ADEQ

A R K A N S A S
Department of Environmental Quality

October 2, 2009

Joe Spence, Plant Manager
Acme Brick Company - Ouachita Plant
1615 Grigsby Ford Road
Malvern, AR 72104

Dear Mr. Spence:

The enclosed Permit No. 1343-AR-3 is your authority to construct, operate, and maintain the equipment and/or control apparatus as set forth in your application initially received on 6/17/2008.

After considering the facts and requirements of A.C.A. §8-4-101 et seq., and implementing regulations, I have determined that Permit No. 1343-AR-3 for the construction, operation and maintenance of an air pollution control system for Acme Brick Company - Ouachita Plant to be issued and effective on the date specified in the permit, unless a Commission review has been properly requested under Arkansas Department of Pollution Control & Ecology Commission's Administrative Procedures, Regulation 8.603, within thirty (30) days after service of this decision.

All persons submitting written comments during the thirty (30) day, and all other persons entitled to do so, may request an adjudicatory hearing and Commission review on whether the decision of the Director should be reversed or modified. Such a request shall be in the form and manner required by Regulation 8.603.

Sincerely,

Mike Bates
Chief, Air Division

RESPONSE TO COMMENTS

ACME BRICK COMPANY - OUACHITA PLANT
PERMIT #1343-AR-3
AFIN: 30-00086

On June 4, 2009, the Director of the Arkansas Department of Environmental Quality gave notice of a draft permitting decision for the above referenced facility. During the comment period, written comments on the draft permitting decision were submitted by the facility. The Department's response to these issues follows.

Note: The following page numbers and condition numbers refer to the draft permit. These references may have changed in the final permit based on changes made during the comment period.

Comment #1:

The permittee shall not exceed the emission rates set forth in the following table. The lead emissions listed for this source were based upon published emission factors at the time of permit issuance. Any changes in the emission factor will not constitute a violation of the emission rates listed below for lead. [Regulation 19, §19.501 et seq., and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

As indicated in previous communications with the Department, Acme has not represented lead as an actual emission from this facility or any other Acme facility. Acme has no information or data that suggests that this pollutant is present in the exhaust gas. The Department is relying on emission factors, as published by the USEPA in AP-42, which the USEPA rated the reliability of the factor for lead as D (Poor). The reason USEPA rated the factor for lead as poor is in part because some test results were estimated but not measured. Some tests revealed no detectable amounts so the results were estimated to be one half the detection level and in some tests a high background level of metals was present. The AP-42 factor for lead is also not appropriate to use in this instance because the factor utilizes results from sawdust fired kilns as well as coal fired kilns and those fuels are not used in Acme's operations. In fact, the existing air permit Specific Condition #9, as well as the proposed draft permit Specific Condition # 6, prohibit using any fuel other than natural gas in this source. Additionally, the emission factor for lead was developed by USEPA from testing uncontrolled emission sources at facilities located in different regions of the U.S. The Ouachita tunnel kiln is equipped with a dry lime injection fabric filter control device, which makes applying the USEPA AP-42 factor for lead inaccurate and not appropriate for this source. This proposed limit is not based on sound science and good engineering practice as required by A.C.A §8-4-203(c)(2)(B) and Regulation 8, Section 2.1.10(a)(2).

According to the Department's calculations provided to Acme Brick Co., this facility would be permitted for 0.01 TPY of lead; however, the draft permit lists lead at 0.03 TPY. Reg. 19 Appendix A, Group A, item 13 lists the level of HAP allowed to be considered insignificant at 1 TPY, and section 19.401 establishes the threshold

level for permitting lead at 0.5 TPY. Furthermore, Reg. 18 also sets the threshold level for permitting lead in section 18.301 at 0.5 TPY. Even though Acme disagrees with the Department's calculations and estimates for lead, the insignificant levels the Department has estimated do not rise to the level required to be permitted. Therefore, the decision by the Department to require Acme Brick Co. to permit lead is not supported by the applicable regulations, and is arbitrary and capricious.

Additionally, the addition of a permit limit for lead does not represent a "change in emissions" or an "increase in emissions at the facility." ADEQ is unilaterally adding an emission limit to an existing facility based on erroneous application of AP-42, and the rationale for doing so has nothing to do with a change in HAP emissions or an increase in HAP emissions. Please delete the references in Paragraph 7 of the Statement of Basis to an increase in emissions, and the reference in Appendix A to a "change in emissions" for those constituents identified as increasing.

Comment #2:

The permittee shall not exceed the emission rates set forth in the following table. The 2-methylnaphthalene, benzene, chlorine, cadmium, chromium, nickel, selenium, arsenic, and beryllium emissions listed for this source were based upon published emission factors at the time of permit issuance. Any changes in the emission factor will not constitute a violation of the emission rates listed below for the above listed pollutants. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

As indicated in previous communications with the Department, Acme has not represented the emissions listed above as actual emissions from this facility or any other Acme facility. Acme has no information or data that suggests that these emissions are present in the exhaust gas. The Department is relying on emission factors, as published by the USEPA in AP-42 and USEPA rated the reliability of these factors as D or E (Poor). The reason USEPA rated these factors as poor is in part because some test results were estimated but not measured. Some tests revealed no detectable amounts so the results were estimated to be one half the detection levels. Some tests were conducted at brick production facilities that were not typical. In some tests, the compounds were only detected in one or two of three test runs and in some tests a high background level of metals were present. These AP-42 factors are also not appropriate to use in this instance because these factors utilize results from sawdust fired kilns as well as coal fired kilns, and those fuels are not used in Acme's operations. In fact, the existing air permit Specific Condition #9, as well as the proposed draft permit Specific Condition # 6, prohibit using any fuel other than natural gas in this source. Additionally, these emission factors were developed by USEPA from testing uncontrolled emission sources at facilities located in different regions of the U.S.. The Ouachita tunnel kiln is equipped with a dry lime injection fabric filter control device, which makes applying the AP-42 factors for these particular pollutants even more inaccurate and not appropriate for this source. These proposed limits are not based on sound science and good engineering practice as required by A.C.A §8-4-203(c)(2)(B) and Regulation 8, Section 2.1.10(a)(2).

