STATEMENT OF BASIS

for issuance of Draft Air Permit No. 635-AOP-R0.

1.   PERMITTING AUTHORITY:

Arkansas Department of Pollution Control and Ecology
8001 National Drive
Post Office Box 8913
Little Rock, Arkansas 72219-8913.

2.   APPLICANT:

Porocel Corporation
10300 Arch Street Pike
Little Rock, AR 72206.

3.   PERMIT WRITER:

Wesley Crouch.

4.   PROCESS DESCRIPTION AND SIC CODE:

Metallic and Non-metallic Material Processing.
SIC Code: 2819.

5.   REVIEWER'S NOTES:

Porocel operates a mineral processing plant in Little Rock. The facility changed owners and the new owners discovered several unpermitted sources and also wanted to expand operations. This expansion pushed them over the Title V threshold for NO_x and PM/PM_{10}. This permit incoporates all the new equipment as well as the old equipment not previously included in the permit. They are subject to two NSPS, Subparts LL and OOO.

6. EMISSION CHANGES:

The following table summarizes plantwide emission changes associated with this permitting action.

Plantwide Permitted Emissions (ton/yr)			
Pollutant	Air Permit 635-AR-4	Air Permit 635-AOP-R0	Change
PM/PM$_{10}$	67.4	100.6	33.2
SO$_2$	0.2	1.8	1.6
VOC	0.6	14.5	13.9
CO	5.8	79.6	73.8
NO$_X$	22.3	209.5	187.2
HAP	0	1.57	1.57

7. CALCULATIONS:

At source locations for which no comments appear below, the emission calculations received the reviewer's concurrence as submitted by the facility in the permit application.

KEY: Abbreviations used in the following tables: SN = Source Number, SC = Specific Condition. For all sources deemed insignificant, the permit writer has reviewed submitted calculations, and concurs with the emission estimates.

SN	Basis for emission calculation of final permit limits.		Comment.
	lb/hr	**ton/yr**	
All	Maximum possible throughput	Bottlenecked Throughput	The Bottle necked throughput is calculated using the limiting piece of equipment as the maximum production. Emissions rates are based on the efficiencies of the control equipment as listed in the permit application. SN-36 emissions are calculated based on emissions from baghouse being passed through the scrubber for Process 13 only.

8.   MODELING:

A.   Criteria Pollutants

Pollutant	Emission Rate (lb/hr)	NAAQS Standard ($\mu g/m^3$)	Averaging Time	Highest Concentration ($\mu g/m^3$)	% of NAAQS
NO_X	48.6	100	Annual	27.6	28%

B.   Non-Criteria Pollutants

Non-Criteria Pollutant limits were backcalculated from the PAER in order to give the facility the maximum operational flexibility that they needed. The results are listed in the following table.

TLV of HAP[1] (mg/m^3)	Allowable HAP Emission Rate (lb/hr)	Allowable HAP Emission Rate (tons/year)	% of total emissions from scrubber that can be HAP[2]
0.001	0.0008	0.0035	0.2
0.005	0.0039	0.017	1.1

0.01	0.0078	0.034	2.2
0.025	0.0195	0.086	5.4
0.05	0.039	0.17	10.8
0.075	0.0585	0.256	16.3
0.1	0.0781	0.314	21.7
0.2	0.1561	0.682	43.4
0.3	0.2342	1.03	65.1
0.4	0.3123	1.37	86.7

1. Threshold Limit Values as listed in the current ACGIH TLVs and BEIs
2. Percentages based on total scrubber emissions of 0.36 lb/hr.

9. **TESTING AND OPERATIONAL PARAMETERS**:

This permit requires stack testing of the following sources.

SC	SN(s)	Pollutant	Test Method	Justification
119	42	PM/PM$_{10}$	5	The facility wishes to be able to run material that may produce HAP emissions. These HAPs would be in the form of impregnated dust. Emissions would run through baghouses and then a scrubber. Total emissions from the scrubber would not be allowed to exceed 0.36 lb/hr therefore a stack test is necessary in order to verify emissions rates.

This permit requires the following operational parameters:

SC	SN(s)	Sampled Material	Parameter	Justification
Plantwide #5	All sources	Total product	Maximum production per year	All annual emissions are based on total product production. This needs to be limited in order to insure that emisions stay at or below permitted levels.

10. RECORD KEEPING, REPORTING:

The following specific conditions were included in Air Permit 635-AOP-R0 to require record keeping and reporting of throughput, emissions, or operational parameters:

Plantwide Condition	SN	Recorded Item
8	All sources	Annual material production in order to limit emissions on a per process basis and natural gas usage to limit products of combustion.
9	All sources	Opacity and a requirement for visual observation in order to determine compliance.
14	42	TLVs of HAP conatining materials used in specified processes and the percentages of those HAPs in substances used for production. Haps may only be emitted at SN-42, the wet scrubber.

