

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1672-AR-14 AFIN: 63-00164

1. PERMITTING AUTHORITY:

Division of Environmental Quality  
5301 Northshore Drive  
North Little Rock, Arkansas 72118-5317

2. APPLICANT:

CoorsTek Benton  
3315 Boone Road  
Benton, Arkansas 72015

3. PERMIT WRITER:

Sterling Powers

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Pottery, Ceramics, and Plumbing Fixture Manufacturing  
NAICS Code: 327110

5. ALL SUBMITTALS:

The following is a list of ALL permit applications included in this permit revision.

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
10/18/2022	Administrative Amendment	Add JPW Electric Cure Oven to IA List

6. REVIEWER'S NOTES:

The JPW Electric Cure Oven is being added to Building A, and put on the IA list.

7. COMPLIANCE STATUS:

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

As of 07/25/2018, no compliance issues were found at the facility.

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N  
If yes, were GHG emission increases significant? N

b) Is the facility categorized as a major source for PSD? N

- *Single pollutant  $\geq 100$  tpy and on the list of 28 or single pollutant  $\geq 250$  tpy and not on list*

If yes for 8(b), explain why this permit modification is not PSD.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
	None	

10. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

11. AMBIENT AIR EVALUATIONS:

The following are results for ambient air evaluations or modeling.

a) NAAQS

A NAAQS evaluation is not required under the Arkansas State Implementation Plan, National Ambient Air Quality Standards, Infrastructure SIPs and NAAQS SIP per Ark. Code Ann. § 8-4-318, dated March 2017 and the DEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

Based on Division of Environmental Quality procedures for review of non-criteria pollutants, emissions of non-criteria pollutants are below thresholds of concern.

1<sup>st</sup> Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Department has deemed the PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value ( $\text{mg}/\text{m}^3$ ), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m <sup>3</sup> )	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Ammonia	17.41	1.91	0.01	Yes

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
04 and 05	Testing	Varied			
08	Testing	Varied	Afterburner	95	
09	Testing	Varied	Afterburner	95	
10	Testing and Manufacturers Specs	Varied	Condenser for Solvent Recovery Scrubber for Odor Control	Not Used	

13. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
	None			

14. MONITORING OR CEMS:

The permittee must monitor the following parameters with CEMS or other monitoring equipment (temperature, pressure differential, etc.)

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
08A, 08B, 09	Temperature	Temperature gauge	Daily	N

15. RECORDKEEPING REQUIREMENTS:

The following are items (such as throughput, fuel usage, VOC content, etc.) that must be tracked and recorded.

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
03	Throughput	2,400,000 lbs	Monthly	N
08A and B	Throughput	1,200,000 lbs	Monthly	N
04, 05	Throughput	771 tons	Monthly	N

16. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
03, 04, 05, 08A and B, 09	5%	Reg.18.501	Natural gas combustion and inspector to verify on inspection

17. DELETED CONDITIONS:

Former SC	Justification for removal
	None

18. GROUP A INSIGNIFICANT ACTIVITIES:

The following is a list of Insignificant Activities including revisions by this permit.

Source Name	Group A Category	Emissions (tpy)						
		PM/PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs	
							Single	Total
Alumina Lap and Polish (inorganic water-based slurry, wet process, no emissions)	A-13	0						
Alumina Shake and Dye (liquid water-based dye, Magnaflux SKL-4C, no emissions)	A-13	0						
Alumina Grinding (water-based wet process, no emissions)	A-13	0						
Silicon Lap and Polish (inorganic water-based slurry,	A-13	0						

wet process, no emissions)								
Solvent Cleaner/Degreaser (All-Purpose Simple Green Cleaner (ready-to-use) water-based wet process, no emissions, <1.2% VOC, 4 drums/yr)	A-13	0						
Foam for packing part in nitrite area (two-part spray, Instapak "A" and Gflex "B", non-VOC, no emissions)	A-13	0						
Baghouses (used for intermittent housekeeping <i>only</i> , not control equipment) (formerly SN-11, 12, 13, 14, 15, 16, 17 and 19)	A-13	0.1						
Baghouse for intermittent dust housekeeping (ball mills)	A-13	0.08						
Alumina Wash Line	A-13			0.43				
AMP Test Furnace	A-13	0.01	0.27	1.48	1.5	0.01	0.25	0.31
Clean Solvent Storage Tank	A-13			0.05			0.01	0.01
Waste Solvent Storage Tank	A-13			0.05			0.01	0.01
Test Kiln, electric, not in use	A-5	0						
JPW Electric Cure Oven (Building A)	A-13	0.02	0.01	0.01	0.01	0.01	0.01	0.02

19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

The following is a list of all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
1672-AR-13



## APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

## Fee Calculation for Minor Source

Revised 03-11-16

Facility Name: Coorstek Benton  
 Permit Number: 1672-AR-14  
 AFIN: 63-00164

			Old Permit	New Permit
\$/ton factor	27.27	Permit Predominant Air Contaminant	37.1	37.1
Minimum Fee \$	400	Net Predominant Air Contaminant Increase	0	
Minimum Initial Fee \$	500	Permit Fee \$	0	
Check if Administrative Amendment	<input checked="" type="checkbox"/>	Annual Chargeable Emissions (tpy)	37.1	

Pollutant (tpy)	Old Permit	New Permit	Change
PM	3.4	3.4	0
PM <sub>10</sub>	1.6	1.6	0
PM <sub>2.5</sub>	0	0	0
SO <sub>2</sub>	30.9	30.9	0
VOC	35.3	35.3	0
CO	18.7	18.7	0
NO <sub>x</sub>	27.4	27.4	0
Total HAPs	7.7	7.7	0
Acetone	37.1	37.1	0