reasonable time for a minimum of two years after the date on which the record was made.
- b) Subsection (a) does not apply to any stationary storage tank equipped with an external floating roof:
- 1) Exempted under Section 215.123(a)(2) through 215.123(a)(6);
 - 2) Of welded construction equipped with a metallic-type shoe seal having a secondary seal from the top of the shoe seal to the tank wall (shoe-mounted secondary seal);
 - 3) Of welded construction equipped with a metallic-type shoe seal, a liquid-mounted foam seal, or a liquid-mounted liquid-filled-type seal, or other closure device of equivalent control efficiency approved by the Agency in which a petroleum liquid with a true vapor pressure less than 27.6 kPa (4.0 psia) at 294.3 K (70 F) is stored; or
 - 4) Used to store crude oil.

(Source: Amended at 14 Ill. Reg. 9173, effective May 23, 1990)

Section 215.125 Compliance Dates and Geographical Areas

- a) Except as otherwise stated in subsection (b), every owner or operator of an emission source subject to Sections 215.123 or 215.124 shall comply with its standards and limitations by December 31, 1983.
- b) If an emission source is not located in one of the counties listed below and is also not located in any county contiguous thereto, the owner or operator of the emission source shall comply with the requirements of Sections 215.123 and 215.124 no later than December 31, 1987:

Cook	Macoupin
DuPage	Madison
Kane	Monroe
Lake	Saint Clair

(BOARD NOTE: These counties are proposed to be designated as nonattainment by the United States Environmental Protection Agency at 47 Fed. Reg. 31588, July 21, 1982).

- c) Notwithstanding subsection (b), if any county is designated as nonattainment by the United States Environmental Protection Agency (USEPA) at any time subsequent to the effective date of this Section, the owner or operator of an emission source located in that county or any county contiguous to that county who would otherwise be subject to the compliance date in subsection (b) shall comply with the requirements of Sections 215.123 and 215.124 within one year from the date of redesignation but in no case later than December 31, 1987.

(Source: Adopted at 7 Ill. Reg. 1244, effective January 21, 1983)

Section 215.126 Compliance Plan

- a) The owner or operator of an emission source subject to Section 215.125(a) shall submit to the Agency a compliance plan as required by 35 Ill. Adm. Code 201.241, including a project completion schedule where applicable, no later than April 21, 1983.
- b) The owner or operator of an emission source subject to Section 215.125(b) shall submit to the Agency a compliance plan, including a project completion schedule where applicable, no later than December 31, 1986.

- c) The owner or operator of an emission source subject to Section 215.125(c) shall submit a compliance plan, including a project completion schedule within 90 days after the date of redesignation, but in no case later than December 31, 1986.
- d) Unless the submitted compliance plan or schedule is disapproved by the Agency, the owner or operator of a facility or emission source subject to the rules specified in subsections (a), (b) or (c) may operate the emission source according to the plan and schedule as submitted.
- e) The plan and schedule shall meet the requirements of 35 Ill. Adm. Code 201.241 including specific interim dates as required in 35 Ill. Adm. Code 201.242.

(Source: Adopted at 7 Ill. Reg. 1244, effective January 21, 1983)

Section 215.127 Emissions Testing

- a) Any tests of organic material emissions, including tests conducted to determine control equipment efficiency, shall be conducted in accordance with the methods and procedures specified in Section 215.102.
- b) Upon a reasonable request by the Agency, the owner or operator of an organic material emission source required to comply with this Subpart shall conduct emissions testing, at such person's own expense, to demonstrate compliance.
- c) A person planning to conduct an organic material emission test to demonstrate compliance with this Subpart shall notify the Agency of that intent not less than 30 days before the planned initiation of the tests so the Agency may observe the test.

(Source: Added at 14 Ill. Reg. 9173, effective May 23, 1990)

Section 215.128 Measurement of Seal Gaps

- a) Any measurements of secondary seal gaps shall be conducted in accordance with the methods and procedures specified in 40 CFR 60, Subpart Kb incorporated by reference in Section 215.105.
- b) A person planning to conduct a measurement of seal gaps to demonstrate compliance with this Subpart shall notify the Agency of that intent not less than 30 days before the planned performance of the tests so the Agency may observe the test.

(Source: Added at 14 Ill. Reg. 9173, effective May 23, 1990)

SUBPART K: USE OF ORGANIC MATERIAL

Section 215.301 Use of Organic Material

No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission source, except as provided in Sections 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of this Subpart shall apply only to photochemically reactive material.

(Source: Amended at 3 Ill. Reg. 30, p. 124, effective July 28, 1979)

Section 215.302 Alternative Standard

Emissions of organic material in excess of those permitted by Section 215.301 are allowable if such emissions are controlled by one of the following methods:

- a) Flame, thermal or catalytic incineration so as either to reduce such emissions to 10 ppm equivalent methane (molecular weight 16) or less, or to convert 85 percent of the hydrocarbons to carbon dioxide and water; or,
- b) A vapor recovery system which adsorbs and/or condenses at least 85 percent of the total uncontrolled organic material that would otherwise be emitted to the atmosphere; or,
- c) Any other air pollution control equipment approved by the Agency capable of reducing by 85 percent or more the uncontrolled organic material that would be otherwise emitted to the atmosphere.

(Source: Amended at 3 Ill. Reg. 30, p. 124, effective July 28, 1979)

Section 215.303 Fuel Combustion Emission Sources

The provisions of Sections 215.301 and 215.302 shall not apply to fuel combustion emission sources.

(Source: Amended at 3 Ill. Reg. 30, p. 124, effective July 28, 1979)

Section 215.304 Operations with Compliance Program

The provisions of Section 215.301 and 215.302 shall not apply to any owner, operator, user or manufacturer of paint, varnish, lacquer, coatings or printing ink whose compliance program and project completion schedule, as required by 35 Ill. Adm. Code 201, provides for the reduction of organic material used in such process to 20 percent or less of total volume by May 30, 1975.

(Source: Amended at 3 Ill. Reg. 30, p. 124, effective July 28, 1979)

Section 215.305 Viscose Exemption (Repealed)

(Source: Repealed at 9 Ill. Reg. 13960, effective August 28, 1985)

10.4 Attachment 4- State Construction and Operating Permits

217/782-2113

CONSTRUCTION PERMIT - NESHAP

PERMITTEE

Lone Star Industries, Inc.
Attn: Christa Russell
Portland Avenue
Oglesby, Illinois 61348

Application No.: 02050070

I.D. No.: 099816AAF

Subject: CLKD Storage and Feed System

Date Received: May 23, 2002

Date Issued: June 3, 2002

Location: Portland Avenue, Oglesby

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a new tank with baghouse to the existing CLKD Storage and Feed System as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. At all times, the Permittee shall maintain and operate the new tank and baghouse in a manner consistent with good air pollution control practice for minimizing emissions.
- 2a. The opacity of gases discharged from the new tank shall not exceed 10 percent pursuant to the National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63.1348.
- b. This permit is issued based on the new tank not being subject to the NSPS, 40 CFR Part 60, Subpart F because it is subject to the NESHAP.
3. There shall be no visible emissions from the new tank. [35 IAC 212.423(c)]
4. Particulate matter 10 (PM₁₀) emissions from the baghouse shall not exceed 0.26 lb/hr and 1.13 tons/yr.
5. The Permittee shall perform testing in accordance with the NESHAP, 40 CFR 63.1349, to show compliance with Condition 2.
6. The Permittee shall carry out applicable monitoring, notification, reporting and recordkeeping requirements pursuant to 40 CFR 63.1350, 1353, 1354 and 1355.

7. The Permittee shall keep the following records for the baghouse:
 - a. The Permittee shall maintain logs of inspection, maintenance, and repairs to demonstrate good air pollution control practice.
 - b. The annual PM_{10} emissions for each calendar year based on monthly throughput, other operating records, and applicable factors and formulas, with supporting calculations.
8. The Permittee may operate the new tank and baghouse under this permit until its CAAPP permit is issued.

Please note that the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

If you have any questions on this, please call Kaushal Desai at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KKD:jar

cc: Region 2

217/782-2113

CONSTRUCTION PERMIT GRANT -- NESHAP SOURCE

PERMITTEE

Lone Star Industries, Inc.
Attn: Christa O. Russell
10401 North Meridian Street
Indianapolis, Indiana 46290

Application No.: 02050071

I.D. No.: 099816AAF

Applicant's Designation:

Date Received: May 23, 2002

Subject: Kiln Alteration

Date Issued: June 6, 2002

Location: Portland Avenue, Oglesby

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission unit(s) and/or air pollution control equipment consisting of alterations to the existing kiln to allow utilization of whole tires as part of the fuel supply and associated tire unloading and conveying system (including, the feed gate, conveyors, elevator, double transfer chute, and hydraulic trailer tipper) to convey the tire to the kiln as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special conditions:

1.0 Cement Kiln Alterations

1.1 Mid-Kiln Firing of Whole Tires

1.1.1 Description

The alterations to the kiln would allow the utilization of whole tires as part of the fuel supply for the kiln, and include installation of equipment to feed the whole tires at mid-kiln and associated tire unloading and conveying equipment. These alterations are being taken for the purpose of reducing nitrogen oxide (NO_x) emissions from the kiln to comply with requirement of 35 IAC Part 217, Subpart T that become effective on May 30, 2004.

