

ADEQ MINOR SOURCE AIR PERMIT

Permit No. : 0620-AR-6

IS ISSUED TO:

Unimin Corporation
Main Street
Guion, AR 72540
Izard County
AFIN: 33-00002

THIS PERMIT IS THE ABOVE REFERENCED PERMITTEE'S AUTHORITY TO CONSTRUCT, MODIFY, OPERATE, AND/OR MAINTAIN THE EQUIPMENT AND/OR FACILITY IN THE MANNER AS SET FORTH IN THE DEPARTMENT'S MINOR SOURCE AIR PERMIT AND THE APPLICATION. THIS PERMIT IS ISSUED PURSUANT TO THE PROVISIONS OF THE ARKANSAS WATER AND AIR POLLUTION CONTROL ACT (ARK. CODE ANN. SEC. 8-4-101 *ET SEQ.*) AND THE REGULATIONS PROMULGATED THEREUNDER, AND IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

Mike Bates
Chief, Air Division

Date

Unimin Corporation
Permit #: 0620-AR-6
AFIN: 33-00002

Table of Contents

Section I: FACILITY INFORMATION	2
Section II: INTRODUCTION.....	2
Summary of Permit Activity	2
Process Description	2
Regulations	2
Total Allowable Emissions	2
Section III: PERMIT HISTORY	2
Section IV: EMISSION UNIT INFORMATION	2
NSPS Conditions	2
Section V: INSIGNIFICANT ACTIVITIES	2
Section VI: GENERAL CONDITIONS	2
Appendix A	

Unimin Corporation
Permit #: 0620-AR-6
AFIN: 33-00002

List of Acronyms and Abbreviations

A.C.A.	Arkansas Code Annotated
AFIN	ADEQ Facility Identification Number
CFR	Code of Federal Regulations
CO	Carbon Monoxide
HAP	Hazardous Air Pollutant
lb/hr	Pound Per Hour
No.	Number
NO _x	Nitrogen Oxide
PM	Particulate Matter
PM ₁₀	Particulate Matter Smaller Than Ten Microns
SO ₂	Sulfur Dioxide
tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

Unimin Corporation
Permit #: 0620-AR-6
AFIN: 33-00002

Section I: FACILITY INFORMATION

PERMITTEE: Unimin Corporation

AFIN: 33-00002

PERMIT NUMBER: 0620-AR-6

FACILITY ADDRESS: Main Street
Guion, AR 72540

MAILING ADDRESS: P.O. Box 29
Guion, AR 72540-0029

COUNTY: Izard

CONTACT POSITION: Mike Maloney, Plant Manager

TELEPHONE NUMBER: 870-346-5301

REVIEWING ENGINEER: Joseph Hurt

UTM North South (Y): Zone 15: 3975.65

UTM East West (X): Zone 15: 595.69

Section II: INTRODUCTION

Summary of Permit Activity

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.

Process Description

Sandstone is mined using underground room and pillar and open pit mining methods. The broken sandstone is loaded into off-highway end dump haul trucks by a front-end loader and is hauled to the dump hopper (SN-12) or stockpiled. The sandstone is screened by the grizzly feeder screen (SN-19). Fine material is screened off prior to crushing and deposited on the discharge belt (SN-02A). The oversize material is gravity fed to the primary jaw crusher (SN-25). The oversized material is crushed and deposited onto the discharge belt (SN-02A) on top of the finer material. The material is transferred to the belt conveyor (SN-03) that conveys the material to the vibrating scalping screen (SN-22). The fine material is scalped off and deposited onto the discharge belt (SN-04). The oversize material is crushed in the crusher (SN-26) and is deposited onto the discharge belt (SN-29) and returned to SN-03. This material on SN-04 is conveyed to the raw sand silos (SN-15, SN-16), where it is stored in preparation for processing.

Material is discharged from the raw sand silos, via feeders (SN-20, SN-21), onto the raw sand silo discharge belt (SN-05) and is conveyed to the stationary screen (SN-09). The fine material is removed and deposited into a product sump. The coarse material empties into the enclosed vertical shaft impact (VSI) crusher (SN-27). The sand discharged from the VSI crusher is deposited into a vibrating screen (SN-24). The fine material is deposited in a product sump, while the oversize material is conveyed (SN-06) to the VSI system to be reprocessed.

