

July 21, 1981  
ESE NO. 80 001 100

Mr. Larry George  
Chief Meteorologist  
Department of Environmental Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32301

RE: Buckeye Cellulose Class I Impact

Dear Mr. George:

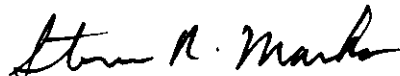
Concerning our telephone conversation of July 17, 1981, Buckeye Cellulose of Foley has been determined not to impact the St. Marks National Wilderness area, a Prevention of Significant Deterioration (PSD) Class I area, by more than the allotted one  $\text{ug}/\text{m}^3$  of Total Suspended Particulate (TSP) per 24 hour period. This analysis involved excluding all days in which calm winds significantly affected the total impact.

Methodology included executing the ISCST model with 5-year meteorology from Valdosta/Waycross 1972-76. Two receptors in the Class I area were looked at: Direction 275 and 280 degrees at 44.0 kilometers. From the highest 50 tables, all days with calm wind impacts over 2 hours were excluded. All days with impacts of  $1.0 \text{ ug}/\text{m}^3$  were examined for calm wind conditions.

It was determined that all of these days had several hours of calm winds. Day 154, 1973, was selected for refined analysis since the 5-year ISC yielded  $0.99 \text{ ug}/\text{m}^3$  and there was only one calm on that day. After excluding the calm hour, that day's impact became  $0.54 \text{ ug}/\text{m}^3$ . No other days appeared close to  $1.0 \text{ ug}/\text{m}^3$ .

If you have any further questions, please call me.

Very truly yours,



Steven R. Marks, C.C.M.  
Acting Group Leader  
Air Modeling and Permitting

SRM/ctw

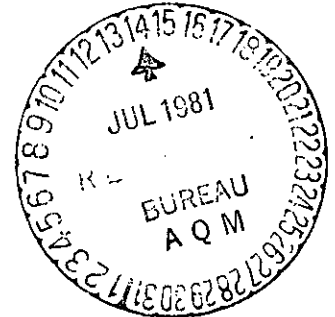
First in cellulose



# The Buckeye Cellulose Corporation

Mailing Address: Route 3 Box 260 Perry, Florida 32347 Phone: (904) 584-0121

July 13, 1981



Mr. Michael D. Harley  
Department of Environmental Regulation  
2600 Blair Stone Road  
Twin Towers Office Building  
Tallahassee, FL 32301


Dear Mike:

Attached is the summary sheet of the side stream scrubber tests on #1 Bark Boiler that you requested per our phone conversation today. Stan Kruger said that the cone drive was moved up 2' (or 2.5") between the 10/7/76 and 10/9/76 tests.

If there are any questions please give me a call.

Sincerely yours,

THE BUCKEYE CELLULOSE CORPORATION

  
J. E. Farmer  
Department Manager  
Environmental Control

JEF/eph

Attachment

JIM FIRMEK

BARK BOILER SCRUBBER TEST SUMMARY

10-9-76

PHASE: 1

SERIES: 1

TEST NO. :	1	2	3	4	5
TEST DATE:	10-7-76	10-7-76	10-9-76	10-9-76	10-9-76
<b>ARTICULATE LOADING</b>					
INLET - GRAINS/ACF	1.120	1.357	0.982	0.906	0.866
GRAINS/DSCF	2.208	2.632	1.866	1.784	1.814
POUNDS/HOUR	127.18	175.96	207.02	191.71	223.18
OUTLET - GRAINS/ACF	0.288	0.024	0.030	0.022	0.021
GRAINS/DSCF	0.383	0.032	0.046	0.031	0.031
POUNDS/HOUR	29.80	3.11	7.19	5.41	5.97
<b>COLLECTION EFFICIENCY %</b>					
GRAINS/ACF	74.29	98.23	96.95	97.57	97.58
GRAINS/DSCF	82.65	98.78	97.53	98.26	98.29
POUNDS/HOUR	76.57	98.23	96.48	97.18	97.33
OVERALL AVERAGE	77.84	98.41	96.99	97.57	97.75
<b>LUE GAS FLOW</b>					
INLET - ACFM	13,253	15,127	24,238	24,678	30,835
DSCFM	6,720	7,800	12,716	13,537	14,354
TEMP, °F	400	400	410	410	430
MOISTURE %	17.0	15.7	14.3	17.3	20.2
OUTLET - ACFM	12,063	15,136	27,899	28,968	33,851
DSCFM	9,079	11,328	18,307	20,629	22,821
TEMP, °F	112	100	143	143	170
MOISTURE %	17.5	13.0	23.8	17.3	22.1
<b>OPERATING CONDITIONS</b>					
PRESSURE DROP, "H <sub>2</sub> O	6.3	6.1	11.4	12.0	10.0
MAIN WATER RATE, PSI	20 <sup>1</sup>	20	23	23	20
PERIPHERY WASH, NORTH (PSI)	24 <sup>2</sup>	24	25	24	22
SOUTH	24	24	24	24	22
ELIMINATOR WASH, NORTH (PSI)	3.6 <sup>3</sup>	3.9	3.4	3.0	3.0
SOUTH	3.9 <sup>3</sup>	3.9	3.6	3.0	3.0
CONE POSITION	FULL UP	FULL UP	⊖ HALF	⊖ HALF	⊖ HALF
REMARKS:	<sup>1</sup> 20 PSI = 220 GPM <sup>2</sup> 20 PSI = 10-20 GPM <sup>3</sup> 3.0 PSI = 2-3 GPM, GAUGES READ 2.0 PSI WHEN VALVE IS CLOSED.				



RING DISTANCES(KM)= 0.70 0.80 0.90 1.00 44.00

STACK # 1--NO 1 KILN  
STACK # 2--NO 2 KILN  
STACK # 3--NO 2 KILN  
STACK # 4--CALCINER  
STACK # 5--NO 2 RECOVERY BOILER  
STACK # 6--NO 2 SMELT TANK  
STACK # 7--NO 3 RECOVERY BOILER  
STACK # 8--NO 3 SMELT TANK  
STACK # 9--NO 4 RECOVERY BOILER  
STACK # 10--NO 4 SMELT TANK  
STACK # 11--NO 1 STACK  
STACK # 12--SHAVE OFF SCRUBBER

STACK	MONTH	EMISSION RATE (GMS/SEC)	HEIGHT (METERS)	DIAMETER (METERS)	EXIT VELOCITY (M/SEC)	TEMP (DEG.K)	VOLUMETRIC FLOW (M**3/SEC)
1	ALL	2.3100	29.26	1.22	9.69	344.70	11.33
2	ALL	2.4600	29.26	1.22	15.20	343.60	17.77
3	ALL	2.6100	29.26	1.22	11.77	349.70	13.76
4	ALL	3.3000	37.49	1.52	15.70	341.30	28.49
5	ALL	11.6500	68.58	3.35	14.11	430.20	124.37
6	ALL	3.1600	43.28	0.91	7.55	343.60	4.91
7	ALL	10.3700	68.58	2.74	17.63	402.40	103.95
8	ALL	3.0400	42.67	1.22	8.81	345.80	10.30
9	ALL	11.7200	68.58	2.90	21.71	474.70	143.40
10	ALL	3.2800	49.38	1.22	10.33	344.70	12.08
11	ALL	57.1500	68.58	3.96	16.90	377.00	208.15
12	ALL	3.5300	52.00	1.07	12.10	341.00	10.88

PLANT NAME: BUCKEYE CELLULOSE TSP POLLUTANT: AIR QUALITY UNITS: GM/M\*\*3  
 MAXIMUM MEAN CONC= 7.0583E-06 DIRECTION= 36 DISTANCE= 1.0 KM  
 YEAR= 64

DIR	ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR					
	RANGE	0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM
1		4.49863E-06	4.59609E-06	4.58210E-06	4.49899E-06	1.73209E-07
2		3.53671E-06	3.63411E-06	3.64472E-06	2.60127E-06	2.42175E-07
3		2.00294E-06	2.02267E-06	2.00383E-06	1.96062E-06	9.87658E-08
4		1.96980E-06	2.02678E-06	2.03839E-06	2.02634E-06	1.41143E-07
5		1.76155E-06	1.74737E-06	1.71403E-06	1.67190E-06	1.45357E-07
6		1.57997E-06	1.58625E-06	1.57185E-06	1.53939E-06	1.39592E-07
7		1.42325E-06	1.41854E-06	1.39894E-06	1.36930E-06	1.02409E-07
8		1.49473E-06	1.44891E-06	1.47574E-06	1.43709E-06	8.13969E-08
9		2.18887E-06	2.21878E-06	2.21154E-06	2.17843E-06	2.16269E-07
10		1.75716E-06	1.77145E-06	1.75351E-06	1.71646E-06	9.33725E-08
11		2.06396E-06	2.11445E-06	2.10393E-06	2.10553E-06	1.40699E-07
12		2.59352E-06	2.60543E-06	2.57884E-06	2.53505E-06	1.63606E-07
13		2.33741E-06	2.34233E-06	2.33409E-06	2.24521E-06	1.12138E-07
14		2.42476E-06	2.45541E-06	2.43808E-06	2.39329E-06	2.06241E-07
15		2.26119E-06	2.24695E-06	2.19499E-06	2.13569E-06	1.13424E-07
16		2.98271E-06	2.9623E-06	2.91797E-06	2.85134E-06	2.07266E-07
17		3.59273E-06	3.54714E-06	3.46611E-06	3.35501E-06	1.77058E-07
18		5.99672E-06	6.15230E-06	6.21597E-06	6.20794E-06	6.05633E-07
19		4.09757E-06	4.62842E-06	3.92886E-06	3.81649E-06	1.81241E-07
20		3.46157E-06	3.45639E-06	3.43852E-06	3.38391E-06	2.15626E-07
21		3.39810E-06	3.40089E-06	3.37692E-06	3.33285E-06	1.76639E-07
22		3.62353E-06	3.62442E-06	3.58113E-06	3.51238E-06	1.83252E-07
23		3.23244E-06	3.22947E-06	3.19025E-06	3.13919E-06	1.79239E-07
24		3.34165E-06	3.32114E-06	3.26963E-06	3.20301E-06	1.60080E-07
25		3.52806E-06	3.57106E-06	3.57253E-06	3.54733E-06	1.98439E-07
26		3.98786E-06	4.05598E-06	4.05078E-06	4.03276E-06	1.85953E-07
27		5.41342E-06	5.65677E-06	5.75932E-06	5.79633E-06	4.07560E-07
28		3.58524E-06	3.62251E-06	3.61423E-06	3.56868E-06	2.19563E-07
29		2.77769E-06	2.85565E-06	2.86990E-06	2.84496E-06	1.57991E-07
30		2.60140E-06	2.71158E-06	2.75367E-06	2.75147E-06	2.18268E-07
31		1.90678E-06	1.96666E-06	1.93428E-06	1.97496E-06	1.13714E-07
32		1.55926E-06	1.63519E-06	1.66666E-06	1.66715E-06	1.13118E-07
33		1.55803E-06	1.60651E-06	1.61660E-06	1.60053E-06	9.54420E-08
34		2.06354E-06	2.17110E-06	2.20856E-06	2.20974E-06	1.31566E-07
35		2.69262E-06	2.92402E-06	2.89926E-06	2.83939E-06	8.43337E-08
36		6.83356E-06	6.89623E-06	7.04863E-06	7.05834E-06	3.98056E-07

PLANT NAME: BUCKEYE CELLULOSE TSP POLLUTANT: AIR QUALITY UNITS: GM/M\*\*3  
 YEARLY MAXIMUM 24-HOUR CONC= 6.6839E-05 DIRECTION= 36 DISTANCE= 1.0 KM DAY=360  
 YEAR= 64

HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR						
RANGE	0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM	
DIR						
1	3.6275E-05 ( 69)	3.9055E-05 ( 69)	4.0028E-05 ( 69)	3.9921E-05 ( 69)	4.0414E-06 (331)	
2	4.2200E-05 (359)	4.6266E-05 (359)	4.8027E-05 (359)	4.8277E-05 (359)	5.2433E-06 (324)	
3	2.2893E-05 (190)	2.5706E-05 (190)	2.3526E-05 (209)	2.4703E-05 (209)	3.0868E-06 (365)	
4	2.8257E-05 (203)	2.7951E-05 (203)	2.7384E-05 (203)	2.6717E-05 (203)	4.0487E-06 (203)	
5	3.3454E-05 (195)	3.5572E-05 (195)	3.6344E-05 (195)	3.6557E-05 (195)	4.2605E-06 ( 75)	
6	4.3834E-05 (149)	4.4653E-05 (149)	4.4921E-05 (149)	4.4782E-05 (149)	2.4617E-06 (150)	
7	2.2107E-05 ( 57)	1.9767E-05 ( 57)	1.9306E-05 (193)	1.9182E-05 (193)	8.0576E-06 ( 41)	
8	2.6126E-05 (169)	2.6063E-05 (169)	2.5356E-05 (169)	2.4433E-05 (169)	3.8437E-06 (160)	
9	2.6540E-05 (236)	2.6854E-05 ( 1)	2.7552E-05 ( 1)	2.7624E-05 ( 1)	6.0442E-06 (295)	
10	2.3182E-05 (169)	2.2977E-05 (169)	2.3309E-05 (290)	2.3660E-05 (290)	2.7917E-06 (133)	
11	4.6086E-05 ( 50)	4.5351E-05 ( 50)	4.8223E-05 ( 50)	4.9291E-05 ( 50)	6.0678E-06 ( 1)	
12	3.2838E-05 (217)	3.2657E-05 (217)	3.2722E-05 (217)	3.3645E-05 ( 59)	4.1113E-06 ( 54)	
13	2.4789E-05 (184)	2.2333E-05 (184)	2.0740E-05 ( 51)	2.3337E-05 ( 51)	2.3503E-06 (292)	
14	2.6037E-05 (328)	2.7699E-05 ( 88)	2.9277E-05 ( 86)	3.3636E-05 ( 86)	5.9307E-06 (313)	
15	2.7419E-05 (213)	2.5157E-05 (213)	2.1921E-05 (213)	1.9580E-05 (243)	6.9682E-06 (293)	
16	3.3152E-05 (213)	3.1882E-05 ( 25)	3.4384E-05 ( 25)	3.5599E-05 ( 25)	5.2736E-06 (311)	
17	3.5653E-05 (172)	3.4287E-05 (254)	3.4651E-05 (254)	3.4726E-05 (254)	4.3161E-06 (294)	
18	5.2242E-05 (245)	4.8552E-05 (245)	4.5647E-05 (245)	4.3834E-05 (253)	5.7888E-06 (102)	
19	4.4134E-05 (187)	4.1327E-05 (187)	3.8217E-05 (187)	3.5824E-05 (187)	5.1779E-06 ( 15)	
20	3.1947E-05 (187)	2.9057E-05 (187)	2.7877E-05 (253)	2.7676E-05 (253)	3.6706E-06 ( 55)	
21	2.7959E-05 (216)	2.6521E-05 (227)	2.5686E-05 (227)	2.7314E-05 (356)	5.1454E-06 (208)	
22	3.5611E-05 (282)	3.7688E-05 (282)	3.9531E-05 (288)	3.9980E-05 (288)	2.6700E-06 (288)	
23	3.3273E-05 (239)	3.3696E-05 (239)	3.3745E-05 (239)	3.3487E-05 (239)	3.3440E-06 (305)	
24	3.2516E-05 (269)	3.1101E-05 (328)	3.2822E-05 (328)	3.5096E-05 (328)	3.6423E-06 (315)	
25	3.1435E-05 (285)	3.3723E-05 (285)	3.4870E-05 (285)	3.5512E-05 (354)	2.6935E-06 (233)	
26	4.0756E-05 (157)	4.7211E-05 (354)	5.2789E-05 (354)	5.5990E-05 (354)	3.2432E-06 (127)	
27	4.2401E-05 (144)	4.1519E-05 (144)	4.4572E-05 (345)	4.6116E-05 (345)	4.3307E-06 (364)	
28	4.4854E-05 (144)	4.1776E-05 (144)	3.6991E-05 (144)	3.6702E-05 (144)	5.1169E-06 (332)	
29	2.9335E-05 ( 96)	3.2637E-05 ( 96)	3.4189E-05 ( 96)	3.4523E-05 ( 96)	2.1685E-06 (242)	
30	3.3138E-05 (183)	3.2373E-05 (183)	3.1258E-05 (183)	3.6030E-05 (183)	4.0616E-06 (117)	
31	2.7020E-05 (247)	2.5090E-05 (247)	2.3313E-05 (247)	2.1822E-05 (247)	2.3951E-06 (156)	
32	2.3957E-05 (221)	2.3454E-05 (221)	2.3128E-05 ( 23)	2.6835E-05 ( 23)	4.6876E-06 (318)	
33	2.5566E-05 (221)	2.4227E-05 (221)	2.2717E-05 (277)	2.3218E-05 (277)	2.8218E-06 (173)	
34	1.5785E-05 (119)	1.7942E-05 (119)	1.9081E-05 (119)	1.9467E-05 (119)	3.9557E-06 ( 3)	
35	3.8015E-05 ( 19)	4.1009E-05 ( 19)	4.2517E-05 ( 19)	4.2933E-05 ( 19)	2.5121E-06 (212)	
36	5.9848E-05 (360)	6.4849E-05 (360)	6.6793E-05 (360)	6.6839E-05 (360)	6.6504E-06 (161)	

