

STATEMENT OF BASIS

For the issuance of Air Permit # 0635-AR-21 AFIN: 60-00004

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Porocel Industries, LLC
 10300 Arch Street Pike
 Little Rock, Arkansas 72206

3. PERMIT WRITER:

Kyle Crane

4. NAICS DESCRIPTION AND CODE:

NAICS Description: All Other Miscellaneous Nonmetallic Mineral Product
 Manufacturing
 NAICS Code: 327999

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, De Minimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
2/4/2019	Modification	Change SN-A-07 Flash Calciner #1 throughput limit and emission rates based on recent stack test
2/4/2019	De Minimis	Install a Tray Dryer as SN-A-68 and connect SN-A-62 to Tri-Mer SCR scrubber to process NO _x -producing materials
2/4/2019	Administrative Amendment	Removal of several sources

6. REVIEWER’S NOTES:

Porocel Industries, LLC (Porocel) owns and operates a facility at 10300 Arch Street Pike, Little Rock, Pulaski County, Arkansas. The facility processes various nonmetallic minerals and product materials. Porocel submitted an application to:

- Permit a tray dryer as SN-A-68;
- Connect the Chrome Indirect Calciner (SN-A-62) to the Tri-Mer SCR scrubber to process NO_x-generating materials;
- Change feed rate and PM emission rate limits for Flash Calciner #1 (SN-A-07);
- Rename source SN-A-67 from “F-54 Calciner” to “G-54 Calciner”;
- Remove sources that have been removed, or were permitted and not installed, including SN-PW-04, PW-06, B-24, A-05, A-11, A-20, A-23, A-32, A-34, A-48, and A-50.

The permit’s general conditions have also been updated. Permitted annual emissions decrease by 4.2 tons per year (tpy) of PM₁₀, 0.1 tpy of SO₂, 0.2 tpy of VOC, 2.3 tpy of CO, and 0.02315 tpy of total HAP.

Dispersion modeling was performed with AERMOD v18081 using Lakes Environmental AERMOD View 9.5.0.

7. COMPLIANCE STATUS:

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

The facility was last inspected on May 15, 2018 and was found to be out of compliance due to scrubber excursions and testing dates. EPA ECHO identifies this information and a failed stack test, which this modification addresses.

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)
B-15, A-07, A-10, A-13, A-14, A-17, A-26, A-36, A-44, A-53,	PM Opacity	NSPS Part 60 Subpart UUU

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
A-54, A-59, A-62, A-66, A-67, and A-68		
B-23 and A-47	There are no specific emission limits or pollutants identified, but the rules generally regulate HAPs.	NESHAP Part 63 Subpart <i>ZZZZ</i>

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.)

If yes, are applicable requirements included and specifically identified in the permit? N
If not, explain why.

For any requested inapplicable regulation in the permit shield, explain the reason why it is not applicable in the table below.

Source	Inapplicable Regulation	Reason
N/A		

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:

The non-criteria pollutants listed below were evaluated. Based on Department procedures for review of non-criteria pollutants, emissions of all other non-criteria pollutants are below thresholds of concern.

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 has deemed the 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?
Arsenic	0.01	0.0011	0.001207	No
Nickel	1.5	0.168	0.012074	Yes
Cobalt	0.02	0.0022	0.037079	No
Manganese	0.02	0.0022	0.00066	Yes
Ammonia	17.4	1.9	0.08	Yes

2nd Tier Screening (PAIL)

AERMOD 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 has been deemed by the Department to be one one-hundredth of the Threshold Limit Value as listed by the ACGIH.

Pollutant	PAIL (µg/m ³) = 1/100 of Threshold Limit Value	Modeled Concentration (µg/m ³)	Pass?
Arsenic	0.1	0.00165	Y
Cobalt	0.2	0.16514	Y

c) H₂S Modeling:

A.C.A. §8-3-103 requires hydrogen sulfide emissions to meet specific ambient standards. Many sources are exempt from this regulation, refer to the Arkansas Code for details.

