



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397

BRUCE RAUNER, GOVERNOR

LISA BONNETT, DIRECTOR

217/785-1705

## CONSTRUCTION PERMIT

### PERMITTEE

U.S. Silica - Ottawa  
Attn: Mr. Kent Purcell, CSP; EHS Coordinator  
701 Boyce Memorial Drive  
Ottawa, Illinois 61350

Application No.: 15050012

I.D. No.: 099825AAA

Applicant's Designation:

Date Received: May 10, 2015

Subject: Surfactant Additions and Dryer 3 Upgrades

Date Issued: September 23, 2015

Location: 701 Boyce Memorial Drive, Ottawa, LaSalle County

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of new sand processing equipment and emission control equipment and changes to sand drying operations as described in the above-referenced application. This Permit is subject to standard conditions attached hereto (Attachment 2) and the following special condition(s):

#### 1. Introduction

a. This permit authorizes the following physical changes at this industrial sand production facility:

- i. Modification of Sand Dryer 3 by installation of new natural gas fired burners, increasing the rated firing rate of this dryer from 34 to 40 million Btu/hour, installation of other upgraded dryer components and installation of a new wet scrubber on this dryer.
- ii. Installation of equipment to increase the amount of sand that can be processed by Sand Dryers 1, 2 and 4 by increasing the amount of water removed by the belt vacuum filters upstream of these dryers. This equipment would be located before these belt filters and apply a wetting agent to the wet sand to reduce the surface tension of the water on the sand. This would increase the amount of water that is removed by the belt filters so that more sand can be processed by these dryers. Particulate emissions of these three dryers would continue to be controlled by the existing scrubbers.
- iii. Installation of a new mineral separator for screening of dried sand (Screen 50SCRN102) and associated screw conveyors (Conveyors 50CONV305 and 50CONV306). Particulate emissions of these new units would be controlled by existing Baghouse K.

4302 N. Main St., Rockford, IL 61103 (815) 987-7760  
595 S. State, Elgin, IL 60123 (847) 608-3131  
2125 S. First St., Champaign, IL 61820 (217) 278-5800  
2009 Mehl St., Collinsville, IL 62234 (618) 346-5120

9511 Harrison St., Des Plaines, IL 60016 (847) 294-4000  
412 SW Washington St., Suite D, Peoria, IL 61602 (309) 671-3022  
2309 W. Main St., Suite 116, Marion, IL 62959 (618) 993-7200  
100 W. Randolph, Suite 10-300, Chicago, IL 60601

- iv. Installation of new Baghouse A, to replace existing Baghouse A. This new baghouse will have cartridge filters and be larger than the existing baghouse.
  - v. Installation of a new grizzly screen (Screen 50SCRN101), which will replace an existing trash screen. Particulate emissions of this new unit would be controlled by new Baghouse A.
  - vi. Re-routing the exhaust from two existing material transfer operations (Bucket Elevator 50ELEV44 and Conveyor 50CONV201) from the scrubber for Dryer 4 to Baghouse A.
  - vii. Increasing the air flow from the discharge end of one existing material transfer conveyor (Conveyor 50CONV82) that goes to the associated baghouse, Baghouse B.
- b. This permit also authorizes increases in the amount of material handled by the existing units at this facility that are not being physically changed.
  - c. For purposes of this permit:
    - i. Sand Dryers 1, 2, 3 and 4 with the relevant changes addressed by this permit are referred to as the affected dryers.
    - ii. The new mineral separator, associated new conveyors and new grizzly screen are referred to as the affected new units.

2-1. Applicable Federal Emission Standards and Requirements for the New Units

- a. The affected new units are subject to the NSPS for Non-Metallic Mineral Processing Plants, 40 CFR 60 Subpart 000, and related requirements in the General Provisions of the NSPS, 40 CFR 60 Subpart A.
- b. The affected new units shall comply with applicable standards of the NSPS for particulate matter (PM) and opacity, as follows:
  - i. Pursuant to 40 CFR 60.672(a) and Table 2 of 40 CFR 60 Subpart 000, stack emissions of PM shall not exceed 0.032 gram/dscm (0.014 gr/dscf).
  - ii. Pursuant to 40 CFR 60.672(b) and Table 3 of 40 CFR 60 Subpart 000, opacity of fugitive emissions of PM shall not exceed 7 percent.
  - iii. Pursuant to 40 CFR 60.672(e), as these units are enclosed in a building, the units may comply with applicable limits

above or the building shall comply with the following limits:

