

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1672-AR-12 AFIN: 63-00164

1. PERMITTING AUTHORITY:

Arkansas Department 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:

Shawn Hutchings

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
9/17/2019	Deminimis	New sources to SN-08, 09, and 10. Production increases also.

6. REVIEWER'S NOTES:

Coorstek, Inc. owns and operates a high technology custom ceramic product manufacturing facility located at 3315 Boone Road, Benton, AR. This modification is to increase the annual throughput for SN-03 to 2,400,000 lbs/year and for SN-08 to 1,200,000 lbs per year. Source SN-08 is a group of 16 Carbide Electric Furnaces existing in two buildings. After the modification the facility will increase to a total of 25 furnaces with the furnaces controlled by an afterburner for each building. The 12 furnaces in Building A will be SN-08A. The 13 in Building B will become SN-08B. The annual emissions for SN-08A and B will remain bubbled, but hourly rates

will be separate. This modification also adds a new process building (Building C) consisting of Vacuum Hot Presses, and four electric binder burnout ovens (BBO), SN-09, which will be controlled by afterburners; and add a new process to Building A that will use a vacuum dryer SN-10 to produce specialized ceramic powder.

7. COMPLIANCE STATUS:

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

There are no known enforcement actions against 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 ≥ 100 tpy and on the list of 28 or single pollutant ≥ 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. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? **N**
(Note - permit shields are not allowed to be added, but existing ones can remain, for minor modification applications or any Regulation 18 requirement.)

11. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

12. 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 ADEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

There was no increases in HAP emissions.

13. 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	Varied			

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
None				

15. 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

16. 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

17. 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

18. DELETED CONDITIONS:

Former SC	Justification for removal
	None

19. 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 ₁₀	SO ₂	VOC	CO	NO _x	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)	A-13	0						

process, no emissions)								
Silicon Lap and Polish (inorganic water-based slurry, wet process, no emissions)	A-13	0						
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						
Alumina Was Line	A-13		0.43					
Test Kiln, electric, not in use	A-5	0						

20. 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-11

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