Is the facility exempt from the H₂S Standards Y

If exempt, explain: The facility does not emit H₂S

13. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
B-18	AP-42 11.19.2	PM/PM ₁₀ : 1.6E-05 lb/ton	None	N/A	Inlet Hopper & Rail Unloading for Powder
<u>PW-05 (NO_x)</u> (B-15, B-23, A-07, A-10, A-13, A-14, A-17, A-26, A-36, A-39, A-44, A-47, A-49, A-54, A-59, A-62)	All Equipment combusting Natural Gas AP-42 1.4-1/2	<u>lbs/MMSCF:</u> 0.6 SO ₂ 100 lb NO _x 84 lb CO 5.5 lb VOC 7.6 lb PM ₁₀ Annual usage limit: 680 MMSCF	None	N/A	Natural gas bubble based on monthly/total natural gas usage. PW-05 -Nte 34.0 tpy NO _x
A-02, A-03, A-24		PM/PM ₁₀ : 1.2 lb/ton	Baghouse	99%	ACM 1, 2, 3 PM = PM ₁₀
A-18		PM: 2.4 lb/ton PM ₁₀ : 0.31 lb/ton	Baghouse	99%	n/a
B-01, B-06, B-07, B-08, B-10, B-12, B-17, B-20, A-14, A-34, A-38, A-54	MSDS and Mass Balance Specialty Toll Products	<u>Metallic HAP by wt</u> As 1% Co 7% Mn 2% Ni 10% Rate: B-15, B19, & A-34: 1.0 tph	Bin Vents/ Baghouses	99.9%	HAPs B-01, 06, 07, 08, 10, 11, 12, 17, & 20 are Tanks
B-14	AP-42 11.24-2 (8/82) High-moisture Ore ^A Primary, MSDS, and Mass Balance (at 1.0 tph, at 8,760 hrs/yr)	Filterable PM: 0.02 lb/ton ^A Filterable PM ₁₀ : 0.009 lb/ton ^A <u>Metallic HAP by wt</u> As 1% Co 7% Mn 2% Ni 10%	None (0%)	N/A	PM: 0.01 lb/hr PM ₁₀ : 0.004 lb/hr Ni: 1.00E-03 lb/hr Ni: 4.38E-03 tpy As: 1.00E-04 lb/hr As: 4.38E-04 tpy Co: 7.00E-04 lb/hr Co: 3.07E-03 tpy
B-15	AP-42 11.24-2 (8/82) Drying High-moisture Ore ^B , MSDS, and Mass Balance (at 1.0 tph, at	Filterable PM: 19.7 lb/ton ^B Filterable PM ₁₀ : 12 lb/ton ^B <u>Metallic HAP by wt</u> As 1%	Bin Vents/ Baghouses	99.9%	Ni: 1.97E-03 lb/hr Ni: 8.63E-03 tpy As: 1.97E-04 lb/hr As: 8.63E-04 tpy Co: 1.38E-03 lb/hr Co: 6.04E-03 tpy