- A. Fugitive emissions from building openings (except emissions from a vent as defined in 40 CFR 60.671) must not exceed 7 percent opacity.
  - B. Emissions from each vent from the building shall comply with the applicable limit for stack emissions, as set forth above in Condition 2-1(b) (i).
- c. At all times, the Permittee shall maintain and operate the affected new units, including the associated control devices, in a manner consistent with good air pollution control practice for minimizing emissions, pursuant to 40 CFR 60.11(d).
  - d. For the affected new units, the Permittee shall fulfill the applicable requirements of the NSPS for recordkeeping and reporting, including submittal of a notification for initial startup as required by 40 CFR 60.7(a) (3), keeping records related to the operation of these units as required by 40 CFR 60.8(b), and submittal of excess emissions and monitoring system reports as required by 40 CFR 60.8(c).

## 2-2. Applicable State Emission Standards for the New Units

- a. Pursuant to 35 IAC 212.321(a), PM emissions in any one hour period from the affected new units, either alone or in combination with emissions of other similar new units constructed after April 13, 1972, shall not exceed the allowable emission rate specified by the equation in 35 IAC 212.321(b).
- b. The affected new units are subject to 35 IAC 212.123, which provides that the opacity of smoke or other particulate matter from each unit shall not exceed 30 percent.
- c. The affected new units are subject to 35 IAC 212.301 and 35 IAC 212.314, which provide that 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 facility unless the wind speed is greater than 25 mph.

## 3. New Emission Standards and Requirements for Modified Sand Dryer 3

- a. Sand Dryer 3 is subject to the federal New Source Performance Standards (NSPS) for Calciners and Dryers in Mineral Industries, 40 CFR 60 Subpart UUU, and related requirements in the General Provisions of the NSPS, 40 CFR 60 Subpart A.

- b. Pursuant to the NSPS, 40 CFR 60.732, emissions from Sand Dryer 3 shall not contain particulate matter (PM) in excess of 0.057 grams/dry standard cubic meter (g/dscm) [0.025 grains/dry standard cubic foot (gr/dscf)].
- c. Pursuant to 40 CFR 60.11(d), at all times, the Permittee shall maintain and operate Sand Dryer 3 and its associated scrubber in a manner consistent with good air pollution control practice for minimizing emissions.
- d. For Sand Dryer 3, the Permittee shall fulfill the applicable requirements of the NSPS for recordkeeping and reporting, including submittal of notifications for commencement of construction and initial startup as required by 40 CFR 60.7(a), keeping records related to the operation of this dryer as required by 40 CFR 60.8(b), and submittal of excess emissions and monitoring system reports as required by 40 CFR 60.8(c).

Note: These conditions address additional standards and requirements that will apply to Sand Dryer 3 pursuant to the NSPS, 40 CFR 60 Subpart UUU, as this dryer is modified. Sand Dryers 1, 2 and 4 are already subject to this NSPS, as addressed in Section 4.1 of the Clean Air Act Permit Program (CAAPP) permit for the source, Permit 95060046. Applicable state emission standards for all four dryers are also addressed in Section 4.1 of CAAPP Permit 95060046.

#### 4. Non-Applicability Provisions

- a. This permit is issued based on this project not being a major project for purposes of the federal rules for the Prevention of Significant Deterioration (PSD), 40 CFR 52.21. This is because the facility is not a major source and the facility will continue to not be a major source for purposes of PSD. In particular, the facility's emissions of PM, PM<sub>10</sub>, NO<sub>x</sub>, CO and other PSD pollutants other than greenhouse gases, excluding fugitive emissions as defined by 40 CFR 52.21(b)(20), are each less than 250 tons/year.
- b. For existing sand processing and handling units, this permit is issued based on this project not changing their status relative to applicability of the NSPS, 40 CFR 60 Subpart 000. This is because these units will not be physically altered as part of this project and will operate within their design capacity so are not modified pursuant to 40 CFR 60.14(e)(2). In particular:
  - i. Existing units that are currently not subject to 40 CFR 60 Subpart 000 will continue to not be subject to this NSPS.  
  
Note: These units are addressed in Section 4.4 of CAAPP Permit 95060046.
  - ii. Existing units that are currently subject to the requirements of 40 CFR 60 Subpart 000 for units constructed

before April 22, 2008, will not become subject to requirements of this NSPS for units constructed, modified or reconstructed after April 22, 2008.

Note: These units are addressed in Section 4.3 of CAAPP Permit 95060046.