← 5.1 mg/m<sup>3</sup> Class I

PLANT NAME: BUCKEYE CELLULOSE TSP POLLUTANT: AIR QUALITY UNITS: GM/M\*\*3  
 YEARLY SECOND MAXIMUM 24-HOUR CONC= 6.2971E-05 DIRECTION= 36 DISTANCE= 1.0 KM DAY=278  
 YEAR= 64

DIR	SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR					
	RANGE	0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM
1	3.0277E-05 (41)	3.1411E-05 (41)	3.1582E-05 (41)	3.1202E-05 (41)	3.4433E-06 (213)	
2	3.8278E-05 (153)	4.0415E-05 (153)	4.1893E-05 (153)	4.0816E-05 (153)	4.5975E-06 (316)	
3	1.3912E-05 (174)	2.1330E-05 (209)	2.3489E-05 (190)	2.2699E-05 (190)	1.4107E-06 (71)	
4	2.4994E-05 (202)	2.4794E-05 (258)	2.5497E-05 (358)	2.6133E-05 (358)	2.3224E-06 (113)	
5	3.1231E-05 (167)	3.0907E-05 (167)	3.0443E-05 (167)	2.9765E-05 (167)	3.2781E-06 (162)	
6	3.1118E-05 (203)	2.8897E-05 (203)	2.7274E-05 (203)	2.6003E-05 (203)	2.3195E-06 (169)	
7	2.0490E-05 (149)	1.9514E-05 (149)	1.8874E-05 (149)	1.7949E-05 (149)	2.3573E-06 (267)	
8	2.8210E-05 (193)	1.9849E-05 (193)	1.9958E-05 (193)	1.8503E-05 (193)	2.6892E-06 (211)	
9	2.5794E-05 (193)	2.5313E-05 (236)	2.4018E-05 (193)	2.3851E-05 (193)	5.7809E-06 (141)	
10	1.9679E-05 (298)	2.2098E-05 (298)	2.1681E-05 (169)	2.0652E-05 (169)	1.8398E-06 (217)	
11	2.8271E-05 (298)	3.1922E-05 (298)	3.3893E-05 (298)	3.4666E-05 (298)	3.3824E-06 (142)	
12	2.8051E-05 (130)	2.9968E-05 (59)	3.2428E-05 (59)	3.2647E-05 (217)	3.1101E-06 (165)	
13	2.2038E-05 (231)	2.3738E-05 (51)	2.0101E-05 (184)	2.0084E-05 (59)	1.9368E-06 (187)	
14	2.3091E-05 (88)	2.6937E-05 (322)	2.7189E-05 (322)	2.7023E-05 (322)	5.2902E-06 (311)	
15	2.4425E-05 (166)	2.2432E-05 (166)	2.0613E-05 (166)	1.9936E-05 (166)	2.8714E-06 (312)	
16	2.7680E-05 (171)	3.0303E-05 (213)	2.7765E-05 (325)	2.8382E-05 (325)	2.6728E-06 (91)	
17	3.2694E-05 (254)	3.3493E-05 (172)	3.1563E-05 (172)	2.9968E-05 (172)	4.1829E-06 (315)	
18	4.3177E-05 (187)	4.0762E-05 (253)	4.3796E-05 (253)	4.3128E-05 (245)	5.4844E-06 (246)	
19	3.3761E-05 (245)	3.1028E-05 (245)	2.8478E-05 (245)	2.7591E-05 (326)	3.0633E-06 (228)	
20	2.8871E-05 (297)	2.7177E-05 (297)	2.6881E-05 (187)	2.5188E-05 (187)	3.3361E-06 (34)	
21	2.6820E-05 (227)	2.5743E-05 (218)	2.3915E-05 (356)	2.4757E-05 (227)	2.2156E-06 (114)	
22	3.3836E-05 (282)	3.3698E-05 (282)	3.1759E-05 (282)	3.0125E-05 (282)	2.5001E-06 (182)	
23	3.1155E-05 (215)	2.9327E-05 (215)	2.7549E-05 (215)	2.6826E-05 (289)	2.7339E-06 (343)	
24	3.0838E-05 (252)	3.0197E-05 (252)	2.8241E-05 (269)	2.7222E-05 (214)	2.1835E-06 (221)	
25	2.7053E-05 (354)	3.1507E-05 (354)	3.4199E-05 (354)	3.5250E-05 (285)	2.6432E-06 (45)	
26	3.2985E-05 (354)	4.0082E-05 (35)	4.6070E-05 (35)	4.8058E-05 (35)	2.9396E-06 (354)	
27	3.5249E-05 (263)	4.1315E-05 (345)	4.3112E-05 (271)	4.5531E-05 (271)	3.6706E-06 (137)	
28	3.3136E-05 (197)	3.0765E-05 (197)	2.8777E-05 (250)	2.8162E-05 (250)	2.5490E-06 (261)	
29	2.8271E-05 (259)	2.6744E-05 (183)	2.5275E-05 (183)	2.4165E-05 (272)	1.7814E-06 (109)	
30	2.2936E-05 (83)	2.2865E-05 (83)	2.3011E-05 (83)	2.3245E-05 (83)	2.9355E-06 (258)	
31	2.2069E-05 (83)	2.0643E-05 (83)	2.0038E-05 (277)	2.1028E-05 (277)	2.2220E-06 (85)	
32	1.8155E-05 (38)	1.9117E-05 (146)	2.2228E-05 (221)	2.3546E-05 (146)	2.1894E-06 (231)	
33	2.3947E-05 (174)	2.2863E-05 (174)	2.2518E-05 (221)	2.0831E-05 (221)	2.0508E-06 (201)	
34	1.5308E-05 (222)	1.4618E-05 (68)	1.6221E-05 (63)	1.7183E-05 (63)	3.8572E-06 (30)	
35	2.5001E-05 (232)	2.6128E-05 (232)	2.6228E-05 (232)	2.5844E-05 (232)	2.0640E-06 (19)	
36	5.9789E-05 (278)	6.1734E-05 (278)	6.2447E-05 (278)	6.2971E-05 (278)	5.2214E-06 (347)	



PLANT NAME: BUCKEYE CELLULOSE TSP POLLUTANT: AIR QUALITY UNITS: GM/M\*\*3  
 YEARLY MAXIMUM 3-HOUR CONC= 2.1719E-04 DIRECTION=16 DISTANCE= 0.7 KM DAY=213 TIME PERIOD=5  
 YEAR= 64

DIR	HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR				
	RANGE 0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM
1	1.2242E-04 (218, 4)	1.2135E-04 (318, 4)	1.2982E-04 (318, 4)	1.3359E-04 (318, 4)	2.7546E-05 (213, 1)
2	1.6085E-04 (201, 4)	1.5610E-04 (201, 4)	1.5049E-04 (201, 4)	1.4532E-04 (201, 4)	2.4184E-05 ( 38, 2)
3	1.5916E-04 (174, 4)	1.4338E-04 (174, 4)	1.2690E-04 (174, 4)	1.1827E-04 ( 71, 6)	1.3371E-05 (365, 7)
4	1.6492E-04 (203, 3)	1.6762E-04 (203, 3)	1.6288E-04 (203, 3)	1.5440E-04 (203, 3)	1.7612E-05 (296, 7)
5	1.5251E-04 (258, 5)	1.3833E-04 (258, 5)	1.2454E-04 (258, 5)	1.1276E-04 (258, 5)	3.0094E-05 ( 78, 8)
6	1.2482E-04 (203, 4)	1.1868E-04 (203, 5)	1.1147E-04 (256, 1)	1.1404E-04 (149, 2)	1.6102E-05 ( 27, 1)
7	1.2865E-04 (133, 4)	1.1814E-04 (133, 4)	1.1089E-04 (133, 4)	1.0358E-04 (133, 4)	2.8347E-05 ( 41, 1)
8	1.0489E-04 (193, 4)	9.6774E-05 (193, 4)	9.1172E-05 (193, 4)	8.7202E-05 (193, 4)	3.0750E-05 (160, 1)
9	1.6671E-04 ( 26, 6)	1.7870E-04 ( 26, 6)	1.8339E-04 ( 26, 6)	1.8284E-04 ( 26, 6)	2.2504E-05 (141, 1)
10	1.2602E-04 (192, 4)	1.1036E-04 (192, 4)	1.0705E-04 ( 26, 6)	1.0617E-04 ( 26, 6)	2.2237E-05 (133, 1)
11	1.4624E-04 (139, 3)	1.3788E-04 (139, 3)	1.2877E-04 (139, 3)	1.2163E-04 ( 17, 8)	3.1460E-05 ( 1, 8)
12	1.6327E-04 (217, 4)	1.5159E-04 (217, 4)	1.4301E-04 (217, 4)	1.3732E-04 (217, 4)	2.2283E-05 ( 54, 8)
13	1.7158E-04 (231, 4)	1.5818E-04 (231, 4)	1.4507E-04 (231, 4)	1.3350E-04 (231, 4)	1.5494E-05 (187, 2)
14	1.2144E-04 (231, 4)	1.1840E-04 (272, 6)	1.1806E-04 (272, 6)	1.1525E-04 (272, 6)	3.1005E-05 (146, 1)
15	1.5741E-04 (213, 5)	1.3774E-04 (213, 5)	1.1473E-04 (213, 5)	1.0593E-04 (166, 4)	2.9479E-05 (293, 1)
16	2.1719E-04 (213, 5)	1.9384E-04 (213, 5)	1.6069E-04 (213, 5)	1.3774E-04 (139, 4)	2.8658E-05 (311, 2)
17	1.2835E-04 (213, 5)	1.1053E-04 (213, 5)	1.0240E-04 (172, 3)	9.6120E-05 (172, 3)	1.9609E-05 (243, 2)
18	1.9102E-04 (238, 4)	1.7405E-04 (238, 4)	1.6095E-04 (244, 6)	1.5875E-04 (244, 6)	2.7196E-05 (101, 1)
19	1.4077E-04 ( 82, 5)	1.2694E-04 ( 82, 5)	1.1863E-04 ( 82, 5)	1.1347E-04 ( 82, 5)	2.5614E-05 ( 15, 1)
20	1.4670E-04 (180, 4)	1.3119E-04 (180, 4)	1.1702E-04 ( 21, 5)	1.1615E-04 (365, 3)	2.5038E-05 ( 55, 3)
21	1.5274E-04 (292, 4)	1.3466E-04 (292, 4)	1.1837E-04 (216, 5)	1.1292E-04 (216, 5)	3.4517E-05 (208, 1)
22	1.1445E-04 (282, 5)	1.1306E-04 (285, 6)	1.2094E-04 (285, 6)	1.2357E-04 (285, 6)	1.3324E-05 ( 66, 2)
23	1.7446E-04 (228, 6)	1.5383E-04 (228, 6)	1.4609E-04 (228, 6)	1.3637E-04 (228, 6)	1.5555E-05 (155, 7)
24	1.4987E-04 (269, 5)	1.3250E-04 (269, 5)	1.3015E-04 (269, 5)	1.2399E-04 (269, 5)	1.3472E-05 (192, 7)
25	1.4059E-04 (269, 6)	1.3978E-04 (269, 6)	1.3672E-04 (269, 6)	1.3277E-04 (269, 6)	1.8684E-05 (233, 1)
26	1.5424E-04 ( 15, 5)	1.4211E-04 ( 15, 5)	1.3099E-04 ( 15, 5)	1.2482E-04 (354, 6)	1.2462E-05 (257, 8)
27	1.4987E-04 (315, 4)	1.3243E-04 ( 5, 5)	1.7154E-04 ( 5, 5)	1.7434E-04 ( 5, 5)	1.7093E-05 (338, 1)
28	1.3734E-04 (222, 4)	1.2540E-04 (222, 4)	1.1850E-04 (250, 3)	1.1679E-04 (250, 3)	1.6783E-05 (235, 2)
29	2.1128E-04 (365, 4)	1.9855E-04 (365, 4)	1.8175E-04 (365, 4)	1.6670E-04 (365, 4)	1.3165E-05 (242, 8)
30	1.2107E-04 (365, 4)	1.1188E-04 (183, 6)	1.2034E-04 (211, 3)	1.3207E-04 (211, 3)	2.6102E-05 (117, 1)
31	1.6872E-04 (143, 3)	1.5556E-04 (143, 3)	1.4280E-04 (143, 3)	1.3214E-04 (143, 3)	1.7776E-05 ( 85, 1)
32	1.3676E-04 (185, 3)	1.3422E-04 (146, 3)	1.4839E-04 (146, 3)	1.5519E-04 (146, 3)	3.0829E-05 (318, 8)
33	1.0212E-04 (142, 5)	9.8913E-05 (174, 6)	9.3863E-05 (174, 6)	8.9306E-05 (174, 6)	1.8447E-05 (173, 2)
34	9.9583E-05 (258, 6)	1.0238E-04 (258, 6)	1.0259E-04 (258, 6)	1.0134E-04 (258, 6)	2.4793E-05 ( 30, 8)
35	1.7251E-04 (212, 3)	1.6119E-04 (212, 3)	1.4723E-04 (212, 3)	1.3335E-04 (212, 3)	9.9913E-06 (187, 1)
36	1.5942E-04 (113, 4)	1.4856E-04 (113, 4)	1.4343E-04 (232, 3)	1.4344E-04 (232, 3)	3.0750E-05 (161, 1)

PLANT NAME: BUCKEYE CELLULOSE TSP POLLUTANT: AIR QUALITY UNITS: G/M\*\*3  
 YEARLY SECOND MAXIMUM 3-HOUR CONC= 1.6790E-04 DIRECTION= 16 DISTANCE= 0.7 KM DAY=139 TIME PERIOD= 4  
 YEAR= 64

DIR	SECOND HIGHEST		3-HOUR CONCENTRATION AT EACH RECEPTOR							
	RANGE	0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM				
1	1.1712E-04	(202, 5)	1.0852E-04	(202, 5)	1.0349E-04	(352, 4)	1.0180E-04	(352, 4)	2.1782E-05	(331, 7)
2	1.3330E-04	(184, 6)	1.2376E-04	(184, 6)	1.1378E-04	(273, 6)	1.1555E-04	(273, 6)	2.2591E-05	(316, 8)
3	1.1478E-04	( 71, 6)	1.2066E-04	( 71, 6)	1.2116E-04	( 71, 6)	1.1127E-04	(174, 4)	1.0704E-05	( 92, 3)
4	1.3714E-04	(174, 4)	1.2321E-04	(174, 4)	1.0899E-04	(174, 4)	1.0451E-04	(200, 6)	1.5057E-05	(113, 8)
5	1.1571E-04	(133, 3)	1.1737E-04	(133, 3)	1.1481E-04	(133, 3)	1.1615E-04	(133, 3)	2.1752E-05	(166, 1)
6	1.2395E-04	(203, 5)	1.1497E-04	(203, 4)	1.0964E-04	(203, 5)	1.1375E-04	(256, 1)	1.3070E-05	(150, 2)
7	1.1737E-04	( 57, 4)	1.0618E-04	( 57, 4)	9.3996E-05	( 57, 4)	8.3795E-05	(193, 6)	2.3949E-05	( 41, 3)
8	9.1522E-05	(163, 4)	6.8764E-05	(185, 4)	7.4712E-05	(185, 4)	7.6963E-05	(169, 5)	1.5747E-05	(211, 7)
9	1.3345E-04	(295, 5)	1.4040E-04	(295, 4)	1.4425E-04	(295, 4)	1.4157E-04	(295, 4)	2.1915E-05	( 93, 1)
10	1.1545E-04	(322, 5)	1.0644E-04	(322, 5)	1.0324E-04	(192, 4)	9.7841E-05	(192, 4)	1.0566E-05	(217, 2)
11	1.3474E-04	(185, 4)	1.2518E-04	(130, 4)	1.1618E-04	(139, 4)	1.1532E-04	(139, 3)	1.5576E-05	(142, 2)
12	1.4064E-04	( 77, 6)	1.3652E-04	( 77, 6)	1.3050E-04	( 77, 6)	1.2411E-04	( 77, 6)	1.7259E-05	( 22, 1)
13	1.2948E-04	(295, 5)	1.2109E-04	(295, 5)	1.1045E-04	(295, 5)	9.9763E-05	(295, 5)	1.4177E-05	(268, 1)
14	1.1462E-04	(272, 6)	1.1038E-04	(231, 4)	1.0757E-04	( 80, 3)	1.1344E-04	( 80, 3)	2.4022E-05	(313, 8)
15	1.2872E-04	(166, 4)	1.1662E-04	(166, 4)	1.1082E-04	(166, 4)	1.0508E-04	( 56, 7)	1.6809E-05	(293, 2)
16	1.6790E-04	(139, 4)	1.5220E-04	(139, 4)	1.4478E-04	(139, 4)	1.3360E-04	(213, 5)	1.5892E-05	(350, 1)
17	1.1989E-04	(139, 4)	1.0645E-04	(139, 4)	1.0082E-04	(139, 4)	9.5429E-05	(139, 4)	1.7271E-05	(315, 2)
18	1.6544E-04	(244, 6)	1.6304E-04	(244, 6)	1.5523E-04	(238, 4)	1.4680E-04	(238, 4)	2.6023E-05	(246, 2)
19	1.2982E-04	(238, 4)	1.1507E-04	(238, 4)	1.0506E-04	(310, 5)	1.0228E-04	(310, 5)	1.5810E-05	( 15, 2)
20	1.3474E-04	( 21, 5)	1.2066E-04	( 21, 5)	1.1296E-04	(180, 4)	1.1521E-04	( 21, 5)	1.9742E-05	( 34, 3)
21	1.3948E-04	(216, 5)	1.2649E-04	(216, 5)	1.1725E-04	(292, 4)	1.0207E-04	(292, 4)	1.4213E-05	(114, 2)
22	1.1250E-04	(188, 6)	1.0433E-04	(188, 6)	1.0948E-04	(288, 6)	1.1179E-04	(288, 6)	1.2886E-05	(385, 1)
23	1.3314E-04	(215, 6)	1.2298E-04	(215, 6)	1.1250E-04	(239, 6)	1.1359E-04	(239, 6)	1.4025E-05	(343, 7)
24	1.3433E-04	(252, 4)	1.2520E-04	(252, 4)	1.1845E-04	(252, 4)	1.1384E-04	(252, 4)	1.2633E-05	(315, 8)
25	1.1033E-04	(261, 6)	1.0327E-04	(261, 6)	1.1071E-04	(261, 6)	1.1376E-04	(261, 6)	1.3032E-05	(216, 7)
26	1.3345E-04	(157, 5)	1.2112E-04	(157, 5)	1.1573E-04	(354, 6)	1.2375E-04	(354, 7)	1.2449E-05	( 5, 8)
27	1.4546E-04	(197, 5)	1.4758E-04	(315, 4)	1.4433E-04	(315, 4)	1.4082E-04	(315, 4)	1.6916E-05	(107, 7)
28	1.3636E-04	(246, 4)	1.2265E-04	(246, 4)	1.1568E-04	(222, 4)	1.1104E-04	(270, 4)	1.6247E-05	(332, 8)
29	1.3199E-04	( 22, 4)	1.2132E-04	( 22, 4)	1.2053E-04	(113, 3)	1.2776E-04	(113, 3)	1.0901E-05	(112, 2)
30	1.0535E-04	(183, 6)	1.0964E-04	(365, 4)	1.1450E-04	(183, 6)	1.1428E-04	(183, 6)	1.7329E-05	(256, 8)
31	1.2259E-04	(247, 4)	1.0989E-04	(247, 4)	1.0115E-04	(247, 4)	1.0318E-04	(277, 7)	1.7040E-05	(113, 1)
32	1.1110E-04	(146, 3)	1.2949E-04	(185, 3)	1.1938E-04	(185, 3)	1.0876E-04	(185, 3)	1.7515E-05	(231, 1)
33	1.0035E-04	(174, 6)	9.6959E-05	(142, 5)	8.9453E-05	(142, 5)	8.8289E-05	(119, 1)	1.3445E-05	(215, 1)
34	9.7602E-05	(142, 5)	9.1034E-05	(103, 4)	9.1487E-05	(103, 4)	9.0364E-05	(103, 4)	2.1807E-05	( 3, 2)
35	1.2189E-04	(233, 6)	1.1501E-04	(321, 4)	1.0884E-04	(321, 4)	1.0408E-04	( 15, 6)	0.6942E-06	(236, 3)
36	1.4638E-04	(232, 4)	1.4094E-04	(232, 4)	1.4040E-04	(113, 4)	1.3490E-04	(113, 4)	2.4113E-05	( 60, 7)