According to the Department's calculations provided to Acme Brick Co., this facility would be permitted for 0.004 TPY of 2-methylnaphthalene, 0.21 TPY Benzene, 0.97 TPY Chlorine, 0.001 TPY Cadmium, 0.003 TPY Chromium, 0.005 TPY Nickel, 0.01 TPY Selenium, 0.002 TPY Arsenic, 0.00003 TPY Beryllium; however the draft permit lists these levels at 0.01, 0.47, 0.21, 0.01, 0.01, 0.02, 0.04, 0.01, and 0.01 TPY respectively. Reg. 19 Appendix A, Group A, item 13 lists the level of HAP allowed to be considered insignificant at 1 TPY, and section 19.401 establishes the threshold level for permitting an individual HAP at 2 TPY. Even though Acme disagrees with the Department's calculations and estimates for these pollutants, the insignificant levels the Department has estimated do not rise to the level required to be permitted. Therefore, the decision by the Department to require Acme Brick Co. to permit 2-methylnaphthalene, Benzene, Chlorine, Cadmium, Chromium, Nickel, Selenium, Arsenic, and Beryllium is not supported by the applicable regulations, and is arbitrary and capricious.

Additionally, the addition of a permit limit for 2-methylnaphthalene, Benzene, Chlorine, Cadmium, Chromium, Nickel, Selenium, Arsenic, and Beryllium does not represent a "change in emissions" or an "increase in emissions at the facility." ADEQ is unilaterally adding an emission limit to an existing facility based on erroneous application of AP-42, and the rationale for doing so has nothing to do with a change in HAP emissions or an increase in HAP emissions. Please delete the references in Paragraph 7 of the Statement of Basis to an increase in emissions, and the reference in Appendix A to a "change in emissions" for those constituents identified as increasing.

Response to Comments #1 and #2:

A facility's permit must contain all emissions. However, the Department allows for the exclusions of pollutants emitted in low rate. The procedure is outlined in the application instructions. The emission rate factors listed in the Table 4.-3 (Summary of Test Data for Brick and Structural Clay and Product Manufacturing) of AP-42 were used to calculate the reportable HAPs for tunnel kiln SN-06 in the draft permit. The following reportable HAPs were included in the draft permit: Lead, 2-methylnaphthalene, Benzene, Chlorine, Cadmium, Chromium, Nickel, Selenium, Arsenic, and Beryllium. Furthermore, on September 24, 2008, the Department had a meeting with ACME regarding the reportable HAPs which were proposed to be included in the Wheeler Plant permit. During this meeting, the Department and ACME discussed the language regarding the reportable HAPs and agreed on the language in the Specific Conditions # 1 and #2 of the permit.

The review of the ACME's permitting files shows that ACME has used AP-42 emission factors with a different reliability rating (A through E) as the basis for permitting of the other pollutants. ACME did not provide a creditable evidence that the above listed pollutants are not emitted from Tunnel Kiln SN-06.

The Department re-evaluated the AP-42 emission rate factors and used the emission rate factor which are appropriate to SN-06 to report the emission rate of that HAP. The AP-42 emission rate data generated from the tests were conducted at the following brick manufacturing plants:

- Belden Brick Corporation, a natural gas fired kiln in Sugar creek, Ohio (Reference 1)

- General Shale Product Corporation, a coal-fired kiln in Johnson City, Tennessee (Reference 2)
- Pine Hall Brick Plant, a sawdust-fired kiln in Madison, North Carolina (Reference 4)
- Triangle Brick Plant, a Natural gas-fired kiln in Merry Oak, North Carolina (Reference 22)

Since the ACME Ouachita Plant is limited to use only natural gas in the kiln, the emission rate data from the coal-fired kiln (Reference 2) and sawdust-fired kiln (Reference 4) will not be used for this permitting action. The Department used only the emission rate data from two natural gas-fired kilns (Reference 1 and Reference 22) for the final permitting action. As a result, the emission rate factors for some of the pollutants were revised and the following changes were made in the final permit.

Benzene and 2-methylnaphthalene

The data for Benzene and 2-methylnaphthalene measured with the volatile sampling train (VOST) assigned a B rating because the measured concentrations for one or two runs were below the method quantifications limit or above the calibration range. The concentrations were estimated (Reference 1). Therefore, Benzene and 2-methylnaphthalene limits were removed from the permit.

Chlorine

A natural gas-fired tunnel kiln was tested for chlorine using an EPA reference method. The data from the kiln test is assigned an A rating. Also, the Department recognized that SN-06 is equipped with a dry lime injection fabric filter control device with 70% removal efficiency. Recalculating the hourly emission rate for chlorine with a maximum 70% removal efficiency, Chlorine (lb/hr) = 17.1 ton/hr (Production Rate) X 0.0013 lb/ton (1-0.7) = 0.0009 lb/hr
0.0009 lb/hr X 4.4 = 0.0004 lb/hr < 0.01(relative toxicity (RT) for chlorine) ~ not reportable
Therefore, the chlorine limits have been removed from the permit.

Pollutants	AP-42 Emission Rate (lb/ton)	NO. of Sources tested (Natural Gas)	No. of test runs	Data Rating	Reference
Benzene	0.0029	1	3	B	1
2-methylnaphthalene	0.000057	1	3	B	1
Chlorine	0.0013	1	3	A	1

Beryllium

Beryllium was not detected during the three test runs and the data from both kilns are assigned a C rating (References 1 and 22). The Beryllium emission rate was estimated using the detection limit. Therefore, the Department agrees to remove Beryllium from the permit.

Pollutants	AP-42 Emission Rate (lb/ton)	NO. of Sources tested (Natural Gas)	No. of test runs	Data Rating	Reference
Beryllium	0.00000034	1	3	C	1
Beryllium	0.00000021	1	3	C	22

Selenium, Cadmium, and Nickel

Since background concentration for the above metals may have biased metal analysis, the Selenium, Cadmium, and Nickel emission rate data from the Reference 1 was discarded. The emission rate data from Reference 22 (emission factor 0.000043 lb/hr) was used for this permitting action.