5-1. Emissions of the Facility

- a. i. The emissions of PM and PM<sub>10</sub> from the process equipment at the facility shall not exceed the limits in Attachment 1.
- ii. Compliance with limits on annual emissions set by Attachment 1 and with other limits on annual emissions set this permit shall be determined from a running total of 12 months of data.

Note: As the limits in Attachment 1 for the PM and PM<sub>10</sub> emissions of process equipment at the facility following the changes to the facility addressed by this construction permit conflict with limits in prior construction permits or CAAPP Permit 95060046, the limits in Attachment 1 shall take precedence.

- b. This permit is issued based on the facility's overall emissions of CO and NO<sub>x</sub> each being less than 100 tons/year.

5-2. Requirements and Limits for the Affected Dryers

- a. The rated capacity of the affected dryers shall each not exceed the following limits:
  - i. Sand Dryers 1, 2 and 4: 145 tons of dry sand/hour, each.

Note: These limits will replace the previous operating limits for these sand dryers, including the limit in Condition 4.1.2(d)(i)(C) of CAAPP Permit 95060046, i.e., 130 tons/hour.

- ii. Sand Dryer 3: 130 tons of dry sand/hour.
- b. The rated capacity of the burners in each affected dryer shall not exceed 40 million Btu per hour, total.

Note: This limit will replace the previous operating limit for Dryer 3, including the limit in Condition 4.1.2(d)(i)(B)(II) of CAAPP Permit 95060046, i.e., 34 mmBtu/hour.

- c. i. The scrubbers on the affected dryers (Sand Dryers 1, 2, 3 and 4) shall be designed and operated to comply with a PM emission rate of 0.015 gr/dscf.

- ii. The NO<sub>x</sub> and CO emissions from the affected dryers shall not exceed the following limits:

| Pollutant       | Individual Dryer |           | Combined  |
|-----------------|------------------|-----------|-----------|
|                 | Pounds/Hour      | Tons/Year | Tons/Year |
| CO              | 3.29             | 14.4      | 57.7      |
| NO <sub>x</sub> | 5.49             | 24.1      | 96.4      |

- iii. This permit is issued based on minimal emissions of VOM from each affected dryer, i.e., emissions of no more than 0.25 pounds/hour and 1.1 tons/year, considering both the dryer itself and the associated belt vacuum filter upstream of the dryer.
- iv. This permit is issued based on negligible emissions of SO<sub>2</sub> from the affected dryers, i.e., total emissions of no more than 0.44 tons/year.

5-3. Control of Emissions of Fugitive Dust

- a. The following measures shall be taken to reduce emissions of fugitive particulate matter as defined by 35 IAC 211.2490 or "fugitive dust" from the facility:
  - i. Open storage piles for sand at the facility shall only be located in areas in which mining is conducted, pit areas that are below grade and other designated areas of the facility. Moisture levels in the sand at the surface of each pile shall be maintained at levels that prevent visible windblown dust except during periods of elevated wind speed or an encrusting agent shall be applied to the surface of the pile.
  - ii. Material that is spilled on paved roads or other paved areas of the facility where such material could be dispersed by vehicle traffic shall be collected or removed as soon as practicable.
- b. i. The Permittee shall carry out control measures for sources of fugitive dust at the facility in accordance with a written Fugitive Dust Operating Program (Program) developed and maintained by the Permittee, as follows:
  - A. This Program, at a minimum, shall address unpaved roadways, paved roadways, mining activities, open storage piles and material loadout operations at the facility. This Program shall set forth the measures that will be used to reduce fugitive emissions from these operations and prevent air pollution due to these operations. This Program shall include: 1) Detailed descriptions of the emissions control technique(s) (e.g., watering or sweeping) that will

routinely be implemented, including frequency; 2) Specific triggers for implementation of additional control, e.g., observation of prolonged dust plumes following passage of vehicles; and 3) For roadways, the estimated effectiveness of the control measures in reducing PM emissions from the different types of roadways, with supporting calculations and analysis.

- B. The Permittee shall revise or amend this Program so that it is kept current. Revisions or amendments to this Program shall be submitted to the Illinois EPA for review within 30 days of the date of revision or amendment. Until a revised or amended Program is prepared by the Permittee, the Permittee shall implement the Program dated May 28, 2015, which has been submitted to Illinois EPA.
  - C. If the Illinois EPA notifies the Permittee of a potential deficiency in the Program, the Permittee shall submit a reply to the Illinois EPA within 30 days of receipt of the notice of potential deficiency. This reply shall include information responding to the Illinois EPA's notice and/or a revised or amended Program to address the potential deficiency.
- ii. The Permittee shall keep the following records related to the implementation of the Program:
    - A. Records documenting implementation of the Program.
    - B. Records identifying periods when measures that would otherwise have been required were not needed due to meteorological conditions (e.g., precipitation or temperatures near or below freezing) with documentation for the relevant meteorological conditions.
    - C. Detailed records for incidents or periods when provision(s) of the Program were not implemented, with description and explanation.

