

STATEMENT OF BASIS

for the issuance of Draft Air Permit # 1343-AOP-R1

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Acme Brick Company
1615 Grigsby Ford Road
Malvern, Arkansas 72104

3. PERMIT WRITER: Karen Cerney

4. NAICS DESCRIPTION AND NAICS CODE:

NAICS Description: Brick and Structural Clay Tile Manufacturing
NAICS Code: 327121

5. SUBMITTALS: February 3, 2003

6. REVIEWER'S NOTES:

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 Title V permit renewal changes two sources (SN-04 and SN-05) from insignificant activities (Group C Number 5) to permitted emission sources. The proposed change results in an increase of 6.9 tons per year (tpy) of PM/PM₁₀ emissions, 1.0 tpy of SO₂ emissions, 0.5 tpy of CO emissions, 7.6 tpy of VOC emissions, 1.64 tpy HF emissions, and 0.35 tpy HCL emissions.

7. COMPLIANCE STATUS:

The following summarizes the current compliance status of the facility including active/pending enforcement actions and recent compliance activities and issues: there are no outstanding compliance/enforcement issues associated with this facility at this time.

8. APPLICABLE REGULATIONS:

Regulation 18 - Arkansas Air Pollution Control Code, Regulation 19 - Regulations of The Arkansas Plan of Implementation for Air Pollution Control, and Regulation 26 – Regulations of the Arkansas Operating Air Permit Program.

PSD Applicability

Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, et cetera)? N

Has this facility undergone PSD review in the past? N

Is this facility categorized as a major source for PSD? N

\$ 100 tpy and on the list of 28 (100 tpy)?

\$ 250 tpy all other

PSD Netting

Was netting performed to avoid PSD review in this permit? N

Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation [NSPS, NESHAP (Part 61 & Part 63), or PSD only]
SN-06*	HAPs	NESHAP Subpart JJJJ

Acme Brick Co. must submit, no later than 180 days prior to the effective date, a permit application which brings the facility into full compliance with the subpart.

9. EMISSION CHANGES:

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

Plant Wide Permitted Emissions (ton/yr)			
Pollutant	Air Permit 1343-AOP-R0	Air Permit 1343-AOP-R1	Change
PM/PM ₁₀	18.7	25.6	+6.9
SO ₂	54.4	55.4	+1.0
VOC	4.4	12.0	+7.6
CO	53.8	54.3	+0.5

Plant Wide Permitted Emissions (ton/yr)			
Pollutant	Air Permit 1343-AOP-R0	Air Permit 1343-AOP-R1	Change
NO _x	19.2	19.2	+0.0
HF	17.77	19.41	+1.64
HCL	9.45	9.80	+0.35

10. MODELING:

Criteria Pollutants

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

Non-Criteria Pollutants

1st Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Department deemed PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m³), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m ³)	PAER (lb/hr) = 0.11*TLV	Proposed lb/hr	Pass?
HCL	3.0	0.33	3.18	No
HF	2.5	0.28	5.25	No

2nd Tier Screening (PAIL)

ISCST3 air dispersion modeling was performed on the estimated hourly emissions from the following sources, in order to predict ambient concentrations beyond the property boundary. The Presumptively Acceptable Impact Level (PAIL) for each compound was deemed by the Department to be one one-hundredth of the Threshold Limit Value, as listed by the ACGIH.

Pollutant	(PAIL, $\mu\text{g}/\text{m}^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Pass?
HCL	30	12.9	Yes
HF	25	21.3	Yes

11. **CALCULATIONS:**

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equip Type (if any)	Control Equip Efficiency	Comments (Emission factor controlled / uncontrolled, etc)
04	Stack Test Data	For tpy: avg lb/hr from stack test *4.38*1.1 safety factor *1.25 test production ratio	None	N/A	Stack test data from test conducted in Oct 1997.
05	Stack Test Data		None	N/A	
06	Stack Test Data	For lb/hr: max. lb/hr from stack test*1.1 safety factor*1.25 test production ratio	None	N/A	Stack test data from test conducted in October 1997 except fluoride. Fluoride emissions from stack test conducted in May 1992.

12. **TESTING REQUIREMENTS:**

There are no testing requirements for this permit.

13. **MONITORING OR CEMS**

The permittee must monitor the following parameters with CEMs or other monitoring equipment (temperature, pressure differential, etc), frequency of recording and the need for records included in any annual, semiannual or other reports.

Permit #:1343-AOP-R2

AFIN: 30-00086

Page 5 of 6

SN	Parameter or Pollutant to be Monitored	Method of Monitoring (CEM, Pressure Gauge, etc)	Frequency*	Report (Y/N)**
04, 05, and 06	Opacity	Method 9 Certified Observer	Daily	N

14. RECORD KEEPING REQUIREMENTS

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

SN	Recorded Item	Limit (as established in permit)	Frequency*	Report (Y/N)**
04, 05, and 06	Opacity	20%	Daily	N
06	Natural Gas Usage	321,667 MMBtu per year	Monthly	N
Facility	Annual Production Limit	150,042 tons of clay brick	Monthly	N

* Indicate frequency of recording required for the item (Continuously, hourly, daily, etc.)

** Indicates whether the item needs to be included in reports

15. OPACITY

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism (daily observation, weekly, control equipment operation, etc)
04, 05, and 06	20	Dept. Guidance	Daily Observation

Permit #:1343-AOP-R2
AFIN: 30-00086
Page 6 of 6

16. DELETED CONDITIONS:

No conditions were deleted from this permit.

17. VOIDED, SUPERSEDED OR SUBSUMED PERMITS

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

Permit #
1343-AOP-R0

18. CONCURRENCE BY:

The following supervisor concurs with the permitting decision:

Phillip Murphy, P.E.