



ARKANSAS  
Department of Environmental Quality

July 12, 2013

Randy Mauzy  
Vice President -Technology  
AluChem of Little Rock, LLC  
10500 Arch Street Pike  
Little Rock, AR 72206

Dear Mr. Mauzy:

In response to your Administrative Amendment permit application, you will find enclosed a copy of your final permit. Section 19.407 (A) of the Arkansas Plan of Implementation for Air Pollution Control (SIP) and 18.307 (A) of the Arkansas Air Pollution Control Act do not require a public notice or public comment period for Administrative Amendments.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Bates", is written over a horizontal line.

Mike Bates  
Chief, Air Division

Enclosures: Draft Permit

# ADEQ MINOR SOURCE AIR PERMIT

Permit No. : 2168-AR-4

IS ISSUED TO:

AluChem of Little Rock, LLC  
10500 Arch Street Pike  
Little Rock, AR 72206  
Pulaski County  
AFIN: 60-00005

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

July 12, 2013

Date

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#### 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 <sub>x</sub>	Nitrogen Oxide
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter Smaller Than Ten Microns
SO <sub>2</sub>	Sulfur Dioxide
Tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

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Section I: FACILITY INFORMATION

PERMITTEE:	AluChem of Little Rock, LLC
AFIN:	60-00005
PERMIT NUMBER:	2168-AR-4
FACILITY ADDRESS:	10500 Arch Street Pike Little Rock, AR 72206
MAILING ADDRESS:	10500 Arch Street Pike Little Rock, AR 72206
COUNTY:	Pulaski County
CONTACT NAME:	Randy Mauzy
CONTACT POSITION:	Vice President -Technology
TELEPHONE NUMBER:	501-486-9106
REVIEWING ENGINEER:	Adam McDaniel
UTM North South (Y):	Zone 15: 3834840.31 m
UTM East West (X):	Zone 15: 563575.03 m

AluChem of Little Rock, LLC  
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## Section II: INTRODUCTION

### Summary of Permit Activity

AluChem of Little Rock, LLC (60-00005) operates an alumina refining facility located at 10500 Arch Street Pike, Little Rock, Pulaski County, Arkansas. This administrative amendment is to update Specific Condition #10 to correctly address SN-10 instead of SN-01 and to add two (2) 500 gallons diesel storage tanks to the insignificant activity list. There are no permitted emission rate limit changes associated with this administrative amendment.

### Process Description

AluChem processes metal grade alumina (MGA) and/or alumina trihydrate (ATH). Raw alumina is received by truck or rail and conveyed to a storage bin (SN-01) outfitted with a bin vent filter. ATH filter cakes are stored on a concrete pad at the facility (SN-07). The alumina trihydrate will be transferred via front end loader (SN-08) to the Kiln Feed Bin with a baghouse (SN-02). This bin is also equipped with a bin vent filter and feeds the Kiln with a baghouse (SN-03). The Kiln is natural gas-fired with a heat input rating of approximately 35.0 MMBtu/hr. The kiln is outfitted with a high efficiency cyclone and fabric filter dust collector in series. Collected fines from the cyclone and collector are fed back into the kiln. In addition, the kiln is fed with aluminum fluoride ( $\text{AlF}_3$ ). One by-product from the calcining of MGA and  $\text{AlF}_3$  will be hydrogen fluoride (HF). Sodium bicarbonate ( $\text{NaHCO}_3$ ) will be used when aluminum fluoride is used in the kiln to reduce hydrogen fluoride emissions.

As calcined material exits the kiln, it is screened (SN-04) for refractory spalls. Final product is routed to one of the two product bins (SN-06) and to the bagging process where the final product will be bagged into supersacks (SN-09). Any out of specification material is sent to the kiln recycle hopper (SN-05) to be processed again.

