

STATEMENT OF BASIS

for the issuance of Draft Air Permit # 1672-AR-1

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

CoorsTek Arkansas Operations.
3315 Boone Road
Benton, Arkansas 72015

3. PERMIT WRITER: Siew Low

4. PROCESS DESCRIPTION AND NAICS:

NAICS Description: Brick and structural clay tile (except slumped brick), structural clay product, pottery product NEC, and nonclay refractories.
NAICS: 327121, 32331, 327123, 327112, and 327125.

5. SUBMITTALS: January 11, 2003, January 29, 2003, March 14, 2003, April 7, 2003, May 6, 2003, and June 6, 2003.

6. REVIEWER'S NOTES: CoorsTek Arkansas Operations owns and operates a high tech ceramic manufacturing plant. No physical changes are being proposed by the facility. The facility was previously classified as a Title V source.

7. COMPLIANCE STATUS:

The following summarizes the current compliance status of the facility including active/pending enforcement actions and recent compliance activities and issues.

A CAO is currently being drafted for this facility. The CAO is being issued because:

1) The inspection revealed that the facility was not keeping adequate records to demonstrate compliance for maintaining pressure drop at the dust collectors, and records indicated that when the emission monitoring equipment was not functioning properly, no corrective action was noted.

2) Records provided by the facility at the time of the inspection indicated a twelve month rolling total of 6,697 pounds of Polyox, exceeding the permit limit by 182 pounds for the reported twelve month rolling period.

8. APPLICABLE REGULATIONS:

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?	Y/N	Permit# 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	N
\$ 250 tpy all other	Y/N	N

PSD Netting

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

If so, indicate increases and decreases used in netting for PSD purposes only.

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 [Previous Permit, 1672-AOP-R0]	Air Permit [Permit 1672-AR-1]	Change
PM/PM ₁₀	0	5.5	+5.5
SO ₂	0	8.9	+8.9
VOC	101.2	30.4	-70.8
CO	0	35.8	+35.8
NO _x	0	15.5	+15.5
Ammonia	0.1	0.2	+0.1

Plant Wide Permitted Emissions (ton/yr)			
Pollutant	Air Permit [Previous Permit, 1672-AOP-R0]	Air Permit [Permit 1672-AR-1]	Change
Glycol Butyl Ether	0	1.0	+1.0

10. MODELING:

11. Non-Criteria Pollutants

This permit contains a TLV table for non-criteria pollutants. Modeling was used to determine the permitted emission rates for ranges of non-criteria pollutants (grouped by TLVs) that pass the *PAER or PAIL*. Therefore, modeling of specific non-criteria pollutants was not performed.

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?
Glycol Butyl Ether	96.67	10.63	1.0	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 and 02	Stack testing	18 lb PM ₁₀ per MM cf 18 lb PM per MM cf 31 lb SO ₂ per MM cf	N.A.	-	Periodic Kilns. Emissions factor are higher than AP-42 because of the VOC

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)
		263 lbVOC per MM cf 735 lb CO per MM cf 232 lb NO _x per MM cf			contained in the green product burned during the sintering process.
03	Mass Balance	-	N.A.	-	-
04, 05, 06, and 07	Stack testing	79 lb PM ₁₀ per MM cf 79 lb PM per MM cf 148 lb SO ₂ per MM cf 370 lbVOC per MM cf 239 lb CO per MM cf 152 lb NO _x per MM cf	N.A.	-	Tunnel kilns. Emissions factor are higher than AP-42 because of the VOC contained in the green product burned during the sintering process.
08	Mass Balance	-	N.A.	-	-
10 -15	Mass Balance	-	-	-	The facility calculated the emission rates by assume the throughput limit.

13. TESTING REQUIREMENTS:

None.

14. MONITORING OR CEMS

None.

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)**
03	Aquadag	60,000 pounds per year	Monthly	N
08	SC30	70,000 pounds per year (no more than 7 wt% organic binder)	Monthly	N
09	BD-20	37,950 pounds per year (less than 5 wt% of glycol butyl ether)	Monthly	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, 02, 03, 04, 05, 06, 07, and 10 – 15.	5%	Department Guidance.	Inspector's observation.

17. DELETED CONDITIONS:

The previous permit contained the following deleted Specific Conditions.

Former SC	Justification for removal
4 and 5	Ammonia emissions will be demonstrated through Specific Condition #7 and #8.

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18. VOIDED, SUPERSEDED OR SUBSUMED PERMITS

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

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19. CONCURRENCE BY:

The following supervisor concurs with the permitting decision:

Lydon Poole, P.E.