1.1.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description
01	Mid-kiln feed gate (existing kiln and control system)
02	Whole tire handling (conveyors, elevator, double transfer chute, and hydraulic trailer tipper) Note: Some of the equipment may be installed following completion of construction of the mid-kiln feed gate.

1.1.3 Applicability Provisions and Applicable Regulations

- a. This permit is issued based on the source being a major source for purpose of 40 CFR Part 63 so that the source is subject to a National Emission Standard for Hazardous Air Pollutants (NESHAP) From the Portland Cement Manufacturing Industry, 40 CFR 63, Subpart A and LLL. The Illinois EPA is administering NESHAP in Illinois on behalf of the United States EPA under a delegation agreement.
 - i. Pursuant to 40 CFR 63.1343, gases shall not be discharged from the kiln that:
 - A. Contains particulate matter (PM) in excess of 0.15 kg per Mg (0.30 lb per ton) of feed (dry basis) to the kiln.
 - B. Exhibit opacity greater than 20 percent.
 - C. Contains Dioxin and Furans (D/F) in excess of 0.20 µg per dscm (TEQ) corrected to seven percent oxygen; or 0.40 µg per dscm corrected to seven percent oxygen, when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204 °C or less.
 - ii. Pursuant to 40 CFR 63.1348, the opacity of gases discharged from the unloading and conveying

equipment shall not exhibit opacity in excess of 10 percent.

- b. This permit is issued based on the source being subject to 35 IAC Part 217, Subpart T.
- c. This permit does not alter or revise other existing standards or emission limitations for the kiln, other than emission limitations for carbon monoxide (CO) as now limited by Condition 1.1.6.

1.1.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the alteration of the existing kiln not being associated with a major modification of the source, subject to PSD (40 CFR 52.21) because net increase in emissions associated with alteration of the kiln is not significant, e.g., 79.0 tons/year of CO, comparing 1999 and 2000.
- b. Pursuant to 40 CFR 63.1356, the New Source Performance Standard (NSPS) for Portland Cement Plants, 40 CFR 60, Subpart F is not applicable since the source is subject to the NESHAP regulation.

1.1.5 Operating limits

- a. Permittee shall comply with all applicable operating limits required by 40 CFR 63.1344.
- b. The Permittee shall prepare a written operations and maintenance plan pursuant to 40 CFR 63.1350. The plan shall be submitted for review and approval as part of the application for Clean Air Act Permit Program (CAAPP) permit and shall include the information required in 40 CFR 63.1350(a)(1) through (10).
- c. At all times the Permittee shall to the extent practicable, maintain and operate the kiln, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.

- d. The Permittee shall use good air pollution control practices to minimize emissions of particulate matter from the tire unloading and conveying equipment.

1.1.6 Emission Limitations

- a. Carbon Monoxide Emissions:

- i. CO emissions and operation of the kiln shall not exceed the following limits:

Pollutant	Operating Hours	E M I S S I O N S	
	Hours/Year	Lbs/Hour	Tons/Year
CO	8424	34.43	145.0

This limits are based on standard emission factor, maximum throughput and operating hours (8424 hours/year). Compliance with annual limits shall be determined from a running total of 12 months of data.

- ii. If the initial emission testing of the kiln following alterations exceed the above hourly limitation, the Permittee shall promptly apply for PSD permit or revised permit based on an alternative approach to maintain annual CO emissions from the kiln below 145 tons.

- b. This permit is issued based upon alteration of kiln without any increase in emissions of criteria pollutant (except CO) to the atmosphere. There will be no emissions associated with feeding of the tires through the kiln feed gate, because entire kiln is under negative air pressure.

1.1.7 Testing Requirements for kiln

- a. Permittee shall demonstrate initial compliance of the kiln with the CO limits in Condition 1.1.6(a) and applicable emission limits in NESHAP using the applicable test method and procedures specified in 40 CFR 63.7 and 63.1349(b) by the testing deadline of the NESHAP.

- b. Prior to the actual date of testing, a written test plan shall be submitted to the Illinois EPA for review and approval. This plan shall describe the specific procedures for testing and shall include as a minimum:
 - i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
 - ii. The specific conditions under which testing shall be performed including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the kiln will be tracked and recorded. Unless otherwise approved by the Illinois EPA, emission testing shall be performed on the exhaust from the kiln both as discharge from the electrostatic precipitator stack and as discharge through the raw mill baghouse.
 - iii. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods.
 - iv. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.
- c. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Notification for the expected date of testing shall be submitted a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual date of the test. The Illinois EPA may at its discretion accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.

- d. Three copies of the Final Reports for these tests shall be forwarded to the Illinois EPA within 30 days after the test results are compiled and finalized. The Final Report from testing shall contain a minimum:
 - i. A brief description of the process and the air pollution control system;
 - ii. Sampling location description(s);
 - iii. Description of sampling and analytical procedures and any modifications to standard procedures;
 - iv. Test results;
 - v. Quality assurance procedures and results, including preparation of standards, and calibration procedures;
 - vi. Records of operation conditions during the tests, including feed rate to the kiln, fuel rate at main burner, tire feed rate, control device inlet temperature, etc.;
 - vii. Raw data sheets for field sampling and field laboratory analysis;
 - viii. Documentation of calculations;
 - ix. All data recorded and used to establish parameters for compliance monitoring; and
 - x. Any other information required by the test method.
- e.
 - i. Performance tests required pursuant to 40 CFR 63.1349(b)(1) for PM shall be repeated every five years.
 - ii. Performance tests for D/F required pursuant to 40 CFR 63.1349(b)(3) shall be repeated every 30 months.
 - iii. Pursuant to 40 CFR 63.1349(e), if source plans to change operation

that may adversely affect the compliance with applicable D/F or PM emission standard under Condition 1.1.3(a)(i)(A) or (B), the Permittee shall repeat the performance tests for the kiln as specified in 40 CFR 63.1349(b)(1) and (b)(3).

1.1.8 Testing Requirements for other Emission Units

- a. Observation of opacity shall be conducted for emission units other than the kiln in accordance with 40 CFR 63.1349(b)(2).
- b. These observations shall be repeated at least every five years.

1.1.9 Monitoring Requirements

The Permittee shall fulfill all applicable monitoring requirements of the 40 CFR 63.1350.

1.1.10 Recordkeeping Requirements

- a. Permittee shall maintain the following records for kiln:
 - i. Whole tire throughput for the kiln (tons/month and tons/year).
 - ii. Operating hours for kiln (hours/month and hours/year).
- b. Permittee shall maintain all other records required by the 40 CFR 63.1355.
- c. The Permittee shall maintain all information (including all reports and notifications) required by this permit readily available for inspection by Illinois EPA. The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site.

1.1.11 Reporting Requirements

- a. The Permittee shall fulfill all applicable notification and reporting

requirements of the 40 CFR 63 Subpart LLL.

- b. The Permittee shall promptly notify the Illinois EPA, of noncompliance with permit requirements within 30 days of the violation. The report shall describe the probable cause of such deviation, and any corrective actions or preventative measures taken.
- c. Two copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
5415 North University
Peoria, Illinois 61614

1.1.12 Compliance Procedures

The Permittee shall use the records required by the Condition 1.1.10 along with the emission factors from the emission testing required by Condition 1.1.7 to show compliance with the emission limits in Condition 1.1.6.

- 2.0 The Permittee may operate source with the altered kiln and tire unloading and conveying equipment pursuant to this permit until the CAAPP permit for the source is issued, provided the testing required by Condition 1.1.7 is performed in a timely manner and demonstrates compliance with Condition 1.1.3(a)(i).

If you have any questions on this, please call Minesh Patel at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:MVP:psj

cc: Region 2

217/782-2113

CONSTRUCTION PERMIT - NESHAP SOURCE

PERMITTEE

Lone Star Industries, Inc.
Attn: Christa Russell
Portland Avenue
Oglesby, Illinois 61348

Application No.: 02050072 I.D. No.: 099816AAF
Applicant's Designation: Date Received: May 23, 2002
Subject: Blended Synthetic Gypsum Process
Date Issued: June 3, 2002
Location: Portland Avenue, Oglesby

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of Blended Synthetic Gypsum Process that consists of one pugmill controlled by a new bag filter dust collector, feed hoppers, storage structures, and closed conveyors as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.0 Unit Specific Condition

1.1 Blended Synthetic Gypsum Process

1.1.1 Description

Construction and operation of a process to blend cement kiln dust (CKD), i.e., particulate matter captured by the cyclones, ESPs, and baghouses from the cement kiln's exhaust with synthetic gypsum. The resulting Blended Synthetic Gypsum is interground with clinker product from the kiln to make finished cement. Particulate matter emissions from the CKD storage silo, pug mill, and product conveyors are controlled with a new bag filter dust collector.