An emergency backup engine (SN-10) was installed in 2008. The engine was manufactured in 2007. The engine is a 40 HP SI 4 stroke lean burn engine which is subject to NESHAP 40 CFR Part 63 Subpart ZZZZ. The engine is not subject to NSPS 40 CFR Part 60 Subpart JJJJ.

### Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective June 18, 2010
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective November 18, 2012
NSPS 40 CFR Part 60 Subpart UUU - <i>Standards of Performance for Calciners and Dryers in Mineral Industries</i>
NESHAP 40 CFR Part 63 Subpart ZZZZ - <i>National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</i>

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#### Total Allowable Emissions

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		
Pollutant	Emission Rates	
	lb/hr	tpy
PM	5.0	20.2
PM <sub>10</sub>	3.4	13.3
SO <sub>2</sub>	0.2	0.2
VOC	0.3	1.0
CO	3.1	13.0
NO <sub>x</sub>	3.9	15.5
Hydrogen Fluoride	2.2	9.5

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### Section III: PERMIT HISTORY

Permit 2168-A was the first air permit issued to this facility on July 10, 2008. This permit permitted the reception, drying and processing of raw alumina at this facility. Permitted facility emissions were 18.9, 12.0, 0.1, 15.4, 0.9, 12.9 and 9.5 tons per year of PM, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, CO and HF respectively. Hydrogen fluoride was produced as a by-product of the process.

Permit 2168-AR-1 was issued on October 23, 2008. This permit modification revised administrative issues as well as requiring daily visible emissions in lieu of COMS for SN-03. Annual PM/PM<sub>10</sub> emissions were increased by 0.4 tons per year.

Permit 2168-AR-2 was issued on November 18, 2011. This modification to the permit included:

- Updating Specific Condition #8 to require the addition of sodium bicarbonate only when aluminum fluoride is added to the kiln;
- Installed three (3) new baghouses. Two (2) are associated with existing sources (SN-02 and SN-06) and one (1) is associated with a new bagging operation (SN-09);
- Installed a new bagging line (SN-09) to allow the facility to bag final products in supersacks.

The total annual emission changes associated with this permit included +0.8 tpy PM/PM<sub>10</sub>.

Permit 2168-AR-3 was issued on May 13, 2013. This modification included the addition of a Kiln Drive Emergency Engine (SN-10). The total annual permitted emission rate limit changes associated with this modification included: +0.1 tpy PM/PM<sub>10</sub>, +0.1 tpy SO<sub>2</sub>, +0.1 tpy VOC, +0.1 tpy CO, and +0.1 tpy NO<sub>x</sub>.



#### Section IV: EMISSION UNIT INFORMATION

##### Specific Conditions

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

SN	Description	Pollutant	lb/hr	tpy
01	Receiving Bin with Bin Vent Filter	PM <sub>10</sub>	0.2	0.8
02	Kiln Feed Bin with Bin Vent Filter with baghouse	PM <sub>10</sub>	0.2	0.8
03	Kiln (35 MM Btu/hr) with Cyclone in Series with Baghouse and Sodium Bicarbonate Spray	PM <sub>10</sub>	2.1	9.1
		SO <sub>2</sub>	0.1	0.1
		VOC	0.2	0.9
		CO	3.0	12.9
		NO <sub>x</sub>	3.5	15.4
04	Screening with Fabric Collector	PM <sub>10</sub>	0.1	0.2
05	Kiln Recycle Hopper	PM <sub>10</sub>	0.1	0.3
06	Final Product Bins (2) with Bin Vent Filter with baghouse	PM <sub>10</sub>	0.2	0.8
07	Wet Filter Cake Storage	PM <sub>10</sub>	0.1	0.2
08	Front End Loader to Feed Bin	PM <sub>10</sub>	0.1	0.2
09	Bagging Facility	PM <sub>10</sub>	0.2	0.8
10	40 HP- 4SLB- SI- Emergency Engine for Kiln (Manufactured 2007) (Installed 2008)	PM <sub>10</sub>	0.1	0.1
		SO <sub>2</sub>	0.1	0.1
		VOC	0.1	0.1
		CO	0.1	0.1
		NO <sub>x</sub>	0.4	0.1