Selenium (lb/hr) = 17.1 ton/hr (Production Rate) X 0.000043 lb/ton = 0.00074 lb/hr
0.00074 lb/hr X 4.4 = 0.00324 lb/hr < 0.01(RT for Selenium) ~ (not reportable HAP)

Cadmium (lb/hr) = 17.1 ton/hr (Production Rate) X 0.0000086 lb/ton = 0.0001471 lb/hr
0.0001471 lb/hr X 4.4 = 0.0006471 lb/hr < 0.001 (RT for Cadmium) ~ (not reportable HAP)

Nickel (lb/hr) = 17.1 ton/hr (Production Rate) X 0.000013 lb/ton = 0.000222 lb/hr
0.000222 lb/hr X 4.4 = 0.000978 lb/hr < 0.004 (RT for Nickel) ~ (not reportable HAP)

The results indicate that the emission for Selenium, Cadmium, and Nickel are below the relative toxicity. Therefore, the Selenium, Cadmium, and Nickel limits were removed from the permit.

Pollutants	AP-42 Emission Rate (lb/ton)	NO. of Sources tested (Natural Gas)	No. of test runs	Data Rating Table 4-2	Reference
Selenium	0.00036	1	3	C	1
Selenium	0.000043	1	3	A	22
Cadmium	0.000033	1	3	C	1
Cadmium	0.0000058	1	3	A	22
Nickel	0.0042	1	3	A	1
Nickel	0.0000013	1	3	A	22

Lead, Arsenic, and Chromium

The emission rate data from the Reference 1 were not used for the reportable HAPs calculations because the high background concentration for the above metals may have biased metal analysis. The Department discarded the data from Reference 1. However, the emission rate data for all three test runs at Reference 22 are assigned an A rating. Therefore, the emission rates from Reference 22 were used to calculate the reportable level for Lead, Arsenic, and Chromium:

Lead (lb/hr) = 17.1 ton/hr (Production Rate) X 0.000086 lb/ton = 0.00147 lb/hr
0.00147 lb/hr X 4.4 = 0.00647 lb/hr > 0.001(RT for Lead) ~ (reportable)
Annual emission = (0.001471 lb/hr X 8760 hrs/yr) / 2000 lb/ton =0.0064 ton/yr

Arsenic (lb/hr) = 17.1 ton/hr (Production Rate) X 0.000023 lb/ton = 0.000393 lb/hr
0.000393 lb/hr X 4.4 = 0.00173 lb/hr > 0.001(RT for Arsenic) ~ (reportable)
Annual emission = (0.000393 lb/hr X 8760 hrs/yr) / 2000 lb/ton =0.0017 ton/yr

Chromium (lb/hr) = 17.1 ton/hr (Production Rate) X 0.000021 lb/ton = 0.000356 lb/hr
0.00036lb/hr X 4.4 = 0.00158 lb/hr > 0.0002(RT for Chromium) ~ (reportable)
Annual emission = (0.000356 lb/hr X 8760 hrs/yr) / 2000 lb/ton =0.0016 ton/yr

Pollutants	AP-42 Emission Rate (lb/ton)	NO. of Sources tested (Natural Gas)	No. of test runs	Data Rating	Reference
Lead	0.000079	1	3	C	1
Lead	0.000086	1	3	A	22
Arsenic	0.000018	1	3	C	1
Arsenic	0.000023	1	3	A	22
Chromium	0.0075	1	3	A	1
Chromium	0.000021	1	3	A	22

ACME characterized the reportable HAPs as insignificant activity under Regulation 19 Appendix A, Group A, item 13. The Department disagrees; the rule does not allow a facility to pickup separate emissions from the same source and permitting them as an insignificant activity. In order for an activity to be considered under Insignificant Activities A-13, the level of emissions shall be less than 5 tpy of any pollutant regulated under this regulation or less than 1 tpy of a single HAP or 2.5 tpy of any combination of HAPs. However, the review of the ACME's application dated June 26, 2008 for Tunnel Kiln (SN-06) shows that the source emits 2.1 tpy of PM/PM_{10}, 5.0 tpy of VOC, 61.1 tpy of CO, 21.8 tpy of NO_x, 4.16 tpy of hydrogen fluoride (HF), and 3.47 tpy of hydrogen chloride (HCl) which in this case any regulated pollutant and single HAP as well as the combination of HAPs are exceeding threshold levels in the Regulation 19, Appendix A.13. The Department disagrees with the ACME's argument; therefore, the Regulation 19 Appendix A, Group A, item 13 was not applied for SN-06.

Also, ACME stated that the Regulations 18.301 and 19.401 establishes the threshold level for permitting lead at 0.5 tpy and an individual HAP at 2.0 tpy; and the decision by the Department to require ACME to permit the reportable HAPs are not supported by the applicable regulations,

and is arbitrary and capricious. The Department disagrees with ACME because the Regulations 18.301 and 19.401 establish the threshold level for a stationary source to obtain an air permit. This facility is required to have an air permit; therefore, the argument is irrelevant to SN-06.

The Department recognized that the source is equipped with a dry lime injection fabric filter control device. However, the permittee did not provide any data to demonstrate the removal efficiency for Lead, Arsenic, and Chromium.

Therefore, Lead, Arsenic, and Chromium limits will remain in the final permit until ACME could provide stack testing data that shows Lead, Arsenic, and Chromium emissions are less than the reportable level. If ACME submits stack testing data that Lead, Arsenic, and Chromium are not emitted from SN-06, the Department will remove those pollutants with an administrative amendment to the permit. In order to be consistent with other HAPs limits in the permit, the calculated lb/hr and ton/yr limits for Lead, Arsenic, and Chromium were rounded up to two decimal points in the Specific Conditions #1 and #2.