The sand in the product sump is pumped through a flotation circuit that removes clay and fine sand. The clay and fine sand are routed to tailings. The washed sand is pumped to dewatering cyclones and is discharged onto damp stockpiles (SN-10) for moisture drainage.

Unimin Corporation
Permit #: 0620-AR-6
AFIN: 33-00002

The damp sand (3- 7% moisture) is moved with a front-end loader to the stockpile discharge belt (SN-07), via a hopper (SN-13), to a grizzle feeder (SN-33). The discharge from the grizzle feeder is to a surge bin (SN-34) via a belt conveyor (SN-32). The surge bin (SN-34) discharges to a belt conveyor (SN-08) and then is transferred to the dryer.

The dryer feed belt (SN-08) transports the sand into the dryer building and discharges into a feed chute that feeds a natural gas-fired fluid bed dryer. After drying, the sand is discharged into a bucket elevator and is transferred to a covered mill run conveyor. Particulate emissions from the dryer and the bucket elevator are controlled by a wet scrubber (SN-01) with 99% removal efficiency. The products of combustion from the dryer are also vented through SN-01.

The sand is transported via the mill run conveyor to the screen house. Primary clean-up and secondary screening, as well as secondary rescreening is performed in the screen house in order to separate the sand. The grades are blended to produce final products that are loaded into railcars or trucks. Dust from the screen house and the truck loadout is controlled by the screen house wet scrubber (SN-02), which has 99% removal efficiency. The emissions from rail loadout are controlled by the dryer wet scrubber (SN-01).

Sand is transported to the bagging operation via railcar. The material is unloaded from the railcars via belt conveyors (SN-30 and SN-09) and transported to the holding bin (SN-16) via a bucket elevator (SN-11). Material is then bagged in 50, 100 - pound bags (SN-17) or bulk bags (SN-31).

Portable Crushing Process

Material is dumped by a front-end loader into a hopper (SN-35) that conveys the material to a crusher (SN-37) via a feeder (SN-36). The crushed material is discharged from the crusher to the stacking conveyor (SN-38) and then to the product stockpiles (SN-39). The portable crushing units are powered by a generator (SN-40).

Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective February 15, 1999
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective May 28, 2006
40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants

Unimin Corporation
Permit #: 0620-AR-6
AFIN: 33-00002

The following table is a summary of emissions from the facility. This table, in itself, is not an enforceable condition of the permit.

Total Allowable Emissions

TOTAL ALLOWABLE EMISSIONS		
Pollutant	Emission Rates	
	lb/hr	tpy
PM	28.4	101.2
PM ₁₀	10.1	28.3
SO ₂	0.7	1.5
VOC	0.7	1.4
CO	4.4	15.4
NO _x	12.7	39.0

Unimin Corporation
Permit #: 0620-AR-6
AFIN: 33-00002

Section III: PERMIT HISTORY

Permit # 0620-A was issued to Silica Products, Incorporated on 4/18/80 in order to expand its operation and control sand particle emissions by utilizing a wet scrubber which has an efficiency greater than 99%.

Permit # 0620-AR-1 was issued to Unimin Corp. on 3/16/94 as a modification in order to update the previous permit. This permit allowed for continuous operation of the facility subject to regulation under *The Arkansas Air Pollution Control Code* and the *Arkansas State Implementation Plan for Air Pollution Control*.

Permit modification #0620-AR-2 dated 7/11/96 was issued to document equipment changes and/or additions at the beginning and at the end of the process line. The equipment changes are documented in a table. The new emission sources are a conveyor belt that will recycle oversized material (SN-18) and a feeder discharge belt (SN-02A). Permitted emissions will be reduced.

Permit modification # 0620-AR-3 dated 4/24/97 was issued to quantify PM₁₀ emissions less than 100 tpy in order to reclassify the facility as a synthetic minor source and therefore be exempt from Regulation 26. The permit was also issued to assign new source numbers to provide a logical process flow. The facility also replaced several pieces of equipment and constructed two new conveyors.