1.1.2 List of Emission Units and Pollution Control Equipment

Emission Unit	Description	Emission Control Equipment
01	Feed Hoppers	None
02	CKD Storage Silo	Dust Collector

Emission Unit	Description	Emission Control Equipment
03	Pugmill	Dust Collector
04	Closed Conveyors	Dust Collector

1.1.3 Applicability Provisions and Applicable Regulations

The opacity of gases discharged from the new tank shall not exceed 10 percent pursuant to the National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63.148.

1.1.4 Non-Applicability of Regulations of Concern

This permit is issued based on the new tank not being subject to the NSPS, 40 CFR Part 60, Subpart F because it is subject to the NESHAP.

1.1.5 Operational and Work Practices

- a. The Permittee shall follow good operating practices for the dust collector, including periodic inspection routine maintenance and prompt repair of defects.
- b. Operation of the Blended Synthetic Gypsum Process shall not exceed the following limits:

Throughput of Blended Synthetic Gypsum	
<u>(Ton/Hr)</u>	<u>(Ton/Yr)</u>
150	60,000

- c. The Blended Synthetic Gypsum Process shall not operate more than 8,000 hours per year.
- d. Compliance with annual limits shall be based on the running total of 12 months of data.

1.1.6 Emission Limitations

Particulate matter (PM) emissions of the Blended Synthetic Gypsum Process shall not exceed the following limits:

Feed Hopper and Open Conveyors	<u>1.5</u>	<u>6.0</u>
Totals:	1.6	6.4

1.1.7 Testing Requirements

- a. Within 60 days after achieving maximum production rate but no later than 180 days after initial startup, the opacity of the particulate matter from each emission point of the Blended Synthetic Gypsum Process shall be measured in accordance with USEPA Reference Method 9 and the applicable procedures of 40 CFR 63.1349.
- b. The Permittee shall notify the Illinois EPA in writing a minimum of thirty (30) days prior to the expected date of these tests and further notified, a minimum of five (5) working days prior to the test, of the exact date, time and place of these tests, to enable the Illinois EPA to witness these tests.
- c. Copies of the final test report shall be submitted to the Illinois EPA within 14 days after the test results are compiled and finalized. The final test report shall include:
 - i. A summary of results;
 - ii. General information;
 - iii. Detailed description of test conditions including process weight rates, control equipment operating parameters, and preparatory inspections and maintenance;
 - iv. Data and calculations, including copies of all raw data sheets and records, sample calculations, and emissions results; and
 - v. An explanation of any discrepancies among individual test runs or anomalous data.

1.1.8 Monitoring, Recordkeeping and Reporting Requirements

The Permittee shall carry out applicable monitoring, notification, reporting and recordkeeping requirements pursuant to 40 CFR 63.1350, 1353, 1354 and 1355.

1.1.9 Recordkeeping Requirements

- a. The Permittee shall keep a file documenting the capacity of the pug mill.
- b. The Permittee shall keep operating records of the following items on a monthly basis:
 - i. Operating hours,
 - ii. Throughput of CKD, synthetic gypsum and Blended Synthetic Gypsum;
 - iii. The average CKD content in the CKD/Synthetic Gypsum product;
- c. The Permittee shall keep records addressing use of good operating practices for the Blended Synthetic Gypsum Process, including the dust collector:
 - i. Records for periodic inspection of the dust collector with date, individual performing the inspection, and nature of inspection; and
 - ii. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
- d. The Permittee shall keep the following records relating to emissions:
 - i. PM emissions (tons/month, tons/year)
- e. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in electronic forma (e.g. computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

1.1.10 Reporting Requirements

- a. Two copies of the required reports and applicable notifications shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield Illinois 62794-9276

and one copy shall be sent to the Illinois EPA's regional office at the following address:

Illinois Environmental Protection Agency
Division of Air Pollution Control
5415 North University
Peoria, Illinois 61614

- b. The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance with the permit requirements. Reports shall describe the probable cause of such deviations and any corrective actions or preventive measures taken.

1.1.11 Compliance Procedures

- a. The Permittee shall demonstrate compliance with hourly emissions limits in Condition 1.1.6 by proper operation of equipment.
- b. The Permittee shall demonstrate compliance with annual emission limits in Condition 1.1.6 by multiplying the hours of operation by the applicable emission rate, i.e., the hourly rates in Condition 1.1.6 if the equipment is properly operated.

2. The Permittee may operate the Blended Synthetic Gypsum Process under this permit until its CAAPP permit is issued.

Please note that the Permittee should update their CAAPP application to include this equipment by submitting form 505-CAAPP - "Supplement to CAAPP Application" along with all other appropriate information.

If you have any questions on this, please call Kaushal Desai at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:KKD:jar

cc: Region 2

217/782-2113

OPERATING PERMIT - NSPS SOURCE - REVISED

PERMITTEE

Lone Star Industries, Inc.
Attn: Duc Vu, Plant Manager
Oglesby Cement Plant
P.O. Box 130, Portland Avenue
Oglesby, Illinois 61348

Application No.: 76060059

I.D. No.: 099816AAF

Applicant's Designation: KILN/RM/FM

Date Received: November 16, 1995

Subject: Oglesby Cement Kiln/Roller Mill/High Efficiency Separator

Date Issued: January 8, 1996

Expiration Date: November 10, 1996

Location: Portland Avenue, Oglesby

Permit is hereby granted to the above-designated Permittee to OPERATE new raw mill system emission source(s) and/or air pollution control equipment consisting of one material handling belt conveyor system with two transfer point bag filters, three new rock bins with loading and unloading fabric filters, a roller mill with a fabric filter, a new kiln feed system and a high efficiency air separator with a fabric filter and the following equipment related to existing sources and controls for cement kiln and other related equipment consisting:

Limestone Transfer Belts #8 & #9 with Filter Unit,
Belt Line Transfer to Rock Silo Tripper Belt with Filter Unit,
One Kiln with Five-Field Electrostatic Precipitator, KB-20
(Refurbished in 1994) and an Addition of a Water
Conditioning Tower Upstream of Refurbished ESP
One Recovery Dust Bin with Filter Unit (KB-29),
One Waste Dust Bin with Filter Unit (KB-48),
One Clinker Cooler with Three-Field Electrostatic
Precipitator,
Kick-Out Bin, Clinker Elevators (KC-7 and KC-8) and KC-23
Belt and Gypsum Supply Belt with Filter Unit (KC-26),
Clinker Belt Conveyor (F-80) and Q-Silos with Filter Unit
(F-87),
Conveyor KC-23 (Head Pulley) and Gypsum Supply Belt, with
Filter Unit,
Transfer Belt Conveyor (F-80 and F-83) with Filter Unit
(F-82),
Gypsum/Clinker Bins with Filter Unit (F-85),
Finish Mill Sweep with Filter Unit,
Finish Mill Fringe Bin & Airslides with Filter Unit,
St. Paul Silos 12-19 with Filter Unit,
St. Paul Silos Rail Loadout with Filter Unit,
St. Paul Truck Bin with Filter Unit,
St. Paul Truck Bin Spout with Filter Unit,

St. Paul Transfer Pump with Filter Unit,
 I.C. Silos (West Bank L-1 and L-2) with Two (2) Filter
 Units,
 I.C. Silos (East Bank L-3) with Filter Unit,
 I.C. Truck Bin Alleviators (LO-22A and 22B) with Two (2)
 Filter Units,
 I.C. Truck Loadout #1 with Filter Unit (LO-21A),
 I.C. Truck Loadout #2 with Filter Unit (LO-21B),

as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a.
 - i. The emission sources that constitute a new raw mill system, new high efficiency separator in existing finish mill system, new material storage, and new conveyor transfer points, are subject to a New Source Performance Standard (NSPS) for Portland cement plants, 40 CFR 60, Subparts A and F. The Illinois EPA is administering NSPS in Illinois on behalf of the United States EPA under a delegation agreement.
 - ii. The opacity of visible emissions from these emission sources shall not exceed 10%, pursuant to the New Source Performance Standard.
 - iii. At all times, the Permittee shall also, to the extent practicable, maintain and operate these emission sources, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.
 - b. The existing cement kiln and its related equipment are not subject to applicable NSPS standards, Subpart A and F as they are existing sources.
2. Emissions and operation of equipment shall not exceed the following limits. Compliance with particulate matter emission limits shall be determined by USEPA Reference Method 201.