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

SN	Description	Pollutant	lb/hr	tpy
01	Receiving Bin with Bin Vent Filter	PM	0.2	0.8
02	Kiln Feed Bin with Bin Vent Filter with baghouse	PM	0.2	0.8
03	Kiln (35 MM Btu/hr) with Cyclone in Series with Baghouse and Sodium Bicarbonate Spray	PM	3.3	14.2
		HF	2.2	9.5
04	Screening with Fabric Collector	PM	0.4	1.6
05	Kiln Recycle Hopper	PM	0.2	0.7
06	Final Product Bins (2) with Bin Vent Filter with baghouse	PM	0.2	0.8
07	Wet Filter Cake Storage	PM	0.1	0.2
08	Front End Storage Loader to Feed Bin	PM	0.1	0.2
09	Bagging Facility	PM	0.2	0.8
10	40 HP- 4SLB- SI- Emergency Engine for Kiln (Manufactured 2007) (Installed 2008)	PM	0.1	0.1

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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 §8-4-304 and §8-4-311]

SN	Limit	Regulatory Citation
01, 02, & 04-08	5%	§18.501
03	10%	§60.372(b)
10	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 §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 §8-4-304 and §8-4-311]
6. The permittee shall not receive more than 131,400 tons of product at the facility's receiving bin (SN-01) and the Kiln Feed Bin (SN-02) combined per consecutive 12-month period. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
7. The permittee shall 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 will 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 A.C.A. §8-4-304 and §8-4-311]
8. The permittee shall use at least 18 pounds of Sodium Bicarbonate per hour only when Aluminum Fluoride is being added to the kiln at SN-03 to ensure that Hydrogen Fluoride emissions are maintained at or below permitted levels. [Regulation 18, §18.1004 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
9. The permittee shall monitor continuously and record the amount and the time that Sodium Bicarbonate and Aluminum Fluoride is injected into the calciner (SN-03) to ensure compliance with Specific Condition #8. The permittee will keep the records onsite, and make the records available to Department personnel upon request. [Regulation 18, §18.1004 and A.C.A. §8-4-304 as referenced by §8-4-304 and §8-4-311]
10. The permittee shall not operate SN-10 more than 100 hours per consecutive 12-month period. [Regulation 19, §19.705 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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11. The permittee shall maintain monthly records which demonstrate compliance with Specific Condition #10. The permittee shall update the records by the fifteenth day of the month following the month to which the records pertain. The permittee will 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 A.C.A. §8-4-304 and §8-4-311]

NSPS 40 CFR Part 60 Subpart UUU Conditions

12. The permittee shall not discharge into the atmosphere from, SN-03, emissions which contain particulate matter in excess of 0.092 gram per dry standard cubic meter (g/dscm) [0.040 grain per dry standard cubic foot (gr/dscf)]. [Regulation 19, §19.304 and 40 CFR Part §60.732(a) Subpart UUU]
13. The permittee shall not discharge into the atmosphere from SN-03, emissions which exhibit greater than 10 percent opacity. [Regulation 19, §19.304 and 40 CFR Part §60.732(b) Subpart UUU]
14. Daily observations of the opacity from SN-03 shall be conducted by a certified Method 9 reader. If visible emissions of 10% are detected, the permittee shall immediately take action to identify the cause of the emissions in excess of the limit, implement corrective action and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated daily, kept on site, and made available to Department personnel upon request.
  - a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the reason it exceed the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The name of the person conducting the opacity observations.[Regulation 19, §19.304 and 40 CFR Part §60.734(b) Subpart UUU]
15. Within 60 days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source, the facility shall test SN-03 using Method 5 for particulate matter and Method 9 for opacity. For the particulate matter test, the sampling time and volume for each test run shall be at least 2 hours and 1.70 dscm. [Regulation 19, §19.304 and 40 CFR Part 60, §60.736(b)(1) and (2) Subpart UUU]
16. Within 60 days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source, the facility shall test SN-03 for Hydrogen Fluoride using a method approved by the Department. Also, the facility shall repeat this test every five years to demonstrate compliance. [Regulation 18, §18.1002 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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NESHAP 40 CFR Part 63 Subpart ZZZZ Condition

