

- ii. The Permittee shall maintain and repair all air pollution control equipment in a manner that assures that the emission limits and standards in 35 Ill. Adm. Code 212.324 shall be met at all times. Proper maintenance shall include the following minimum requirements:

- A. Visual inspection of air pollution control equipment;
 - B. Maintenance of an adequate inventory of spare parts; and
 - C. Expeditious repairs, unless the source is shutdown.
- iii. The Permittee shall fulfill recordkeeping of maintenance and repair requirements, pursuant to 35 Ill. Adm. Code 212.324(g).
 - iv. The facility shall be inspected for presence of visible emissions from internal transfer while internal transfer is occurring, at least once each week (Monday through Sunday) when internal transfer is performed.
- 3a. The amount of material handled by the facility shall not exceed the following limits. Compliance with these annual limits shall be determined on a monthly basis from a running total of monthly data, that is, the total of the amount of material for the month and the preceding eleven months.
- i. The amount of sand received shall not exceed 17,160 tons per year.
 - ii. The amount of bentonite received shall not exceed 82,800 tons per year.
 - iii. The amount of pulgite received shall not exceed 3,600 tons per year.
- b. Natural gas shall be the only fuel fired at the plant.
- 4a. The Permittee shall maintain records of the following items for the facility:
- i. The operating pressure drop across each baghouse, excluding bin vent filters, during normal plant operating conditions, at least once a day. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's specifications.
 - ii. The performance of the dust control systems shall be inspected for proper operation during normal plant operating conditions, at least once each week, with date, time and observations. This inspection shall confirm the proper operation of all enclosure's, dust collection systems, cyclones, and baghouses.
- b. The Permittee shall maintain monthly records of the following items for the facility:
- i. total sand, bentonite, and pulgite received, tons/month and ton/year (running total); and

- ii. Natural gas usage for the plant (therms/month and therms/year).
- c. The Permittee shall maintain records for any deviation or exceedance from the requirements of this permit, as determined by the above records or by other means, with date, time, duration, description, corrective action, and measure to prevent future reoccurrence.
- 5. The Permittee shall maintain records of any repairs or maintenance to the facility as related to emissions of particulate matter including repairs to the dust control system, repairs to dryer enclosure or sheeting, and repair to enclosure on internal transfer, with date and description of activity.
- 6. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish in rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.
- 7. 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 or USEPA 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 or USEPA request for records during the course of a source inspection.
- 8. 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.
- 9. 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
2009 Mall Street
Collinsville, Illinois 62234

10. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year: Materials received of sand, bentonite, and pulgite (ton/year).

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

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

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cc: Illinois EPA, FOS Region 3
Illinois EPA, Compliance Section
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from this processing plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are well below the levels, i.e., 100 tons per year of PM₁₀ at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled and control measures are more effective than required in this permit.

Particulate Matter Emissions Sand Processing

<u>Activity</u>	<u>Annual Throughput (Tons/Year)</u>	<u>Control Efficiency (%)</u>	<u>Factor (Lb/Ton)</u>	<u>Emissions (Ton/Yr)</u>
Truck Unloading	17,160	80	0.24	0.41
Loading Elevator	17,160	80	0.24	0.41
Elevator to Conveyor Transfer	17,160	95	0.026	0.01
Conveyor to Dryer Transfer	17,160	95	0.026	0.01
Rotary Dryer	17,160	98	65	11.15
Dryer to Elevator Transfer	15,444	95	0.026	0.01
Cooler	15,444	98	65	5.02
Sand Screen	15,444	90	0.3	0.23
Bulk Bagging Oversize Sand	1,040	80	0.24	0.02
Truck Load Out Oversize Sand	1,040	0	0.24	0.12
Elevator and Transfer	13,364	90	0.026	0.02
Transfer to Tank 1	4,455	90	0.026	0.01
Transfer to Tank 2	4,455	90	0.026	0.01
Transfer to Tank 3	4,455	90	0.026	0.01
Transfer from Tank 1	4,455	90	0.026	0.01
Transfer from Tank 2	4,455	90	0.026	0.01
Transfer from Tank 3	4,455	90	0.026	0.01
Packer, Bagging Station(s)	618	80	0.3	0.02
Sand Load Out (Truck or Rail)	12,746	30	0.029	<u>0.13</u>
			PM	17.62 T/Yr