<u>Item of Equipment</u>	<u>Operating Hours (Hour/Year)</u>	<u>Particulate Matter Emissions</u>	
		<u>PM₁₀ (Lb/Hour)</u>	<u>(Ton/Yr)</u>
Blend Silos	8,760	0.69	3.0
Roller Mill	6,500	13.4	43.5
High Efficiency Separator	6,500	6.1	19.8
Rock Bins	6,500	0.39	1.27
Belt Conveyor	6,500	0.56	1.82
		Total:	69.4

- b. Under routine production by the new roller mill:
 - i. The existing kiln/ESP shall not discharge more than 143,300 ACFM to the atmosphere through the kiln stack for more than 3000 hours per year. That is, the kiln shall not operate for more than 3000 hours/year when the roller mill is not in operation, such that the roller mill is unable to accept at least 95,600 ACFM of the exhaust flow from the kiln.
 - ii Whenever the Roller Mill is in normal operation, at least 95,600 ACFM of exhaust flow from the kiln/ESP shall be ducted to the roller mill, and the kiln/ESP emissions to the atmosphere from the kiln stack shall not exceed 25.2 lb/hour. Whenever the Roller Mill is not in operation, particulate matter emissions from the kiln shall not exceed 42.3 lbs/hr.
- c. Compliance with annual limits shall be determined from a running total of 12 months of data, provided that for the first 12 months following the initial effectiveness of the limits, the limits shall be prorated. For example, the limits after 2 months, shall be 2/12 of the annual limits.
- 3. This permit for the roller mill with high efficiency separator is issued based upon contemporaneous and creditable decrease in emissions so that the net increases in emissions are not significant. Therefore this new equipment is not subject to federal Rules for the Prevention of Significant Deterioration of Air Quality, 40 CFR 52.21 or 35 Ill. Adm. Code Part 203 Subpart C. The decreases in emissions will be created by the shutdown of existing equipment as described in the application. As a result this permit does not represent a significant net increase in emissions of particulate matter or particulate matter₁₀.
- 4a. The Permittee shall fulfill applicable notification and record keeping requirements of the NSPS, 40 CFR 60.7 and 60.63.
- b. The Permittee shall maintain records of the following items, and such other items as may be appropriate to allow emissions and compliance with the limits in Condition 1 and 2 to be determined.
 - i. The hours of operations of the equipment.
 - ii. The hours that the kiln is in operation but not exhausting through the roller mill.
 - iii. The operating condition of air pollution control equipment.

5. Operation in excess of applicable emission standards is allowed during malfunction and breakdown for the kiln and clinker cooler. The malfunction, breakdown, and shutdown procedures for the kiln and clinker cooler are to be followed consistent with the following:
 - a. Controls to re-energize the precipitator are to operate on a 3 minute delay factor to assure that all combustibles have been purged from the precipitator.
 - b. If one or more of the electrical fields of the kiln ESP is de-energized, the Company shall follow the approved malfunction and breakdown procedures.
 - c. All efforts, including adequate spare parts inventory, hiring off-shift labor, or hiring outside contractors, as necessary, are to be utilized to minimize the duration of the malfunctions or breakdowns of the kiln and/or clinker cooler and associated emission control equipment.
 - d. During extreme breakdowns of pollution control equipment for the clinker cooler, the kiln has to be orderly shut down.
6. Operation in excess of applicable emission standards is allowed during startup. The startup procedures for the kiln and clinker cooler are to be followed, and whenever the kiln is down, prior to starting up, the precipitator should be inspected and a thorough check made to keep it at top operating efficiency.
7. The Fugitive Emissions Control Program shall be followed consistent with the following:
 - a. The Permittee shall maintain complete records of all measures taken to reduce fugitive emissions. Such records will be provided to the Agency on request.
 - b. The program shall be updated as necessary to include any potentially significant new sources of fugitive emissions or to accommodate any significant changes in traffic or storage areas.
8. The Permittee shall undertake the following activities:
 - a. Operate the kiln ESP in accordance with the parameters developed as a result of stack tests conducted on August 23 and 24, 1994.
 - b. If the ESP monitoring indicates that its operation is not at the levels agreed upon, as a result of stack testing on August 23 and 24, 1994, for more than 2 hours, the Permittee shall immediately notify the

Agency by telephone and shall submit a written report to the Agency within seven (7) days. After the (10) hours of not meeting stack testing parameters, the Permittee shall begin instituting shutdown procedures, until all systems are cold or until the conditions requiring shutdown have been corrected.

- c. The Permittee shall respond to complaints of air pollution received by the Oglesby Plant and shall make its investigation reports available to the Agency for inspection and copying.
- d. The Permittee shall submit to the Agency, monthly air pollution incident reports to the Regional Office at:

Illinois Environmental Protection Agency
 Division of Air Pollution Control
 5415 North University
 Peoria, IL 61614
 Telephone 309/693-5461

- 9. Emissions and operation of equipment shall not exceed the following limits:

<u>Item of Equipment</u>	<u>Operating Hours (Hours/Year)</u>	<u>Particulate Matter (Lb/Hour)</u>	<u>Emissions (Ton/Yr)</u>
a. Pump Hopper Dust Collector	8,736	0.09	0.4
b. Loading Hopper Dust Collector	8,736	0.13	0.6

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

- 10. This permit is issued based upon replacement of an existing baghouse serving conveyor transfer point (belt #8 and belt #9) with a new baghouse model 36DS8 without any increase in emissions above those previously allowed.
- 11. This permit is issued based upon replacement of an existing baghouse serving conveyor transfer point (belt line and silo tripper belt) with a new baghouse model 64DS8 without any increase in emissions above those previously allowed.
- 12. The Permittee shall maintain an operating and maintenance log for these kiln related equipment baghouses, including:
 - a. incidents of malfunction, with duration, probable cause, and corrective actions, and

- b. maintenance activities, with inspection schedule, repair actions, and replacements, etc.
13. This permit is issued based upon replacement of existing nine dust collectors as indicated in the application with nine new dust collectors without any increase in emissions above those previously allowed.
14. This permit allows the burning of tire derived fuel (TDF) under the following conditions:
- a. The TDF will be burned in a supplement with coal/coke not to exceed 15% by weight.
 - b.
 - i. If the Permittee increases the TDF supplement beyond 15% by weight, a stack test for particulate matter, opacity, sulfur dioxide and carbon monoxide shall be performed within 45 days of commencement of burning such supplemental fuel. The same procedures for test methodology and notification will apply as it appears on the routine performance stack test.
 - ii. The Permittee will conduct a stack test for particulate matter or other pollutants regulated by the Act, within 45 days of an Agency request. The Agency may request a test if observations of the cement kiln indicate that the applicable emission limit may not be met.
 - c. The Permittee shall notify the Agency in writing upon commencement of routine burning of TDF. The Permittee shall keep appropriate records showing the amount of TDF received and supplemented.
15. The kiln shall be limited to minimum kiln exhaust temperature of 400°F and maximum exhaust flow rate of 201,611 ACFM.

It should be noted that this permit is issued to incorporate operation of the refurbished ESP with new water conditioning tower and allow use of supplemental TDF as described in construction permit 92050015 and 93120055, and update the information as submitted in company's letter dated November 14, 1995.

If you have any questions on this, please call Shashi Shah at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:SRS:drk

cc: IEPA, Region 2
USEPA - Region V

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Lone Star Industries, Inc./Oglesby Cement Plant
Attn: Gerald F. Scott
Portland Avenue
Oglesby, IL 61348

Application No.: 95070106 I.D. No.: 099816AAF
Applicant's Designation: NEWCLKBELT Date Received: July 27, 1995
Subject: New Clinker Belt Dust Collector
Date Issued: September 28, 1995
Location: Portland Avenue, Oglesby

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of a new clinker belt dust collector as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. This permit is issued based upon addition of new clinker belt dust collector (KC-33-550) shall not operate simultaneously with two existing dust collectors (33-174 & 165). In either of the above case, the particulate matter emissions shall not increase above what previously was allowed.

If you have any questions on this, please call Shashi Shah at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:SRS:drk

cc: Region 2

217/782-2113

CONSTRUCTION PERMIT - NSPS SOURCE

PERMITTEE

Lone Star Industries, Inc.
Attn: Richard N. Moore
Portland Avenue
Oglesby, Illinois 61348

Application No.: 98060102

I.D. No.: 099816AAF

Applicant's Designation: SOUTH QUARRY

Date Received: June 29, 1998

Subject: South Quarry

Date Issued: TO BE DETERMINED

Location: Portland Avenue, Oglesby

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of the following equipment and operations, pursuant to the above-referenced application. This permit is subject to standard conditions attached hereto and the following special conditions:

South Quarry Operations and Equipment

Overburden Removal including scrapper travel and unloading

Limestone drilling and blasting

Truck loading, transporting, and dumping

Primary Crusher controlled by a dust collector with truck dump stilling shed

Screens controlled by a dust collector

Assorted Conveyors/Trippers controlled by dust collectors

1a. The following affected facilities: each crusher, grinding mill, screening operations, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or rail car loading stations, as defined in 40 CFR 60.671 are subject to New Source Performance Standards (NSPS), 40 CFR 60, Subparts A and OOO. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement.

b. i. Particulate matter emissions from vents or stacks shall not exceed 0.05 gm/dscm (0.022 gr/dscf) and 7 percent opacity (40 CFR 60.672(a)).

ii. Particulate matter emissions shall not exceed 0.05 gm/dscm (0.022 gr/dscf) and there shall be no visible emissions from any buildings enclosing any crusher, grinding mill, screening operation, bucket elevator,

belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading stations except that emissions from any vent(s) of any building enclosing these operations affected shall not exceed 7 percent opacity (40 CFR 60.672(e)).