17. SN-10 is subject to NESHAP 40 CFR Part 63 Subpart ZZZZ. The only applicable requirement is to stay in compliance with NSPS 40 CFR Part 60 Subpart JJJJ, but SN-10 is not subject to NSPS 40 CFR Part 60 Subpart JJJJ. [Regulation 19, §19.304 and 40 CFR Part §63 Subpart ZZZZ]

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#### 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 June 21, 2013.

Description	Category
500 Gallon Diesel Storage Tank	A-3
500 Gallon Diesel Storage Tank	A-3

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 §8-4-304 and §8-4-311]
3. The permittee shall 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 §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 §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 §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 §8-4-304 and §8-4-311]  

Arkansas Department of Environmental Quality  
Air Division  
ATTN: Compliance Inspector Supervisor  
5301 Northshore Drive  
North Little Rock, AR 72118-5317
7. The permittee shall 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

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- 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) business days in advance of such test. The permittee must submit compliance test results to the Department within thirty (30) calendar 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 §8-4-304 and §8-4-311]
8. The permittee shall provide: [Regulation 19 §19.702 and/or Regulation 18 §18.1002 and A.C.A. §8-4-203 as referenced by §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; and
    - d. Utilities for sampling and testing equipment
  9. The permittee shall operate equipment, control apparatus and emission monitoring equipment within their design limitations. The permittee shall 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 §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 §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 §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 §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 §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 §8-4-304 and §8-4-311]
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 §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 §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 §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)]
19. The permittee may request in writing and at least 15 days in advance of the deadline, an extension to any testing, compliance or other dates in this permit. No such extensions are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion in the following circumstances:



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- a. Such an extension does not violate a federal requirement;
- b. The permittee demonstrates the need for the extension; and
- c. The permittee documents that all reasonable measures have been taken to meet the current deadline and documents reasons it cannot be met.

[Regulation 18 §18.314(A), Regulation 19 §19.416(A), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E]

20. The permittee may request in writing and at least 30 days in advance, temporary emissions and/or testing that would otherwise exceed an emission rate, throughput requirement, or other limit in this permit. No such activities are authorized until the permittee receives written Department approval. Any such emissions shall be included in the facilities total emissions and reported as such. The Department may grant such a request, at its discretion under the following conditions:

- a. Such a request does not violate a federal requirement;
- b. Such a request is temporary in nature;
- c. Such a request will not result in a condition of air pollution;
- d. The request contains such information necessary for the Department to evaluate the request, including but not limited to, quantification of such emissions and the date/time such emission will occur;
- e. Such a request will result in increased emissions less than five tons of any individual criteria pollutant, one ton of any single HAP and 2.5 tons of total HAPs; and
- f. The permittee maintains records of the dates and results of such temporary emissions/testing.

[Regulation 18 §18.314(B), Regulation 19 §19.416(B), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E]

21. The permittee may request in writing and at least 30 days in advance, an alternative to the specified monitoring in this permit. No such alternatives are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion under the following conditions:

- a. The request does not violate a federal requirement;
- b. The request provides an equivalent or greater degree of actual monitoring to the current requirements; and
- c. Any such request, if approved, is incorporated in the next permit modification application by the permittee.