## COMPOSITE ANNUAL CONCENTRATION TABLE,UG/CU.M

## ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

RANGE	0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM
DIR					
1	4.	5.	5.	4.	0.
2	4.	4.	4.	4.	0.
3	2.	2.	2.	2.	0.
4	2.	2.	2.	2.	0.
5	2.	2.	2.	2.	0.
6	2.	2.	2.	2.	0.
7	1.	1.	1.	1.	0.
8	1.	1.	1.	1.	0.
9	2.	2.	2.	2.	0.
10	2.	2.	2.	2.	0.
11	2.	2.	2.	2.	0.
12	6.	3.	3.	3.	0.
13	2.	2.	2.	2.	0.
14	2.	2.	2.	2.	0.
15	2.	2.	2.	2.	0.
16	4.	3.	3.	3.	0.
17	4.	4.	3.	3.	0.
18	6.	6.	6.	6.	1.
19	4.	4.	4.	4.	0.
20	3.	3.	3.	3.	0.
21	3.	3.	3.	3.	0.
22	4.	4.	4.	4.	0.
23	3.	3.	3.	3.	0.
24	3.	3.	3.	3.	0.
25	4.	4.	4.	4.	0.
26	4.	4.	4.	4.	0.
27	5.	6.	6.	6.	0.
28	4.	4.	4.	4.	0.
29	3.	3.	3.	3.	0.
30	3.	3.	3.	3.	0.
31	2.	2.	2.	2.	0.
32	2.	2.	2.	2.	0.
33	2.	2.	2.	2.	0.
34	2.	2.	2.	2.	0.
35	3.	3.	3.	3.	0.
36	7.	7.	7.	7.	0.

COMPOSITE HIGHEST 24-HOUR CONCENTRATION TABLE, UG/CU.M

RANGE	HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR				
	0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM
DIR					
1	36.	39.	40.	40.	4.
2	42.	46.	45.	48.	5.
3	23.	24.	24.	25.	3.
4	28.	28.	27.	27.	4.
5	34.	36.	36.	37.	4.
6	44.	45.	45.	45.	2.
7	22.	20.	19.	19.	8.
8	26.	26.	25.	24.	4.
9	27.	27.	28.	28.	6.
10	23.	23.	23.	24.	3.
11	40.	45.	48.	49.	6.
12	33.	33.	33.	34.	4.
13	25.	22.	21.	20.	2.
14	26.	27.	30.	31.	6.
15	28.	25.	22.	20.	7.
16	33.	32.	34.	36.	5.
17	36.	34.	35.	35.	4.
18	52.	49.	46.	44.	5.
19	44.	41.	33.	36.	5.
20	32.	29.	28.	28.	4.
21	28.	27.	26.	27.	5.
22	36.	38.	40.	40.	3.
23	33.	34.	34.	33.	3.
24	33.	31.	34.	35.	4.
25	31.	34.	35.	36.	3.
26	41.	47.	53.	56.	3.
27	42.	42.	45.	46.	4.
28	45.	42.	39.	37.	5.
29	29.	31.	34.	35.	2.
30	33.	32.	31.	30.	4.
31	27.	25.	23.	22.	2.
32	24.	23.	23.	27.	5.
33	26.	24.	23.	23.	3.
34	16.	18.	19.	19.	4.
35	33.	41.	43.	43.	3.
36	60.	65.	67.	67.	7.

67  
+ 35  
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122

Day 360

150ug/m<sup>3</sup> allowed

COMPOSITE HIGHEST, SECOND-HIGHEST 24-HOUR CONCENTRATION TABLE, UG/CU.M

RANGE	SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR				
	0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM
DIR					
1	30.	31.	32.	31.	3.
2	38.	40.	41.	41.	5.
3	23.	21.	23.	23.	1.
4	25.	25.	26.	26.	2.
5	31.	31.	30.	30.	3.
6	31.	29.	27.	26.	2.
7	20.	20.	19.	18.	2.
8	20.	20.	19.	19.	3.
9	26.	25.	24.	24.	6.
10	29.	22.	22.	21.	2.
11	28.	32.	34.	35.	3.
12	24.	30.	32.	33.	3.
13	22.	21.	20.	20.	2.
14	23.	27.	27.	27.	5.
15	24.	22.	21.	19.	3.
16	28.	30.	28.	28.	3.
17	33.	33.	32.	30.	4.
18	45.	43.	44.	43.	5.
19	34.	31.	29.	28.	3.
20	29.	27.	27.	25.	3.
21	27.	26.	24.	25.	2.
22	34.	34.	32.	30.	3.
23	31.	29.	28.	27.	3.
24	31.	30.	28.	27.	2.
25	27.	32.	34.	35.	3.
26	39.	42.	46.	48.	3.
27	39.	41.	43.	46.	4.
28	33.	31.	29.	28.	3.
29	28.	27.	25.	24.	2.
30	26.	25.	23.	23.	3.
31	22.	21.	20.	21.	2.
32	18.	19.	22.	24.	2.
33	24.	23.	23.	21.	2.
34	15.	15.	16.	17.	4.
35	25.	26.	26.	26.	2.
36	60.	62.	62.	63.	5.

## COMPOSITE HIGHEST 3-HOUR CONCENTRATION TABLE, UG/CU.M

RANGE	HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR				
	0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM
DIR					
1	122.	121.	130.	134.	28.
2	161.	156.	150.	145.	24.
3	159.	143.	127.	118.	13.
4	165.	168.	163.	154.	18.
5	153.	138.	125.	113.	30.
6	125.	117.	111.	114.	16.
7	125.	118.	111.	104.	28.
8	105.	97.	91.	87.	31.
9	167.	179.	183.	183.	23.
10	120.	119.	107.	106.	22.
11	146.	138.	127.	122.	31.
12	163.	152.	143.	137.	22.
13	172.	158.	145.	133.	15.
14	121.	118.	118.	115.	31.
15	157.	138.	115.	106.	29.
16	217.	191.	161.	139.	29.
17	128.	111.	102.	99.	20.
18	191.	174.	161.	159.	27.
19	141.	127.	119.	113.	26.
20	147.	131.	117.	116.	25.
21	153.	155.	118.	113.	35.
22	114.	113.	121.	124.	13.
23	174.	159.	146.	136.	16.
24	156.	138.	130.	124.	13.
25	141.	140.	137.	133.	19.
26	154.	142.	131.	125.	12.
27	150.	162.	172.	174.	17.
28	137.	125.	118.	117.	17.
29	211.	197.	182.	167.	13.
30	121.	112.	120.	132.	26.
31	169.	156.	143.	132.	18.
32	137.	134.	148.	155.	31.
33	102.	98.	94.	89.	18.
34	180.	182.	183.	181.	25.
35	173.	161.	147.	133.	10.
36	159.	149.	143.	143.	31.

## COMPOSITE HIGHEST, SECOND-HIGHEST 3-HOUR CONCENTRATION TABLE, UG/CU.M

RANGE	SECOND HIGHEST		3-HOUR CONCENTRATION AT EACH RECEPTOR		
	0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM
DIR					
1	117.	109.	103.	102.	22.
2	133.	124.	114.	116.	23.
3	115.	121.	121.	111.	11.
4	137.	123.	109.	105.	15.
5	116.	117.	115.	110.	22.
6	124.	114.	110.	114.	13.
7	117.	106.	94.	84.	24.
8	92.	81.	75.	77.	16.
9	133.	140.	144.	142.	22.
10	115.	106.	103.	92.	10.
11	136.	125.	116.	115.	16.
12	141.	137.	131.	124.	17.
13	129.	121.	110.	100.	14.
14	115.	110.	108.	113.	24.
15	129.	117.	110.	105.	17.
16	168.	152.	145.	134.	16.
17	129.	126.	101.	95.	17.
18	165.	163.	159.	147.	26.
19	130.	115.	106.	102.	16.
20	135.	121.	113.	115.	20.
21	139.	126.	117.	102.	14.
22	112.	104.	109.	112.	13.
23	133.	123.	112.	114.	14.
24	134.	125.	118.	114.	13.
25	110.	103.	111.	114.	13.
26	133.	121.	116.	124.	12.
27	145.	148.	144.	140.	17.
28	136.	123.	116.	111.	16.
29	132.	121.	121.	128.	11.
30	105.	110.	115.	114.	17.
31	123.	110.	101.	103.	17.
32	111.	129.	119.	109.	18.
33	100.	97.	89.	88.	13.
34	98.	92.	91.	90.	22.
35	122.	115.	109.	104.	9.
36	146.	140.	140.	135.	24.





RING DISTANCES(KM)= 0.70 0.60 0.90 1.00 44.00

STACK # 1--CALCINER  
STACK # 2--NEW NO 1 STACK  
STACK # 3--SHAVE OFF SCRUBBER  
STACK # 4--OLD NO 1 STACK

STACK	MONTH	EMISSION RATE (GMS/SEC)	HEIGHT (METERS)	DIAMETER (METERS)	EXIT VELOCITY (M/SEC)	TEMP (DEG.K)	VOLUMETRIC FLOW (M**3/SEC)
1	ALL	3.3000	37.49	1.52	15.70	341.30	26.49
2	ALL	57.1500	68.58	3.96	16.90	377.00	208.15
3	ALL	3.5300	52.00	1.07	12.10	341.00	10.88
4	ALL	25.0400	68.58	3.96	15.56	413.00	191.64

PLANT NAME: BUCKEYE CELLULOSE      POLLUTANT: TSP      AIR QUALITY UNITS: GM/M\*\*3  
 MAXIMUM MEAN CONC= 1.4629E-06      DIRECTION= 36      DISTANCE= 1.0 KM

YEAR= 64

DIR	ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR					
	RANGE	0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM
1		8.25408E-07	9.10956E-07	9.64185E-07	9.54890E-07	5.58474E-08
2		6.54501E-07	7.21765E-07	7.67261E-07	7.95003E-07	7.68732E-08
3		3.88542E-07	4.17601E-07	4.35568E-07	4.44566E-07	3.13687E-08
4		3.65109E-07	3.99188E-07	4.22067E-07	4.36101E-07	4.55334E-08
5		3.50813E-07	3.67574E-07	3.77362E-07	3.82077E-07	4.62575E-08
6		3.68506E-07	4.11030E-07	4.28502E-07	4.40306E-07	4.49518E-08
7		2.84424E-07	2.97840E-07	3.06541E-07	3.12011E-07	3.15783E-08
8		2.92601E-07	3.10520E-07	3.20058E-07	3.23783E-07	2.60968E-08
9		4.15725E-07	4.46639E-07	4.64705E-07	4.82203E-07	6.89935E-08
10		3.38092E-07	3.61067E-07	3.76046E-07	3.84789E-07	2.98848E-08
11		3.84330E-07	4.17925E-07	4.43410E-07	4.60956E-07	4.43803E-08
12		4.95491E-07	5.30020E-07	5.53064E-07	5.67207E-07	5.17056E-08
13		4.57031E-07	4.82876E-07	4.97691E-07	5.05218E-07	3.63687E-08
14		4.67590E-07	4.99404E-07	5.20027E-07	5.32496E-07	6.37460E-08
15		4.56028E-07	4.78904E-07	4.87804E-07	4.92246E-07	3.52302E-08
16		5.87629E-07	6.19820E-07	6.39184E-07	6.49709E-07	6.55100E-08
17		7.30920E-07	7.61073E-07	7.77378E-07	7.84241E-07	5.46011E-08
18		1.13424E-06	1.23099E-06	1.30421E-06	1.35760E-06	1.89582E-07
19		8.45189E-07	8.77614E-07	8.97753E-07	9.08312E-07	5.77346E-08
20		7.01472E-07	7.33289E-07	7.58721E-07	7.77309E-07	6.91287E-08
21		6.81045E-07	7.15126E-07	7.40254E-07	7.57770E-07	5.77447E-08
22		7.18523E-07	7.58825E-07	7.86991E-07	8.05543E-07	5.91073E-08
23		6.43186E-07	6.73031E-07	6.97521E-07	7.15660E-07	5.89594E-08
24		6.65368E-07	6.96747E-07	7.20419E-07	7.37786E-07	5.15657E-08
25		5.76404E-07	7.10850E-07	7.52520E-07	7.79012E-07	6.34654E-08
26		7.46525E-07	8.00290E-07	8.38974E-07	8.66559E-07	5.99828E-08
27		9.54976E-07	1.05659E-06	1.13489E-06	1.19373E-06	1.32157E-07
28		6.69530E-07	7.17020E-07	7.49685E-07	7.71870E-07	7.01407E-08
29		5.01865E-07	5.45602E-07	5.75676E-07	5.95652E-07	5.14607E-08
30		4.59824E-07	5.05820E-07	5.38989E-07	5.61626E-07	7.03324E-08
31		3.52049E-07	3.82404E-07	4.01661E-07	4.14249E-07	3.67846E-08
32		2.80204E-07	3.09731E-07	3.29090E-07	3.41073E-07	3.61808E-08
33		2.86793E-07	3.14247E-07	3.32050E-07	3.42522E-07	3.06531E-08
34		3.74718E-07	4.15904E-07	4.46822E-07	4.68217E-07	4.38499E-08
35		5.47171E-07	5.89384E-07	6.17817E-07	6.34644E-07	2.84120E-08
36		1.10933E-06	1.26744E-06	1.38365E-06	1.46294E-06	1.27910E-07

PLANT NAME: BUCKEYE CELLULOSE      POLLUTANT: TSP      AIR QUALITY UNITS: GM/M\*\*3  
 YEARLY MAXIMUM 24-HOUR CONC= 1.3522E-05      DIRECTION= 36      DISTANCE= 1.0 KM      DAY=360  
 YEAR= 64

HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR						
RANGE	0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM	
DIR						
1	7.0771E-06 (112)	7.1869E-06 (112)	7.5661E-06 ( 69)	8.1284E-06 ( 69)	1.1514E-06 (331)	
2	6.3689E-06 (153)	7.6282E-06 (359)	8.7789E-06 (359)	9.5355E-06 (359)	1.5230E-06 (324)	
3	5.5087E-06 (174)	5.2924E-06 (174)	5.1798E-06 (190)	5.1268E-06 (190)	8.7681E-07 (365)	
4	5.5439E-06 (203)	5.9064E-06 (203)	6.0891E-06 (203)	6.1460E-06 (203)	1.3161E-06 (203)	
5	7.4023E-06 (167)	7.8827E-06 (167)	8.1267E-06 (167)	8.2008E-06 (167)	1.1674E-06 ( 78)	
6	8.3915E-06 (149)	9.0477E-06 (149)	9.6815E-06 (149)	1.0222E-05 (149)	7.8739E-07 (159)	
7	4.9615E-06 ( 57)	4.7000E-06 ( 57)	4.6479E-06 ( 57)	4.8030E-06 (149)	2.2228E-06 ( 41)	
8	5.5383E-06 (169)	5.6344E-06 (169)	5.5953E-06 (169)	5.5390E-06 (169)	1.1276E-06 (160)	
9	5.5833E-06 (236)	5.3456E-06 (236)	6.0412E-06 (236)	5.9330E-06 (236)	1.9238E-06 (295)	
10	5.7786E-06 (169)	5.6711E-06 (169)	5.4700E-06 (169)	5.2557E-06 (169)	8.0172E-07 (133)	
11	5.0453E-06 ( 50)	6.8028E-06 ( 50)	8.1623E-06 ( 50)	9.1139E-06 ( 50)	1.7609E-06 ( 1)	
12	6.5241E-06 (217)	6.9471E-06 (217)	7.4031E-06 (217)	7.8417E-06 (217)	1.1404E-06 ( 54)	
13	5.5903E-06 (184)	5.2297E-06 (184)	5.1401E-06 (184)	5.0849E-06 (184)	7.1067E-07 (292)	
14	4.9243E-06 (231)	5.1093E-06 (322)	5.5142E-06 (322)	5.8004E-06 (322)	1.7750E-06 (313)	
15	7.7744E-06 (213)	7.1305E-06 (213)	6.4575E-06 (166)	6.1219E-06 (166)	1.9855E-06 (293)	
16	9.3397E-06 (213)	8.5215E-06 (213)	7.4554E-06 (213)	6.5167E-06 (213)	1.4740E-06 (311)	
17	8.0774E-06 (172)	8.8181E-06 (172)	8.0242E-06 (245)	8.0720E-06 (245)	1.2743E-06 (294)	
18	1.3329E-05 (245)	1.3329E-05 (245)	1.3281E-05 (245)	1.3086E-05 (245)	1.6746E-06 (283)	
19	9.5834E-06 (187)	9.8221E-06 (187)	9.6275E-06 (187)	9.4380E-06 (187)	1.4096E-06 ( 15)	
20	7.7112E-06 (187)	7.5117E-06 (187)	7.3690E-06 (187)	7.2596E-06 (187)	1.5933E-06 ( 55)	
21	6.8767E-06 (189)	6.7440E-06 (189)	6.5191E-06 (189)	6.3519E-06 (216)	1.6189E-06 (298)	
22	7.5507E-06 (282)	7.5405E-06 (282)	7.4908E-06 (282)	7.6337E-06 (288)	8.9752E-07 (288)	
23	5.9862E-06 (215)	6.9879E-06 (215)	7.1836E-06 (239)	7.4819E-06 (239)	1.0261E-06 (365)	
24	7.4901E-06 (269)	7.4188E-06 (269)	7.3628E-06 (269)	7.3385E-06 (269)	1.0904E-06 (315)	
25	5.5839E-06 (285)	5.7323E-06 (285)	6.4201E-06 (285)	6.9237E-06 (285)	8.5506E-07 (233)	
26	2.9840E-06 (157)	9.3213E-06 (157)	9.6411E-06 (157)	9.8864E-06 (157)	1.0224E-06 (127)	
27	1.0799E-05 (144)	1.0923E-05 (144)	1.0827E-05 (144)	1.0611E-05 (144)	1.3347E-06 (364)	
28	1.1909E-05 (144)	1.1672E-05 (144)	1.1319E-05 (144)	1.0962E-05 (144)	1.5229E-06 (332)	
29	6.3428E-06 (259)	6.3224E-06 (183)	6.3242E-06 (183)	6.4385E-06 ( 96)	6.3860E-07 (242)	
30	6.9345E-06 (183)	7.3303E-06 (183)	7.5984E-06 (183)	7.9877E-06 (183)	1.2393E-06 (117)	
31	5.9503E-06 (247)	5.9331E-06 (247)	5.8522E-06 (247)	5.7832E-06 (247)	7.7754E-07 (156)	
32	4.5046E-06 (221)	4.7954E-06 (221)	4.8259E-06 (221)	4.7190E-06 (221)	1.3867E-06 (318)	
33	5.2134E-06 (221)	5.2955E-06 (221)	5.1946E-06 (221)	5.0342E-06 (221)	8.2151E-07 (173)	
34	3.7371E-06 (110)	3.7592E-06 (110)	3.7877E-06 (110)	3.7630E-06 (110)	1.3387E-06 ( 3)	
35	5.8172E-06 ( 19)	6.9249E-06 ( 19)	7.8176E-06 ( 19)	8.4748E-06 ( 19)	1.1030E-06 (212)	
36	1.0403E-05 (232)	1.1551E-05 (232)	1.2536E-05 (360)	1.3522E-05 (360)	1.8136E-06 (161)	

← 1.5 ug/m<sup>3</sup> MAX Class  
 PSD IN

allowable = 10

look further out

PLANT NAME: BUCKEYE CELLULOSE      POLLUTANT: TSP      AIR QUALITY UNITS: GM/M\*\*3  
 YEARLY SECOND MAXIMUM 24-HOUR CONC= 1.2489E-05      DIRECTION= 36      DISTANCE= 1.0 KM      DAY=232  
 YEAR= 64

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR

DIR	RANGE	0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM
1	6.5198E-06 (202)	6.7055E-06 (69)	7.2889E-06 (112)	7.3650E-06 (112)	1.0125E-06 (213)	
2	6.0044E-06 (259)	7.3571E-06 (153)	8.0982E-06 (153)	8.5637E-06 (153)	1.3177E-06 (316)	
3	4.0088E-06 (190)	5.1238E-06 (190)	4.8038E-06 (174)	4.2855E-06 (174)	4.6647E-07 (71)	
4	5.5218E-06 (202)	5.3399E-06 (202)	4.9670E-06 (202)	5.3449E-06 (358)	7.1205E-07 (113)	
5	5.7782E-06 (195)	6.6177E-06 (195)	7.2462E-06 (195)	7.7043E-06 (195)	1.0337E-06 (162)	
6	7.6899E-06 (203)	7.6842E-06 (203)	7.7179E-06 (203)	7.7179E-06 (203)	7.5012E-07 (209)	
7	4.3999E-06 (149)	4.4489E-06 (149)	4.8276E-06 (149)	4.9334E-06 (57)	7.1228E-07 (267)	
8	4.1778E-06 (193)	4.3513E-06 (193)	4.5813E-06 (193)	4.6306E-06 (193)	8.9609E-07 (211)	
9	5.8869E-06 (235)	5.8698E-06 (193)	5.7789E-06 (193)	5.8771E-06 (193)	1.7406E-06 (141)	
10	4.7874E-06 (168)	4.8417E-06 (168)	4.8012E-06 (168)	4.6161E-06 (168)	5.6430E-07 (217)	
11	4.7399E-06 (169)	4.8164E-06 (290)	5.7332E-06 (290)	6.3657E-06 (290)	1.0266E-06 (142)	
12	6.1297E-06 (209)	6.0209E-06 (130)	6.0387E-06 (130)	6.0275E-06 (130)	9.4611E-07 (165)	
13	4.8172E-06 (154)	5.1482E-06 (154)	5.0329E-06 (184)	4.7740E-06 (184)	5.9395E-07 (187)	
14	4.7189E-06 (146)	4.7461E-06 (231)	4.6318E-06 (86)	5.3245E-06 (86)	1.5055E-06 (311)	
15	7.0890E-06 (160)	6.7937E-06 (166)	6.1849E-06 (213)	5.8568E-06 (243)	9.4464E-07 (312)	
16	6.4441E-06 (171)	6.2073E-06 (139)	6.3302E-06 (139)	6.3444E-06 (25)	7.9557E-07 (91)	
17	7.9632E-06 (245)	7.9478E-06 (245)	7.9230E-06 (172)	7.8463E-06 (172)	1.1724E-06 (315)	
18	1.0496E-05 (239)	1.8161E-05 (239)	9.7287E-06 (239)	9.6923E-06 (135)	1.6190E-06 (102)	
19	8.5948E-06 (245)	8.5059E-06 (245)	8.3941E-06 (245)	8.2045E-06 (245)	9.3157E-07 (280)	
20	7.5140E-06 (180)	6.9483E-06 (180)	6.2750E-06 (239)	6.8094E-06 (239)	1.0387E-06 (265)	
21	6.6143E-06 (216)	6.2288E-06 (216)	6.4402E-06 (216)	6.2494E-06 (189)	6.7898E-07 (114)	
22	6.3414E-06 (188)	6.4380E-06 (188)	6.9527E-06 (288)	7.4262E-06 (282)	7.3051E-07 (162)	
23	6.4410E-06 (239)	6.3271E-06 (239)	6.8619E-06 (215)	6.6793E-06 (215)	8.1241E-07 (343)	
24	6.9869E-06 (252)	7.0804E-06 (252)	7.1815E-06 (252)	7.3098E-06 (252)	6.9917E-07 (221)	
25	5.2242E-06 (262)	5.6526E-06 (269)	5.8765E-06 (126)	6.1494E-06 (126)	8.4805E-07 (45)	
26	7.5286E-06 (197)	7.1493E-06 (197)	7.4555E-06 (247)	8.4413E-06 (354)	9.4279E-07 (254)	
27	8.7033E-06 (157)	9.0579E-06 (157)	9.3520E-06 (157)	9.5571E-06 (157)	1.1829E-06 (137)	
28	8.0373E-06 (197)	7.7464E-06 (197)	7.3990E-06 (197)	7.1184E-06 (197)	8.1606E-07 (261)	
29	6.1905E-06 (183)	6.2193E-06 (259)	6.0793E-06 (259)	6.2577E-06 (183)	5.8941E-07 (109)	
30	4.7651E-06 (83)	4.8363E-06 (83)	5.1490E-06 (83)	5.3730E-06 (83)	1.1120E-06 (211)	
31	4.8380E-06 (83)	4.8438E-06 (83)	4.8421E-06 (83)	4.8601E-06 (83)	6.7383E-07 (113)	
32	3.7380E-06 (142)	3.8559E-06 (30)	3.6073E-06 (30)	3.4560E-06 (30)	7.3084E-07 (23)	
33	4.0536E-06 (174)	4.9381E-06 (174)	4.8646E-06 (174)	4.7438E-06 (174)	6.4233E-07 (201)	
34	3.6755E-06 (142)	3.8653E-06 (142)	3.5214E-06 (142)	3.5084E-06 (119)	1.0869E-06 (30)	
35	5.7010E-06 (164)	5.4365E-06 (164)	5.1222E-06 (169)	5.2927E-06 (109)	7.0071E-07 (19)	
36	9.5144E-06 (112)	1.1029E-05 (360)	1.2186E-05 (232)	1.2489E-05 (232)	1.6720E-06 (347)	

PLANT NAME: RUCKEYE CELLULOSE      POLLUTANT: TSP      AIR QUALITY UNITS: GM/M\*\*3  
 YEARLY MAXIMUM 3-HOUR CONC= 8.5780E-05      DIRECTION=16      DISTANCE= 0.7 KM      DAY=213      TIME PERIOD=5  
 YEAR= 64

DIR	RANGE	HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR				
		0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM
1	3.1635E-05 (218, 4)	3.0021E-05 (176, 4)	2.9057E-05 (202, 5)	2.8756E-05 (202, 5)	8.1003E-06 (213, 1)	
2	3.3000E-05 (201, 4)	3.4152E-05 (201, 4)	3.4976E-05 (201, 4)	3.5767E-05 (201, 4)	6.8446E-06 ( 38, 2)	
3	4.4937E-05 (174, 4)	4.2234E-05 (174, 4)	3.8411E-05 (174, 4)	3.4269E-05 (174, 4)	3.7825E-06 (365, 7)	
4	3.7863E-05 (174, 4)	3.6148E-05 (174, 4)	3.3755E-05 (203, 3)	3.3814E-05 (203, 3)	4.9781E-06 (203, 1)	
5	3.3663E-05 (258, 5)	3.2236E-05 (258, 5)	3.0271E-05 (258, 5)	2.8492E-05 (258, 5)	8.4960E-06 ( 78, 8)	
6	3.1844E-05 (203, 4)	3.1409E-05 (203, 4)	3.1895E-05 (203, 4)	3.2592E-05 (203, 4)	4.5239E-06 ( 27, 1)	
7	3.0280E-05 (133, 4)	3.0560E-05 (133, 4)	3.0482E-05 (133, 4)	2.9903E-05 (133, 4)	7.8455E-06 ( 41, 1)	
8	2.4634E-05 (193, 4)	2.4489E-05 (193, 4)	2.4610E-05 (193, 4)	2.4957E-05 (193, 4)	9.0210E-06 (160, 1)	
9	2.8613E-05 (236, 5)	3.1486E-05 ( 26, 6)	3.3900E-05 ( 26, 6)	3.5298E-05 ( 26, 6)	6.4358E-06 (141, 1)	
10	3.0323E-05 (192, 4)	2.9880E-05 (192, 4)	2.9641E-05 (192, 4)	2.9448E-05 (192, 4)	6.3811E-06 (133, 1)	
11	3.4101E-05 (161, 4)	3.3833E-05 (161, 4)	3.1653E-05 (161, 4)	2.9612E-05 (185, 4)	8.8250E-06 ( 1, 8)	
12	3.8513E-05 (217, 4)	3.8392E-05 (217, 4)	3.8751E-05 (217, 4)	3.9522E-05 (217, 4)	6.1502E-06 ( 54, 8)	
13	3.7193E-05 (231, 4)	3.6957E-05 (231, 4)	3.5477E-05 (231, 4)	3.4326E-05 (231, 4)	4.7516E-06 (187, 2)	
14	3.7711E-05 (146, 5)	3.6163E-05 (146, 5)	3.1524E-05 (146, 5)	2.6108E-05 (146, 5)	8.9200E-06 (146, 1)	
15	4.9541E-05 (213, 5)	4.4622E-05 (213, 5)	3.6803E-05 (213, 5)	3.4259E-05 (166, 4)	8.4192E-06 (293, 1)	
16	6.5780E-05 (213, 5)	5.8882E-05 (213, 5)	4.9588E-05 (213, 5)	4.5426E-05 (139, 4)	7.9895E-06 (311, 2)	
17	3.9319E-05 (213, 5)	3.4628E-05 (213, 5)	3.2269E-05 (139, 4)	3.1674E-05 (139, 4)	5.6851E-06 (243, 2)	
18	4.4880E-05 (245, 4)	4.6772E-05 (245, 5)	4.6438E-05 (245, 5)	4.6256E-05 (245, 5)	7.7841E-06 (101, 1)	
19	3.5793E-05 ( 82, 5)	3.4399E-05 ( 82, 5)	3.4120E-05 ( 82, 5)	3.4281E-05 ( 82, 5)	6.9794E-06 ( 15, 1)	
20	4.1227E-05 (180, 4)	3.8329E-05 (180, 4)	3.3470E-05 (180, 4)	3.3342E-05 ( 21, 5)	7.4843E-06 ( 55, 3)	
21	3.5375E-05 (185, 4)	3.4511E-05 (216, 5)	3.4521E-05 (216, 5)	3.4757E-05 (216, 5)	1.0707E-05 (208, 1)	
22	3.0489E-05 (147, 5)	2.9259E-05 (263, 5)	3.0733E-05 (263, 5)	3.1192E-05 (263, 5)	4.2753E-06 (357, 3)	
23	4.2914E-05 (228, 6)	3.9566E-05 (228, 6)	3.8636E-05 (228, 6)	3.8001E-05 (228, 6)	4.9470E-06 (155, 7)	
24	3.6494E-05 (269, 5)	3.2816E-05 (269, 5)	3.2234E-05 (269, 5)	3.6345E-05 (269, 5)	4.0485E-06 (192, 7)	
25	3.3451E-05 (228, 5)	3.0794E-05 (228, 5)	2.9748E-05 (269, 6)	2.9140E-05 (269, 6)	5.8690E-06 (233, 1)	
26	3.3616E-05 ( 15, 5)	3.2972E-05 ( 15, 5)	3.2012E-05 ( 15, 5)	3.1761E-05 (157, 5)	3.9601E-06 (257, 8)	
27	4.5056E-05 (197, 5)	4.2491E-05 (197, 5)	3.8974E-05 (197, 5)	3.7996E-05 (126, 5)	5.5745E-06 (107, 7)	
28	3.2143E-05 (222, 4)	3.1328E-05 (222, 4)	3.0649E-05 (222, 4)	3.0195E-05 (315, 4)	5.3923E-06 (235, 2)	
29	4.3547E-05 (365, 4)	4.1823E-05 (365, 4)	3.8745E-05 (365, 4)	3.5899E-05 (365, 4)	3.2452E-06 (242, 8)	
30	2.5880E-05 ( 83, 5)	2.3466E-05 ( 83, 5)	2.3271E-05 ( 83, 5)	2.3393E-05 (197, 4)	7.6386E-06 (117, 1)	
31	3.6991E-05 (143, 3)	3.6280E-05 (143, 3)	3.5605E-05 (143, 3)	3.3874E-05 (143, 3)	5.3040E-06 (113, 1)	
32	2.7140E-05 (185, 3)	2.7723E-05 (185, 3)	2.6943E-05 (185, 3)	2.7028E-05 (146, 3)	8.8374E-06 (318, 8)	
33	3.1244E-05 (142, 5)	3.1830E-05 (142, 5)	3.0163E-05 (142, 5)	2.7397E-05 (142, 5)	5.3365E-06 (173, 2)	
34	2.8567E-05 (142, 5)	2.8585E-05 (142, 5)	2.7537E-05 (142, 5)	2.7438E-05 (110, 4)	6.9721E-06 ( 30, 8)	
35	3.5567E-05 (212, 3)	3.5561E-05 (212, 3)	3.4051E-05 (212, 3)	3.1960E-05 (212, 3)	4.9252E-06 (212, 3)	
36	3.7692E-05 (164, 4)	3.7183E-05 (113, 4)	3.7517E-05 (113, 4)	3.9208E-05 (113, 4)	9.0210E-06 (161, 1)	