6-1. Performance Testing Requirements for Sand Dryer 3

- a. i. Pursuant to the NSPS, 40 CFR 60.8 and 60.736, within 60 days after modified Sand Dryer 3 achieves its maximum operating rate, but not later than 180 days after initial startup, the Permittee shall have performance tests for this dryer conducted as further specified below in Conditions 6-1(b), (c), (d), (e) and (f) to determine compliance with the applicable NSPS standards in 40 CFR 60.732 and the applicable limit in Attachment 1.



- ii. Thereafter, a performance test shall be conducted for modified Sand Dryer 3, upon written request from the Illinois EPA, with such testing conducted within 120 days of the request from the Illinois EPA or by such later date agreed to by the Illinois EPA.
- b. This testing shall be conducted using applicable methods specified by the NSPS, including Method 5 to determine the PM concentration with a sampling time and volume for each test run of at least 2 hours and 1.70 dscm (60 dscf).
- c. As Sand Dryer 3 is equipped with a scrubber, during each performance test, the Permittee shall use the operational monitoring devices on the scrubber required by the NSPS to determine the average change in pressure of the gas stream across the scrubber and the average flow rate of the scrubber liquid during each of the particulate matter runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of 40 CFR 60.735(c).
- d. The Permittee shall submit a test protocol or plan for these tests to the Illinois EPA at least 60 days in advance of the scheduled date for testing.
- e. The Permittee shall notify the Illinois EPA prior to this test to enable the Illinois EPA to observe testing. Notification of the expected date of the test shall be submitted to a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of the test shall be submitted a minimum of seven days prior to the actual date of the test. If there is a further delay in the test date, the Permittee shall either again provide at least 7 days prior notice of the date of the test or arrange a rescheduled date for the test with the Illinois EPA by mutual agreement.
- f. The Permittee shall submit a report for this testing to the Illinois EPA within 60 days of the date that testing was conducted.

6-2. Performance Testing Requirements for Affected New Units

- a. i. A. Pursuant to the NSPS, 40 CFR 60.8 and 60.675, within 60 days after each affected new unit achieves its maximum operating rate, but not later than 180 days after initial startup, the Permittee shall conduct observations for visible emissions and/or opacity from the building enclosing the affected unit(s) while the affected unit(s) are operating at conditions that are representative of the maximum operating rate.



ii. A. These observations for visible emissions shall be conducted using USEPA Method 22 (i.e., visual observation by an observer) and results reported to the Illinois EPA, as further specified by 40 CFR 60.11 and 60.675(d).

B. If there are visible emissions from a building enclosing an affected new unit, the Permittee shall conduct observations of the opacity of fugitive emissions from the affected unit(s). These observations shall be conducted using USEPA Method 9 (i.e., visual observation by a certified observer) and results reported to the Illinois EPA, as further specified by 40 CFR 60.11 and 60.675(c) and (e).

b. i. A. Pursuant to 40 CFR 60.8 and 60.675, within 60 days after the new grizzly screen achieves its maximum operating rate, but not later than 180 days after its initial startup, the Permittee shall have the stack emissions of PM and the opacity of the stack emissions from this unit and other the units controlled by New Baghouse A measured as follows during conditions that are representative of maximum operating rates of these units.

B. Pursuant to 40 CFR 60.8 and 60.675, unless the USEPA waives the requirement for such performance testing in accordance with 40 CFR 60.8(b)(2), within 60 days after the new mineral separator achieves its maximum operating rate, but not later than 180 days after its initial startup, the Permittee shall have the stack emissions of PM and the opacity of the stack emissions from this unit and other units controlled by Baghouse K measured as follows during conditions that are representative of maximum operating rates of these units.

C. These performance tests shall also be conducted for the affected new units and other units controlled by the same baghouse upon written request from the Illinois EPA, with such testing conducted within 120 days of the request from the Illinois EPA or by such later date agreed to by the Illinois EPA.

ii. These measurements shall be conducted using USEPA Methods 5 and 9 and results reported to the Illinois EPA, as further specified by 40 CFR 60.8, 60.11 and 60.675.

iii. For these performance tests, the Permittee shall submit test plan, test notifications and test reports to the Illinois EPA in accordance with Conditions 6-1(d), (e) and (f).