Additionally, ACME stated "Please delete the references in Paragraph 7 of the Statement of Basis to an increase in emissions, and the reference in Appendix A to a "change in emissions" for those constituents identified as increasing." The Department disagrees, as it was explained above, the permitted emission 0.01 tpy of Lead, 0.01Chromium, and 0.01 tpy of Arsenic are calculated using AP-42 emission rate factors. However, in the Statement of Basis "an increase in emissions" revised to "an increase in the permitted emissions".

Comment #3

Acme believes that Specific Conditions 4 & 5 are too general and should be removed from the permit. Acme has demonstrated that its operations will not cause air pollution, and by operating within the limits and conditions of its permit, Acme cannot be found to be in violation of ACA 8-4-303. This condition violates Regulation 18, Section 18.302, 18.305(A)(3), (B)(1).

4. [Condition No. 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. [Condition No. 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].

Response to Comment 3:

These conditions repeat the regulations contained in APCEC Regulation No. 18 in §18.801 and §18.901. These conditions will remain in the permit.

Comment #4:

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]

Acme requests the following modification to the above General Condition:

A responsible official must certify any reports required "to be submitted" 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]

Response to Comment #4:

The Department will not revise the General Condition #6 in the permit. The pemittee shall certify any reports that the Department requires to be submitted whether it is required to be submitted by any condition in the permit or not.

ADEQ
MINOR SOURCE
AIR PERMIT

Permit No. : 1343-AR-3

IS ISSUED TO:

Acme Brick Company - Ouachita Plant
1615 Grigsby Ford Rd.
Malvern, AR 72104
Hot Spring County
AFIN: 30-00086

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

October 2, 2009
Date

Acme Brick Company - Ouachita Plant
Permit #: 1343-AR-3
AFIN: 30-00086

Table of Contents

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

Section I: FACILITY INFORMATION

PERMITTEE:	Acme Brick Company - Ouachita Plant
AFIN:	30-00086
PERMIT NUMBER:	1343-AR-3
FACILITY ADDRESS:	1615 Grigsby Ford Rd. Malvern, AR 72104
MAILING ADDRESS:	1615 Grigsby Ford Road Malvern, AR 72104
COUNTY:	Hot Spring County
CONTACT NAME:	Joe Spence
CONTACT POSITION:	Plant Manager
TELEPHONE NUMBER:	501-332-6991
REVIEWING ENGINEER:	Parviz Mokhtari
UTM North South (Y):	Zone 15: 3801688.72 m
UTM East West (X):	Zone 15: 515547.20 m

Section II: INTRODUCTION

Summary of Permit Activity

Acme Brick Company owns and operates a clay brick manufacturing facility located at 1615 Grigsby Ford Road in Malvern, Arkansas. This facility manufactures hard fired clay brick for use in the construction of commercial and residential structures. This permit action re-establishes the facility as a minor source facility because the facility installed and operates a control system to reduce HAPs (HF and HCl) emissions to less than the major source threshold. Therefore, the facility qualifies to be an area source. Additionally, because 40 CFR 63, Subpart JJJJJ has been vacated, all conditions required by this subpart have been removed from the permit. The proposed modification resulted in the permitted emissions decrease of 19.2 tons per year (tpy) of PM/PM_{10}, 1.7 tpy of SO_2, 22.67 tpy of HF, and 7.28 tpy of HCl; additionally, the permitted emission increase of 0.01 tpy of lead, 0.01 tpy of chromium, and 0.01 tpy of arsenic.

Process Description

The manufacturing process at the Ouachita Plant consists of five stages:

I. Raw Material Preparation
II. Manufacturing
III. Holding & Drying
IV. Firing
V. Packaging
VI. Miscellaneous

I. RAW MATERIAL PREPARATION

A combination of raw materials is used to form the brick clay body. These materials include shale, an alluvial clay, sand, rock, and kaolin clay.

All material is hauled to the plant by trucks and is stored under roof in the clay preparation building. The trucks travel on paved haul roads.

The raw materials are placed in proportioning feeders with a front-end loader. The materials are conveyed from the feeders to a primary crusher. The crusher reduces the materials to an approximate 4-inch maximum size and then conveyed to the adjoining secondary grinding and sizing operation. This area contains a hammer mill for further size reduction and vibrating screens for final sizing.

The Grinding Building is an enclosed operation including storage; however, it is possible that some fugitive could exit this building. Grinding operation emissions are accounted for in Grinding Building fugitives (SN-09). AP-42 factors account for a comprehensive system (i.e. all

processes within a grinding operation). The two 100-ton clay silos and six conveyors being added in this application are subject to NSPS Subpart OOO, while all other existing equipment is exempt as pre 1983 construction.

II. MANUFACTURING

The raw material is conveyed from the material preparation operations to a separate building where extrusion and manufacturing occur.

The raw material is extruded through a screw auger extruder through a die and cut to size. Various materials are used as surface coatings for example: Red Iron Oxide, Manganese Dioxide, Penn Sand, and Alluvial clay. A dust collector (IA-23) is utilized to capture any fugitive dust from the additive area.

Once the extruded slugs are cut and sized into individual pieces, the pieces are then stacked on kiln cars.

III. DRYING

The kiln cars move from the extrusion to the drying process next. The kiln cars wait in a surge area holding room before entry into the dryers. The holding room (IA-18) has a tube axial exhaust fan that removes ambient air from this area in order to prevent condensation from forming.

The tunnel dryers are continuous counter flow heat exchangers, which reduce the moisture in the wet brick to approximately 1% by weight. Waste heat from the cooling zone of the kiln is introduced near the dryer exit. Two exhaust fans pull this waste heat toward the entrance end of the dryer as the product flows in the opposite direction. The moisture from the drying operation is exhausted from SN-04 and SN-05. The dryer uses waste heat from the kiln as its only heat source.