PLANT NAME: BUCKEYE CELLULOSE      POLLUTANT: TSP      AIR QUALITY UNITS: GM/M\*\*3  
 YEARLY SECOND MAXIMUM      3-HOUR CONC= 4.6214E-05      DIRECTION= 16      DISTANCE= 0.7 KM      DAY=139      TIME PERIOD= 4  
 YEAR= 64

DIR	SECOND HIGHEST		3-HOUR CONCENTRATION AT EACH RECEPTOR							
	RANGE	0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM				
1	3.1310E-05	(176, 4)	2.9768E-05	(218, 4)	2.8356E-05	(218, 4)	2.7326E-05	(218, 4)	6.1274E-06	(331, 7)
2	3.2711E-05	(174, 4)	3.0947E-05	(174, 4)	3.2037E-05	(121, 5)	3.2324E-05	(121, 5)	6.3456E-06	(316, 8)
3	2.5127E-05	(210, 5)	2.4827E-05	(219, 5)	2.5592E-05	(121, 5)	2.5680E-05	(121, 5)	3.4885E-06	(92, 3)
4	2.8558E-05	(203, 3)	3.2249E-05	(203, 3)	3.2805E-05	(174, 4)	2.9432E-05	(174, 4)	4.9729E-06	(296, 7)
5	2.7274E-05	(203, 4)	2.8276E-05	(203, 4)	2.8336E-05	(167, 5)	2.6690E-05	(203, 4)	6.5677E-06	(166, 1)
6	2.9597E-05	(203, 5)	2.9985E-05	(203, 5)	2.9770E-05	(203, 5)	2.9083E-05	(203, 5)	4.1169E-06	(159, 2)
7	2.4848E-05	( 57, 4)	2.4140E-05	( 57, 4)	2.2416E-05	( 57, 4)	2.6384E-05	( 57, 4)	6.5851E-06	( 41, 3)
8	2.1517E-05	(163, 4)	2.1324E-05	(211, 4)	1.9714E-05	(211, 4)	1.6095E-05	(211, 4)	5.2455E-06	(211, 7)
9	2.7789E-05	( 26, 6)	2.8659E-05	(236, 5)	2.8559E-05	(236, 5)	2.8319E-05	(236, 5)	6.1625E-06	( 93, 1)
10	2.7732E-05	(165, 4)	2.5679E-05	(322, 5)	2.5213E-05	(322, 5)	2.5059E-05	(322, 5)	3.2065E-06	(213, 7)
11	3.1451E-05	(185, 4)	3.0807E-05	(185, 4)	3.0195E-05	(185, 4)	2.9075E-05	(161, 4)	4.5076E-06	(142, 2)
12	3.1167E-05	(172, 5)	3.0665E-05	(161, 4)	3.0202E-05	( 77, 6)	3.0182E-05	( 77, 6)	4.8078E-06	( 22, 1)
13	3.4330E-05	(146, 5)	3.1756E-05	(146, 5)	2.8938E-05	(146, 5)	2.5372E-05	(141, 5)	4.2488E-06	(268, 1)
14	3.7126E-05	(231, 4)	2.6179E-05	(231, 4)	2.5127E-05	(231, 4)	2.4187E-05	(231, 4)	7.2011E-06	(313, 8)
15	3.4396E-05	(160, 4)	3.3524E-05	(166, 4)	3.3848E-05	(166, 4)	2.9839E-05	(213, 5)	4.7021E-06	(293, 2)
16	4.6214E-05	(139, 4)	4.5503E-05	(139, 4)	4.6131E-05	(139, 4)	4.1132E-05	(213, 5)	4.4262E-06	(359, 1)
17	3.2578E-05	(139, 4)	3.1682E-05	(139, 4)	2.8576E-05	(213, 5)	2.4406E-05	(216, 4)	4.9757E-06	(231, 2)
18	4.4961E-05	(245, 5)	4.3540E-05	(238, 4)	4.2082E-05	(238, 4)	4.0950E-05	(238, 4)	7.5454E-06	(246, 2)
19	3.3973E-05	(245, 5)	3.3760E-05	(245, 5)	3.4072E-05	(245, 5)	3.3842E-05	(245, 5)	4.2974E-06	( 15, 2)
20	3.1957E-05	( 21, 5)	3.0691E-05	( 21, 5)	3.2035E-05	( 21, 5)	3.0270E-05	(239, 5)	5.6818E-06	(265, 7)
21	3.5312E-05	(216, 5)	3.2778E-05	(180, 4)	2.9112E-05	(292, 4)	2.7656E-05	(239, 4)	4.6143E-06	(114, 2)
22	2.9711E-05	(353, 5)	2.9657E-05	(147, 5)	2.8564E-05	(239, 4)	2.8951E-05	(239, 4)	3.8665E-06	(222, 2)
23	2.8562E-05	(215, 6)	2.8275E-05	(215, 6)	2.6690E-05	(215, 6)	2.5147E-05	(215, 6)	4.4839E-06	(178, 3)
24	3.1738E-05	(252, 4)	3.1821E-05	(252, 4)	3.2177E-05	(252, 4)	3.2753E-05	(252, 4)	3.5418E-06	(315, 6)
25	2.7248E-05	(262, 5)	2.8139E-05	(269, 6)	2.7288E-05	(228, 5)	2.7443E-05	(262, 5)	4.3522E-06	(210, 7)
26	3.2721E-05	(157, 5)	3.1809E-05	(157, 5)	3.1608E-05	(157, 5)	3.1213E-05	( 15, 5)	3.8380E-06	( 5, 8)
27	3.6941E-05	(126, 5)	3.7190E-05	(126, 5)	3.7722E-05	(126, 5)	3.5582E-05	(197, 5)	5.0363E-06	(338, 1)
28	3.1809E-05	(144, 4)	2.9515E-05	(144, 4)	2.9702E-05	(315, 4)	3.0042E-05	(222, 4)	4.5775E-06	(332, 8)
29	2.7819E-05	( 22, 4)	2.7414E-05	( 22, 4)	2.5967E-05	( 22, 4)	2.4837E-05	(222, 4)	3.4181E-06	(109, 2)
30	2.3883E-05	( 83, 5)	2.3458E-05	(365, 4)	2.3147E-05	(197, 4)	2.3151E-05	( 83, 5)	7.4995E-06	(211, 3)
31	2.9356E-05	(247, 4)	2.8374E-05	(247, 4)	2.7792E-05	(247, 4)	2.7940E-05	(247, 4)	5.0489E-06	( 85, 1)
32	2.0356E-05	(221, 4)	2.0832E-05	(221, 4)	2.3763E-05	(146, 3)	2.5511E-05	(185, 3)	5.0858E-06	(231, 1)
33	2.3344E-05	(110, 4)	2.3631E-05	(110, 4)	2.4163E-05	(110, 4)	2.4184E-05	(110, 4)	4.0354E-06	(215, 1)
34	2.5912E-05	(110, 4)	2.6657E-05	(110, 4)	2.7336E-05	(110, 4)	2.5912E-05	(142, 5)	6.2397E-06	( 3, 2)
35	2.8441E-05	(233, 6)	2.6364E-05	(196, 5)	2.7026E-05	(196, 5)	2.7192E-05	(196, 5)	2.9951E-06	(187, 1)
36	3.7186E-05	(113, 4)	3.4278E-05	(164, 4)	3.3402E-05	(218, 4)	3.3247E-05	(218, 4)	7.0860E-06	( 60, 7)

COMPOSITE ANNUAL CONCENTRATION TABLE,UG/CU.M

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

RANGE	0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM
DIR					
1	1.	1.	1.	1.	0.
2	1.	1.	1.	1.	0.
3	0.	0.	0.	0.	0.
4	0.	0.	0.	0.	0.
5	0.	0.	0.	0.	0.
6	0.	0.	0.	0.	0.
7	0.	0.	0.	0.	0.
8	0.	0.	0.	0.	0.
9	0.	0.	0.	0.	0.
10	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.
12	0.	1.	1.	1.	0.
13	0.	0.	0.	1.	0.
14	0.	0.	1.	1.	0.
15	0.	0.	0.	0.	0.
16	1.	1.	1.	1.	0.
17	1.	1.	1.	1.	0.
18	1.	1.	1.	1.	0.
19	1.	1.	1.	1.	0.
20	1.	1.	1.	1.	0.
21	1.	1.	1.	1.	0.
22	1.	1.	1.	1.	0.
23	1.	1.	1.	1.	0.
24	1.	1.	1.	1.	0.
25	1.	1.	1.	1.	0.
26	1.	1.	1.	1.	0.
27	1.	1.	1.	1.	0.
28	1.	1.	1.	1.	0.
29	1.	1.	1.	1.	0.
30	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.
32	0.	0.	0.	0.	0.
33	0.	0.	0.	0.	0.
34	0.	0.	0.	0.	0.
35	1.	1.	1.	1.	0.
36	1.	1.	1.	1.	0.

COMPOSITE HIGHEST 24-HOUR CONCENTRATION TABLE, UG/CU.M

RANGE	HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR				
	0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM
DIR					
1	7.	7.	8.	8.	1.
2	6.	8.	9.	10.	2.
3	6.	5.	5.	5.	1.
4	6.	6.	6.	6.	1.
5	7.	8.	8.	8.	1.
6	8.	9.	10.	10.	1.
7	5.	5.	5.	5.	2.
8	6.	6.	6.	6.	1.
9	6.	6.	6.	6.	2.
10	6.	6.	3.	5.	1.
11	5.	7.	8.	9.	2.
12	7.	7.	7.	8.	1.
13	6.	5.	5.	5.	1.
14	5.	5.	6.	6.	2.
15	8.	7.	6.	5.	2.
16	9.	9.	7.	7.	1.
17	8.	8.	8.	8.	1.
18	13.	13.	13.	13.	2.
19	10.	10.	10.	9.	1.
20	8.	8.	7.	7.	1.
21	7.	7.	7.	6.	2.
22	8.	8.	7.	8.	1.
23	7.	7.	7.	7.	1.
24	7.	7.	7.	7.	1.
25	6.	6.	6.	7.	1.
26	9.	9.	10.	10.	1.
27	11.	11.	11.	11.	1.
28	12.	12.	11.	11.	2.
29	6.	6.	6.	7.	1.
30	7.	7.	7.	7.	1.
31	6.	6.	6.	6.	1.
32	5.	5.	5.	5.	1.
33	5.	5.	5.	5.	1.
34	4.	4.	4.	4.	1.
35	6.	7.	2.	8.	1.
36	10.	12.	13.	14.	2.



COMPOSITE HIGHEST, SECOND-HIGHEST 24-HOUR CONCENTRATION TABLE, UG/CU.M

RANGE DIR	SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR				
	0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM
1	7.	7.	7.	7.	1.
2	6.	7.	6.	9.	1.
3	5.	5.	5.	4.	0.
4	6.	5.	5.	5.	1.
5	6.	7.	7.	2.	1.
6	8.	8.	8.	8.	1.
7	4.	4.	5.	5.	1.
8	4.	4.	5.	5.	1.
9	6.	6.	6.	6.	2.
10	5.	5.	5.	5.	1.
11	5.	5.	6.	6.	1.
12	6.	6.	6.	6.	1.
13	5.	5.	5.	5.	1.
14	5.	5.	5.	5.	2.
15	7.	7.	6.	6.	1.
16	6.	6.	6.	6.	1.
17	8.	8.	8.	8.	1.
18	10.	10.	10.	10.	2.
19	9.	9.	8.	8.	1.
20	8.	7.	6.	7.	1.
21	7.	7.	6.	6.	1.
22	6.	6.	7.	7.	1.
23	6.	7.	7.	7.	1.
24	7.	7.	7.	7.	1.
25	5.	6.	6.	6.	1.
26	8.	7.	7.	8.	1.
27	9.	9.	9.	10.	1.
28	8.	8.	7.	7.	1.
29	6.	6.	6.	6.	1.
30	5.	5.	5.	5.	1.
31	5.	5.	5.	5.	1.
32	4.	4.	4.	3.	1.
33	5.	5.	5.	5.	1.
34	4.	4.	4.	4.	1.
35	6.	5.	5.	5.	1.
36	10.	11.	12.	12.	2.

COMPOSITE HIGHEST 3-HOUR CONCENTRATION TABLE, UG/CU.M

RANGE	HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR				
	0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM
DIR					
1	32.	30.	29.	29.	8.
2	33.	34.	35.	36.	7.
3	44.	42.	38.	34.	4.
4	38.	36.	34.	34.	5.
5	34.	32.	30.	28.	8.
6	32.	31.	32.	33.	5.
7	30.	31.	30.	30.	8.
8	25.	24.	25.	25.	9.
9	29.	31.	34.	35.	6.
10	30.	30.	30.	29.	6.
11	34.	34.	32.	30.	9.
12	39.	38.	39.	40.	6.
13	37.	37.	35.	34.	5.
14	38.	36.	32.	26.	9.
15	50.	44.	37.	34.	8.
16	66.	59.	50.	45.	8.
17	39.	35.	32.	32.	6.
18	45.	46.	46.	46.	8.
19	36.	34.	34.	34.	7.
20	41.	38.	33.	33.	7.
21	35.	35.	35.	35.	11.
22	39.	36.	31.	31.	4.
23	41.	40.	39.	38.	5.
24	36.	36.	36.	36.	4.
25	33.	31.	29.	29.	6.
26	34.	33.	32.	32.	4.
27	45.	42.	39.	38.	6.
28	32.	31.	31	30.	5.
29	44.	42.	39.	36.	4.
30	26.	23.	23.	23.	8.
31	27.	26.	35.	34.	5.
32	27.	28.	27.	27.	9.
33	41.	32.	30.	27.	5.
34	29.	29.	26.	27.	7.
35	36.	36.	34.	32.	5.
36	36.	37.	38.	38.	9.

COMPOSITE HIGHEST, SECOND-HIGHEST 3-HOUR CONCENTRATION TABLE, UG/CU.M

RANGE	SECOND. HIGHEST		3-HOUR CONCENTRATION AT EACH RECEPTOR			
	0.7 KM	0.8 KM	0.9 KM	1.0 KM	44.0 KM	
DIR						
1	31.	30.	28.	27.	6.	
2	33.	31.	32.	32.	6.	
3	25.	25.	26.	26.	3.	
4	29.	32.	33.	29.	5.	
5	27.	26.	26.	27.	7.	
6	30.	30.	30.	29.	4.	
7	25.	24.	22.	20.	7.	
8	22.	21.	20.	17.	5.	
9	28.	29.	29.	28.	6.	
10	28.	26.	25.	25.	3.	
11	31.	31.	30.	29.	5.	
12	31.	31.	30.	30.	5.	
13	34.	32.	27.	25.	4.	
14	27.	26.	25.	24.	7.	
15	34.	34.	34.	30.	5.	
16	46.	46.	46.	41.	4.	
17	33.	32.	29.	24.	5.	
18	45.	44.	42.	41.	8.	
19	34.	34.	34.	34.	4.	
20	32.	31.	32.	30.	6.	
21	35.	33.	29.	28.	5.	
22	30.	30.	29.	29.	4.	
23	29.	28.	27.	25.	4.	
24	32.	32.	32.	33.	4.	
25	27.	28.	27.	27.	4.	
26	33.	32.	32.	31.	4.	
27	37.	37.	38.	36.	5.	
28	32.	30.	30.	30.	5.	
29	28.	27.	26.	25.	3.	
30	24.	23.	23.	23.	7.	
31	30.	28.	28.	28.	5.	
32	20.	21.	24.	26.	5.	
33	23.	24.	24.	24.	4.	
34	26.	27.	27.	26.	6.	
35	28.	26.	27.	27.	3.	
36	37.	34.	33.	33.	7.	