Permit modification # 0620-AR-4 dated 12/29/04 was issued to install a Bulk Bagger (BG-02) designated as SN-31. It also updated emissions limits which are based upon current AP-42 emission factors.

Permit modification # 0620-AR-5 dated 6/8/05 was issued to allow the replacement of two belt conveyors (SN-07 and SN-08) and a hopper (SN-13). It also allowed for the installation of 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). With those modifications the updated emission limits increased the PM emissions by 3.8 tpy and the PM₁₀ emissions by 1.5 tpy.

Section IV: EMISSION UNIT INFORMATION

Specific Conditions

1. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 19, §19.501 *et seq.*, effective May 28, 2006 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Control Equipment	Pollutant	lb/hr	tpy
01	Natural Gas Fired Fluid Bed Dryer Dust Collection System – Wet Scrubber. Dryer Burner (BU-01)	Particulate emissions and products of combustion are controlled and vented through cyclone on wet scrubber. (99% efficient)	PM ₁₀	1.7	7.4
			SO ₂	0.3	1.1
			VOC	0.3	1.0
			CO	3.3	14.3
			NO _x	7.8	34.1
02	Screen House Collection System	Wet Scrubber (98.5% efficient)	PM ₁₀	0.9	3.8
02A	Grizzly Feeder Discharge Belt (BC-00)	NONE	PM ₁₀	0.1	0.1
03	Jaw Crusher Discharge Belt (BC-01)	NONE	PM ₁₀	0.1	0.1
04	Hammer Mill Discharge Belt (BC-02)	NONE	PM ₁₀	0.1	0.1
05	Raw Sand Silo Discharge Belt (BC-03A)	NONE	PM ₁₀	0.1	0.1
06	Vibrating Screen Feeder Belt (BC-03C)	NONE	PM ₁₀	0.1	0.1
07	Stockpile Discharge Belt (BC-04A)	NONE	PM ₁₀	0.1	0.1
08	Dryer Freed Belt (BC-05)	NONE	PM ₁₀	0.1	0.1
09	Bagging Belt (BC-12)	NONE	PM ₁₀	0.2	0.5
10	Plant Feed Stockpiles	NONE	PM ₁₀	0.9	3.6
11	Bagging Plant Elevator (BE-05)	NONE	PM ₁₀	0.2	0.5

Unimin Corporation
 Permit #: 0620-AR-6
 AFIN: 33-00002

SN	Description	Control Equipment	Pollutant	lb/hr	tpy
12	Feed Hopper (HO-01)	NONE	PM ₁₀	0.1	0.1
13	Drain Bin Hopper (HO-02)	NONE	PM ₁₀	0.1	0.1
14	Raw Sand Silo (BN-01)	NONE	PM ₁₀	0.1	0.4
15	Raw Sand Silo (BN-02)	NONE	PM ₁₀	0.2	0.4
16	Bagger Bin (BN-15)	Bin Cover	PM ₁₀	0.1	0.2
17	Bagger. (BG-01)	NONE	PM ₁₀	0.1	0.2
18	Recycle Conveyor (BC-03B)	NONE	PM ₁₀	0.1	0.1
19	Jaw Crusher Vibratory Feeder (FE-01)	NONE	PM ₁₀	0.1	0.1
20	Raw Sand Vibratory Feeder (FE-03)	NONE	PM ₁₀	0.1	0.1
21	Raw Sand Vibratory Feeder (FE-04)	NONE	PM ₁₀	0.1	0.1
22	Vibrating Scalping Screen (VS-01)	NONE	PM ₁₀	0.3	1.3
23	Fresh Feed Vibrating Screen (VS-02)	NONE	PM ₁₀	0.3	1.2
24	VSI Discharge Screen (VS-03)	NONE	PM ₁₀	0.1	0.1
25	Primary Jaw Crusher (CR-01)	NONE	PM ₁₀	0.3	1.0
26	Hammer Mill (CR-02)	NONE	PM ₁₀	0.2	1.0
27	VSI Crusher (CR-03)	NONE	PM ₁₀	0.3	1.0
28	Transfer Belt (BC-02A)	NONE	PM ₁₀	0.1	0.1
29	Recirculation Belt (BC-01A)	NONE	PM ₁₀	0.1	0.1
30	Bag Plant Car Unloading Belt (BC-13)	NONE	PM ₁₀	0.2	0.5
31	Bulk Bagger (BG-02)	NONE	PM ₁₀	0.2	0.7
32	Belt Conveyor (BC-04B)	NONE	PM ₁₀	0.1	0.1
33	Grizzle Feeder (GF-01)	NONE	PM ₁₀	0.1	0.1