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
	8,760 hrs/yr)	Co 7% Mn 2% Ni 10% 8,760 tpy 1.0 tpy			
B-19	AP-42 11.24-2 (8/82) High-moisture Ore ^A Primary, MSDS, and Mass Balance (at 3.0 tph, at 8,760 hrs/yr)	Filterable PM: 0.02 lb/ton ^A Filterable PM ₁₀ : 0.009 lb/ton ^A HAP Emission Factors (wt. %) Arsenic: 1% Cobalt: 7% Nickel: 10% 26,280 tpy 3.0 tpy	None (0%)	N/A	Ni: 3.00E-03 lb/hr Ni: 1.31E-02 tpy As: 3.00E-04 lb/hr As: 1.31E-03 tpy Co: 2.10E-03 lb/hr Co: 9.20E-03 tpy
A-14 and A-54	MSDS for slip	Ammonia	None	None	Air Contaminant
A-10, A-17, A-44	AP-42 11.24-2 (8/82)	PM: 19.7 lb/ton PM ₁₀ : 12.0 lb/ton	Baghouse	95%	Activators #1, #2, #4
A-13, A-22, A-36, A-39	AP-42 11.24-2 (8/82)	PM: 19.7 lb/ton PM ₁₀ : 12.0 lb/ton	Baghouse	99%	n/a
A-07	July 2018 Stack Test	PM: 1.76 lb/hr PM ₁₀ : 0.30 lb/hr	Baghouse		
A-07, A-14	AP-42 11.24-2 (8/82)	PM: 19.7 lb/ton PM ₁₀ : 12.0 lb/ton	Baghouse	99.9%	n/a
A-14			Afterburner	VOC	burn off after certain tolling runs
B-01, B-03, B-06, B-08, B-12, B-16, B-17, B-20, B-21, B-22, A-01, A-06, A-08, A-15, A-19, A-22, A-25, A-26, A-29, A-33, A-38, A-46	AP-42 11.24-1,2 (8/82)	Filterable PM/PM ₁₀ : 1.1 lb/ton A-34: 1.0 tpy	Baghouse, Bin vent filter, or Cartridge collector	99% PM	PM=PM ₁₀
A-09 and A-31	AP-42 13.2.4	PM: 0.009 PM ₁₀ : 0.004 lb/ton	None	None	Fugitive
B-05	AP-42 11.24-1,2 (8/82)	Filterable PM/PM ₁₀ : 0.55 lb/ton	Enclosure	90%	Shipping & Loadout Bubble

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
B-07 & B-10	AP-42 11.24-1,2 (8/82)	Filterable PM/PM ₁₀ : 2.3 lb/ton	Baghouse	99%	Tanks
B-15 B-60 Calciner	AP-42 Sec. 12.24.1, Table 12.24-2 AP-42 Chapter 1.4, Tables 1.4-1 and 1.4-2 Engineering estimate/Process knowledge	PM: 19.7 lb/ton PM ₁₀ : 12.00 lb/ton ¹ <u>lb/MMscf:</u> 7.6 PM/PM ₁₀ 0.6 SO ₂ 5.5 VOC 84 CO 100 NO _x <u>lb/ton:</u> NO _x : 200 lb/ton (while processing high NO _x materials)	Tri-Mer Wet Scrubber & Baghouse	90% (NO _x) & 99.9% (PM)	1 TPH max capacity 8,760 tpy ¹ High moisture ores
A-14 and A-54 Calciners	AP-42 Chapter 12.24.1, Table 12.24-2 AP-42 Chapter 1.4, Tables 1.4-1 and 1.4-2 Engineering estimate/Process knowledge	lb/ton: 19.7 PM 12.00 PM ₁₀ lb/MMscf: 7.6 PM/PM ₁₀ 0.6 SO ₂ 5.5 VOC 84 CO 100 NO _x lb/ton: 200 NO _x (while processing high NO _x materials)	Tri-Mer SCR	95% (NO _x) & 99.9% (PM)	A-14: 1 TPH max capacity A-54: 0.25 TPH max capacity
A-51 Mixer	AP-42 Table 11.24-2 (8/82)	lb/ton: 0.01 PM 0.004 PM ₁₀	Baghouse	99%	2 TPH max capacity 17,520 tpy
A-52 Receiver	AP-42 Table 11.24-2 (8/82)	lb/ton: 1.1 PM Based on weight of material transferred	Baghouse	99%	Assumes PM ₁₀ = PM 1.5 TPH max 13,140 tpy
A-53 Harper Calciner	AP-42 Table 11.24-2 (8/82)	lb/ton: 19.7 PM 12.0 PM ₁₀	Baghouse	99%	0.02 TPH maximum capacity 131 tpy
A-55 Harper Feed	AP-42 Chapter 12.24.1,	lb/ton: 19.7 PM	Bin vent	99.9%	0.25 TPH maximum