RING DISTANCES(KM)= 1.10 1.20 1.30 1.40 1.50

STACK # 1--CALCINER  
STACK # 2--NEW NO 1 STACK  
STACK # 3--SHAVE OFF SCRUBBER  
STACK # 4--OLD NO 1 STACK

STACK	MONTH	EMISSION RATE (GMS/SEC)	HEIGHT (METERS)	DIAMETER (METERS)	EXIT VELOCITY (M/SEC)	TEMP (DEG.K)	VOLUMETRIC FLOW (M**3/SEC)
1	ALL	3.3000	37.49	1.52	15.70	341.30	28.49
2	ALL	57.1500	68.58	3.96	16.90	377.00	208.15
3	ALL	3.5300	52.00	1.07	12.10	341.00	10.88
4	ALL	-25.0400	68.58	3.96	15.56	413.00	191.64

PLANT NAME: BUCKEYE CELLULOSE      POLLUTANT: TSP      AIR QUALITY UNITS: GM/M\*\*3  
 MAXIMUM MEAN CONC= 1.2978E-05      DIRECTION= 36      DISTANCE= 1.5 KM  
 YEAR= 64

DIR	ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR					
	RANGE	1.1 KM	1.2 KM	1.3 KM	1.4 KM	1.5 KM
1		2.72819E-06	2.78380E-06	2.81325E-06	2.82501E-06	2.82459E-06
2		8.25126E-07	8.27563E-07	8.26649E-07	8.24716E-07	8.22726E-07
3		4.09925E-09	3.82678E-09	3.57294E-09	3.34393E-09	3.14005E-09
4		4.78198E-14	3.42137E-14	2.71133E-14	2.17300E-14	1.76114E-14
5		6.39709E-22	3.78990E-22	2.30658E-22	1.44034E-22	9.21141E-23
6		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
7		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
8		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
9		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
10		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
11		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
12		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
13		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
14		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
15		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
16		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
17		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
18		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
19		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
20		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
21		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
22		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
23		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
24		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
25		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
26		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
27		1.72814E-22	1.34175E-22	1.01896E-22	7.61266E-23	5.63348E-23
28		1.16194E-14	1.28070E-14	1.18797E-14	1.13864E-14	1.06921E-14
29		1.03884E-09	1.27922E-09	1.49298E-09	1.67427E-09	1.82173E-09
30		1.56877E-07	2.07968E-07	2.61162E-07	3.13975E-07	3.65826E-07
31		6.60904E-08	8.76043E-08	1.09711E-07	1.31655E-07	1.52875E-07
32		1.61422E-10	1.65948E-10	1.74344E-10	1.75397E-10	1.73851E-10
33		1.47654E-07	1.55363E-07	1.67287E-07	1.72062E-07	1.74308E-07
34		3.27675E-07	3.53089E-07	3.70996E-07	3.82655E-07	3.89266E-07
35		2.48982E-06	2.50946E-06	2.50306E-06	2.48033E-06	2.44849E-06
36		1.24096E-05	1.26778E-05	1.28376E-05	1.29291E-05	1.29780E-05

PLANT NAME: BUCKEYE CELLULOSE      POLLUTANT: TSP      AIR QUALITY UNITS: GN/M\*\*3  
 YEARLY MAXIMUM 24-HOUR CONC= 1.4156E-05      DIRECTION= 36      DISTANCE= 1.5 KM      DAY=360  
 YEAR= 64

HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR

RANGE	1.1 KM	1.2 KM	1.3 KM	1.4 KM	1.5 KM
DIR					
1	3.3006E-06 (360)	3.2879E-06 (360)	3.2642E-06 (360)	3.2380E-06 (360)	3.2131E-06 (360)
2	1.6091E-06 (360)	1.6147E-06 (360)	1.6144E-06 (360)	1.6123E-06 (360)	1.6101E-06 (360)
3	8.1968E-09 (360)	7.6521E-09 (360)	7.1447E-09 (360)	6.6869E-09 (360)	6.2793E-09 (360)
4	8.7240E-14 (360)	6.8427E-14 (360)	5.4226E-14 (360)	4.3463E-14 (360)	3.5223E-14 (360)
5	1.2794E-21 (360)	7.5799E-22 (360)	4.6132E-22 (360)	2.8807E-22 (360)	1.8423E-22 (360)
6	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
7	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
8	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
9	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
10	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
11	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
12	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
13	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
14	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
15	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
16	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
17	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
18	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
19	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
20	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
21	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
22	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
23	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
24	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
25	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
26	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
27	3.4493E-22 (347)	2.6635E-22 (347)	2.0379E-22 (347)	1.5225E-22 (347)	1.1267E-22 (347)
28	2.3239E-14 (347)	2.4014E-14 (347)	2.3759E-14 (347)	2.2793E-14 (347)	2.1384E-14 (347)
29	2.0771E-09 (347)	2.5994E-09 (347)	2.9860E-09 (347)	3.3495E-09 (347)	3.6435E-09 (347)
30	3.1255E-07 (347)	4.1594E-07 (347)	5.2232E-07 (347)	6.2795E-07 (347)	7.3005E-07 (347)
31	1.3216E-07 (347)	1.7521E-07 (347)	2.1942E-07 (347)	2.6331E-07 (347)	3.0575E-07 (347)
32	3.2284E-10 (347)	3.3990E-10 (347)	3.4869E-10 (347)	3.5079E-10 (347)	3.4770E-10 (347)
33	2.9831E-07 (347)	3.1873E-07 (347)	3.3457E-07 (347)	3.4412E-07 (347)	3.4862E-07 (347)
34	6.5584E-07 (347)	7.0591E-07 (347)	7.4176E-07 (347)	7.6510E-07 (347)	7.7835E-07 (347)
35	3.6597E-06 (347)	3.7144E-06 (347)	3.7273E-06 (347)	3.7075E-06 (347)	3.6682E-06 (347)
36	1.2796E-05 (360)	1.3948E-05 (360)	1.4039E-05 (360)	1.4102E-05 (360)	1.4156E-05 (360)

PLANT NAME: BUCKEYE CELLULOSE      POLLUTANT: TSP      AIR QUALITY UNITS: GM/M\*\*3  
 YEARLY SECOND MAXIMUM 24-HOUR CONC= 1.1800E-05      DIRECTION= 36      DISTANCE= 1.5 KM      DAY=347  
 YEAR= 64

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR						
RANGE	1.1 KM	1.2 KM	1.3 KM	1.4 KM	1.5 KM	
DIR						
1	2.1558E-06 (347)	2.2797E-06 (347)	2.3624E-06 (347)	2.4120E-06 (347)	2.4361E-06 (347)	
2	4.1170E-08 (347)	4.3258E-08 (347)	3.8876E-08 (347)	3.7172E-08 (347)	3.5342E-08 (347)	
3	1.7290E-12 (347)	1.4401E-12 (347)	1.1948E-12 (347)	9.9093E-13 (347)	8.2363E-13 (347)	
4	9.7115E-20 (347)	6.2208E-20 (347)	4.0423E-20 (347)	2.6584E-20 (347)	1.7731E-20 (347)	
5	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
6	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
7	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
8	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
9	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
10	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
11	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
12	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
13	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
14	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
15	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
16	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
17	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
18	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
19	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
20	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
21	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
22	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
23	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
24	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
25	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
26	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
27	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
28	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
29	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
30	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
31	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
32	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	
33	1.1033E-16 (360)	7.6122E-17 (360)	5.3509E-17 (360)	3.8300E-17 (360)	2.7878E-17 (360)	
34	3.1059E-10 (360)	2.8928E-10 (360)	2.3459E-10 (360)	2.0567E-10 (360)	1.8148E-10 (360)	
35	1.3274E-06 (360)	1.3045E-06 (360)	1.2758E-06 (360)	1.2532E-06 (360)	1.2286E-06 (360)	
36	1.1023E-05 (347)	1.1408E-05 (347)	1.1637E-05 (347)	1.1756E-05 (347)	1.1890E-05 (347)	



PLANT NAME: BUCKEYE CELLULOSE POLLUTANT: TSP AIR QUALITY UNITS: GM/M\*\*3  
 YEARLY MAXIMUM 3-HOUR CONC= 2.4291E-05 DIRECTION=36 DISTANCE= 1.5 KM DAY=247 TIME PERIOD=6  
 YEAR= 64

DIR	HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR				
	RANGE 1.1 KM	1.2 KM	1.3 KM	1.4 KM	1.5 KM
1	8.54895E-06 (347, 5)	8.8090E-06 (347, 5)	8.8903E-06 (347, 5)	8.8747E-06 (347, 5)	8.7955E-06 (347, 5)
2	7.0500E-06 (360, 6)	7.9854E-06 (360, 6)	7.3891E-06 (360, 6)	7.0821E-06 (360, 6)	7.0749E-06 (360, 6)
3	5.8238E-08 (360, 6)	5.4595E-08 (360, 6)	5.1159E-08 (360, 6)	4.8037E-08 (360, 6)	4.5244E-08 (360, 6)
4	6.8622E-13 (360, 6)	5.3865E-13 (360, 6)	4.2743E-13 (360, 6)	3.4286E-13 (360, 6)	2.7808E-13 (360, 6)
5	1.0215E-20 (360, 6)	6.0639E-21 (360, 6)	3.6905E-21 (360, 6)	2.3045E-21 (360, 6)	1.4738E-21 (360, 6)
6	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
7	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
8	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
9	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
10	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
11	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
12	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
13	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
14	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
15	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
16	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
17	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
18	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
19	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
20	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
21	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
22	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
23	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
24	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
25	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
26	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
27	2.7522E-21 (347, 8)	2.1468E-21 (347, 8)	1.6303E-21 (347, 8)	1.2180E-21 (347, 8)	9.0136E-22 (347, 8)
28	1.8591E-13 (347, 8)	1.9211E-13 (347, 8)	1.9008E-13 (347, 8)	1.8234E-13 (347, 8)	1.7107E-13 (347, 8)
29	1.6617E-08 (347, 8)	2.0468E-08 (347, 8)	2.3888E-08 (347, 8)	2.6788E-08 (347, 8)	2.9148E-08 (347, 8)
30	2.5304E-06 (347, 8)	3.3275E-06 (347, 8)	4.1726E-06 (347, 8)	5.0236E-06 (347, 8)	5.8404E-06 (347, 8)
31	1.0574E-06 (347, 8)	1.4017E-06 (347, 8)	1.7594E-06 (347, 8)	2.1065E-06 (347, 8)	2.4460E-06 (347, 8)
32	1.5305E-09 (347, 4)	1.4728E-09 (347, 4)	1.4017E-09 (347, 8)	1.5173E-09 (347, 8)	1.5963E-09 (347, 8)
33	2.3624E-06 (347, 4)	2.5498E-06 (347, 4)	2.6766E-06 (347, 4)	2.7536E-06 (347, 4)	2.7889E-06 (347, 4)
34	4.6050E-06 (347, 4)	5.0223E-06 (347, 4)	5.3240E-06 (347, 4)	5.5270E-06 (347, 4)	5.6487E-06 (347, 4)
35	1.1339E-05 (347, 5)	1.1656E-05 (347, 5)	1.1774E-05 (347, 5)	1.1750E-05 (347, 5)	1.1630E-05 (347, 5)
36	2.0554E-05 (347, 6)	2.2080E-05 (347, 6)	2.3162E-05 (347, 6)	2.3875E-05 (347, 6)	2.4291E-05 (347, 6)

PLANT NAME: BUCKEYE CELLULOSE      POLLUTANT: TSP      AIR QUALITY UNITS: GM/M\*\*3  
 YEARLY SECOND MAXIMUM 3-HOUR CONC= 1.9715E-05      DIRECTION= 36      DISTANCE= 1.5 KM      DAY=360      TIME PERIOD= 2  
 YEAR= 64

DIR	SECOND HIGHEST		3-HOUR CONCENTRATION AT EACH RECEPTOR							
	RANGE	1.1 KM	1.2 KM	1.3 KM	1.4 KM	1.5 KM				
1	7.1065E-06	(360, 6)	7.1384E-06	(360, 6)	7.1389E-06	(360, 6)	7.1290E-06	(360, 6)	7.1192E-06	(360, 6)
2	2.9812E-06	(360, 7)	2.9800E-06	(360, 7)	2.9691E-06	(360, 7)	2.9557E-06	(360, 7)	2.9432E-06	(360, 7)
3	3.7645E-09	(360, 7)	3.3902E-09	(360, 7)	3.0621E-09	(360, 7)	2.7783E-09	(360, 7)	2.5334E-09	(360, 7)
4	6.6037E-15	(360, 7)	4.3834E-15	(360, 7)	3.2573E-15	(360, 7)	2.4551E-15	(360, 7)	1.8774E-15	(360, 7)
5	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)
6	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
7	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
8	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
9	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
10	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
11	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
12	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
13	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
14	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
15	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
16	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
17	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
18	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
19	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
20	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
21	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
22	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
23	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
24	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
25	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
26	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)	1.0000E-30	(347, 2)
27	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)
28	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)
29	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)
30	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)	1.0000E-30	(347, 1)
31	1.2523E-15	(347, 4)	5.6799E-16	(347, 4)	7.4221E-16	(347, 4)	5.6736E-16	(347, 4)	4.3368E-16	(347, 4)
32	1.0522E-09	(347, 8)	1.2464E-09	(347, 8)	1.3678E-09	(347, 8)	1.2890E-09	(347, 8)	1.1653E-09	(347, 8)
33	4.0020E-11	(347, 1)	4.0580E-11	(347, 1)	3.4185E-11	(347, 1)	2.8809E-11	(347, 1)	2.4348E-11	(347, 1)
34	5.5666E-07	(347, 1)	5.3341E-07	(347, 1)	5.2025E-07	(347, 1)	4.9913E-07	(347, 1)	4.7708E-07	(347, 1)
35	1.1091E-05	(347, 1)	1.1300E-05	(347, 1)	1.1338E-05	(347, 1)	1.1261E-05	(347, 1)	1.1112E-05	(347, 1)
36	1.9425E-05	(360, 2)	1.9599E-05	(360, 2)	1.9669E-05	(360, 2)	1.9696E-05	(360, 2)	1.9715E-05	(360, 2)

COMPOSITE ANNUAL CONCENTRATION TABLE, UG/CU.M

ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR

RANGE	1.1 KM	1.2 KM	1.3 KM	1.4 KM	1.5 KM
DIR					
1	3.	3.	3.	3.	3.
2	1.	1.	1.	1.	1.
3	0.	0.	0.	0.	0.
4	0.	0.	0.	0.	0.
5	0.	0.	0.	0.	0.
6	0.	0.	0.	0.	0.
7	0.	0.	0.	0.	0.
8	0.	0.	0.	0.	0.
9	0.	0.	0.	0.	0.
10	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.
12	0.	0.	0.	0.	0.
13	0.	0.	0.	0.	0.
14	0.	0.	0.	0.	0.
15	0.	0.	0.	0.	0.
16	0.	0.	0.	0.	0.
17	0.	0.	0.	0.	0.
18	0.	0.	0.	0.	0.
19	0.	0.	0.	0.	0.
20	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.
22	0.	0.	0.	0.	0.
23	0.	0.	0.	0.	0.
24	0.	0.	0.	0.	0.
25	0.	0.	0.	0.	0.
26	0.	0.	0.	0.	0.
27	0.	0.	0.	0.	0.
28	0.	0.	0.	0.	0.
29	0.	0.	0.	0.	0.
30	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.
32	0.	0.	0.	0.	0.
33	0.	0.	0.	0.	0.
34	0.	0.	0.	0.	0.
35	2.	3.	3.	2.	2.
36	12.	13.	13.	13.	13.

## COMPOSITE HIGHEST 24-HOUR CONCENTRATION TABLE, UG/CU.M

RANGE	HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR				
	1.1 KM	1.2 KM	1.3 KM	1.4 KM	1.5 KM
DIR					
1	3.	3.	3.	3.	3.
2	2.	2.	2.	2.	2.
3	0.	0.	0.	0.	0.
4	0.	0.	0.	0.	0.
5	0.	0.	0.	0.	0.
6	0.	0.	0.	0.	0.
7	0.	0.	0.	0.	0.
8	0.	0.	0.	0.	0.
9	0.	0.	0.	0.	0.
10	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.
12	0.	0.	0.	0.	0.
13	0.	0.	0.	0.	0.
14	0.	0.	0.	0.	0.
15	0.	0.	0.	0.	0.
16	0.	0.	0.	0.	0.
17	0.	0.	0.	0.	0.
18	0.	0.	0.	0.	0.
19	0.	0.	0.	0.	0.
20	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.
22	0.	0.	0.	0.	0.
23	0.	0.	0.	0.	0.
24	0.	0.	0.	0.	0.
25	0.	0.	0.	0.	0.
26	0.	0.	0.	0.	0.
27	0.	0.	0.	0.	0.
28	0.	0.	0.	0.	0.
29	0.	0.	0.	0.	0.
30	0.	0.	1.	1.	1.
31	0.	0.	0.	0.	0.
32	0.	0.	0.	0.	0.
33	0.	0.	0.	0.	0.
34	1.	1.	1.	1.	1.
35	4.	4.	4.	4.	4.
36	14.	14.	14.	14.	14.