Unimin Corporation
 Permit #: 0620-AR-6
 AFIN: 33-00002

SN	Description	Control Equipment	Pollutant	lb/hr	tpy
34	Surge Bin (SB-01)	NONE	PM ₁₀	0.1	0.3
35	Hopper (HO-200)	NONE	PM ₁₀	0.3	0.3
36	Feeder (FE-200)	NONE	PM ₁₀	0.3	0.3
37	Crusher (CR-200)	NONE	PM ₁₀	0.5	0.5
38	Stacking Belt Conveyor (BC-200)	NONE	PM ₁₀	0.3	0.3
39	Product Stockpile	NONE	PM ₁₀	0.2	0.7
40	Diesel Generator (GE-200)	NONE	PM ₁₀	0.4	0.4
			SO ₂	0.4	0.4
			VOC	0.4	0.4
			CO	1.1	1.1
			NO _x	4.9	4.9

2. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 18, §18.801, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Control Equipment	Regulation	Pollutant	lb/hr	tpy
01	Natural Gas Fired Fluid Bed Dryer Dust Collection System Dryer Burner (BU-01)	Particulate emissions and products of combustion are controlled and vented through cyclone on wet scrubber. (99% efficient)	SIP	PM	3.7	15.9
02	Screen House Collection System	Wet Scrubber	NSPS	PM	5.3	23.2
02A	Grizzly Feeder Discharge Belt (BC-00)	NONE	NSPS	PM	0.1	0.3

Unimin Corporation
 Permit #: 0620-AR-6
 AFIN: 33-00002

SN	Description	Control Equipment	Regulation	Pollutant	lb/hr	tpy
03	Jaw Crusher Discharge Belt (BC-01)	NONE	NSPS	PM	0.1	0.3
04	Hammer Mill Discharge Belt (BC-02)	NONE	NSPS	PM	0.1	0.3
05	Raw Sand Silo Discharge Belt (BC-03A)	NONE	NSPS	PM	0.1	0.3
06	Vibrating Screen Feeder Belt (BC-03C)	NONE	NSPS	PM	0.1	0.3
07	Stockpile Discharge Belt (BC-04A)	NONE	NSPS	PM	0.1	0.2
08	Dryer Feed Belt (BC-05)	NONE	NSPS	PM	0.1	0.2
09	Bagging Belt (BC-12)	NONE	SIP	PM	0.3	1.4
10	Dryer Feed Stockpile	NONE	SIP	PM	2.4	10.3
11	Bagging Elevator (BE-05)	NONE	SIP	PM	0.3	1.4
12	Feed Hopper (HO-01)	NONE	SIP	PM	0.1	0.3
13	Drain Bin Hopper (HO-02)	NONE	SIP	PM	0.1	0.2
14	Raw Sand Silo (BN-01)	NONE	SIP	PM	0.2	0.9
15	Raw Sand Silo (BN-02)	NONE	SIP	PM	0.2	0.9
16	Bagger Bin (BN-15)	Bin Cover	SIP	PM	1.0	3.7
17	Bagger (BG-01)	NONE	SIP	PM	0.9	3.7
18	Recycle Conveyor (BC-03B)	NONE	SIP	PM	0.1	0.2
19	Grizzly Feeder Screen (FE-01)	NONE	SIP	PM	0.1	0.3
20	Raw Sand Feeders (FE-03)	NONE	SIP	PM	0.1	0.3