- c. i. Fugitive emissions of particulate matter from each crusher, at which a capture system is used, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading operations storage bins, and enclosed truck or rail loading stations excluding truck dumping into any screening operation, feed hopper, or crushing operation shall not exceed 10 percent opacity, (40 CFR 60.672(b) and (d)).
 - ii. Fugitive emissions of particulate matter from any crushing operation, at which a capture system is not used, except from truck dumping, shall not exceed 15 percent opacity, (40 CFR 60.672(c) and (d)).
 - d. At all times the Permittee shall also, to the extent practicable, maintain and operate these sources, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.
2. Emission units at this source are subject to the following regulations of general applicability:
- a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.
 - b. i. All normal traffic pattern roads and parking facilities located at this source shall be paved or treated with water, oils, or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils, or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program [35 IAC 212.306].
 - ii. The source, including this new quarry, shall be operated under the provisions of an operating program prepared by the Permittee. Such operating program shall be designed to

significantly reduce fugitive particulate matter emissions [35 IAC 212.309(a)].

iii. The operating program for the source shall be amended to include this new quarry by the Permittee so that the operating program is current. Such amendments shall be consistent with the requirements set forth by this Condition and shall be submitted to the Illinois EPA [35 IAC 212.312].

c. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

3a. The Permittee shall not exceed the following limits:

i. The quantity of disturbed overburden removed shall not exceed 2,199,771 tons/year.

ii. The quantity of material processed shall not exceed 1,162,512 tons/year.

iii. The quantity of material screened shall not exceed 2,325,024 tons/year.

iv. The quantity of material conveyed shall not exceed 12,787,632 tons/year.

b. The Permittee shall implement the following practices for quarry operations to provide a reasonable assurance of compliance with the applicable emission standards and the conditions of this permit.

i. Each quarry operation shall be equipped and operated with such wind deflectors (covers), enclosures, dust collectors, and other measures as identified by applicable regulations and the conditions of this permit. If necessary, each quarry operation shall be treated with water or dust suppressant to minimize, in conjunction with other control measures, particulate matter escaping from the quarry operations.

ii. All roadways traveled by trucks going to and from the primary crusher in the process of transporting raw limestone and shale to the crusher shall be watered at an application rate at least 1.5 L/m² (0.3 gal/yd²) applied once every 4.5 hours of operation except under conditions specified in 35 IAC

212.424(d)(3). Watering shall begin within one hour of commencement of truck traffic each day.

iii. All roadways and scraper passes traveled by the scraper during the overburden removal process shall be watered at an application rate at least 1.5 L/m² (0.3 gal/yd²) applied once every hour of operation except under conditions specified in 35 IAC 212.424(d)(3). Watering shall begin within one hour of commencement of scraper operation each day.

iv. Other roadways shall be treated with water or dust suppressant to minimize, in conjunction with other control measures, particulate matter escaping from the operations.

c. Emissions from the south quarry shall not exceed the following limits:

<u>Operation</u>	E M I S S I O N S			
	PM		PM ₁₀	
	(T/Mo)	(T/Yr)	(T/Mo)	(T/Yr)
Overburden Removal	2.3	18.2	1.2	9.3
Scraper Travel	7.6	60.4	1.9	15.4
Truck Transport	1.6	12.7	0.6	4.6
Limestone Blasting	0.01	0.04	0.01	0.02
Scraper Loading	5.5	44.0	2.8	22.4
Limestone Drilling	0.01	0.1	0.01	0.1
Truck Loading	0.6	4.8	0.2	1.7
Truck Dumping	0.01	0.01	0.01	0.01
Crushing	0.01	0.10	0.01	0.10
Screening	0.6	4.4	0.3	2.1
Conveying	0.3	2.2	0.1	1.1
Storage Pile Drops	0.01	0.10	0.01	0.10

<u>Operation</u>	Minimum <u>Overall Control Efficiency</u>
Roadway Watering	75%
Stilling Shed	50%
Crushing	88.2%
Screening	88.2%
Conveying	88.2%
Storage Pile Drops	98.0%

These limits are based on maximum disturbed overburden removed, maximum material processed, standard and engineering estimated emission factors, and minimum overall control efficiencies as further specified in Attachment Table II, Emission Increases from South Quarry. Compliance with the annual limits shall be determined from the sum of the data for the current month plus the preceding 11 months.

- 4a. This permit is issued based upon a contemporaneous and creditable decreases in emissions of particulate matter from the shutdown of the existing quarry such that the net increase in emissions of particulate matter from the south quarry are not significant. Therefore, this project is not subject to the Rules for the Prevention of Significant Deterioration of Air Quality, 40 CFR 52.21. The accounting of increases and decreases in emissions are shown in Tables I, II, III, and IV of the attachments.
- b. The Permittee shall shutdown the existing quarry so as to provide total annual emission reductions, estimated at 276 tons of PM and 96 tons of PM₁₀, subject to the following transition provisions:
 - i. Upon the beginning of initial operation of the south quarry and stone processing equipment, total combined operation and emissions of the new and old quarry and stone processing equipment shall not exceed the limits established in Condition 10 of this permit for the new operations.
 - ii. Upon the beginning of normal operation, and no later than 180 days after initial operation of the south quarry and south quarry stone processing equipment, the existing quarry and stone processing equipment shall not operate at the same time as the south quarry and south quarry processing equipment.
 - iii. The existing quarry and stone processing equipment shall permanently cease operation 3 years after the initial start of operation of the south quarry processing equipment.
5. This permit authorizes an initial operation period of 270 days under this permit for the equipment being constructed and modified under this permit for equipment shakedown, testing, and Illinois EPA evaluation of test results and operations to assure compliance with applicable requirements. The emission units covered by this permit are required to meet all applicable requirements, including the special conditions contained in this permit at all times, including during the initial operation period. If the above specified period is an insufficient time period for equipment shakedown, testing and Illinois EPA evaluation, the Permittee may request in writing an extension of the initial operation period.
6. The Permittee shall notify the Illinois EPA as required by 40 CFR 60.7, including:
 - a. Commencement of construction including commencement of overburden removal from the south quarry.

- b. Actual date of the initial start of operation of the south quarry processing equipment.
 - c. Expected date for conducting the opacity observations as required by 40 CFR 60.11(e)(i).
- 7a. Within 60 days after each affected facility achieves maximum production, but not later than 180 days after initial startup pursuant to 40 CFR 60.675 and 60.8, the opacity from the affected facilities shall be measured during conditions which are representative of the maximum emissions. The Illinois EPA may provide additional time for the performance of this testing upon request from the Permittee which shows that it is not feasible to perform representative testing within this time frame.
- b.
 - i. The methods and procedures in USEPA Method 9, 40 CFR 60 Appendix A, as further modified by 40 CFR 60.675, shall be used for opacity measurements.
 - ii. If the above screening criteria are not satisfied, 30 sets of 24 consecutive observations shall be conducted for an affected facility during representative operating conditions.
 - c. The Illinois EPA shall be notified prior to these measurements to enable the Illinois EPA to observe these measurements. Notification of the expected date of the measurements shall be submitted to a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of measurement shall be submitted a minimum of five (5) working days prior to the actual date of the measurement. The Illinois EPA may, at its discretion, accept notification with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe the measurements.
8. The Permittee shall inspect quarry operation and associated control measures on at least a weekly basis to verify compliance with the control requirements of this permit.
- 9a.
 - i. The Permittee shall maintain a record of the current measures that the source is following for quarry operations to minimize emissions of particulate matter, including the minimum levels of moisture or dust suppressant in material prior to processing at the source and other control measures that are sufficient to comply with applicable requirements and Condition 3 of this permit.