IV. FIRING

The tunnel kiln is also a counter-flow heat exchanger and also operates continuously. A neutral pressure zone exists at the end of the firing zone. The combustion gases are pulled toward the entrance of the kiln and are exhausted through an air pollution control device identified as SN-06. Simultaneously, ambient cooling air is introduced into the cooling zone of the kiln. Product discoloration will occur if combustion gases are pulled into the cooling zone. The heat for the dryers is supplied by the dryer supply fan in the cooling zone, which redirects the heated ambient air, which has been utilized for cooling the brick.

V. PACKAGING

The final process is the brick packaging. The brick are automatically removed from the kiln cars and are inspected, sorted, and tied with steel and plastic bands.

After the brick are removed from the kiln cars, brick chips are removed from the kiln cars by a kiln car cleaning system equipped with a HEPA (IA-25).

VI. MISCELLANEOUS

The plant has diesel standby emergency generator (SN-10) that operates less than 3,000 hrs/yr. The plant has two vacuum systems (IA-22 & IA-26) that are insignificant sources.

Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective January 25, 2009
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective January 25, 2009
40 CFR 60 Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plant

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	8.4	10.4
PM_{10}	3.8	10.1
SO_2	16.8	65.2
VOC	5.2	14.9
CO	16.7	63.8
NOx	30.2	59.3
lead	0.01	0.01
HF	1.47	5.8
HCl	1.02	3.81
chromium	0.01	0.01
arsenic	0.01	0.01

Section III: PERMIT HISTORY

Air permit # 1343-A was the initial State Implementation Plan (SIP) permit issued to Acme Brick Company's Ouachita plant in Malvern, Arkansas. The permit was issued on October 16, 1992, for the permitting of a hard fired clay brick manufacturing facility.
Air Permit # 1343-AR-1 was issued to Acme Brick Company's Ouachita plant on April 26, 1993. The air permit was modified by removing two old source numbers (SN-01 and SN-02) by incorporating the use of a dust collector on the emissions of these sources. A new source number (SN-08) was also added to account for the dust collector installed on the emissions from the additive area.

Air Permit # 1343-AOP-R0 was issued to Acme Brick Company's Ouachita plant on August 14, 1998. The facility modified their existing air permit by incorporating on-site stack test data to quantify emissions from four sources, the removal of six sources (SN-03, SN-04, SN-05, SN-07, SN-08, and SN-09) by defining them as insignificant under Regulation 19 Appendix A Group C Number 5, and the addition of a high efficiency HEPA filter on the plant vacuum system.
Air Permit # 1343-AOP-R1 was issued to Acme Brick Company's Ouachita plant on August 4, 2003. This Title V permit renewal changed two sources (SN-04 and SN-05) from insignificant activities (Group C Number 5) to permitted emission sources. The proposed change resulted in an increase of 6.9 tons per year (tpy) of PM/PM_{10} emissions, 1.0 tpy of SO_2 emissions, 0.5 tpy of CO emissions, 7.6 tpy of VOC emissions, 1.64 tpy of HF emissions, and 0.35 tpy of HCl emissions.

Air Permit # 1343-AR-2 was issued Acme Brick Company's Ouachita plant on December 19, 2005. This modification allowed the permittee to add six new conveyors and two clay silos to the existing grinding building (SN-09), to lengthen the holding room, to replace seventy burners, to revise the emission rates for the tunnel kiln (SN-06), and to change the standby generator from an insignificant activity to a permitted source. The new equipment added to the grinding building is subject to NSPS Subpart OOO. Based on June 26, 2003 test data for SN-06, the facility was a minor source for HAPs. The compliance date for 40 CFR 63, Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing was May 16, 2006. Therefore, it was determined that the facility was no longer subject to 40 CFR 63, Subpart JJJJJ. Minor source status was established based upon the reduction to below 10 tons per year (tpy) of any individual HAP or 25 tpy of any combination of HAPs. The changes resulted in permitted increases of 0.9 tons per year (tpy) in PM emissions, 0.6 tpy in PM_{10} emissions, 0.6 tpy in VOC emissions, 0.6 tpy in CO emissions, 10.0 tpy in NO_x emissions, and permitted decreases of 10.16 tpy in HF emissions and 6.09 tpy in HCl emissions.

Air Permit # 1343-AOP-R2 was issued on December 14, 2004. This permit action re-established the facility as a Title V affected facility. Previously the permittee was allowed to attain minor source status to avoid MACT applicability because previous stack testing had shown facility HAP emissions below the major source thresholds. After attaining the minor source permit, further required stack testing showed the facility is in fact subject to Title V and the MACT, 40 CFR Part 63, Subpart JJJJJ, *National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing*. This permit provided a compliance plan for

achieving compliance with Subpart JJJJJ. The permittee developed plans for installing control equipment for compliance with the MACT standards. Upon startup of the control equipment and successful stack testing required by MACT standards, the permittee was required to submit a final application to incorporate the changes and lower emission limits associated with the new equipment. A CAO was existed which allowed for construction of control equipment in order to comply with the MACT. This permit action also increased permitted operation of the Standby Generator from 800 to 3,000 hours per year.

Section IV: EMISSION UNIT INFORMATION

Specific Conditions

1. The permittee shall not exceed the emission rates set forth in the following table. The lead emissions listed for this source were based upon published emission factors at the time of permit issuance. Any changes in the emission factor will not constitute a violation of the emission rates listed below for lead. [Regulation 19, §19.501 et seq., and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
01	Screen and Hammer Mill Exhaust	Sources combined to form source number SN-09 (Grinding Building)		
02	Hammer Mill			
03	Holding Room Exhaust Fan	Insignificant Activity No. 18 (IA-18) – Regulation 19, Group A, Number 13		
04	Dryer Exhaust #1	PM_{10}	1.4	3.5
		SO_2	0.2	0.6
		VOC	1.2	3.9
		CO	0.2	0.3
05	Dryer Exhaust #2	PM_{10}	1.4	3.5
		SO_2	0.2	0.6
		VOC	1.2	3.9
		CO	0.2	0.3
06	Tunnel Kiln With a Dry Scrubber	PM_{10}	0.5	2.1
		SO_2	14.9	61.8
		VOC	1.4	5.0
		CO	14.9	61.1
		NO_x	5.2	21.8
		lead	0.01	0.01
09	Grinding Building	PM_{10}	0.1	0.4
10	Standby Generator	PM_{10}	0.4	0.6
		SO_2	1.5	2.2
		VOC	1.4	2.1
		CO	1.4	2.1
		NO_x	25.0	37.5