Unimin Corporation
 Permit #: 0620-AR-6
 AFIN: 33-00002

SN	Description	Control Equipment	Regulation	Pollutant	lb/hr	tpy
21	Raw Sand Feeder (FE-04)	NONE	SIP	PM	0.1	0.3
22	Vibrating Scalping Screen (VS-01)	NONE	NSPS	PM	0.9	3.9
23	Vibrating Screen (VS-02)	NONE	NSPS	PM	0.8	3.4
24	Vibrating Screen (VS-03)	NONE	NSPS	PM	0.1	0.2
25	Primary Jaw Crusher (CR-01)	NONE	SIP	PM	0.5	2.1
26	Hammer Mill (CR-02)	NONE	NSPS	PM	0.5	1.9
27	Crusher (CR-03)	NONE	NSPS	PM	0.5	1.9
28	Transfer Belt (BC-02A)	NONE	NSPS	PM	0.1	0.1
29	Recirculation Belt (BC-01A)	NONE	NSPS	PM	0.1	0.3
30	Retractable Conveyor (BC-13)	NONE	SIP	PM	0.3	1.4
31	Bulk Bagger (BG-02)	NONE	NSPS	PM	3.4	14.8
32	Belt Conveyor (BC-04B)	NONE	NSPS	PM	0.1	0.2
33	Grizzle Feeder (GF-01)	NONE	NSPS	PM	0.1	0.2
34	Surge Bin (SB-01)	NONE	NSPS	PM	0.2	0.7
35	Hopper (HO-200)	NONE	NSPS	PM	0.6	0.6
36	Feeder (FE-200)	NONE	NSPS	PM	0.6	0.6
37	Crusher (CR-200)	NONE	NSPS	PM	1.1	1.1
38	Stacking Belt Conveyor (BC-200)	NONE	NSPS	PM	0.6	0.6
39	Product Stockpile	NONE	NSPS	PM	1.9	1.9
40	Diesel Generator (GE-200)	NONE	SIP	PM	0.4	0.4

Unimin Corporation
 Permit #: 0620-AR-6
 AFIN: 33-00002

3. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Limit	Regulatory Citation
01	10 - Dryer and Scrubber	§18.501
02	10	§18.501
02A	10	§19.503
03	10	§19.503
04	10	§19.503
05	10	§19.503
06	10	§19.503
07	10	§19.503
08	10	§19.503
09	20	§18.501
10	20	§18.501
11	20	§18.501
12	20	§19.503
13	20	§19.503
14	20	§18.501
15	20	§18.501
16	20	§18.501
17	20	§19.503
18	10	§19.503
19	10	§19.503
20	20	§18.501

SN	Limit	Regulatory Citation
21	20	§18.501
22	10	§19.503
23	10	§19.503
24	10	§18.501
25	20	§18.501
26	15	§19.503
27	15	§19.503
28	10	§19.503
29	10	§19.503
30	20	§18.501
31	10	§19.503
32	10	§19.503
33	10	§19.503
34	10	§19.503
35	10	§19.503
36	10	§19.503
37	15	§19.503
38	10	§19.503
39	10	§19.503
40	20	§19.503

4. The permittee shall not cause or permit the emission of air contaminants, including odors or water vapor and including an air contaminant whose emission is not otherwise prohibited by Regulation #18, if the emission of the air contaminant constitutes air pollution within the meaning of A.C.A. §8-4-303. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
5. The permittee shall not conduct operations in such a manner as to unnecessarily cause air contaminants and other pollutants to become airborne. [Regulation 18, §18.901 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