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
Tank	Table 12.24-2	12.0 PM ₁₀			capacity
B-14	AP-42 11.24-1,2 (8/82)	PM: 0.01 lb/hr: 0.04 tpy PM ₁₀ : 0.004 lb/ton: 0.02 tpy	Baghouse	0%	Max Throughput 8,760 tpy 1.0 tph
B-19	AP-42 11.24-1,2 (8/82)	PM: 0.01 lb/hr: 0.13 tpy PM ₁₀ : 0.01 lb/ton: 0.05 tpy	Baghouse	0%	Max Throughput 26,280 tpy 3.0 tph
A-12, A-31	AP-42 11.24-1,2 (8/82)	PM: 0.01 lb/hr: 0.04 tpy PM ₁₀ : 0.004 lb/ton: 0.02 tpy	Baghouse	0%	Max Throughput 8,760 tpy 1.0 tph
A-09, A-18	AP-42 11.24-2	PM: 2.4 PM ₁₀ : 0.31 lb/ton	Baghouse		
B-23, A-47	AP-42 3.2-2	lb/MMBtu: 5.88E-04 SO ₂ 4.08 NO _x 0.557 CO 0.118 VOC 9.99E-03 PM/PM ₁₀	None	None	Emergency Engines 4SLB SI RICE 100 hr/yr
A-56, A-57 Tanks	AP-42 11.24-1, 2 (8/82)	PM/PM ₁₀ : 1.1 lb/ton	Bin Vent	99%	Limit 4,380 tpy & ½ ton per hour
A-58 Hopper & Screw Feed		PM/PM ₁₀ : 1.1 lb/ton	None	N/A	
A-59 Calciner		PM: 19.7 lb/ton PM ₁₀ : 12 lb/ton	Dust Collector	99%	
A-60 Dust Collector		PM/PM ₁₀ : 1.1 lb/ton	Dust Collector	99%	
A-61 Harper Calciner Dust Collector	AP-42 11.24-1, 2 (8/82)	Rate: 30 lb/hr	Dust Collector	99%	Limit 4,380 tpy
A-62 Chrome Indirect Calciner	AP-42 11.24-2 (8/82)	lb/MMscf: 7.6 PM/PM ₁₀ 0.6 SO ₂ 5.5 VOC 84 CO 100 NO _x	Dust Collector (A-52)	99%	
A-63	AP-42 Table 11.24-2	1.1 lb/ton PM/PM ₁₀	Baghouse	99.0%	Annual Throughput 2,190 tons
A-63	MSDS	<u>Metallic HAP by</u>	Baghouse	99.0%	Annual

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		wt As 1% Co 7% Ni 10%			Throughput 2,190 tons
A-64	AP-42 Table 11.24-2	1.1 lb/ton PM/PM ₁₀	Baghouse	99.0%	Annual Throughput 8,760 tons
	MSDS	<u>Metallic HAP by wt</u> As 1% Co 7% Ni 10%	Baghouse	99.0%	Annual Throughput 8,760 tons
A-65	AP-42 Table 11.24-2	0.01 lb/ton PM 0.004 lb/ton PM ₁₀	Bin Vent Fabric Filter High Moisture	99.0%	Annual Throughput 8,760 tons
	MSDS	<u>Metallic HAP by wt</u> As 1% Co 7% Ni 10%	Bin Vent Fabric Filter High Moisture	99.0%	Annual Throughput 8,760 tons
A-66	AP-42 Table 11.24-2 MSDS	19.7 lb/ton PM 12 lb/ton PM ₁₀ Co 25%	Baghouse	99.0%	Annual Throughput 2,414 tons
A-67	AP-42 Table 11.24-2 MSDS	19.7 lb/ton PM 12 lb/ton PM ₁₀ Co 25%	Baghouse	99.0%	Annual Throughput 2,414 tons
A-68	AP-42 Table 11.24-2 MSDS	19.7 lb/ton PM 12 lb/ton PM ₁₀ Co 25%	Baghouse	99.9%	Annual Throughput 2,190 tons