2. The permittee shall not exceed the emission rates set forth in the following table. The 2-methylnaphthalene, benzene, chlorine, cadmium, chromium, nickel, selenium, arsenic, and beryllium emissions listed for this source were based upon published emission factors at the time of permit issuance. Any changes in the emission factor will not constitute a violation of the emission rates listed below for the above listed pollutants. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
01	Screen and Hammer Mill Exhaust	Sources combined to form source number SN-09 (Grinding Building)		
02	Hammer Mill			
03	Holding Room Exhaust Fan	Insignificant Activity No. 18 (IA-18) – Regulation 19, Group A, Number 13		
04	Dryer Exhaust #1	PM HF HCl	1.4 0.26 0.11	3.5 0.82 0.17
05	Dryer Exhaust #2	PM HF HCl	1.4 0.26 0.11	3.5 0.82 0.17
06	Tunnel Kiln With a Dry Scrubber	PM HF HCl chromium arsenic	5.0 0.95 0.8 0.01 0.01	2.1 4.16 3.47 0.01 0.01
09	Grinding Building	PM	0.2	0.7
10	Standby Generator	PM	0.4	0.6

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
04	20%	§19.503
05	20%	§19.503
06	5%	§18.501
09	0%	§19.304 and 40 CFR 60.672(e)(1)
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 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]

Tunnel Kiln Conditions (with a Dry Scrubber Pollution Control System) - SN-06

6. Natural gas shall be the only fuel used to fire the kiln, SN-06. [Regulation No. 19, §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

7. The Permittee shall not use more than 321,667,000 cubic feet of natural gas per any consecutive twelve month period at SN-06. [Regulation No. 19, §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and A.C.A. §8-4-311, and 40 CFR 70.6]

8. The permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition #7. The records shall include a rolling 12 month total in addition to each individual month's data. 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 A.C.A. §8-4-304 and §8-4-311]

9. The permittee shall not process clay brick in excess of 150,042 tons per consecutive twelve (12) month period at SN-06. [§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

10. The permittee shall maintain monthly records which demonstrate compliance with Specific Condition #9. The permittee will 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. [§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by A.C.A. §8 4 304 and §8- 4-311]

Grinding Building (SN-09)

11. SN-09 shall comply with all applicable provisions of the New Source Performance Standards (NSPS) of 40 CFR Part 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plant (Appendix A). [§19.304 and 40 CFR §60.670 through §60.676]

12. No owner or operator shall 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 as defined in §60.671. The opacity limit for SN-09 is set forth in Specific Condition #3. [§19.304 and 40 CFR §60.672(e)(1)]

13. Monthly observations of the opacity from source SN-09 shall be conducted by personnel familiar with the permittee's visible emissions using EPA Reference Method 22. The permittee shall accept such observations for demonstration of compliance. The permittee shall maintain personnel trained but not necessarily certified in EPA Reference Method 22. If visible emissions which appear to be in excess of the permitted opacity are detected, the permittee shall immediately take action to identify the cause of the visible emissions, implement corrective actions, and document that the visible emissions did not appear to be in excess of the permitted opacity following the corrective actions. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated monthly, kept on site, and made available to Department personnel upon request. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and A.C.A. §8-4-311, and 40 CFR 70.6]

Standby Generator – (SN-10)

14. The permittee shall not use the standby generator more than 3,000 hours per any consecutive twelve month period. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and A.C.A. §8-4-311, and 40 CFR 70.6]

15. The permittee shall maintain monthly records which demonstrate compliance with the limit set in Specific Condition 14. The records will include a rolling 12 month total in addition to each individual month's data. 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 on-site, and make the records available to Department personnel upon request. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and A.C.A. §8-4-311, and 40 CFR 70.6]

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 April 19, 2006 and email dated March 6, 2009.

Description	Category
IA-1, Dry Coating Mixer	A-13
IA-2, Bat Loss Drop	A-13
IA-3, Proportioning Feeders	A-13
IA-4, Pugmill	A-13
IA-5, Brick / Refractory Saw	A-13
IA-6, Brick Packaging / Dehacking	A-13
IA-7, Brick Setting	A-13
IA-9, Slurry Mixers	A-13
IA-10, Additive Storage	A-13
IA-11, Clay Storage	A-13
IA-12, 550 Gallon Gasoline Tank	A-13
IA-14, Conveyor Drop Points and Material Storage	A-13
IA-15, Sand Dryer	A-13
IA-18, Holding Room	A-13
IA-22, Manufacturing Vacuum System	A-13
IA-23, Brick Process Dust Collector	A-13
IA-25, Kiln Car Cleaner	A-13
IA-26, Grinding Vacuum System	A-13
Diesel Tank, 500 Gallons, 0.0074 psi vapor pressure at STP	A-3
Diesel Tank, 1000 Gallons, 0.0074 psi vapor pressure at STP	A-3
Waste Oil, 275 Gallons, <0.01 psi vapor pressure at STP	A-3
Hydraulic Reservoir, 40 gallons, <0.01 psi vapor pressure at STP	A-3
Hydraulic Reservoir, 40 gallons, <0.01 psi vapor pressure at STP	A-3
Hydraulic Reservoir, 40 gallons, <0.01 psi vapor pressure at STP	A-3
Hydraulic Reservoir, 400 gallons, <0.01 psi vapor pressure at STP	A-3
Hydraulic Reservoir, 400 gallons, <0.01 psi vapor pressure at STP	A-3