Particulate Matter Emissions Pulgite Processing

<u>Activity</u>	<u>Annual Throughput (Tons/Year)</u>	<u>Control Efficiency (%)</u>	<u>Factor (Lb/Ton)</u>	<u>Emissions (Ton/Yr)</u>
Rail Unloading	3,600	95	0.02	0.00
Transfer to Elevator	3,600	95	0.026	0.00
Elevator to Tank 4	3,600	95	0.026	0.00
Conveyor to System 2 Elevator from Tanks 3, 4, and 5	3,600	95	0.026	0.00
Hi-Roller Conveyor H1 from System 2 Elevator	3,600	95	0.026	0.00
Screen 2	3,600	95	12	1.08

Aspirator 1 from Screen 2	3,600	98	12	0.43
Jug Line 1 from Aspirator 1	3,600	98	12	0.43
Particulate Collected Load Out Tank 6	21	95	12	0.01
Particulate Collected Load Out Tank 7	12	95	12	<u>0.00</u>
			PM	1.95

Particulate Matter Emissions Bentonite Processing

<u>Activity</u>	<u>Annual Throughput (Tons/Year)</u>	<u>Control Efficiency (%)</u>	<u>Factor (Lb/Ton)</u>	<u>Emissions (Ton/Yr)</u>
Rail Unloading	82,800	95	0.02	0.04
Transfer to Elevator	82,800	95	0.026	0.05
Transfer to Tank 1	16,560	95	0.026	0.01
Transfer to Tank 2	16,560	95	0.026	0.01
Transfer to Tank 3	16,560	95	0.026	0.01
Transfer to Tank 4	16,560	95	0.026	0.01
Transfer to Tank 5	16,560	95	0.026	0.01
Conveyor to System 1 Elevator from Tanks 1 and 2	33,120	95	0.026	0.02
Conveyor to System 2 Elevator from Tanks 3, 4, and 5	49,680	95	0.026	0.03
Hi-Roller Conveyor H2 from System 1 Elevator	33,120	95	0.026	0.02
Hi-Roller Conveyor H1 from System 2 Elevator	49,680	95	0.026	0.03
Screen 1	33,120	95	12	9.94
Screen 2	49,680	95	12	14.90
Aspirator 1 from Screen 2	24,840	98	12	2.98
Aspirator 2 from Screen 1	33,120	98	12	3.97
Aspirator 3 from Screen 2	24,840	98	12	2.98
Jug Line 1 from Aspirator 1	19,872	98	12	2.38
Jug Line 2 from Aspirator 2	33,120	98	12	3.97
Jug Line 3 from Aspirator 3	24,840	98	12	2.98
Bagging Line 4 from Aspirator 1	4,968	98	12	0.60
Particulate Collected Load Out Tank 6	487	95	12	0.15
Particulate Collected Load Out Tank 7	278	95	12	<u>0.08</u>
				45.17

Total Particulate Matter Emissions

64.74 Tons Per Year

The above particulate matter emission tables define the potential emissions of emission factors in lb/ton are standard emission factors.

COMBUSTION EMISSIONS
Natural Gas Annual Fuel Usage

<u>Activity</u>		<u>Therms</u>	<u>Factor (Lb/Therm)</u>	<u>Emissions (Lb/Year)</u>	<u>(Ton/Year)</u>
Sand Drying	Nitrogen Oxides	307,000	0.01	3,070.0	1.54
	Carbon Monoxide	307,000	0.0084	2,579	1.29
	Volatile Organic Material	307,000	0.0008	245.6	0.12
Space Heaters	Nitrogen Oxides	54,000	0.01	540.0	0.27
	Carbon Monoxide	54,000	0.0084	453.6	0.23
	Volatile Organic Material	54,000	0.0008	43.2	0.02

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