- ii. Accompanying this record, the Permittee shall maintain a demonstration that confirms that the above minimum practices are sufficient to assure compliance with applicable requirements and Condition 3 of this permit at the maximum process weight rate at which each material processing operation can be operated (ton material/hour), with supporting emission calculations and documentation for the emission factors and the efficiency of the control measures being relied upon by the Permittee.
- b. The Permittee shall maintain records of the following for the inspections required by Condition 8, for quarry operation:
 - i. Date and time the inspection was performed and name(s) of inspection personnel;
 - ii. The observed condition of the accepted control measures as identified in the records pursuant to Condition 7.3.9(a) for the affected limestone handling equipment;
 - iii. A description of any maintenance or repair associated with control measures that is recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether recommended action has been taken, is yet to be performed or nor longer appears to be required; and
 - iv. A summary of compliance, compared to the minimum accepted control measures.
- c. The Permittee shall maintain records of the following for each incident when any quarry operation operated without the minimum accepted control measures, as identified in the records pursuant to Condition 9a, above:
 - i. The date of the incident and identification of the affected operation(s) that were involved;
 - ii. A description of the incident, including the control measures that were not present or implemented; the accepted control measures that were present, if any; other control measures or mitigation measures that were implemented, if any; and the magnitude of the PM emission rate during the incident;
 - iii. The time at and means by which the incident was identified, e.g., scheduled inspection or observation by operating personnel;

- iv. The length of time after the incident was identified that the affected quarry operation(s) continued to operate before minimum accepted control measures were reestablished or the operations were shutdown (to resume operation only after minimum accepted control measures were reestablished) and, if this time was more than one hour, an explanation why this time was not shorter, including a description of any mitigation measures that were implemented during the incident;
 - v. The estimated total duration of the incident, i.e., the total length of time that the affected quarry operation(s) operated without minimum accepted coal measures and the estimated amount of limestone processed during the incident;
 - vi. A discussion of the probable cause of the incident; and any preventative measures taken; and
 - vii. A discussion whether any applicable regulations or the conditions of this permit may have been violated during the incident, with supporting explanation and calculations as needed.
- d. The Permittee shall keep a maintenance and repair log for each item of air pollution control equipment, i.e., each dust suppression system, scrubber unit, or filter unit, associated with quarry operations that lists the date and nature of maintenance and repair activities performed on the item of equipment.
- e. The Permittee shall maintain records of the following items to demonstrate compliance with Condition 3 of this permit:
- i. Tons of disturbed overburden removed, tons/month and ton/year.
 - ii. Tons of material processed, tons/month and ton/year.
 - iii. Tons of material screened, tons/month and tons/year.
 - iv. Tons of material conveyed, tons/month and tons/year.
 - v. Number of conveyor drop points for material conveyed.
 - vi. Number of storage pile drop points.
 - vii. The minimum overall control efficiency of each capture system and control device provides and the corresponding operation that the device is controlling, minimum overall control efficiency and unit(s) controlled.

- viii. The minimum overall control efficiency of other methods for controlling emissions (e.g., watering of roadways, use of surfactants, spray bars), used for controlling emissions from the new quarry.
- ix. Monthly and annual emission of PM and PM₁₀ from each operation in the new quarry, including supporting data and detailed calculations, tons/month and tons/year.
- f.
 - i. All records and logs required by this permit shall be retained for at least five years from the date of entry, shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.
 - ii. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.
- 10. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
5415 North University
Peoria, Illinois 61614

If you have any questions on this, please call Ernie Kierbach at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:ELK:jar

cc: Region 2

TABLE I

Change in Particulate Matter Emissions

<u>Project</u>	<u>PM Emissions (Tons/Yr)</u>	<u>PM₁₀ Emissions (Tons/Yr)</u>
1. Potential Emissions from the South Quarry	147	57
2. Actual emissions from Existing Quarry (average of 1996 and 1997)	276	96
3. Net Emission Change	- 129	- 39

TABLE II

Emission Increase From South Quarry

<u>Operation</u>	Units per Operation (Units/Year)	<u>Units</u>	PM		<u>Overall Control Efficiency</u>	PM Emissions		PM ₁₀ Emissions	
			<u>Emission Factor</u>	<u>PM₁₀ Emission Factor</u>		(T/Mo)	(T/Yr)	(T/Mo)	(T/Yr)
Overburden Removal	2,199,771	Tons	0.016529 lb PM/ton	0.008428 lb PM ₁₀ /ton	0	2.3	18.2	1.2	9.3
Scraper Travel	2,199,771	Tons	0.219514 lb PM/ton	0.056151 lb PM ₁₀ /ton	75%	7.6	60.4	1.9	15.4
Scraper Unloading	2,199,771	Tons	0.040004 lb PM/ton	0.020402 lb PM ₁₀ /ton	0	5.5	44.0	2.8	22.4
Limestone Drilling	1,162,512	Tons	0.000155 lb PM/ton	0.000086 lb PM ₁₀ /ton	0	0.01	0.1	0.01	0.1
Limestone Blasting	1,978,368	Tons	0.00004 lb PM/ton	0.00002 lb PM ₁₀ /ton	0	0.01	0.04	0.01	0.02
Truck Loading	1,162,512	Tons	0.008292 lb PM/ton	0.002907 lb PM ₁₀ /ton	0	0.6	4.8	0.2	1.7
Truck Transport to Crusher	1,162,512	Tons	0.087122 lb PM/ton	0.03138 lb PM ₁₀ /ton	75%	1.6	12.7	0.6	4.6
Truck Dumping into Crusher	1,162,512	Tons	0.000034 lb PM/ton	0.000017 lb PM ₁₀ /ton	50%	0.01	0.01	0.01	0.01
Primary Crushing	1,162,512	Tons	0.0007 lb PM/ton	0.00033 lb PM ₁₀ /ton	88.20%	0.01	0.1	0.01	0.1

<u>Operation</u>	<u>Units per Operation (Units/Year)</u>	<u>Units</u>	<u>PM Emission Factor</u>	<u>PM₁₀ Emission Factor</u>	<u>Overall Control Efficiency</u>	<u>PM Emissions (T/Mo)(T/Yr)</u>		<u>PM₁₀ Emissions (T/Mo)(T/Yr)</u>	
Screening	2,325,024	Tons	0.032 lb PM/ton	0.015 lb PM ₁₀ /ton	88.20%	0.6	4.4	0.3	2.1
Conveying	12,787,632	Tons	0.0029 lb PM/ton	0.0014 lb PM ₁₀ /ton	88.20%	0.3	2.2	0.1	1.1
Storage Pile Drops	1,162,512	Tons	0.0083 lb PM/ton	0.0029 lb PM ₁₀ /ton	98.00%	0.01	<u>0.1</u>	0.01	<u>0.1</u>
TOTALS							147.05		56.93

NOTE: Emissions are based on maximum processing rates, minimum overall control efficiencies and engineering estimated emission factors. These engineering estimated emission factors are based on Standard AP-42 emission factors.

ELK:jar

TABLE III

1996 Actual Emissions From Existing Quarry

<u>Operation</u>	<u>Units per Operation (Units/Yr)</u>	<u>Units</u>	<u>PM Emission Factor</u>	<u>PM₁₀ Emission Factor</u>	<u>Overall Control Efficiency</u>	<u>PM Emissions (T/Yr)</u>	<u>PM₁₀ Emissions (T/Yr)</u>
Overburden Removal	612.21	VMT	20.2 lb PM/VMT	10.3 lb PM ₁₀ /VMT	0	6.18	3.15
Scraper Travel	34,983.59	VMT	7.824 lb PM/VMT	2.002 lb PM ₁₀ /VMT	50%	68.43	17.51
Scraper Unloading	748,089	Tons	0.04 lb PM/ton	0.0204 lb PM ₁₀ /ton	0	14.96	7.63
Limestone Drilling	971,905	Tons	0.00016 lb PM/ton	0.00008 lb PM ₁₀ /ton	0	0.08	0.04
Limestone Blasting	1,409,553	Tons	0.00004 lb PM/ton	0.00002 lb PM ₁₀ /ton	0	0.03	0.01
Truck Loading	971,905	Tons	0.0083 lb PM/ton	0.0029 lb PM ₁₀ /ton	0	4.03	1.41
Truck Transport to Crusher	26,507	VMT	20.839 lb PM/ton	7.502 lb PM ₁₀ /ton	50%	138.09	49.71
Truck Dumping into Crusher	971,905	Tons	0.000034 lb PM/ton	0.000016 lb PM ₁₀ /ton	50%	0.01	0.00
Primary Crushing	971,905	Tons	0.0007 lb PM/ton	0.00033 lb PM ₁₀ /ton	90%	0.03	0.02
Screening	2,065,298	Tons	0.032 lb PM/ton	0.015 lb PM ₁₀ /ton	90%	3.30	1.55

<u>Operation</u>	<u>Units per Operation (Units/Yr)</u>	<u>Units</u>	<u>PM Emission Factor</u>	<u>PM₁₀ Emission Factor</u>	<u>Overall Control Efficiency</u>	<u>PM Emissions (T/Yr)</u>	<u>PM₁₀ Emissions (T/Yr)</u>
In Quarry Conveying	3,887,620	Tons	0.0029 lb PM/ton	0.0014 lb PM ₁₀ /ton	90%	0.56	0.27
Out of Quarry Conveying	971,905	Tons	0.0029 lb PM/ton	0.0014 lb PM ₁₀ /ton	88.20%	0.17	0.08
Storage Pile Drops	1,943,810	Tons	0.0083 lb PM/ton	0.0029 lb PM ₁₀ /ton	0%	8.07	2.82
Wind Erosion from Storage Piles	18,500	Tons	0.5163 lb PM/ton	0.2459 lb PM ₁₀ /ton	0%	4.78	2.27
Loader Dump	971,905	Tons	0.0083 lb PM/ton	0.0029 lb PM ₁₀ /ton	30%	2.82	0.99
Loader Travel	3,943	VMT	14.107 lb PM/ton	5.079 lb PM ₁₀ /ton	50%	<u>13.91</u>	<u>5.01</u>
TOTALS						265.45	92.47

NOTE: Emissions are based on actual processing rates, minimum overall control efficiencies and standard AP-42 emission factors.

