

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 620-AR-5,

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: Karen Cerney

4. PROCESS DESCRIPTION AND NAICS CODE:

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

5. SUBMITTALS: February 23, 2005

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 replace two belt conveyors (SN-07 and SN-08) and a hopper (SN-13) and to install two new belt conveyors (SN-32 and SN-36), a grizzle feeder (SN-33), a vibrating screen (SN-34), and a surge bin (SN-35). The proposed changes result in an increase of 3.8 tpy of PM emissions and 1.5 tpy of PM₁₀ emissions.

7. COMPLIANCE STATUS:

The following summarizes the current compliance status of the facility including active/pending enforcement actions and recent compliance activities and issues: the facility has no current enforcement actions as of 03/16/05.

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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	PM/PM ₁₀	NSPS Subpart 000

9. EMISSION CHANGES:

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

Plantwide Permitted Emissions (ton/yr)			
Pollutant	Permit #: 620-AR-4	Permit #: 620-AR-5	Change
PM	92.7	96.5	+3.8
PM ₁₀	24.6	26.1	+1.5
SO ₂	1.1	1.1	0
VOC	0.9	0.9	0
CO	14.3	14.3	0
NO _x	34.1	34.1	0

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 (Emission factor 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	PM @ 0.056 lb/ton PM ₁₀ @ 0.0024 lb/ton	N/A	N/A	Uncontrolled Bulk Bagging Operation

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 (Emission factor controlled/uncontrolled, etc)
32, 33, & 36	AP-42	PM: 0.00014 lb/ton PM ₁₀ : 0.000046 lb/ton	Wet material	N/A	Controlled
34	AP-42	PM: 0.0022 lb/ton PM ₁₀ : 0.00074 lb/ton	Wet Material	N/A	Controlled
35	Stack test data	PM: 0.00056 lb/ton PM ₁₀ : 0.000206 lb/ton	Wet Material	N/A	Controlled

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	Processing of Silica Sand material	Confidential records of material processed	Monthly	N

SN	Recorded Item	Limit (as established in permit)	Frequency	Report (Y/N)
		maintained on site.		

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
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

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SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism (daily observation, weekly, control equipment operation, etc)
30	20	Dept. Guidance	Daily observation
31	10	NSPS	Daily observation
32-36	10	NSPS	Annual Inspection

16. DELETED CONDITIONS:

The previous permit contained the following deleted Specific Conditions.

Former SC	Justification for removal
	None

17. VOIDED, SUPERSEDED OR SUBSUMED PERMITS

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

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18. CONCURRENCE BY:

The following supervisor concurs with the permitting decision:

Phillip Murphy, P.E.