6-3. Performance Testing Requirements for Other Emission Units

- a. For Sand Dryers 1, 2 and 4, the Permittee shall have performance tests conducted for PM emissions in accordance with Condition 6-1. For this purpose, an initial performance test shall be conducted on one of these dryers within one year of the date that one of these dryers first operates at an increased rate as provided for by this permit. The specific dryer that is tested shall be designated by the Illinois EPA or otherwise selected at random.
- b. For existing units at the facility other than Sand Dryers 1, 2 and 4, the Permittee shall have performance tests conducted for PM emissions in accordance with Condition 6-2(b). (Testing for opacity is not required.) For this purpose, an initial performance test shall be conducted on one group of units, as controlled by a common baghouse, other than Baghouse A or K, by the date that Condition 6-3(a) requires an initial performance test to be conducted. The identity of the group of units for which this testing is conducted shall be specified by the Illinois EPA or otherwise selected at random.

6-4. Emission Testing for Condensable Particulate and Filterable PM<sub>10</sub>

- a. In conjunction with the tests for PM emissions required by Conditions 6-1, 6-2(b) and 6-3, the Permittee shall also have measurements conducted for condensable particulate using USEPA Method 202.
- b. In conjunction with the tests for PM emissions required by Conditions 6-2(b) and 6-3(b), unless the Permittee reports all PM emissions measured by USEPA Method 5 as filterable PM<sub>10</sub>, the Permittee shall also have measurements conducted for filterable PM<sub>10</sub> using USEPA Method 201 or 201A.

7-1. Operational Monitoring for the Sand Dryer 3

- a. For Sand Dryer 3, as provided by 40 CFR 60.734(d), the Permittee shall install, calibrate, maintain, and operate monitoring devices that continuously measure and record the pressure loss of the gas stream through the scrubber and the scrubbing liquid flow rate to the scrubber. The pressure loss monitoring device must be certified by the manufacturer to be accurate within 5 percent of water column gauge pressure at the level of operation. The liquid flow rate monitoring device must be certified by the manufacturer to be accurate within 5 percent of design scrubbing liquid flow rate.
- b. For this operational monitoring, the Permittee shall also fulfill applicable recordkeeping and reporting requirements of the NSPS, 40 CFR 60.735, including:

- i. The Permittee shall determine and record once each day, from the recordings of the monitoring devices, an arithmetic average over a 2-hour period of both the change in pressure of the gas stream across the scrubber and the flowrate of the scrubbing liquid.
- ii. The Permittee shall submit written reports semiannually of exceedances of scrubber operating parameters. For the purpose of these reports, exceedances include the following:
  - A. Any daily 2-hour average of the wet scrubber pressure drop that is less than 90 percent of the average value recorded according to 40 CFR 60.736(c) during the most recent performance test that demonstrated compliance with the PM standard; and
  - B. Each daily wet scrubber liquid flow rate recorded that is less than 80 percent or greater than 120 percent of the average value recorded during the most recent performance test that demonstrated compliance with the PM standard.

7-2. Operational Monitoring for New Affected Units and Baghouse A

- a. For the new affected units controlled by Baghouse A, pursuant to 40 CFR 60 Subpart 000, the Permittee shall either:
  - i. Conduct quarterly 30-minute visible emissions inspections using USEPA Method 22 in accordance with 40 CFR 60.674(c) and keep records in accordance for these inspections in accordance with 40 CFR 60.676(b)(1); or
  - ii. Install, operate and maintain a bag leak detector system on New Baghouse A in accordance with applicable provisions of 40 CFR 60.674(d) and keep records for this system in accordance for these inspections in accordance with 40 CFR 60.676(b)(2).

Note: This condition addresses new monitoring requirements pursuant to the NSPS, 40 CFR 60 Subpart 000, that will apply for Baghouse A when it controls the new grizzly screen. Baghouse K is already subject to these monitoring requirements for baghouses for units constructed after April 21, 2008, as addressed in Section 4.2 of CAAPP Permit 95060046.

- b. For Baghouse A, if the Permittee does not elect to monitor in accordance with Condition 7-2(a)(ii), the Permittee shall install, operate and maintain instrumentation to measure pressure drop across this baghouse. If this data is not automatically

recorded, the Permittee shall record the pressure drop measured by this device at least once during each operating day.

