

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0620-AR-6

1. PERMITTING AUTHORITY:

Arkansas Department of Environmental Quality
8001 National Drive
Post Office Box 8913
Little Rock, Arkansas 72219-8913

2. APPLICANT:

Unimin Corporation
Main Street
Guion, Arkansas 72540
Izard County

3. PERMIT WRITER: Joseph Hurt

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: All other Nonmetallic Mineral Mining (Silica Sand)
NAICS Code: 212339

5. SUBMITTALS: June 9, 2006

6. REVIEWER'S NOTES:

Unimin Corporation owns and operates a silica sand mine and processing plant in Guion (Izard County). This de minimis permit modification is being issued to allow the permittee to install a new portable crushing plant. The new portable crushing plant consists of a hopper (SN-35), feeder (SN-36), a crusher (SN-37), and a stacking belt conveyor (SN-38). The stacking belt conveyor discharges the material into a product stockpile (SN-39). The portable crushing plant is powered by a diesel generator (SN-40). The proposed changes result in emission increases of 2.5 tpy of PM, 1.5 tpy of PM₁₀, 0.4 tpy of SO₂, 0.5 tpy of VOC, 0.9 tpy of CO, and 4.9 tpy of NO_x.

Additionally, Unimin has requested that a vibrating screen (SN-34) and a belt conveyor (SN-36) be removed from the permit because the equipment was not installed. Because all of the equipment was not installed, SN-35 (Surge Bin SB-01) has been renamed SN-34 (Surge Bin SB-01). Unimin also renamed SN-07 from BC-04 to BC-04A and renamed SN-32 from BC-04A to BC-04B.

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7. COMPLIANCE STATUS:

The following summarizes the current compliance status of the facility including active/pending enforcement actions and recent compliance activities and issues.

There are currently no enforcement issues or actions against the facility at this time.

8. APPLICABLE REGULATIONS:

A. PSD Applicability: This facility is not subject to PSD

B. PSD Netting: This facility is not subject to PSD Netting

C. Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation [NSPS, NESHAP (Part 61 & Part 63), or PSD <u>only</u>]
Facility-wide	PM/PM ₁₀	NSPS Subpart OOO

9. EMISSION CHANGES:

The following table summarizes plant wide emission changes associated with this permitting action.

Plantwide Permitted Emissions (ton/yr)			
Pollutant	Permit #: 0620-AR-5	Permit #: 0620-AR-6	Change
PM	96.5	99.0	+ 2.5
PM ₁₀	26.1	27.6	+ 1.5
SO ₂	1.1	1.5	+ 0.4
VOC	0.9	1.4	+ 0.5
CO	14.3	15.4	+ 0.9
NO _x	34.1	39.0	+ 4.9

10. MODELING:

Criteria Pollutants

Examination of the source type, location, plot plan, land use, emission parameters, and other available information indicate that modeling is not warranted at this time.

Other Modeling

Odor: N/A

H₂S Modeling: N/A

Non-Criteria Pollutants: N/A

11. CALCULATIONS:

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (controlled, uncontrolled, etc)
01	AP-42	Lb/MMcf, lb/ton, lb/1000 gal	Wet Scrubber and Cyclone	99.0%	Controlled
02	AP-42	Various lb/ton	Wet Scrubber	98.5%	Controlled
02A	AP-42	lb/ton	N/A	N/A	Uncontrolled
03 to 30	AP-42	Various lb/ton	N/A	N/A	Uncontrolled
31	AP-42	lb/ton: PM 0.056 PM ₁₀ 0.0024	N/A	N/A	Uncontrolled Bulk Bagging Operation
32 & 33	AP-42	lb/ton: PM 0.00014 PM ₁₀ 0.000046	Wet material	N/A	Controlled
34	Stack test data	lb/ton: PM 0.00056	Wet Material	N/A	Controlled

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SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (controlled, uncontrolled, etc)
		PM ₁₀ 0.000206			
35, 36, & 38	AP-42 Section 11.19.2	lb/ton: PM 0.003 PM ₁₀ 0.0012	N/A	N/A	Uncontrolled
37	AP-42 Section 11.19.2	lb/ton: PM 0.0054 PM ₁₀ 0.0024	N/A	N/A	Uncontrolled
39	AP-42 Section 13.2.4	lb/ton: PM 0.00925 PM ₁₀ 0.00324	N/A	N/A	Uncontrolled
40	AP-42 Section 3.3	lb/MMBtu: PM 0.31 PM ₁₀ 0.31 SO ₂ 0.29 NO _x 4.41 VOC 0.36 CO 0.95	N/A	N/A	Uncontrolled

12. TESTING REQUIREMENTS: N/A

13. MONITORING OR CEMS: N/A

14. RECORD KEEPING REQUIREMENTS

The following are items (such as throughput, fuel usage, VOC content of coating, etc) that must be tracked and recorded, frequency of recording and whether records are needed to be included in any annual, semiannual or other reports.

SN	Recorded Item	Limit (as established in permit)	Frequency	Report (Y/N)
Facility (fixed)	Processing of Silica Sand material	Confidential records of material processed maintained on site.	Monthly	N
Portable crushing plant	Processing of Silica Sand material	Confidential records of material processed and fuel usage maintained on site.	Monthly	N
	Diesel fuel usage			

15. OPACITY

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism (daily observation, weekly, control equipment operation, etc)
01	10	Dept Guidance	Daily observation
02	5	NSPS	Daily observation
02A	10	NSPS	Daily observation
03 through 08	10	NSPS	Daily observation
09	20	Dept. Guidance	Daily observation
14 & 15	20	Dept. Guidance	Daily observation
16 & 17	20	Dept. Guidance	Daily observation
18 & 19	10	Dept. Guidance	Daily observation

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism (daily observation, weekly, control equipment operation, etc)
20 & 21	20	Dept. Guidance	Daily observation
22, 23 , & 24	10	NSPS	Daily observation
25	20	Dept. Guidance	Daily observation
26 & 27	15	NSPS	Daily observation
28 & 29	10	NSPS	Daily observation
30	20	Dept. Guidance	Daily observation
31	10	NSPS	Daily observation
32-34	10	NSPS	Annual Inspection
35	10	NSPS	Daily observation
36	10	NSPS	Daily observation
37	15	NSPS	Daily observation
38	10	NSPS	Daily observation
39	10	NSPS	Daily observation
40	20	Dept. Guidance	Daily observation

16. DELETED CONDITIONS:

The previous permit contained the following deleted Specific Conditions.

Former SC	Justification for removal
	None

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17. VOIDED, SUPERSEDED OR SUBSUMED PERMITS

List all active permits voided/superseded/subsumed by issuance of this permit for this facility.

Permit #
0620-AR-5

18. CONCURRENCE BY:

The following supervisor concurs with the permitting decision:

David Triplett, P.E.