ELK:jar

TABLE IV

1997 Actual Emissions From Existing Quarry

<u>Operation</u>	<u>Units per Operation (Units/Yr)</u>	<u>Units</u>	<u>PM Emission Factor</u>	<u>PM₁₀ Emission Factor</u>	<u>Overall Control Efficiency</u>	<u>PM Emissions (T/Yr)</u>	<u>PM₁₀ Emissions (T/Yr)</u>
Overburden Removal	773.12	VMT	20.2 lb PM/VMT	10.3 lb PM ₁₀ /VMT	0	7.81	3.98
Scraper Travel	44,178.16	VMT	7.824 lb PM/VMT	2.002 lb PM ₁₀ /VMT	50%	86.41	22.11
Scraper Unloading	944,705.7	Tons	0.04 lb PM/ton	0.0204 lb PM ₁₀ /ton	0	18.89	9.64
Limestone Drilling	958,784	Tons	0.00016 lb PM/ton	0.00008 lb PM ₁₀ /ton	0	0.08	0.04
Limestone Blasting	2,027,778	Tons	0.00004 lb PM/ton	0.00002 lb PM ₁₀ /ton	0	0.04	0.02
Truck Loading	958,784	Tons	0.0083 lb PM/ton	0.0029 lb PM ₁₀ /ton	0	3.98	1.39
Truck Transport to Crusher	26,148	VMT	20.839 lb PM/ton	7.502 lb PM ₁₀ /ton	50%	136.22	49.04
Truck Dumping into Crusher	958,784	Tons	0.000011 lb PM/ton	0.000016 lb PM ₁₀ /ton	50%	0.00	0.00

<u>Operation</u>	<u>Units per Operation (Units/Yr)</u>	<u>Units</u>	<u>PM Emission Factor</u>	<u>PM₁₀ Emission Factor</u>	<u>Overall Control Efficiency</u>	<u>PM Emissions (T/Yr)</u>	<u>PM₁₀ Emissions (T/Yr)</u>
Primary Crushing	958,784	Tons	0.0007 lb PM/ton	0.00033 lb PM ₁₀ /ton	90%	0.04	0.02
Screening	2,037,416	Tons	0.032 lb PM/ton	0.015 lb PM ₁₀ /ton	90%	3.26	1.53
In Quarry Conveying	3,835,136	Tons	0.0029 lb PM/ton	0.0014 lb PM ₁₀ /ton	90%	0.56	0.27
Out of Quarry Conveying	958,784	Tons	0.0029 lb PM/ton	0.0014 lb PM ₁₀ /ton	88.20%	0.14	0.07
Storage Pile Drops	1,917,568	Tons	0.0083 lb PM/ton	0.0029 lb PM ₁₀ /ton	0%	7.96	2.78
Wind Erosion from Storage Piles	18,500	Tons	0.5163 lb PM/ton	0.2459 lb PM ₁₀ /ton	0%	4.78	2.27
Loader Dump	958,784	Tons	0.0083 lb PM/ton	0.0029 lb PM ₁₀ /ton	30%	2.79	0.97
Loader Travel	3,888	VMT	14.107 lb PM/ton	5.079 lb PM ₁₀ /ton	50%	<u>13.71</u>	<u>4.94</u>
Totals						286.67	99.05

<u>Operation</u>	<u>Units per Operation (Units/Yr)</u>	<u>Units</u>	<u>PM Emission Factor</u>	<u>PM₁₀ Emission Factor</u>	<u>Overall Control Efficiency</u>	<u>PM Emissions (T/Yr)</u>	<u>PM₁₀ Emissions (T/Yr)</u>
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NOTE: Emissions are based on actual processing rates, minimum overall control efficiencies and standard AP-42 emission factors.

ELK:jar

217/782-2113

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Lone Star Industries, Inc.
Attn: Richard N. Moore
Portland Avenue
Oglesby, Illinois 61348

Application No.: 98090089

I.D. No.: 099816AAF

Applicant's Designation: FLYASH 1998 Date Received: September 29, 1998

Subject: Flyash Transfer System

Date Issued: October 13, 1998

Operating Permit Expiration

Date: October 13, 2003

Location: Portland Avenue, Oglesby

Permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission source(s) and/or air pollution control equipment consisting of a flyash transfer system controlled by a dust collector as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.
2. This permit is issued based on negligible emissions of particulate matter from the flyash transfer system with dust collector. For this purpose, emissions shall not exceed nominal emission rates of 0.3 lb/hr and 1.27 ton/year, based upon a maximum grain load limit from the fabric filter of 0.01 gr/ft³ and maximum gas flow rate of 3,400 ACFM.
3. The dust collector shall be operated at all times in which the flyash transfer system is operated.
4. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the pollution control equipment covered under this permit such that the pollution control equipment be kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated therein.

If you have any questions on this, please call Ernie Kierbach at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:ELK:psj

cc: Region 2

217/782-2113

JOINT CONSTRUCTION AND OPERATING PERMIT

PERMITTEE

Lone Star Industries, Inc.
Attn: Richard N. Moore
Portland Avenue
Oglesby, Illinois 61348

Application No.: 99120044

I.D. No.: 099816AAF

Applicant's Designation: CEMENT STR Date Received: December 16, 1999

Subject: Cement Transfer

Date Issued: January 5, 2000

Expiration Date: January 5, 2005

Location: Portland Avenue, Oglesby

This permit is hereby granted to the above-designated Permittee to CONSTRUCT and OPERATE emission unit(s) and/or air pollution control equipment consisting of:

Cement Conveying System

pursuant to the above-referenced application. This permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. Operation of the emission source(s) included in this permit shall not begin until all associated air pollution control equipment has been constructed and is operational.
- b. This permit shall terminate if it is withdrawn or is superseded by a revised permit.
2. The throughput of the cement conveying system shall not exceed 50,000 cubic yards (100,000 tons) per month and 200,000 cubic yards (400,000 tons) per year.
3. This permit is issued based on negligible emissions of particulate matter from the cement conveying system. For this purpose, emissions shall not exceed 0.1 lb/hour and 0.44 tons/year.
4. At all times the Permittee shall, to the extent practicable, maintain and operate the equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.
5. This permit imposes conditions on the cement conveying system to assure compliance with applicable requirements of 35 Ill. Adm. Code Part 212, Subpart K: Fugitive

Particulate Matter and Subpart L: Particulate Matter Emissions from Process Emission Sources.

6. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including any material handling or storage activity beyond the property line of the emission source, pursuant to 35 Ill. Adm. Code 212.301.
7. The Permittee shall maintain records of the following items, and such other items as may be appropriate to allow the Illinois EPA to review compliance with the limits in this permit.
 - a. Cement transferred (tons/month and tons/year)
8. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.
9. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
10. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
5415 North University
Peoria, Illinois 61614

11. This permit is issued based on the fact that the above-specified units are identified in the Permittee's pending application for a

CAAPP permit and are certified, by Permittee, to be in compliance with applicable regulations.

12. This permit does not preclude any future permitting review and evaluation nor does it shield the Permittee from any legal action for noncompliance with or circumvention of, applicable regulations.

It should be noted that a detailed review of the specified units will be performed during the review of the pending CAAPP application submitted for these units.

If you have any questions on this permit, please contact Randy Solomon at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:RBS:psj

cc: Region 2

10.5 Attachment 5 - Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

10.6 Attachment 6 - Guidance on Revising This Permit

The Permittee must submit an application to the Illinois EPA using the appropriate revision classification in accordance with Sections 39.5(13) and (14) of the Act and 35 IAC 270.302. Specifically, there are currently three classifications for revisions to a CAAPP permit. These are:

1. Administrative Permit Amendment;
2. Minor Permit Modification; and
3. Significant Permit Modification.

The Permittee must determine, request, and submit the necessary information to allow the Illinois EPA to use the appropriate procedure to revise the CAAPP permit. A brief explanation of each of these classifications follows.

1. Administrative Permit Amendment
 - Corrects typographical errors;
 - Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
 - Requires more frequent monitoring or reporting by the Permittee;
 - Allows for a change in ownership or operational control of the source where no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittees has been submitted to the Illinois EPA;
 - Incorporates into the CAAPP permit a construction permit, provided the conditions of the construction permit meet the requirements for the issuance of CAAPP permits; or
 - Incorporates into the CAAPP permit revised limitations or other requirements resulting from the application of an approved economic incentives rule, marketable permits rule, or generic emissions trading rule.
2. Minor Permit Modification
 - Do not violate any applicable requirement;

- Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;
- Do not require a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis;
- Do not seek to establish or change a permit term or condition for which there is no corresponding underlying requirement and which avoids an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
 - A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the CAA; and
 - An alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the CAA.
- Are not modifications under any provision of Title I of the CAA; and
- Are not required to be processed as a significant permit modification.