*intermediate receptors*

COMPOSITE HIGHEST, SECOND-HIGHEST 24-HOUR CONCENTRATION TABLE, UG/CU.M

	SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR				
RANGE	1.1 KM	1.2 KM	1.3 KM	1.4 KM	1.5 KM
DIR					
1	2.	2.	2.	2.	2.
2	0.	0.	0.	0.	0.
3	0.	0.	0.	0.	0.
4	0.	0.	0.	0.	0.
5	0.	0.	0.	0.	0.
6	0.	0.	0.	0.	0.
7	0.	0.	0.	0.	0.
8	0.	0.	0.	0.	0.
9	0.	0.	0.	0.	0.
10	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.
12	0.	0.	0.	0.	0.
13	0.	0.	0.	0.	0.
14	0.	0.	0.	0.	0.
15	0.	0.	0.	0.	0.
16	0.	0.	0.	0.	0.
17	0.	0.	0.	0.	0.
18	0.	0.	0.	0.	0.
19	0.	0.	0.	0.	0.
20	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.
22	0.	0.	0.	0.	0.
23	0.	0.	0.	0.	0.
24	0.	0.	0.	0.	0.
25	0.	0.	0.	0.	0.
26	0.	0.	0.	0.	0.
27	0.	0.	0.	0.	0.
28	0.	0.	0.	0.	0.
29	0.	0.	0.	0.	0.
30	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.
32	0.	0.	0.	0.	0.
33	0.	0.	0.	0.	0.
34	0.	0.	0.	0.	0.
35	1.	1.	1.	1.	1.
36	11.	11.	12.	12.	12.



RING DISTANCES(KM)= 1.60 1.70 1.80 1.90 2.00

STACK # 1--CALCINER  
STACK # 2--NEW NO 1 STACK  
STACK # 3--SHAVE OFF SCRUBBER  
STACK # 4--OLD NO 1 STACK

STACK	MONTH	EMISSION RATE (GMS/SEC)	HEIGHT (METERS)	DIAMETER (METERS)	EXIT VELOCITY (M/SEC)	TEMP (DEG.K)	VOLUMETRIC FLOW (M**3/SEC)
1	ALL	3.3000	37.49	1.52	15.70	341.30	28.49
2	ALL	57.1500	68.58	3.96	16.90	377.00	208.15
3	ALL	3.5300	52.00	1.07	12.10	341.00	10.88
4	ALL	-25.0400	68.58	3.96	15.56	413.00	191.64

PLANT NAME: BUCKEYE CELLULOSE      POLLUTANT: TSP      AIR QUALITY UNITS: GM/M\*\*3  
 MAXIMUM MEAN CONC= 1.3005E-05      DIRECTION= 36      DISTANCE= 1.7 KM  
 YEAR= 64

DIR	ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR					
	RANGE	1.6 KM	1.7 KM	1.8 KM	1.9 KM	2.0 KM
1		2.81575E-06	2.80092E-06	2.78168E-06	2.75909E-06	2.73385E-06
2		8.21824E-07	8.19592E-07	8.18246E-07	8.16756E-07	8.14904E-07
3		2.95887E-09	2.79704E-09	2.65123E-09	2.51850E-09	2.39644E-09
4		1.44236E-14	1.19249E-14	9.94170E-15	8.34886E-15	7.05563E-15
5		6.02311E-23	4.01182E-23	2.72029E-23	1.67322E-23	1.30774E-23
6		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
7		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
8		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
9		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
10		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
11		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
12		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
13		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
14		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
15		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
16		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
17		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
18		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
19		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
20		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
21		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
22		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
23		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
24		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
25		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
26		4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32	4.16667E-32
27		4.14816E-23	3.34869E-23	2.24109E-23	1.65011E-23	1.21815E-23
28		9.89980E-15	9.30253E-15	8.13925E-15	7.31082E-15	6.53514E-15
29		1.93661E-09	2.52159E-09	2.07995E-09	2.11535E-09	2.13108E-09
30		4.13387E-07	4.58348E-07	4.99638E-07	5.37058E-07	5.70562E-07
31		1.72974E-07	1.91685E-07	2.08845E-07	2.24370E-07	2.38237E-07
32		1.70355E-10	1.65449E-10	1.59565E-10	1.53046E-10	1.46153E-10
33		1.74973E-07	1.73322E-07	1.70933E-07	1.67714E-07	1.63966E-07
34		3.91886E-07	3.91404E-07	3.88547E-07	3.83899E-07	3.77928E-07
35		2.41240E-06	2.37515E-06	2.33860E-06	2.30379E-06	2.27119E-06
36		1.30002E-05	1.30051E-05	1.29977E-05	1.29808E-05	1.29556E-05



PLANT NAME: BUCKEYE CELLULOSE      POLLUTANT: TSP      AIR QUALITY UNITS: GM/M\*\*3  
 YEARLY MAXIMUM 24-HOUR CONC= 1.4358E-05      DIRECTION= 36      DISTANCE= 2.0 KM      DAY=360  
 YEAR= 64

DIR	HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR				
	RANGE	1.6 KM	1.7 KM	1.8 KM	1.9 KM
1	3.1908E-06 (360)	3.1707E-06 (360)	3.1521E-06 (360)	3.1339E-06 (360)	3.1151E-06 (360)
2	1.6086E-06 (360)	1.6075E-06 (360)	1.6065E-06 (360)	1.6051E-06 (360)	1.6028E-06 (360)
3	5.9179E-09 (360)	5.9335E-09 (360)	5.3929E-09 (360)	5.0366E-09 (360)	4.7925E-09 (360)
4	2.0847E-14 (360)	2.3658E-14 (360)	1.9883E-14 (360)	1.6698E-14 (360)	1.4111E-14 (360)
5	1.2948E-22 (360)	8.0236E-23 (360)	5.4406E-23 (360)	3.7464E-23 (360)	2.6155E-23 (360)
6	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
7	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
8	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
9	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
10	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
11	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
12	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
13	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
14	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
15	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
16	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
17	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
18	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
19	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
20	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
21	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
22	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
23	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
24	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
25	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
26	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)	4.1667E-32 (347)
27	8.2963E-23 (347)	6.0974E-23 (347)	4.4822E-23 (347)	3.3002E-23 (347)	2.4363E-23 (347)
28	1.9749E-14 (347)	1.3865E-14 (347)	1.6278E-14 (347)	1.4622E-14 (347)	1.3070E-14 (347)
29	3.8732E-09 (347)	4.0432E-09 (347)	4.1600E-09 (347)	4.2367E-09 (347)	4.2622E-09 (347)
30	9.2671E-07 (347)	9.1670E-07 (347)	9.9928E-07 (347)	1.0741E-06 (347)	1.1412E-06 (347)
31	3.4395E-07 (347)	3.8337E-07 (347)	4.1769E-07 (347)	4.4874E-07 (347)	4.7647E-07 (347)
32	3.4071E-10 (347)	3.3090E-10 (347)	3.1913E-10 (347)	3.0609E-10 (347)	2.9231E-10 (347)
33	3.4915E-07 (347)	3.4664E-07 (347)	3.4187E-07 (347)	3.3543E-07 (347)	3.2781E-07 (347)
34	7.8381E-07 (347)	7.8267E-07 (347)	7.7697E-07 (347)	7.6768E-07 (347)	7.5575E-07 (347)
35	3.6185E-06 (347)	3.5659E-06 (347)	3.5134E-06 (347)	3.4638E-06 (347)	3.4184E-06 (347)
36	1.4207E-05 (360)	1.4255E-05 (360)	1.4298E-05 (360)	1.4333E-05 (360)	1.4358E-05 (360)

MAX PSD = 14.4 ug/m<sup>3</sup>  
 Class II allowable = 37

PLANT NAME: BUCKEYE CELLULOSE      POLLUTANT: TSP      AIR QUALITY UNITS: GM/M\*\*3  
 YEARLY SECOND MAXIMUM 24-HOUR CONC= 1.1794E-05      DIRECTION= 36      DISTANCE= 1.6 KM      DAY=347  
 YEAR= 64

SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR						
RANGE	1.6 KM	1.7 KM	1.8 KM	1.9 KM	2.0 KM	
DIP						
1	2.4407E-06 (347)	2.4311E-06 (347)	2.4112E-06 (347)	2.3843E-06 (347)	2.3526E-06 (347)	2.3526E-06 (347)
2	3.3499E-08 (347)	3.1711E-08 (347)	3.0020E-08 (347)	2.8448E-08 (347)	2.7001E-08 (347)	2.7001E-08 (347)
3	6.8729E-13 (347)	5.7620E-13 (347)	4.8587E-13 (347)	4.1219E-13 (347)	3.5185E-13 (347)	3.5185E-13 (347)
4	1.1997E-20 (347)	8.2341E-21 (347)	5.7319E-21 (347)	4.0451E-21 (347)	2.8924E-21 (347)	2.8924E-21 (347)
5	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
6	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
7	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
8	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
9	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
10	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
11	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
12	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
13	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
14	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
15	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
16	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
17	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
18	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
19	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
20	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
21	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
22	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
23	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
24	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
25	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
26	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
27	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
28	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
29	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
30	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
31	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
32	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)	4.1667E-32 (360)
33	2.0603E-17 (360)	1.5433E-17 (360)	1.1700E-17 (360)	8.9631E-18 (360)	6.9307E-18 (360)	6.9307E-18 (360)
34	1.6109E-10 (360)	1.4375E-10 (360)	1.2087E-10 (360)	1.1597E-10 (360)	1.0470E-10 (360)	1.0470E-10 (360)
35	1.2060E-06 (360)	1.1844E-06 (360)	1.1639E-06 (360)	1.1438E-06 (360)	1.1240E-06 (360)	1.1240E-06 (360)
36	1.1794E-05 (347)	1.1756E-05 (347)	1.1698E-05 (347)	1.1628E-05 (347)	1.1554E-05 (347)	1.1554E-05 (347)

PLANT NAME: BUCKEYE CELLULOSE      POLLUTANT: TSP      AIR QUALITY UNITS: GM/M\*\*3  
 YEARLY MAXIMUM 3-HOUR CONC= 2.4476E-05      DIRECTION=36      DISTANCE= 1.7 KM      DAY=347      TIME PERIOD=6  
 YEAR= 64

RANGE DIR	HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR				
	1.6 KM	1.7 KM	1.8 KM	1.9 KM	2.0 KM
1	8.6782E-06 (347, 5)	8.5415E-06 (347, 5)	8.3986E-06 (347, 5)	8.2584E-06 (347, 5)	8.1266E-06 (347, 5)
2	7.0716E-06 (360, 6)	7.0725E-06 (360, 6)	7.0763E-06 (360, 6)	7.0808E-06 (360, 6)	7.0837E-06 (360, 6)
3	4.2754E-08 (360, 6)	4.0525E-08 (360, 6)	3.8512E-08 (360, 6)	3.6676E-08 (360, 6)	3.4983E-08 (360, 6)
4	2.2791E-13 (360, 6)	1.8854E-13 (360, 6)	1.5728E-13 (360, 6)	1.3215E-13 (360, 6)	1.1174E-13 (360, 6)
5	9.6322E-22 (360, 6)	6.4189E-22 (360, 6)	4.3525E-22 (360, 6)	2.9972E-22 (360, 6)	2.0524E-22 (360, 6)
6	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
7	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
8	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
9	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
10	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
11	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
12	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
13	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
14	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
15	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
16	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
17	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
18	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
19	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
20	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
21	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
22	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
23	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
24	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
25	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
26	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
27	6.6370E-22 (347, 8)	4.8779E-22 (347, 8)	3.5857E-22 (347, 8)	2.6402E-22 (347, 8)	1.9490E-22 (347, 8)
28	1.5792E-13 (347, 8)	1.4404E-13 (347, 8)	1.3023E-13 (347, 8)	1.1697E-13 (347, 8)	1.0456E-13 (347, 8)
29	3.0986E-08 (347, 8)	3.2345E-08 (347, 8)	3.3280E-08 (347, 8)	3.3846E-08 (347, 8)	3.4097E-08 (347, 8)
30	6.6137E-06 (347, 8)	7.3326E-06 (347, 8)	7.9942E-06 (347, 8)	8.5929E-06 (347, 8)	9.1293E-06 (347, 8)
31	2.7676E-06 (347, 6)	3.0670E-06 (347, 6)	3.3415E-06 (347, 6)	3.5859E-06 (347, 6)	3.8118E-06 (347, 6)
32	1.6431E-09 (347, 8)	1.6630E-09 (347, 8)	1.6610E-09 (347, 8)	1.6417E-09 (347, 8)	1.6089E-09 (347, 8)
33	2.7532E-06 (347, 4)	2.7731E-06 (347, 4)	2.7349E-06 (347, 4)	2.6834E-06 (347, 4)	2.6225E-06 (347, 4)
34	5.7049E-06 (347, 4)	5.7095E-06 (347, 4)	5.6742E-06 (347, 4)	5.6085E-06 (347, 4)	5.5202E-06 (347, 4)
35	1.1448E-05 (347, 5)	1.1232E-05 (347, 5)	1.0959E-05 (347, 5)	1.0764E-05 (347, 5)	1.0534E-05 (347, 5)
36	2.4474E-05 (347, 6)	2.4476E-05 (347, 6)	2.4344E-05 (347, 6)	2.4113E-05 (347, 6)	2.3813E-05 (347, 6)

PLANT NAME: HUCKEYE CELLULOSE      POLLUTANT: TSP      AIR QUALITY UNITS: GM/M\*\*3  
 YEARLY SECOND MAXIMUM    3-HOUR CONC= 1.9914E-05    DIRECTION= 36    DISTANCE= 2.0 KM    DAY=360    TIME PERIOD= 2  
 YEAR= 64

DIR	SECOND HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR				
	RANGE	1.6 KM	1.7 KM	1.8 KM	1.9 KM
1	7.3272E-06 (347, 3)	7.4703E-06 (347, 3)	7.5497E-06 (347, 3)	7.5769E-06 (347, 3)	7.5617E-06 (347, 3)
2	2.9322E-06 (360, 7)	2.9224E-06 (360, 7)	2.9130E-06 (360, 7)	2.9030E-06 (360, 7)	2.8915E-06 (360, 7)
3	2.3210E-09 (360, 7)	2.1353E-09 (360, 7)	1.9712E-09 (360, 7)	1.8248E-09 (360, 7)	1.6931E-09 (360, 7)
4	1.4545E-15 (360, 7)	1.1400E-15 (360, 7)	9.0285E-16 (360, 7)	7.2108E-16 (360, 7)	5.8052E-16 (360, 7)
5	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
6	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
7	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
8	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
9	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
10	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
11	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
12	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
13	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
14	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
15	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
16	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
17	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
18	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
19	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
20	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
21	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
22	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
23	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
24	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
25	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
26	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)	1.0000E-30 (347, 2)
27	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
28	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
29	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
30	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)	1.0000E-30 (347, 1)
31	3.3215E-16 (347, 4)	2.5521E-16 (347, 4)	1.9689E-16 (347, 4)	1.5259E-16 (347, 4)	1.1883E-16 (347, 4)
32	1.9826E-09 (347, 4)	9.8416E-10 (347, 4)	8.9283E-10 (347, 4)	8.0707E-10 (347, 4)	7.2953E-10 (347, 4)
33	2.0670E-11 (347, 1)	1.7643E-11 (347, 1)	1.5151E-11 (347, 1)	1.3091E-11 (347, 1)	1.1381E-11 (347, 1)
34	4.5537E-07 (347, 1)	4.3475E-07 (347, 1)	4.1561E-07 (347, 1)	3.9810E-07 (347, 1)	3.8220E-07 (347, 1)
35	1.0923E-05 (347, 1)	1.0718E-05 (347, 1)	1.0510E-05 (347, 1)	1.0311E-05 (347, 1)	1.0125E-05 (347, 1)
36	1.9741E-05 (360, 2)	1.9777E-05 (360, 2)	1.9822E-05 (360, 2)	1.9869E-05 (360, 2)	1.9914E-05 (360, 2)

## COMPOSITE ANNUAL CONCENTRATION TABLE,UG/CU.M

DIR	ANNUAL MEAN CONCENTRATION AT EACH RECEPTOR					
	RANGE	1.6 KM	1.7 KM	1.8 KM	1.9 KM	2.0 KM
1		3.	3.	3.	3.	3.
2		1.	1.	1.	1.	1.
3		0.	0.	0.	0.	0.
4		0.	0.	0.	0.	0.
5		0.	0.	0.	0.	0.
6		0.	0.	0.	0.	0.
7		0.	0.	0.	0.	0.
8		0.	0.	0.	0.	0.
9		0.	0.	0.	0.	0.
10		0.	0.	0.	0.	0.
11		0.	0.	0.	0.	0.
12		0.	0.	0.	0.	0.
13		0.	0.	0.	0.	0.
14		0.	0.	0.	0.	0.
15		0.	0.	0.	0.	0.
16		0.	0.	0.	0.	0.
17		0.	0.	0.	0.	0.
18		0.	0.	0.	0.	0.
19		0.	0.	0.	0.	0.
20		0.	0.	0.	0.	0.
21		0.	0.	0.	0.	0.
22		0.	0.	0.	0.	0.
23		0.	0.	0.	0.	0.
24		0.	0.	0.	0.	0.
25		0.	0.	0.	0.	0.
26		0.	0.	0.	0.	0.
27		0.	0.	0.	0.	0.
28		0.	0.	0.	0.	0.
29		0.	0.	0.	0.	0.
30		0.	0.	0.	1.	1.
31		0.	0.	0.	0.	0.
32		0.	0.	0.	0.	0.
33		0.	0.	0.	0.	0.
34		0.	0.	0.	0.	0.
35		2.	2.	2.	2.	2.
36		13.	13.	13.	13.	13.