11. OPACITY:

The following opacity limits are required by this permit.

SC	SN	% Opacity	Justification
2	1	7	Limit required by NSPS subpart.
5	2	7	Limit required by NSPS subpart.
8	3	7	Limit required by NSPS subpart.
11	4	7	Limit required by NSPS subpart.

14	5	7	Limit required by NSPS subpart.
17	6	7	Limit required by NSPS subpart.
20	7	7	Limit required by NSPS subpart.
23	8	7	Limit required by NSPS subpart.
26	9	7	Limit required by NSPS subpart.
29	10	7	Limit required by NSPS subpart.
32	11	7	Limit required by NSPS subpart.
35	12	7	Limit required by NSPS subpart.
38	13	20	Reg 18, §18.5
40	14	7	Limit required by NSPS subpart.
43	15	10	Limit required by NSPS subpart.
45	16	7	Limit required by NSPS subpart.
48	19	7	Limit required by NSPS subpart.
51	20	7	Limit required by NSPS subpart.
54	21	7	Limit required by NSPS subpart.
57	22	10	Limit required by NSPS subpart.
60	23	7	Limit required by NSPS subpart.
63	24	7	Limit required by NSPS subpart.
66	25	7	Limit required by NSPS subpart.
69	26	7	Limit required by NSPS subpart.
72	27	7	Limit required by NSPS subpart.
75	28	7	Limit required by NSPS subpart.
78	29	7	Limit required by NSPS subpart.
81	30	7	Limit required by NSPS subpart.
84	31	7	Limit required by NSPS subpart.

87	32	7	Limit required by NSPS subpart.
90	33	7	Limit required by NSPS subpart.
93	34	7	Limit required by NSPS subpart.
96	35	20	Reg. 18, §18.5
98	36	7	Limit required by NSPS subpart.
101	37	7	Limit required by NSPS subpart.
104	38	7	Limit required by NSPS subpart.
107	39	7	Limit required by NSPS subpart.
110	40	7	Limit required by NSPS subpart.
113	41	7	Limit required by NSPS subpart.
124	43	7	Limit required by NSPS subpart.
127	44	7	Limit required by NSPS subpart.
129	45	7	Limit required by NSPS subpart.
131	46	7	Limit required by NSPS subpart.
134	47	7	Limit required by NSPS subpart.
137	48	7	Limit required by NSPS subpart.
140	49	7	Limit required by NSPS subpart.
143	50	7	Limit required by NSPS subpart.
146	51	7	Limit required by NSPS subpart.
149	52	7	Limit required by NSPS subpart.
152	53	7	Limit required by NSPS subpart.
155	54	7	Limit required by NSPS subpart.
158	55	7	Limit required by NSPS subpart.

12.   OTHER REQUIREMENTS:

The following conditions were included in Air Permit 635-AOP-R0 for the purposes described below.

SC	Justification	Citation
PW #5	Limit annual production in order to maintain reported emissions rates	A.C.A. & 70.6
PW #6	Establish natural gas usage limit	A.C.A. & 70.6
PW #7	Establish a PM/PM$_{10}$ limit for processing of materials as demonstration runs. During normal operation of the facility compliance with Plantwide Condition #5 will be used to show compliance with all emission rates.	§19.5 and Part 52
PW #10	Outlines NSPS Subpart LL requirements as they apply to this facility	40 CFR 60
PW #11	Outlines NSPS Subpart OOO requirements as they apply to this facility	40 CFR 60
PW #12	Allow Porocel to perform demonstration runs of potential products without requiring a permit modification	§26.8(b)
PW #13	Set limits for HAP emissions and outline method of compliance	§18.8

PW = Plantwide condition

13.   DELETED CONDITIONS:

The following Specific Conditions were included in the previous permit, but deleted for the current permitting action.

Complete rewrite of permit. Old permit did not accurately reflect plant operations and was not Title V.

14.   REFERENCES:

       a.   Air Permit Application, received April 2, 1998
       b.   Regulation No. 18, as amended July 1, 1997.
       c.   Regulation No. 19, as amended July 1, 1997.
       d.   Regulation No. 26, as adopted January 27, 1995.
       e.   USEPA AP-42 Compilation of Emission Factors, 1/95, Sections 1.4, 11.24, & 11.25
       f.   40 CFR 60, Subpart LL
       g.   40 CFR 60, Subpart OOO

15. CONCURRENCE BY:

The following supervisor concurs with the permitting decision:

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Thomas Rheaume, P.E.