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Description	Start-up Date	Target Production Rate Attainment	Latest Test Completion Date
B-15	B-60 Calciner	1950s	1950s	7/19/1999 - 9/7/2000
A-07	Flash Calciner # 1	1997	1997	1999
A-10	Activator # 1	1997	1997	2009-2010
A-13	Activator #3	1998	1998	11/2009

SN	Description	Start-up Date	Target Production Rate Attainment	Latest Test Completion Date
A-14	A-60 Indirect Calciner	1998	1998	7/19/1999 - 9/7/2000
A-17	Activator #2	1997	1997	2009-2010
A-26	Belt Dryer	2003	2003	3/19-20/2013
A-36	Flash Calciner #2	2011	2011	6/2015
A-44	Activator #4	2012	2012	3/19-20/2013
A-53	Harper Calciner	9/2014	9/14	TBD
A-54	C-36 Indirect Calciner	11/2014	11/14	10/2015
A-59	D-36 Calciner	n/a	n/a	10/2015
A-62	Chrome Indirect Calciner	-	-	2/2016
A-66	F-48 Dryer	-	-	TBD
A-67	G-54 Calciner	-	-	TBD
A-68	Tray Dryer	-	-	TBD

SN	Pollutants	Test Method	Test Interval	Justification
B-15, A-14, A-53, A-54, A-62, A-66, A-67	NO _x	Method 7E per SC #19	Within 180 days after processing a new high-NO _x material and every 5 years thereafter while processing the highest-NO _x currently in use	§19.702
A-53	PM and opacity	Method 5 and the sampling time and volume for each test run shall be at least 2 hours and 1.70 dscm, & Method 9 for opacity SC #29	One-time, within 180 days after initial startup (past due)	§ 60.732 (SC #25)
A-66, A-67, A-68			One-time, within 180 days of startup	
B-15, A-07, A-10, A-13, A-14, A-17, A-26, A-36, A-44, A-54, A-59, A-62	PM	Method 5	One-time test Complete for these sources	§ 60.732

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)
B-15, A-14, A-53, A-54, A-66, A-67	Aqueous Ammonia Injection Rate	7-81 gallons per hour	Rolling 3-hour average	No, unless an upset occurs
	Inlet Temperature	500-700 °F	Rolling 3-hour average	No, unless an upset occurs
	Gas Pressure Drop	2-10 in. H ₂ O	Rolling 3-hour average	No, unless an upset occurs

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)
All sources	Monthly and rolling 12 month total throughputs of products and MSDSs from all materials.	100,000 tpy of nonmetallic minerals	Monthly	No
Facility-wide (PW-05)	Monthly and rolling 12 month total natural gas usage	680 MMSCF/yr of natural gas	Monthly	No
All sources	NO _x emissions from combustion from natural gas	34.0 tpy	Monthly	No
Facility-wide	When actual emissions of NO _x exceed 95.0 tpy rolling 12 mos, permittee must demonstrate	95.0 tpy NO _x	As occurs	No

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
	degree of accuracy of calculations to prove facility has not exceeded major source threshold for NO _x .			
A-14 & A-54	Ammonia	Nte 0.35 tpy	Monthly	No
PW-07 (B-15, A-14, A-54)	NO _x emission from process NO _x generating materials	64.8 tpy	Monthly	No
A-14	Solvents and additives containing HAPs or other air contaminants used in specified processes and MSDSs. Monthly HAP-free material (MEA) usage and 12 month cumulative total.	Lbs/hr<PAIL & Total HAPs Nte 9.5 tpy 300 tpy of HAP-free material (MEA)	Daily Monthly Monthly	No No No
B-15, A-14, A-53, A-54, A-62, A-66, and A-67	SCR by-passed <u>not</u> allowed while processing NO _x generating materials	Operate w/o bypassing in accordance with ADEQ CEMS	Rolling 3-hour average - continuous	Yes. Report upset conditions, GP #10.
B-15, A-14, A-53, A-54, A-62, A-66, and A-67	SCR Scrubber daily records of the ammonia injection rate, inlet temperature, and gas	SC #17	Daily records, continuous reading	Yes. Report exceedances, GP #10.