8-1. Recordkeeping for the Affected Dryers

- a. For each affected dryer, the Permittee shall keep a file or other records containing the following information with supporting documentation:
  - i. The rated capacity of the dryer (tons of dried sand/hour).
  - ii. The rated capacity of the burners in the dryer (mmBtu/hour, total).
  - iii. The design PM emission rate of the wet scrubber on the dryer (gr/dscf).
  - iv. For the wetting agents(s) applied to the sand that is processed in Dryers 1, 2 and 4, the VOM content and VOM vapor pressure of the agent(s) as provided on the Material Safety Data Sheet or other data provided by the supplier.
- b. The Permittee shall keep records for the following operating information for the affected dryers, with supporting documentation. This information may either be determined directly or derived from information for overall operation for all four dryers, e.g., apportioning information using the operating hours and capacities of individual dryers:
  - i. Production of dry sand (tons/month and tons/year).
  - ii. Fuel usage (mmBtu/month and mmBtu/year).
- c. For the affected dryers, the Permittee shall keep the following information for periods when there is an upset in the operation of a unit or the associated control device, that may result in an increase in emissions, as indicated by the operational monitoring required by Condition 7-1 or by other means:
  - i. Date and duration of the event;
  - ii. A detailed explanation of the event, including the measures used to reduce the quantity of emissions and the duration of the event and the steps taken to prevent similar events or reduce their frequency and severity; and
  - iii. An estimate of the amount of emissions above typical emissions during the event, with supporting calculations.
- d. The Permittee shall keep the following records related to the emissions of NO<sub>x</sub>, CO, PM and PM<sub>10</sub> from the affected dryers:

- i. A file or other records that contain the emission factors used by the Permittee to determine emissions of each pollutant from each affected dryer and the maximum hourly emission rates of each pollutant of each dryer when operating normally at its maximum operating rate, with supporting documentation and calculations.
- ii. Records of the actual emissions of each pollutant from the affected dryers based on operating data and applicable emission factors (tons/month and tons/year), with supporting calculations.

8-2. Recordkeeping for the Process Equipment Other Than the Affected Dryers\*

- a. For the process equipment at the facility that is subject to emission limits in Attachment 1, other than the affected dryers ("other process equipment"), the Permittee shall keep records for operating hours or the amount of material handled as necessary to determine emissions. This information may either be determined directly or derived from other operating information for the facility.
- b. For "other process equipment", the Permittee shall keep information, as specified by Condition 8-1(c) (i), (ii) and (iii) for periods when there is an upset in the operation of a unit or the associated control device, that may result in an increase in emissions, as indicated by the operational monitoring on the control device or by other means.
- c. For "other process equipment", the Permittee shall keep the following records related to PM and PM<sub>10</sub> emissions. For this purpose, for controlled units, separate records shall be kept for each group of units served by a common control device. For uncontrolled units, separate records shall be kept either for each such unit or for groups of related units.
  - i. A file or other records that contain the emission factors used by the Permittee to determine PM and PM<sub>10</sub> emissions from the unit(s) and the maximum hourly rates of PM and PM<sub>10</sub> emissions of the unit(s) when operating normally at their maximum throughputs, with supporting documentation and calculations.
  - ii. Records of the actual PM and PM<sub>10</sub> emissions based on operating data and applicable emission factors (tons/month and tons/year), with supporting calculations.
  - iii. For unit(s) that are not equipped with a control device, as an alternative to the records that are required by Condition 8-2(c) (ii), the Permittee may maintain a file that contains a demonstration that the maximum annual emissions of unit(s) will not exceed the applicable

limit(s) in Attachment 1, including supporting data and calculations.

- d. The Permittee shall keep records of the total emissions PM and PM<sub>10</sub> from "other process equipment", summing the data in the records required by Condition 8-2(c) (ii) and/or (c) (iii) (tons/month and tons/year).

9. Notifications and Reporting

- a. If there is a deviation from the requirements of this permit as determined by the records required by this permit or by other means, the Permittee shall submit a report to the Illinois EPA, as follows. These reports, at a minimum, shall include a description of the deviation(s), a discussion of the probable cause of the deviation(s), a description of the corrective actions taken, and a description of any preventive measures taken.
  - i. Deviations from NSPS requirements shall be reported with the reports required by the NSPS.
  - ii. Deviations from the Fugitive Dust Operating Program shall be reported in a quarterly report submitted no later than 45 days after the end of each calendar quarter.
  - iii. Other deviations (i.e., deviations not addressed by reporting in accordance with Condition 9(a) (i), (ii) or (iii)) shall be reported within 30 days.