[Regulation 18 §18.314(C), Regulation 19 §19.416(C), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E]

AluChem of Little Rock, LLC  
Permit #: 2168-AR-4  
AFIN: 60-00005

Appendix A:  
NSPS 40 CFR Part 60 Subpart UUU

**ELECTRONIC CODE OF FEDERAL REGULATIONS****e-CFR Data is current as of July 1, 2013**

Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

**Subpart UUU—Standards of Performance for Calciners and Dryers in Mineral Industries****Contents**

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SOURCE: 57 FR 44503, Sept. 28, 1992, unless otherwise noted.

**§ 60.730 Applicability and designation of affected facility.**

(a) The affected facility to which the provisions of this subpart apply is each calciner and dryer at a mineral processing plant. Feed and product conveyors are not considered part of the affected facility. For the brick and related clay products industry, only the calcining and drying of raw materials prior to firing of the brick are covered.

(b) An affected facility that is subject to the provisions of subpart LL, Metallic Mineral Processing Plants, is not subject to the provisions of this subpart. Also, the following processes and process units used at mineral processing plants are not subject to the provisions of this subpart: vertical shaft kilns in the magnesium compounds industry; the chlorination-oxidation process in the titanium dioxide industry; coating kilns, mixers, and aerators in the roofing granules industry; and tunnel kilns, tunnel dryers, apron dryers, and grinding equipment that also dries the process material used in any of the 17 mineral industries (as defined in § 60.731, "Mineral processing plant").

(c) The owner or operator of any facility under paragraph (a) of this section that commences construction, modification, or reconstruction after April 23, 1986, is subject to the requirements of this subpart.

**§ 60.731 Definitions.**

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

*Calciner* means the equipment used to remove combined (chemically bound) water and/or gases from mineral material through direct or indirect heating. This definition includes expansion furnaces and multiple hearth furnaces.

*Control device* means the air pollution control equipment used to reduce particulate matter

emissions released to the atmosphere from one or more affected facilities.

*Dryer* means the equipment used to remove uncombined (free) water from mineral material through direct or indirect heating.

*Installed in series* means a calciner and dryer installed such that the exhaust gases from one flow through the other and then the combined exhaust gases are discharged to the atmosphere.

*Mineral processing plant* means any facility that processes or produces any of the following minerals, their concentrates or any mixture of which the majority (>50 percent) is any of the following minerals or a combination of these minerals: alumina, ball clay, bentonite, diatomite, feldspar, fire clay, fuller's earth, gypsum, industrial sand, kaolin, lightweight aggregate, magnesium compounds, perlite, roofing granules, talc, titanium dioxide, and vermiculite.

#### **§ 60.732 Standards for particulate matter.**

Each owner or operator of any affected facility that is subject to the requirements of this subpart shall comply with the emission limitations set forth in this section on and after the date on which the initial performance test required by § 60.8 is completed, but not later than 180 days after the initial startup, whichever date comes first. No emissions shall be discharged into the atmosphere from any affected facility that:

(a) Contains particulate matter in excess of 0.092 gram per dry standard cubic meter (g/dscm) [0.040 grain per dry standard cubic foot (gr/dscf)] for calciners and for calciners and dryers installed in series and in excess of 0.057 g/dscm (0.025 gr/dscf) for dryers; and

(b) Exhibits greater than 10 percent opacity, unless the emissions are discharged from an affected facility using a wet scrubbing control device.

[57 FR 44503, Sept. 28, 1992, as amended at 65 FR 61778, Oct. 17, 2000]

#### **§ 60.733 Reconstruction.**

The cost of replacement of equipment subject to high temperatures and abrasion on processing equipment shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital cost that would be required to construct a comparable new facility" under § 60.15. Calciner and dryer equipment subject to high temperatures and abrasion are: end seals, flights, and refractory lining.

#### **§ 60.734 Monitoring of emissions and operations.**

(a) With the exception of the process units described in paragraphs (b), (c), and (d) of this section, the owner or operator of an affected facility subject to the provisions of this subpart who uses a dry control device to comply with the mass emission standard shall install, calibrate, maintain, and operate a continuous monitoring system to measure and record the opacity of emissions discharged into the atmosphere from the control device.