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
	pressure drop			
A-54	Material Throughput and MSDS	2,190 tpy	Monthly	No
A-55	Material Throughput and MSDS	2,190 tpy	Monthly	No
A-39	Material Throughput and MSDS	8,760 tpy	Monthly	No
B-15, A-14, A-39 and A-54	Maintain copy of the manufacturer's specifications and operating manuals onsite for the life of the units	Follow Manufacturer's operating manual	On going	No
A-47 and B-23	Hours of operation (each)	100 hours / calendar year	Monthly	No
A-47 and B-23	Engine Routine Maintenance	Change oil and filter every 500 op hrs; Inspect spark plugs every 1,000 op hrs; and Inspect all hoses and belts every 500 op hrs. Replace as necessary.	Due at stated operating hours or annually, whichever comes first.	No
A-47 and B-23	During Extended Emergency Use in excess of 100 hours	No limit	As occurs	Yes
B-15, A-07, A-10, A-13, A-14, A-17, A-26, and A-44	Initial PM Performance Test §60.732	Initial Report Only	One-time, Complete but not on schedule	Yes
A-36, A-53, and A-54	Initial PM Performance Test §60.732 -	Contains PM in excess of 0.092 g/dscm [0.040 gr/dscf] for calciners and for calciners and dryers installed in series and in excess of 0.057 g/dscm (0.025 gr/dscf)	One-time - not later than 180 days after the initial startup - past due	Yes
A-59, A-62, A-66, A-67, A-68			One-time, not later than 180 days after the	Yes

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
		for dryers <u>and</u> exhibits greater than 10% opacity, unless emissions are discharged from an affected facility using a wet scrubbing control device	initial startup	

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
B-23 and A-47 (natural gas, emergency engines)	5%	§18.501	Annual Observation by ADEQ Inspector
B-01, B-03, B-05, B-06, B-07, B-08, B-10, B-12, B-14, B-16 through B-22, A-01 through A-03, A-06, A-08, A-09, A-12, A-15, A-18, A-19, A-22, A-24, A-25, A-29, A-31, A-33, A-38, A-39, A-42, A-43, A-46, A-49, A-51, A-52, A-55 through A-58, A-60, A-61, A-63, A-64, and A-65	5%	§18.501	
B-15, A-07, A-10, A-13, A-14, A-17, A-26, A-36, A-44, A-53, A-54, A-59, A-62, A-66, A-67, and A-68	10%	§ 60 Subpart UUU – §60.732(b)	Inspection by Facility

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
INCINI-Cone Afterburner	A-1	No new IA were added to the A-1 category with this permit modification. Total emissions will be evaluated next time the A-1 IA List is updated.						
R&D burner & Activator	A-5			0.01				
Analysis Lab	A-5			0.10				
Feed Blender	A-13	Enclosed system. Zero emissions						
Slug Mix Tank Fume Scrubber	A-13			0.01			0.01	0.01
Lab Scale Hydrotreating	A-13	H ₂ S emissions equal 0.07 tpy						

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 #
0635-AR-20

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Minor Source

Revised 03-11-16

Facility Name: Porocel Industries,
 LLC
 Permit Number: 0635-AR-21
 AFIN: 60-00004

		Old Permit	New Permit
\$/ton factor	23.93	98.8	98.8
Minimum Fee \$	400	0	
Minimum Initial Fee \$	500		
		Permit Fee \$	400
Check if Administrative Amendment <input type="checkbox"/>		Annual Chargeable Emissions (tpy)	98.8

Pollutant (tpy)	Old Permit	New Permit	Change
PM	69.4	69.4	0
PM ₁₀	51.9	47.7	-4.2
PM _{2.5}	0	0	0
SO ₂	1.9	1.8	-0.1
VOC	16.6	16.4	-0.2
CO	36	33.7	-2.3
NO _x	98.8	98.8	0
Ammonia	0.35	0.35	0
Total HAP	9.7392288	9.7160788	-0.02315