Description	Category
Motor / Engine Oil, 55 gallons, <0.01 psi vapor pressure at STP	A-3
Die Lube Reservoir, 55 gallons, <0.01 psi vapor pressure at STP	A-3
Vacuum Pump Reservoir, 300 gallons, <0.01 psi vapor pressure at STP	A-3
Gear Lube Reservoir, 55 gallons, <0.1 psi vapor pressure at STP	A-3
Transmission Oil Reservoir, 55 gallons, <0.01 psi vapor pressure at STP	A-3
Antifreeze Tank, 200 gallons, <0.01 psi vapor pressure at STP	A-3
Generator Diesel Supply Tank, ~2200 gallons, <0.5 psi vapor pressure at STP	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 A.C.A. §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 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
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 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 shall 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; 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 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]

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)]

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:

    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, §18.102(C-D), Regulation 19, §19.103(D), A.C.A. §8-4-203 as referenced by A.C.A. §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, §18.102(C-D), Regulation 19, §19.103(D), A.C.A. §8-4-203 as referenced by A.C.A. §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, §18.102(C-D), Regulation19, §19.103(D), A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E]

Appendix A

40 CFR 60 Subpart OOO
Standards of Performance for Nonmetallic Mineral Processing Plant

e-CFR Data is current as of January 1, 2009

Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Browse Previous | Browse Next

Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants

Source: 51 FR 31337, Aug. 1, 1985, unless otherwise noted.

§ 60.670 Applicability and designation of affected facility.

(a)(1) Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart.

(2) The provisions of this subpart do not apply to the following operations: All facilities located in underground mines; and stand-alone screening operations at plants without crushers or grinding mills.

(b) An affected facility that is subject to the provisions of subpart F or I or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.

(c) Facilities at the following plants are not subject to the provisions of this subpart:

(1) Fixed sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 23 megagrams per hour (25 tons per hour) or less;

(2) Portable sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 136 megagrams per hour (150 tons per hour) or less; and

(3) Common clay plants and pumice plants with capacities, as defined in §60.671, of 9 megagrams per hour (10 tons per hour) or less.

(d)(1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in §60.671, having the same function as the existing facility, the new facility is exempt from the provisions of §§60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.

(2) An owner or operator complying with paragraph (d)(1) of this section shall submit the information required in §60.676(a).

(3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of §§60.672, 60.674 and 60.675.

(e) An affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after August 31, 1983 is subject to the requirements of this part.

(f) table 1 of this subpart specifies the provisions of subpart A of this part 60 that apply and those that do not apply to owners and operators of affected facilities subject to this subpart.

Table 1—Applicability of Subpart A to Subpart OOO

Subpart A reference	Applies to Subpart OOO	Comment
60.1, Applicability	Yes	

60.2, Definitions	Yes	
60.3, Units and abbreviations	Yes	
60.4, Address:		
(a)	Yes	
(b)	Yes	
60.5, Determination of construction or modification	Yes	
60.6, Review of plans	Yes	
60.7, Notification and recordkeeping	Yes	Except in (a)(2) report of anticipated date of initial startup is not required (§60.676(h)).
60.8, Performance tests	Yes	Except in (d), after 30 days notice for an initially scheduled performance test, any rescheduled performance test requires 7 days notice, not 30 days (§60.675(g)).
60.9, Availability of information	Yes	
60.10, State authority	Yes	
60.11, Compliance with standards and maintenance requirements	Yes	Except in (b) under certain conditions (§§60.675 (c)(3) and (c)(4)), Method 9 observation may be reduced from 3 hours to 1 hour. Some affected facilities exempted from Method 9 tests (§60.675(h)).
60.12, Circumvention	Yes	
60.13, Monitoring requirements	Yes	
60.14, Modification	Yes	
60.15, Reconstruction	Yes	
60.16, Priority list	Yes	
60.17, Incorporations by reference	Yes	
60.18, General control device	No	Flares will not be used to comply with the emission limits.
60.19, General notification and reporting requirements	Yes	

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997]

§ 60.671 Definitions.

All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in subpart A of this part.

Bagging operation means the mechanical process by which bags are filled with nonmetallic minerals.

Belt conveyor means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

Bucket elevator means a conveying device of nonmetallic minerals consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

Building means any frame structure with a roof.

Capacity means the cumulative rated capacity of all initial crushers that are part of the plant.

Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport particulate matter generated by one or more process operations to a control device.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more process operations at a nonmetallic mineral processing plant.

Conveying system means a device for transporting materials from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to the following: Feeders, belt conveyors, bucket elevators and pneumatic systems.

Crusher means a machine used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

Enclosed truck or railcar loading station means that portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

Fixed plant means any nonmetallic mineral processing plant at which the processing equipment specified in §60.670(a) is attached by a cable, chain, turnbuckle, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.

Fugitive emission means particulate matter that is not collected by a capture system and is released to the atmosphere at the point of generation.

Grinding mill means a machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

Initial crusher means any crusher into which nonmetallic minerals can be fed without prior crushing in the plant.

Nonmetallic mineral means any of the following minerals or any mixture of which the majority is any of the following minerals:

(a) Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell.

(b) Sand and Gravel.

(c) Clay including Kaolin, Fireclay, Bentonite, Fuller's Earth, Ball Clay, and Common Clay.

(d) Rock Salt.

(e) Gypsum.

(f) Sodium Compounds, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate.

(g) Pumice.

(h) Gilsonite.

(i) Talc and Pyrophyllite.

(j) Boron, including Borax, Kernite, and Colemanite.

(k) Barite.

(l) Fluorospar.

(m) Feldspar.

(n) Diatomite.

(o) Perlite.

(p) Vermiculite.

(q) Mica.

(r) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.

Nonmetallic mineral processing plant means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in §60.670 (b) and (c).

Portable plant means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to the application of a lifting or pulling force for the purpose of transporting the unit.

Production line means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens).

Size means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

Stack emission means the particulate matter that is released to the atmosphere from a capture system.

Storage bin means a facility for storage (including surge bins) or nonmetallic minerals prior to further processing or loading.

Transfer point means a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.

Truck dumping means the unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include but are not limited to: trucks, front end loaders, skip hoists, and railcars.

Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities.