6. The permittee shall not exceed the maximum process material input rate from the fixed facility in excess of that specified in the confidential permit application dated February 23, 2005 per consecutive 12 month period. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
7. The permittee shall maintain a copy of the confidential permit application dated February 23, 2005 on site and maintain monthly records which demonstrate compliance with Specific Condition 6. The permittee shall update the records by the fifteenth day of the month following the month to which the records pertain. The permittee shall keep the records onsite, and make the records available to Department personnel upon request. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
8. The permittee shall not exceed the maximum process material input rate from the portable crushing plant in excess of that specified in the confidential permit application dated June 12, 2006 per consecutive 12 month period. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
9. The permittee shall not exceed the maximum fuel usage for the diesel generator for the portable crushing plant in excess of that specified in the confidential permit application dated June 12, 2006 per consecutive 12 month period. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
10. The permittee shall maintain a copy of the confidential permit application dated June 12, 2006 on site and maintain monthly records which demonstrate compliance with Specific Conditions 8 and 9. The permittee shall update the records by the fifteenth day of the month following the month to which the records pertain. The permittee shall keep the records onsite, and make the records available to Department personnel upon request. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
11. The permittee shall only use *pipeline quality natural gas* or *Propane* to fire the fluid bed dryer located at the facility. *Pipeline quality natural gas* is defined as a natural gas which contains 0.5 grains or less of total sulfur per 100 standard cubic feet, and pipeline natural gas must either be composed of at least 70 percent methane by volume or has a gross calorific value between 950 and 1100 Btu per standard cubic foot. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, 40 CFR §70.6, and 40 CFR §72.2]
12. The permittee shall operate the wet scrubber (SN-01) during the processing of silica sand material. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

NSPS Conditions

13. The permittee shall comply with all applicable regulations under the New Source Performance Standards of 40 CFR Part 60, Subpart OOO-*Standards of Performance for Nonmetallic Mineral processing Plans*. The permittee shall be limited to the following affected applicable sources in the fixed and portable nonmetallic mineral processing plant: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. [Regulation 19, §19.304 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
14. The permittee shall conduct an initial performance test for PM emissions for the portable crushing plant (SN-35, 36, 37, 38, & 39) as required by 40 CFR Part 60 Subpart A §60.8. [§19.702, A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 60 Subpart A §60.8]
15. On and after the date on which the performance test required to be conducted by §60.8 is completed, the permittee shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions which: [Regulation 19, §19.304 and 40 CFR §60.672 (a)(1)(2)]
 - a. Contain particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf); and
 - b. Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing control device. Facilities using a wet scrubber must comply with the reporting provisions of Specific Conditions 27, 28, & 30.
16. On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11, the permittee shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility (SN-02A, 03, 04, 05, 06, 07, 08, 13, 22, 23, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 38, & 39) any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in Specific Conditions 17 and 18. [Regulation 19, §19.304 and 40 CFR §60.672 (b)]
17. On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11, the permittee shall not cause to be discharged into the atmosphere from any crusher (SN-26, 27, & 37), at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity. [Regulation 19, §19.304 and 40 CFR §60.672 (c)]

18. If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in Specific Conditions 15, 16, & 17 or the building enclosing the affected facility or facilities must comply with the following emission limits: [Regulation 19, §19.304 and 40 CFR §60.672 (e)(1)(2)]
 - a. The permittee shall not cause to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive emissions except emissions from a vent.
 - b. The permittee shall not cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in Specific Condition 15.
19. When using a wet scrubber to control emissions from any affected facility (SN-02), the permittee shall install, calibrate, maintain and operate the following monitoring devices: [Regulation 19, §19.304 and 40 CFR §60.674 (a)(b)]
 - a. A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 250 pascals ± 1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.
 - b. A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.
20. In conducting the performance tests required in §60.8, the permittee shall use as reference methods and procedures the test methods in appendix A of 40 CFR 60, Subpart A or other methods and procedures as specified in Specific Condition 21 through 26, except as provided in §60.8(b). [Regulation 19, §19.304 and 40 CFR §60.675 (a)]
21. The permittee shall determine compliance with the particulate matter standards in Specific Condition 15 as follows: [Regulation 19, §19.304 and 40 CFR §60.675 (b)]
 - a. Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