(b) In lieu of a continuous opacity monitoring system, the owner or operator of a ball clay vibrating grate dryer, a bentonite rotary dryer, a diatomite flash dryer, a diatomite rotary calciner, a feldspar rotary dryer, a fire clay rotary dryer, an industrial sand fluid bed dryer, a kaolin rotary calciner, a perlite rotary dryer, a roofing granules fluid bed dryer, a roofing granules rotary dryer, a talc rotary calciner, a titanium dioxide spray dryer, a titanium dioxide fluid bed dryer, a vermiculite fluid bed dryer, or a vermiculite rotary dryer who uses a dry control device may have a certified visible emissions observer measure and record three 6-minute averages of the opacity of visible emissions to the atmosphere each day of operation in accordance with Method 9 of appendix A of part 60.

(c) The owner or operator of a ball clay rotary dryer, a diatomite rotary dryer, a feldspar fluid bed dryer, a fuller's earth rotary dryer, a gypsum rotary dryer, a gypsum flash calciner, gypsum kettle calciner, an industrial sand rotary dryer, a kaolin rotary dryer, a kaolin multiple hearth furnace, a perlite expansion furnace, a talc flash dryer, a talc rotary dryer, a titanium dioxide direct or indirect rotary dryer or a vermiculite expansion furnace who uses a dry control device is exempt from the monitoring requirements of this section.

(d) The owner or operator of an affected facility subject to the provisions of this subpart who uses a wet scrubber to comply with the mass emission standard for any affected facility 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.

#### **§ 60.735 Recordkeeping and reporting requirements.**

(a) Records of the measurements required in § 60.734 of this subpart shall be retained for at least 2 years.

(b) Each owner or operator who uses a wet scrubber to comply with § 60.732 shall determine and record once each day, from the recordings of the monitoring devices in § 60.734(d), 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.

(c) Each owner or operator shall submit written reports semiannually of exceedances of control device operating parameters required to be monitored by § 60.734 of this subpart. For the purpose of these reports, exceedances are defined as follows:

(1) All 6-minute periods during which the average opacity from dry control devices is greater than 10 percent; or

(2) Any daily 2-hour average of the wet scrubber pressure drop determined as described in § 60.735(b) that is less than 90 percent of the average value recorded according to § 60.736(c) during the most recent performance test that demonstrated compliance with the particulate matter standard; or

(3) Each daily wet scrubber liquid flow rate recorded as described in § 60.735(b) that is less than 80 percent or greater than 120 percent of the average value recorded according to § 60.736(c) during the most recent performance test that demonstrated compliance with the particulate matter standard.

(d) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected facilities within the State will be relieved of the obligation to comply with this section provided that they comply with the requirements established by the State.

[57 FR 44503, Sept. 28, 1992, as amended at 58 FR 40591, July 29, 1993]

#### **§ 60.736 Test methods and procedures.**

(a) In conducting the performance tests required in § 60.8, the owner or operator shall use the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standards in § 60.732 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and volume for each test run shall be at least 2 hours and 1.70 dscm.

(2) Method 9 and the procedures in § 60.11 shall be used to determine opacity from stack emissions.

(c) During the initial performance test of a wet scrubber, the owner or operator shall use the monitoring devices of § 60.734(d) to determine the average change in pressure of the gas stream across the scrubber and the average flowrate 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 § 60.735(c).

**§ 60.737 Delegation of authority.**

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: No restrictions.

**CERTIFICATE OF SERVICE**

I, Pam Owen, hereby certify that a copy of this permit has been mailed by first class mail to  
AluChem of Little Rock, LLC, 10500 Arch Street Pike, Little Rock, AR, 72206, on this  
12<sup>th</sup> day of July, 2013.

  
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Pam Owen, AAIL, Air Division