An application for a minor permit modification shall include the following:

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
- The source's suggested draft permit/conditions;
- Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
- Information as contained on form 271-CAAPP for the Illinois EPA to use to notify USEPA and affected States.

3. Significant Permit Modification

- Applications that do not qualify as either minor permit modifications or as administrative permit amendments;
- Applications requesting a significant change in existing monitoring permit terms or conditions;
- Applications requesting a relaxation of reporting or recordkeeping requirements; and
- Cases in which, in the judgment of the Illinois EPA, action on an application for modification would require decisions to be made on technically complex issues.

An application for a significant permit modification shall include the following:

- A detailed description of the proposed change(s), including all physical changes to equipment, changes in the method of operation, changes in emissions of each pollutant, and any new applicable requirements which will apply as a result of the proposed change. Note that the Permittee need only submit revised forms for equipment and operations that will be modified.

The Illinois EPA requires the information on the following appropriate forms to be submitted in accordance with the proper classification:

- Form 273-CAAPP, REQUEST FOR ADMINISTRATIVE PERMIT AMENDMENT FOR CAAPP PERMIT; or
- Form 271-CAAPP, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT; or
- Form 200-CAAPP, APPLICATION FOR CAAPP PERMIT (for significant modification).

Application forms can be obtained from the Illinois EPA website at <http://www.epa.state.il.us/air/forms>.

Note that the request to revise the permit must be certified for truth, accuracy, and completeness by a responsible official.

Note that failure to submit the required information may require the Illinois EPA to deny the application. The Illinois EPA reserves the right to require that additional information be submitted as needed to evaluate or take final action on applications pursuant to Section 39.5(5)(g) of the Act and 35 IAC 270.305.



Illinois Environmental Protection Agency
 Division Of Air Pollution Control -- Permit Section
 P.O. Box 19506
 Springfield, Illinois 62794-9506

Application For Construction Permit (For CAAPP Sources Only)	For Illinois EPA use only
	I.D. number:
	Permit number:
	Date received:

This form is to be used by CAAPP sources to supply information necessary to obtain a construction permit. Please attach other necessary information and completed CAAPP forms regarding this construction/modification project.

Source Information		
1. Source name:		
2. Source street address:		
3. City:	4. Zip code:	
5. Is the source located within city limits?		<input type="checkbox"/> Yes <input type="checkbox"/> No
6. Township name:	7. County:	8. I.D. number:

Owner Information		
9. Name:		
10. Address:		
11. City:	12. State:	13. Zip code:

Operator Information (if different from owner)		
14. Name		
15. Address:		
16. City:	17. State:	18. Zip code:

Applicant Information	
19. Who is the applicant? <input type="checkbox"/> Owner <input type="checkbox"/> Operator	20. All correspondence to: (check one) <input type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Source
21. Attention name and/or title for written correspondence:	
22. Technical contact person for application:	23. Contact person's telephone number:

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

Summary Of Application Contents		
24.	Does the application address whether the proposed project would constitute a new major source or major modification under each of the following programs: a) Non-attainment New Source Review – 35 IAC Part 203; b) Prevention of Significant Deterioration (PSD) – 40 CFR 52.21; c) Hazardous Air Pollutants: Regulations Governing Constructed or Reconstructed Major Sources – 40 CFR Part 63?	<input type="checkbox"/> Yes <input type="checkbox"/> No
25.	Does the application identify and address all applicable emissions standards, including those found in the following: a) Board Emission Standards – 35 IAC Chapter I, Subtitle B; b) Federal New Source Performance Standards – 40 CFR Part 60; c) Federal Standards for Hazardous Air Pollutants – 40 CFR Parts 61 and 63?	<input type="checkbox"/> Yes <input type="checkbox"/> No
26.	Does the application include a process flow diagram(s) showing all emission units and control equipment, and their relationship, for which a permit is being sought?	<input type="checkbox"/> Yes <input type="checkbox"/> No
27.	Does the application include a complete process description for the emission units and control equipment for which a permit is being sought?	<input type="checkbox"/> Yes <input type="checkbox"/> No
28.	Does the application include the information as contained in completed CAAPP forms for all appropriate emission units and air pollution control equipment, listing all applicable requirements and proposed exemptions from otherwise applicable requirements, and identifying and describing any outstanding legal actions by either the USEPA or the Illinois EPA? Note: The use of "APC" application forms is not appropriate for applications for CAAPP sources. CAAPP forms should be used to supply information.	<input type="checkbox"/> Yes <input type="checkbox"/> No
29.	If the application contains TRADE SECRET information, has such information been properly marked and claimed, and have two separate copies of the application suitable for public inspection and notice been submitted, in accordance with applicable rules and regulations?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable, No TRADE SECRET information in this application

Note 1: Answering "No" to any of the above may result in the application being deemed incomplete.

Signature Block	
This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.	
30.	I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate and complete. Authorized Signature: <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%; text-align: center;"> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <small>AUTHORIZED SIGNATURE</small> </div> <div style="width: 45%; text-align: center;"> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <small>TITLE OF SIGNATORY</small> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%; text-align: center;"> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <small>TYPED OR PRINTED NAME OF SIGNATORY</small> </div> <div style="width: 45%; text-align: center;"> <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> / <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> / <hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <small>DATE</small> </div> </div>

Note 2: An operating permit for the construction/modification permitted in a construction permit must be obtained by applying for the appropriate revision to the source's CAAPP permit, if necessary.

10.8 Attachment 8 - Guidance on Renewing This Permit

Timeliness - Pursuant to Section 39.5(5)(n) of the Act and 35 IAC 270.301(d), a source must submit to the Illinois EPA a complete CAAPP application for the renewal of a CAAPP permit not later than 9 months before the date of permit expiration of the existing CAAPP permit in order for the submittal to be deemed timely. Note that the Illinois EPA typically sends out renewal notices approximately 18 months prior to the expiration of the CAAPP permit.

The CAAPP application must provide all of the following information in order for the renewal CAAPP application to be deemed complete by the Illinois EPA:

1. A completed renewal application form 200-CAAPP, APPLICATION FOR CAAPP PERMIT.
2. A completed compliance plan form 293-CAAPP, COMPLIANCE PLAN/SCHEDULE OF COMPLIANCE FOR CAAPP PERMIT.
3. A completed compliance certification form 296-CAAPP, COMPLIANCE CERTIFICATION, signed by the responsible official.
4. Any applicable requirements that became effective during the term of the permit and that were not included in the permit as a reopening or permit revision.
5. If this is the first time this permit is being renewed and this source has not yet addressed CAM, the application should contain the information on form 464-CAAPP, COMPLIANCE ASSURANCE MONITORING (CAM) PLAN.
6. Information addressing any outstanding transfer agreement pursuant to the ERMS.
7. a. If operations of an emission unit or group of emission units remain unchanged and are accurately depicted in previous submittals, the application may contain a letter signed by a responsible official that requests incorporation by reference of existing information previously submitted and on file with the Illinois EPA. This letter must also include a statement that information incorporated by reference is also being certified for truth and accuracy by the responsible official's signing of the form 200-CAAPP, APPLICATION FOR CAAPP PERMIT and the form 296-CAAPP, COMPLIANCE CERTIFICATION. The boxes should be marked yes on form 200-CAAPP, APPLICATION FOR CAAPP PERMIT,

as existing information is being incorporated by reference.

- b. If portions of current operations are not as described in previous submittals, then in addition to the information above for operations that remain unchanged, the application must contain the necessary information on all changes, e.g., discussion of changes, new or revised CAAPP forms, and a revised fee form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT, if necessary.
8. Information about all off-permit changes that were not prohibited or addressed by the permit to occur without a permit revision and the information must be sufficient to identify all applicable requirements, including monitoring, recordkeeping, and reporting requirements, for such changes.
9. Information about all changes made under 40 CFR 70.4(b)(12)(i) and (ii) that require a 7-day notification prior to the change without requiring a permit revision.

The Illinois EPA will review all applications for completeness and timeliness. If the renewal application is deemed both timely and complete, the source shall continue to operate in accordance with the terms and conditions of its CAAPP permit until final action is taken on the renewal application.

Notwithstanding the completeness determination, the Illinois EPA may request additional information necessary to evaluate or take final action on the CAAPP renewal application. If such additional information affects your allowable emission limits, a revised form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT must be submitted with the requested information. The failure to submit to the Illinois EPA the requested information within the time frame specified by the Illinois EPA, may force the Illinois EPA to deny your CAAPP renewal application pursuant to Section 39.5 of the Act.

Application forms may be obtained from the Illinois EPA website at <http://www.epa.state.il.us/air/forms.html>.

If you have any questions regarding this matter, please contact a permit analyst at 217/782-2113.

Mail renewal applications to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)

Printed on Recycled Paper
199-CAAPP

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P.O. Box 19506
Springfield, Illinois 62794-9506

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