- b. Method 9 and the procedures in §60.11 shall be used to determine opacity.
22. In determining compliance with the particulate matter standards in Specific Conditions 16 & 17, the permittee shall use Method 9 and the procedures in §60.11, with the following additions: [Regulation 19, §19.304 and 40 CFR §60.675 (c)(1)]
 - a. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
 - b. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.
 - c. For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.
 23. When determining compliance with the fugitive emissions standard for any affected facility described under Specific Condition 16, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply: [Regulation 19, §19.304 and 40 CFR §60.675 (c)(3)]
 - a. There are no individual readings greater than 10 percent opacity; and
 - b. There are no more than 3 readings of 10 percent for the 1-hour period.
 24. When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under Specific Condition 17, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply: [Regulation 19, §19.304 and 40 CFR §60.675 (c)(4)]
 - a. There are no individual readings greater than 15 percent opacity; and
 - b. There are no more than 3 readings of 15 percent for the 1-hour period.
 25. In determining compliance with Specific Condition 18, the permittee shall use Method 22 to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes. [Regulation 19, §19.304 and 40 CFR §60.675 (d)]

Unimin Corporation
Permit #: 0620-AR-6
AFIN: 33-00002

26. To comply with Specific Condition 28, the permittee shall record the measurements as required in Specific Condition 27 using the monitoring devices in Specific Condition 19 during each particulate matter run and shall determine the averages. [Regulation 19, §19.304 and 40 CFR §60.675 (f)]
27. During the initial performance test of the wet scrubber (SN-02) and daily thereafter, the permittee shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate. [Regulation 19, §19.304 and 40 CFR §60.676 (c)]
28. After the initial performance test of the wet scrubber (SN-02), the permittee shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss (or gain) and liquid flow rate differ by more than ± 30 percent from the averaged determined during the most recent performance test. [Regulation 19, §19.304 and 40 CFR §60.676 (d)]
29. The reports required under Specific Condition 28 shall be postmarked within 30 days following end of the second and fourth calendar quarters. [Regulation 19, §19.304 and 40 CFR §60.676 (e)]
30. The permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in Specific Condition 15, including reports of opacity observations made using Method 9 to demonstrate compliance with Specific Conditions 16 & 17, and reports of observations using Method 22 to demonstrate compliance with Specific Condition 18. [Regulation 19, §19.304 and 40 CFR §60.676 (f)]

Section V: INSIGNIFICANT ACTIVITIES

The Department deems the following types of activities or emissions as insignificant on the basis of size, emission rate, production rate, or activity in accordance with Group A of the Insignificant Activities list found in Regulation 18 and 19 Appendix A. Insignificant activity emission determinations rely upon the information submitted by the permittee in an application dated 1/30/2004, and additional information submitted on 3/26/04.

Description	Category
Four (4) Reddy fuel burning heaters < 1.0 MMBtu/hr	A-1
Tank TA-01 (Diesel), 15,000 gallon capacity distillate fuel oil No. 2 storage tank. The predicted emissions of < 0.01 tpy VOCs, at 60,000 gal/yr throughput, are well below 5 tpy of VOC and 1 tpy of any HAP.	A-13
Tank TA-02 (Gasoline), 2,000 gallon capacity gasoline storage tank. The predicted emissions of 0.32 tpy VOCs, at 12,000 gal/yr throughput, are well below 5 tpy of VOC and 1 tpy of any HAP.	A-13

Section VI: GENERAL CONDITIONS

1. Any terms or conditions included in this permit that specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.). Any terms or conditions included in this permit that specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute.
2. This permit does not relieve the owner or operator of the equipment and/or the facility from compliance with all applicable provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated under the Act. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
3. The permittee will notify the Department in writing within thirty (30) days after commencement of construction, completion of construction, first operation of equipment and/or facility, and first attainment of the equipment and/or facility target production rate. [Regulation 19, §19.704 and/or A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
4. Construction or modification must commence within eighteen (18) months from the date of permit issuance. [Regulation 19, §19.410(B) and/or Regulation 18, §18.309(B) and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
5. The permittee must keep records for five years to enable the Department to determine compliance with the terms of this permit such as hours of operation, throughput, upset conditions, and continuous monitoring data. The Department may use the records, at the discretion of the Department, to determine compliance with the conditions of the permit. [Regulation 19, §19.705 and/or Regulation 18, §18.1004 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
6. A responsible official must certify any reports required by any condition contained in this permit and submit any reports to the Department at the address below. [Regulation 19, §19.705 and/or Regulation 18, §18.1004 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Arkansas Department of Environmental Quality
Air Division
ATTN: Compliance Inspector Supervisor
Post Office Box 8913
Little Rock, AR 72219

