

STATEMENT OF BASIS

for the issuance of Draft Air Permit # 2004-AOP-R2

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 – Wheeler Plant
2905 Dan Avenue
Jonesboro, Arkansas 72403

3. PERMIT WRITER: Karen Cerney

4. PROCESS DESCRIPTION AND NAICS CODE:

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

5. SUBMITTALS: May 14, 2003

6. REVIEWER'S NOTES:

Acme Brick Company owns and operates a clay brick manufacturing facility located at 2905 Dan Avenue in Jonesboro, Arkansas. This facility manufactures hard fired clay brick for use in the construction of commercial and residential structures. This Title V permit renewal changes a source (SN-01) from an insignificant activity (Group C Number 5) to a permitted emission source, it increases the permitted production rate from 67,450 tons per year (tpy) to 75,000 tpy of fired ware, it adds a safety factor to all emission calculations, and it includes emissions from CO and NO_x for the brick dryer that were not included in the previous permit. The proposed change results in an increase of 17.2 tpy of PM emissions, 20.2 tpy of PM₁₀ emissions, 1.3 tpy of SO₂ emissions, 25.6 tpy of CO emissions, 7.9 tpy of NO_x emissions, 1.8 tpy of VOC emissions, 3.7 tpy of HF emissions, and 1.27 tpy of 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)? Y/N N

Has this facility undergone PSD review in the past? N

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

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

 \$ 250 tpy all other Y/N

PSD Netting

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

Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation [NSPS, NESHAP (Part 61 & Part 63), or PSD only]
SN-02*	HAPs	NSPS 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 2004-AOP-R1	Air Permit 2004-AOP-R2	Change
PM	32.4	49.6	+17.2
PM ₁₀	29.4	49.6	+20.2
SO ₂	26.3	27.6	+1.3

Plant Wide Permitted Emissions (ton/yr)			
Pollutant	Air Permit 2004-AOP-R1	Air Permit 2004-AOP-R2	Change
VOC	0.8	2.6	+1.8
CO	40.5	66.1	+25.6
NO _x	11.8	19.7	+7.9
HF	16.63	20.33	+3.7
HCL	5.74	7.01	+1.27

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.

11. 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?
HF	2.3	0.253	4.64	No
HCl	7.5	0.825	1.60	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?
HF	23.0	2.67	Yes
HCl	75.0	0.92	Yes

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
01	AP-42	lb/ton of fired bricks	N/A	N/A	
02	AP-42	lb/ton of fired bricks	N/A	N/A	Fluoride chemical analysis done on an unfired sample of brick and a fired sample of brick. Emission factor derived from the difference in the amount of fluoride present.
	Fluoride Analysis	lb/ton of fired bricks	N/A	N/A	

13. TESTING REQUIREMENTS:

There are no testing requirements for this permit.

14. 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.

SN	Parameter or Pollutant to be Monitored	Method of Monitoring (CEM, Pressure Gauge, etc)	Frequency*	Report (Y/N)**
01, 02	Opacity	Method 9 Certified Observer	Daily	N

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

** Indicates whether the parameter needs to be included in reports.

15. RECORD KEEPING REQUIREMENTS

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

SN	Recorded Item	Limit (as established in permit)	Frequency*	Report (Y/N)**
Facility	Annual Brick Production	75,000 tons/yr	monthly	N
01, 02	Opacity	20%	Daily	N

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

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

16. OPACITY

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism (daily observation, weekly, control equipment operation, etc)
01	20	Dept Guidance	Daily Observations
02	20	Dept Guidance	Daily Observations

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17. DELETED CONDITIONS:

No conditions were deleted from this permit.

18. VOIDED, SUPERSEDED OR SUBSUMED PERMITS

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

Permit #
2004-AOP-R1

19. CONCURRENCE BY:

The following supervisor concurs with the permitting decision:

Phillip Murphy, P.E.