Wet mining operation means a mining or dredging operation designed and operated to extract any nonmetallic mineral regulated under this subpart from deposits existing at or below the water table, where the nonmetallic mineral is saturated with water.

Wet screening operation means a screening operation at a nonmetallic mineral processing plant which removes unwanted material or which separates marketable fines from the product by a washing process which is designed and operated at all times such that the product is saturated with water.

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997]

§ 60.672 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions which:

(1) Contain particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf); and

(2) 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 §60.676 (c), (d), and (e).

(b) 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 of this part, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraphs (c), (d), and (e) of this section.

(c) 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 of this part, no owner or operator shall cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity.

(d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.

(e) 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 paragraphs (a), (b) and (c) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) No owner or operator shall 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 as defined in §60.671.

(2) No owner or operator shall 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 paragraph (a) of this section.

(f) 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 of this part, no owner or operator shall cause to be discharged into the atmosphere from any baghouse that controls emissions from only an individual, enclosed storage bin, stack emissions which exhibit greater than 7 percent opacity.

(g) Owners or operators of multiple storage bins with combined stack emissions shall comply with the emission limits in paragraph (a)(1) and (a)(2) of this section.

(h) 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, no owner or operator shall cause to be discharged into the atmosphere any visible emissions from:

(1) Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to the next crusher, grinding mill or storage bin.

(2) Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, where such screening operations, bucket elevators, and belt conveyors process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997; 65 FR 61778, Oct. 17, 2000]

§ 60.673 Reconstruction.

(a) The cost of replacement of ore-contact surfaces 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. Ore-contact surfaces are crushing surfaces; screen meshes, bars, and plates; conveyor belts; and elevator buckets.

(b) Under §60.15, the "fixed capital cost of the new components" includes the fixed capital cost of all depreciable components (except components specified in paragraph (a) of this section) which are or will be replaced pursuant to all continuous programs of component replacement commenced within any 2-year period following August 31, 1983.

§ 60.674 Monitoring of operations.

The owner or operator of any affected facility subject to the provisions of this subpart which uses a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring devices:

(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.

§ 60.675 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures 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). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.672(a) as follows:

(1) 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.

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

(c)(1) In determining compliance with the particulate matter standards in §60.672 (b) and (c), the owner or operator shall use Method 9 and the procedures in §60.11, with the following additions:

(i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(ii) 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.

(iii) 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.

(2) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under §60.672(f) of this subpart, using Method 9, the duration of the Method 9 observations shall be 1 hour (ten 6-minute averages).

(3) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) of this subpart, 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:

(i) There are no individual readings greater than 10 percent opacity; and

(ii) There are no more than 3 readings of 10 percent for the 1-hour period.

(4) When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under §60.672(c) of this subpart, 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:

(i) There are no individual readings greater than 15 percent opacity; and

(ii) There are no more than 3 readings of 15 percent for the 1-hour period.

(d) In determining compliance with §60.672(e), the owner or operator 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.

(e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

(i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

(ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.

(f) To comply with §60.676(d), the owner or operator shall record the measurements as required in §60.676(c) using the monitoring devices in §60.674 (a) and (b) during each particulate matter run and shall determine the averages.

(g) If, after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting any rescheduled performance test required in this section, the owner or operator of an affected facility shall submit a notice to the Administrator at least 7 days prior to any rescheduled performance test.

(h) Initial Method 9 performance tests under §60.11 of this part and §60.675 of this subpart are not required for:

(1) Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to, but not including the next crusher, grinding mill or storage bin.

(2) Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, that process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

[54 FR 6680, Feb. 14, 1989, as amended at 62 FR 31360, June 9, 1997]

§ 60.676 Reporting and recordkeeping.

(a) Each owner or operator seeking to comply with §60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.

(1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:

(i) The rated capacity in megagrams or tons per hour of the existing facility being replaced and

(ii) The rated capacity in tons per hour of the replacement equipment.

(2) For a screening operation:

(i) The total surface area of the top screen of the existing screening operation being replaced and

(ii) The total surface area of the top screen of the replacement screening operation.

(3) For a conveyor belt:

(i) The width of the existing belt being replaced and

(ii) The width of the replacement conveyor belt.

(4) For a storage bin:

(i) The rated capacity in megagrams or tons of the existing storage bin being replaced and

(ii) The rated capacity in megagrams or tons of replacement storage bins.

(b) [Reserved]

(c) During the initial performance test of a wet scrubber, and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.

(d) After the initial performance test of a wet scrubber, the owner or operator 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.

(e) The reports required under paragraph (d) shall be postmarked within 30 days following end of the second and fourth calendar quarters.

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 to demonstrate compliance with §60.672(b), (c), and (f), and reports of observations using Method 22 to demonstrate compliance with §60.672(e).

(g) The owner or operator of any screening operation, bucket elevator, or belt conveyor that processes saturated material and is subject to §60.672(h) and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the 10 percent opacity limit in §60.672(b) and the emission test requirements of §60.11 and this subpart. Likewise a screening operation, bucket elevator, or belt conveyor that processes unsaturated material but subsequently processes saturated material shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the no visible emission limit in §60.672(h).

(h) The subpart A requirement under §60.7(a)(2) for notification of the anticipated date of initial startup of an affected facility shall be waived for owners or operators of affected facilities regulated under this subpart.

(i) A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.

(1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

(2) For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.

(j) 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 Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected facilities within the State will be relieved of the obligation to comply with the reporting requirements of this section, provided that they comply with requirements established by the State.

[51 FR 31337, Aug. 1, 1985, as amended at 54 FR 6680, Feb. 14, 1989; 62 FR 31360, June 9, 1997; 65 FR 61778, Oct. 17, 2000]

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CERTIFICATE OF SERVICE

I, Cynthia Hook, hereby certify that a copy of this permit has been mailed by first class mail to Acme Brick Company - Ouachita Plant, 1615 Grigsby Ford Road, Malvern, AR, 72104, on this 2nd day of October, 2009.

Cynthia Hook, AAII, Air Division