7. The permittee will test any equipment scheduled for testing, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) newly constructed or modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) existing equipment already operating according to the time frames set forth by the Department. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. The permittee must submit compliance test results to the Department within thirty (30) days after the completion of testing. [Regulation 19, §19.702 and/or Regulation 18, §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
8. The permittee will provide: [Regulation 19, §19.702 and/or Regulation 18, §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
 - a. Sampling ports adequate for applicable test methods
 - b. Safe sampling platforms
 - c. Safe access to sampling platforms
 - d. Utilities for sampling and testing equipment
9. The permittee will operate equipment, control apparatus and emission monitoring equipment within their design limitations. The permittee will maintain in good condition at all times equipment, control apparatus and emission monitoring equipment. [Regulation 19, §19.303 and/or Regulation 18, §18.1104 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
10. If the permittee exceeds an emission limit established by this permit, the permittee will be deemed in violation of said permit and will be subject to enforcement action. The Department may forego enforcement action for emissions exceeding any limits established by this permit provided the following requirements are met: [Regulation 19, §19.601 and/or Regulation 18, §18.1101 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
 - a. The permittee demonstrates to the satisfaction of the Department that the emissions resulted from an equipment malfunction or upset and are not the result of negligence or improper maintenance, and the permittee took all reasonable measures to immediately minimize or eliminate the excess emissions.
 - b. The permittee reports the occurrence or upset or breakdown of equipment (by telephone, facsimile, or overnight delivery) to the Department by the end of the next business day after the occurrence or the discovery of the occurrence.

- c. The permittee must submit to the Department, within five business days after the occurrence or the discovery of the occurrence, a full, written report of such occurrence, including a statement of all known causes and of the scheduling and nature of the actions to be taken to minimize or eliminate future occurrences, including, but not limited to, action to reduce the frequency of occurrence of such conditions, to minimize the amount by which said limits are exceeded, and to reduce the length of time for which said limits are exceeded. If the information is included in the initial report, the information need not be submitted again.
11. The permittee shall allow representatives of the Department upon the presentation of credentials: [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
 - a. To enter upon the permittee's premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of this permit;
 - b. To have access to and copy any records required to be kept under the terms and conditions of this permit, or the Act;
 - c. To inspect any monitoring equipment or monitoring method required in this permit;
 - d. To sample any emission of pollutants; and
 - e. To perform an operation and maintenance inspection of the permitted source.
12. The Department issued this permit in reliance upon the statements and presentations made in the permit application. The Department has no responsibility for the adequacy or proper functioning of the equipment or control apparatus. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
13. The Department may revoke or modify this permit when, in the judgment of the Department, such revocation or modification is necessary to comply with the applicable provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated the Arkansas Water and Air Pollution Control Act. [Regulation 19, §19.410(A) and/or Regulation 18, §18.309(A) and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
14. This permit may be transferred. An applicant for a transfer must submit a written request for transfer of the permit on a form provided by the Department and submit the disclosure statement required by Arkansas Code Annotated '8 1 106 at least thirty (30) days in advance of the proposed transfer date. The permit will be automatically transferred to the new permittee unless the Department denies the request to transfer within thirty (30) days of the receipt of the disclosure statement. The Department may deny a transfer on the basis of the information revealed in the disclosure statement or other investigation or, deliberate falsification or omission of relevant information. [Regulation 19, §19.407(B) and/or Regulation 18, §18.307(B) and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Unimin Corporation
Permit #: 0620-AR-6
AFIN: 33-00002

15. This permit shall be available for inspection on the premises where the control apparatus is located. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
16. This permit authorizes only those pollutant emitting activities addressed herein. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
17. This permit supersedes and voids all previously issued air permits for this facility. [Regulation 18 and 19 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
18. The permittee must pay all permit fees in accordance with the procedures established in Regulation No. 9. [A.C.A §8-1-105(c)]