10. Illinois EPA Addresses

- a. Notification and reports required by this permit shall be sent to the following address unless otherwise indicated:

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

- b. A copy of notifications and reports concerning performance testing required by this permit shall also be sent to the following address unless otherwise indicated:

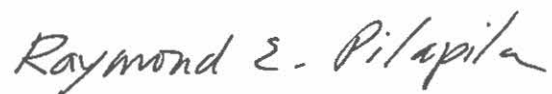
Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Source Monitoring Unit  
9511 Harrison Street  
Des Plaines, Illinois 60016

<http://epa.boa.smu@ Illinois.gov>

11. Authorization to Operate

The Permittee may operate the facility with the changes addressed by this construction permit under this permit until the CAAPP permit for the facility is revised to address this project. This condition supersedes Standard Condition 6.

If you have any questions on this permit, please call Kevin Hecht at 217/785-1705.



Raymond E. Pilapil  
Acting Manager, Permit Section  
Division of Air Pollution Control

REP:KTH:psj

cc: USEPA, Lotus Notes



## Attachment 1

Emission Limits for Process Equipment<sup>a</sup>

| Emission Unit(s)  | PM       |           | PM <sub>10</sub> <sup>b</sup> |                    |
|---|----------|-----------|-------------------------------|--------------------|
|   | Lbs/Hour | Tons/Year | Lbs/Hour                      | Tons/Year          |
| Sand Dryers   |          |           |                               |                    |
| Dryer 1   | 5.21     | 22.82     | 5.21                          | 22.82              |
| Dryer 2   | 5.21     | 22.82     | 5.21                          | 22.82              |
| Dryer 3   | 5.21     | 22.82     | 5.21                          | 22.82              |
| Dryer 4   | 5.21     | 22.82     | 5.21                          | 22.82              |
| Subtotal  | ---      | 91.28     | ---                           | 91.28              |
| Controlled Units other than the Sand Dryers<br>(Identified by the designation of the associated control device <sup>c</sup> ) |          |           |                               |                    |
| "Baghouse A Units"  | 4.48     | 19.60     | 1.47 <sup>d</sup>             | 6.44 <sup>d</sup>  |
| "Baghouse B Units"  | 3.32     | 14.54     | 1.09 <sup>d</sup>             | 4.78 <sup>d</sup>  |
| "Baghouse C Units"  | 2.17     | 9.49      | 1.52 <sup>d</sup>             | 6.65 <sup>d</sup>  |
| "Baghouse D Units"  | 3.49     | 15.27     | 2.44 <sup>d</sup>             | 10.69 <sup>d</sup> |
| "Baghouse E Units"  | 2.17     | 9.49      | 1.52 <sup>d</sup>             | 6.65 <sup>d</sup>  |
| "Baghouse F Units"  | 2.03     | 8.88      | 1.96 <sup>d</sup>             | 8.57 <sup>d</sup>  |
| "Baghouse G Units"  | 2.67     | 11.71     | 2.57 <sup>d</sup>             | 11.26 <sup>d</sup> |
| "Baghouse H Units"  | 4.15     | 18.16     | 2.90 <sup>d</sup>             | 12.71 <sup>d</sup> |
| "Baghouse I Units"  | 1.25     | 5.46      | 1.25                          | 5.46               |
| "Baghouse J Units"  | 2.17     | 9.49      | 1.52 <sup>d</sup>             | 6.65 <sup>d</sup>  |
| "Baghouse K Units"  | 1.92     | 8.41      | 0.63 <sup>d</sup>             | 2.76 <sup>d</sup>  |
| "Baghouse L Units"  | 1.27     | 5.57      | 1.27                          | 5.57               |
| "Dust Collectors 1-3 Units"   | 0.12     | 0.51      | 0.12                          | 0.51               |
| Subtotal  | ---      | 136.58    | ---                           | 88.70              |
| Other Units   |          |           |                               |                    |
| Crushing Operation <sup>e</sup>   | ---      | 1.91      | ---                           | 0.71 <sup>d</sup>  |
| Building Losses   | ---      | 0.44      | ---                           | 0.44               |
| Insignificant Activities <sup>f</sup>   | ---      | 1.1       | ---                           | 1.1                |
| Subtotal  | ---      | 3.45      | ---                           | 2.25               |
| Total   | ---      | 231.31    | ---                           | 182.23             |

## Notes:

- <sup>a</sup> These limits do not address emissions from roadways, mining activities and other sources of fugitive emissions as defined by 40 CFR 52.21(b) (20).
- <sup>b</sup> These limits for PM<sub>10</sub> emissions address the sum of filterable PM<sub>10</sub> and condensable particulate matter.
- <sup>c</sup> See Conditions 4.2.1, 4.3.1 and 4.4.1 of CAAPP Permit 95060046 for the specific units that are associated with each control device.
- <sup>d</sup> These limits account for a difference between emissions of PM<sub>10</sub> and PM.
- <sup>e</sup> New sand crushing operation, including crushing, screening and material transfer, as addressed by Construction Permit 15040042.
- <sup>f</sup> Limits for overall emissions of the insignificant activities at the facility, as are addressed by Condition 6.2 of CAAPP Permit 95060046.

Attachment 2

STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS  
ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits, which it issues.

The following conditions are applicable unless superseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.
2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Illinois EPA and a supplemental written permit issued.
4. The Permittee shall allow any duly authorized agent of the Illinois EPA upon the presentation of credentials, at reasonable times:
  - a. To enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,
  - b. To have access to and to copy any records required to be kept under the terms and conditions of this permit,
  - c. To inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,
  - d. To obtain and remove samples of any discharge or emissions of pollutants, and
  - e. To enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.

5. The issuance of this permit:
  - a. Shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located;
  - b. 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 proposed facilities;
  - c. Does not release the Permittee from compliance with other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations;
  - d. Does not take into consideration or attest to the structural stability of any units or parts of the project; and
  - e. 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 proposed equipment or facility.
- 6a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Illinois EPA before the equipment covered by this permit is placed into operation.
- b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.
7. The Illinois EPA may file a complaint with the Board for modification, suspension or revocation of a permit.
  - a. Upon discovery that the permit application contained misrepresentations, misinformation or false statement or that all relevant facts were not disclosed, or
  - b. Upon finding that any standard or special conditions have been violated, or
  - c. Upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.



STATE OF ILLINOIS  
ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF AIR POLLUTION CONTROL  
P. O. BOX 19506  
SPRINGFIELD, ILLINOIS 62794-9506

**STANDARD CONDITIONS FOR CONSTRUCTION/DEVELOPMENT PERMITS  
ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

July 1, 1985

The Illinois Environmental Protection Act (Illinois Revised Statutes, Chapter 111-1/2, Section 1039) authorizes the Environmental Protection Agency to impose conditions on permits which it issues.

The following conditions are applicable unless superseded by special condition(s).

1. Unless this permit has been extended or it has been voided by a newly issued permit, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.
2. The construction or development covered by this permit shall be done in compliance with applicable provisions of the Illinois Environmental Protection Act, and Regulations adopted by the Illinois Pollution Control Board.
3. There shall be no deviations from the approved plans and specifications unless a written request for modification, along with plans and specifications as required, shall have been submitted to the Agency and a supplemental written permit issued.
4. The Permittee shall allow any duly authorized agent of the Agency upon the presentation of credentials, at reasonable times:
  - a. to enter the Permittee's property where actual or potential effluent, emission or noise sources are located or where any activity is to be conducted pursuant to this permit,
  - b. to have access to and copy any records required to be kept under the terms and conditions of this permit,
  - c. to inspect, including during any hours of operation of equipment constructed or operated under this permit, such equipment and any equipment required to be kept, used, operated, calibrated and maintained under this permit,
  - d. to obtain and remove samples of any discharge or emission of pollutants, and
  - e. to enter and utilize any photographic, recording, testing, monitoring or other equipment for the purpose of preserving, testing, monitoring, or recording any activity, discharge, or emission authorized by this permit.
5. The issuance of this permit:
  - a. shall not be considered as in any manner affecting the title of the premises upon which the permitted facilities are to be located,
  - b. 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 proposed facilities,
  - c. does not release the Permittee from compliance with the other applicable statutes and regulations of the United States, of the State of Illinois, or with applicable local laws, ordinances and regulations,
  - d. does not take into consideration or attest to the structural stability of any units or parts of the project, and

- e. in no manner implies or suggests that the Agency (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the proposed equipment or facility.
- 6.
- a. Unless a joint construction/operation permit has been issued, a permit for operation shall be obtained from the Agency before the equipment covered by this permit is placed into operation.
  - b. For purposes of shakedown and testing, unless otherwise specified by a special permit condition, the equipment covered under this permit may be operated for a period not to exceed thirty (30) days.
7. The Agency may file a complaint with the Board for modification, suspension or revocation of a permit:
- a. upon discovery that the permit application contained misrepresentations, misinformation or false statements or that all relevant facts were not disclosed, or
  - b. upon finding that any standard or special conditions have been violated, or
  - c. upon any violations of the Environmental Protection Act or any regulation effective thereunder as a result of the construction or development authorized by this permit.