COMPOSITE HIGHEST 24-HOUR CONCENTRATION TABLE, UG/CU.M

RANGE	HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR				
	1.6 KM	1.7 KM	1.8 KM	1.9 KM	2.0 KM
DIR					
1	3.	3.	3.	3.	3.
2	2.	2.	2.	2.	2.
3	0.	0.	0.	0.	0.
4	0.	0.	0.	0.	0.
5	0.	0.	0.	0.	0.
6	0.	0.	0.	0.	0.
7	0.	0.	0.	0.	0.
8	0.	0.	0.	0.	0.
9	0.	0.	0.	0.	0.
10	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.
12	0.	0.	0.	0.	0.
13	0.	0.	0.	0.	0.
14	0.	0.	0.	0.	0.
15	0.	0.	0.	0.	0.
16	0.	0.	0.	0.	0.
17	0.	0.	0.	0.	0.
18	0.	0.	0.	0.	0.
19	0.	0.	0.	0.	0.
20	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.
22	0.	0.	0.	0.	0.
23	0.	0.	0.	0.	0.
24	0.	0.	0.	0.	0.
25	0.	0.	0.	0.	0.
26	0.	0.	0.	0.	0.
27	0.	0.	0.	0.	0.
28	0.	0.	0.	0.	0.
29	0.	0.	0.	0.	0.
30	1.	1.	1.	1.	1.
31	0.	0.	0.	0.	0.
32	0.	0.	0.	0.	0.
33	0.	0.	0.	0.	0.
34	1.	1.	1.	1.	1.
35	4.	4.	4.	3.	3.
36	14.	14.	14.	14.	14.

COMPOSITE HIGHEST, SECOND-HIGHEST 24-HOUR CONCENTRATION TABLE, UG/CU.M

RANGE	SECOND HIGHEST 24-HOUR CONCENTRATION AT EACH RECEPTOR				
	1.6 KM	1.7 KM	1.8 KM	1.9 KM	2.0 KM
DIR					
1	2.	2.	2.	2.	2.
2	0.	0.	0.	0.	0.
3	0.	0.	0.	0.	0.
4	0.	0.	0.	0.	0.
5	0.	0.	0.	0.	0.
6	0.	0.	0.	0.	0.
7	0.	0.	0.	0.	0.
8	0.	0.	0.	0.	0.
9	0.	0.	0.	0.	0.
10	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.
12	0.	0.	0.	0.	0.
13	0.	0.	0.	0.	0.
14	0.	0.	0.	0.	0.
15	0.	0.	0.	0.	0.
16	0.	0.	0.	0.	0.
17	0.	0.	0.	0.	0.
18	0.	0.	0.	0.	0.
19	0.	0.	0.	0.	0.
20	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.
22	0.	0.	0.	0.	0.
23	0.	0.	0.	0.	0.
24	0.	0.	0.	0.	0.
25	0.	0.	0.	0.	0.
26	0.	0.	0.	0.	0.
27	0.	0.	0.	0.	0.
28	0.	0.	0.	0.	0.
29	0.	0.	0.	0.	0.
30	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.
32	0.	0.	0.	0.	0.
33	0.	0.	0.	0.	0.
34	0.	0.	0.	0.	0.
35	1.	1.	1.	1.	1.
36	12.	12.	12.	12.	12.

COMPOSITE HIGHEST 3-HOUR CONCENTRATION TABLE, UG/CU.M

RANGE	HIGHEST 3-HOUR CONCENTRATION AT EACH RECEPTOR				
	1.6 KM	1.7 KM	1.8 KM	1.9 KM	2.0 KM
DIR					
1	9.	9.	8.	8.	8.
2	7.	7.	7.	7.	7.
3	0.	0.	0.	0.	0.
4	0.	0.	0.	0.	0.
5	0.	0.	0.	0.	0.
6	0.	0.	0.	0.	0.
7	0.	0.	0.	0.	0.
8	0.	0.	0.	0.	0.
9	0.	0.	0.	0.	0.
10	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.
12	0.	0.	0.	0.	0.
13	0.	0.	0.	0.	0.
14	0.	0.	0.	0.	0.
15	0.	0.	0.	0.	0.
16	0.	0.	0.	0.	0.
17	0.	0.	0.	0.	0.
18	0.	0.	0.	0.	0.
19	0.	0.	0.	0.	0.
20	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.
22	0.	0.	0.	0.	0.
23	0.	0.	0.	0.	0.
24	0.	0.	0.	0.	0.
25	0.	0.	0.	0.	0.
26	0.	0.	0.	0.	0.
27	0.	0.	0.	0.	0.
28	0.	0.	0.	0.	0.
29	0.	0.	0.	0.	0.
30	7.	7.	8.	9.	9.
31	3.	3.	3.	4.	4.
32	0.	0.	0.	0.	0.
33	3.	3.	3.	3.	3.
34	6.	6.	6.	6.	6.
35	11.	11.	11.	11.	11.
36	24.	24.	24.	24.	24.



COMPOSITE HIGHEST, SECCND-HIGHEST 3-HOUR CONCENTRATION TABLE,UG/CU.M

RANGE DIR	SECOND HIGHEST		3-HOUR CONCENTRATION AT EACH RECEPTOR		
	1.6 KM	1.7 KM	1.8 KM	1.9 KM	2.0 KM
1	7.	7.	8.	8.	8.
2	3.	3.	3.	3.	3.
3	0.	0.	0.	0.	0.
4	0.	0.	0.	0.	0.
5	0.	0.	0.	0.	0.
6	0.	0.	0.	0.	0.
7	0.	0.	0.	0.	0.
8	0.	0.	0.	0.	0.
9	0.	0.	0.	0.	0.
10	0.	0.	0.	0.	0.
11	0.	0.	0.	0.	0.
12	0.	0.	0.	0.	0.
13	0.	0.	0.	0.	0.
14	0.	0.	0.	0.	0.
15	0.	0.	0.	0.	0.
16	0.	0.	0.	0.	0.
17	0.	0.	0.	0.	0.
18	0.	0.	0.	0.	0.
19	0.	0.	0.	0.	0.
20	0.	0.	0.	0.	0.
21	0.	0.	0.	0.	0.
22	0.	0.	0.	0.	0.
23	0.	0.	0.	0.	0.
24	0.	0.	0.	0.	0.
25	0.	0.	0.	0.	0.
26	0.	0.	0.	0.	0.
27	0.	0.	0.	0.	0.
28	0.	0.	0.	0.	0.
29	0.	0.	0.	0.	0.
30	0.	0.	0.	0.	0.
31	0.	0.	0.	0.	0.
32	0.	0.	0.	0.	0.
33	0.	0.	0.	0.	0.
34	0.	0.	0.	0.	0.
35	11.	11.	11.	10.	10.
36	20.	20.	20.	20.	20.

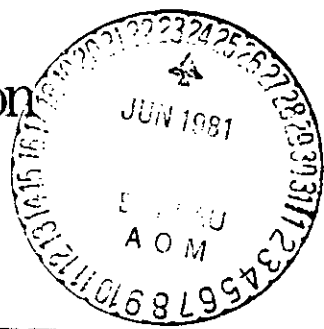
*Smallwood plant  
handle*

First in cellulose



# The Buckeye Cellulose Corporation

Mailing Address: Route 3 Box 260 Perry, Florida 32347 Phone: (904) 584-0121



April 27, 1981

# RECEIVED

MAY 6 1981

Office of the Secretary

Ms. Vicki Tschinkel, Secretary  
Florida Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32301

Dear Ms. Tschinkel:

Re: Petition for Experimental Testing and Research Program

This petition by The Buckeye Cellulose Corporation is to request authorization to conduct an experimental testing and research program at our Plant in Perry, Florida, as provided for in Ch. 17-1.585 FAC.

PURPOSE OF THE PROGRAM: The purpose of the proposed experimental testing program is to evaluate the feasibility of recovering and recycling dried wood fines as a replacement for residual oil in existing power boilers.

DESCRIPTION OF THE PROCESS: Two wood suspension burners designed to yield approximately 90,000 #/hr. of steaming capacity will be placed in the No. 2 Power Boiler. These burners will operate separately but in parallel with the two remaining residual oil burners on this unit. The dried wood fines will be supplied from the bark dryer currently permitted by AC 62-30466. These fines will be pulverized and metered to the new burners. An existing venturi scrubber will be utilized to provide partial removal of particulate emissions during the experimental testing.

Environmental factors to be evaluated include particle size to the venturi scrubber, scrubber pressure drop requirements, and emissions to the atmosphere of particulates, nitrogen oxide, carbon monoxide, and volatile organic compounds. Burner performance, fuel preparation and handling are additional factors to be evaluated during this development work. If successful, the installation will serve as a prototype to develop the techniques useful for and leading to possible industry-wide use of wood suspension burners as replacement for residual oil burners. The obvious economic and environmental benefits from the replacement of residual oil with a renewable natural resource justify the program.

LEGAL REQUIREMENTS: It is anticipated that, during the experimental testing, particulate emissions may exceed the limitations imposed by Ch. 17-2.05 FAC. Additionally, there may be opacity excursions as various parameters are investigated. Sulfur Dioxide emissions will be reduced to the degree that residual oil is replaced by wood fines.

*2/1  
6/22*

Ms. Vicki Tschinkel  
April 27, 1981  
Page Two

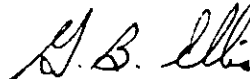
It is not expected that the experimental testing program will result in any violations of the Florida Ambient Air Quality Standard for total suspended particulate.

PROGRAM DURATION: This program is expected to commence operation on or about January 1, 1982, and to be completed within a two-year period.

If you have any questions or require additional information to process this petition please contact Mr. John Millican at (904) 584-0347. Your early approval is requested and will be appreciated.

Very truly yours,

THE BUCKEYE CELLULOSE CORPORATION



G. B. Ellis  
Plant Manager

eph

cc: Mr. Doug Dutton  
Florida Department of Environmental Regulation  
3426 Bills Road  
Jacksonville, FL 32207

First in cellulose



# The Buckeye Cellulose Corporation

Mailing Address: Route 3 Box 260 Perry, Florida 32347 Phone: (904) 584-0121

June 26, 1981

Mr. Michael D. Harley  
Florida Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32301

Re: Fines Burning PSD Temporary Source Permit

Dear Mr. Harley:

As we agreed in the meeting in Mr. Smallwood's office on June 16, 1981, the information you requested has been compiled and is enclosed. In the interest of clarity, the questions have been stated followed by the most complete available response. Where the information is not available, it is to be developed as a part of the research project and will be reported as it becomes available.

It is our understanding that this completes the information required to proceed with a PSD permit as a temporary source for the project described in the petition initially filed with Secretary Tschinkel on April 27, 1981. However, if you have additional questions please call me at (904) 584-0347.

Your personal efforts and the enthusiastic support from Mr. Smallwood and all Staff members of the Bureau of Air Quality are greatly appreciated.

Very truly yours,

THE BUCKEYE CELLULOSE CORPORATION

*J. H. Millican*  
J. H. Millican  
Environmental Manager

JHM/eph

Enclosure

cc: Mr. Doug Dutton  
Florida Department of Environmental Regulation  
3426 Bills Road  
Jacksonville, FL 32207

BUCKEYE CELLULOSE CORPORATION

Fines Burning PSD Permit Information

Requested by Mr. Mike Harley

6/26/81

1. Name and address of person or entity requesting authorization contained on the letter?

The Buckeye Cellulose Corporation  
Rt. 3, Box 260  
Perry, FL 32347  
ATTENTION: Mr. John Millican  
Environmental Manager

2. A description of the substance of the proposed testing, demonstration, or re-search program. The description of the process and testing program are well written; but, require more detail and specificity. The provided information should be expanded to include the following:

A. A complete description of the boiler to be used.

1. Manufacturer: Babcock & Wilcox Co.
  2. Date of construction: 1953
  3. Maximum, minimum, and average capacity (MMBTU/hour): 244, 63, & 152  
MMBTU/hour
  4. Maximum, minimum, and average efficiency (MMBTU/hour to steam): 82,  
79, 82% (Heat input vs. steam output when firing gas.)
  5. Percent of time in operation (currently): Approximately 60%
  6. Number of burners: 4
  7. Firing arrangement: Front
  8. Installed control equipment: Normal fallout hoppers for < 250 MMBTU  
oil/gas fired boilers plus BACT of 2.5% sulfur oil.
  9. Maximum allowable emissions of particulate matter, SO<sub>2</sub>, and opacity.  
Particulate matter and SO<sub>2</sub> emissions should be provided in lbs./hr.  
and tons/year: < 250 MMBTU/hr. boiler - BACT - Ch. 17-2.03(1) -  
Particulate & SO<sub>2</sub> Visible Emissions - 20%
  10. Maximum, minimum, and average tested emissions of particulate matter,  
SO<sub>2</sub>, and visible emissions. Particulate matter and SO<sub>2</sub> should be given  
in lbs./hr. and tons/year: Not available - < 250 MMBTU boiler  
Boiler discharges into a common stack with two bark boilers and  
an oil boiler. Visible emissions of common stack tested by  
Method 9. Results range from 10-40% with average 20-30%.  
Particulate and SO<sub>2</sub> tests not required.
  11. Emission monitoring equipment installed on the facility: None required,  
none installed.
  12. Test Method used for particulate matter, SO<sub>2</sub>, and visible emissions:  
Particulate & SO<sub>2</sub> - None Visible Emissions - Method 9
- B. Existing stack parameters for the boiler: Common stack for 4 sources.
1. Stack height: 68.58 meters
  2. Stack diameter: 3.96 meters

- 3. Stack temperature: 377°K (calculated with all 4 units on-line)
- 4. Stack velocity: 16.9 meters/second
- 5. Stack volume: Actual - 12484.7 M<sup>3</sup>/second  
                   Std. Dry - 7530.0 M<sup>3</sup>/second
- 6. Stack coordinates: UTM: East 256,740      North 3,328,700

} error  
 Actual 208.14 m<sup>3</sup>/s

C. Proposed control equipment to be installed.

- 1. Make, model, and type: See drawing and specifications for Peabody scrubber.
- 2. Detailed design showing external and internal dimensions: See drawing and specifications for Peabody scrubber.
- 3. Percentage gas flow to the device: 50% with wood burners only operating. 25% with all burners operating.
- 4. Temperatures and velocities at both the inlet and exit to the device:  
     Temperature to scrubber - 200-220° F; exit temperature - 145-155° F
- 5. Range of operating parameters for the device.
  - a. Pressure drop: 9 to 15 inches water column
  - b. Liquid-to-gas ratio: 7 gpm/1000 cfm
  - c. Liquid density: 0.97
  - d. Particulate density: Not known. To be determined during the test.
  - e. Liquid density: See (c.)
  - f. Gas velocity in throat: 100 ft./sec.
  - g. Gas viscosity: .029 centipoise
  - h. Mass mean particle diameter (microns):  
     Not known but estimated as follows:

Microns	Percent by Wgt.
0 - 0.6	20
0.5 - 1.0	10
1.0 - 5.0	26
5.0 and above	44

- i. Geometric standard deviation of particle diameter: None

6. Range of flue gas exit parameters.

- a. Stack height: 52 meters
- b. Stack diameter: 1.07 meters
- c. Stack temperature: 341°K (155° F)
- d. Stack velocity: 12.1 meters/second
- e. Stack volume: 10.9 M<sup>3</sup>/second

7. Estimated percentage of particulate load to each stack: No real way to estimate. We would hope, however, to catch 50% or more of the particulate for the scrubber system.

8. History of specific control device efficiency: See Attachment I. Efficiency will depend on actual conditions during the test and will be determined at that time.

D. Burner designs.

- 1. Detailed plans showing current and proposed burner design:  
     See Attachments II thru X

## 2. Heat input capacity for each existing burner:

- a. Oil: 62.5 MMBTU/hour each burner
- b. Gas: 62.5 MMBTU/hour each burner
- c. Combination: Not permitted

## 3. Heat input capacity for each proposed burner:

- a. Oil: 65 MMBTU/hour each burner maximum, or;
- b. Gas: 65 MMBTU/hour each burner maximum, or;
- c. Wood: 65 MMBTU/hour each burner maximum.
- d. Combination: Not yet determined. Safety studies are required to approve/disapprove this technique.

## 4. Heat input capability of proposed test configuration. Ratio of maximum, minimum, and average heat inputs for existing burners versus Coen burners.

Burners are intended for parallel operation. Thus, we may use any combination of burners from a minimum input of 60 MMBTU/hour up to a maximum input of 250 MMBTU/hour.

E. Estimated maximum emissions of particulate,  $SO_2$ ,  $C_xH_y$ ,  $NO_x$ , and CO. Detailed calculations should be shown to substantiate these levels.<sup>x</sup>

To be determined by the study.

F. Air quality modeling using the EPA CRSTER model to show impacts of project on levels of particulate,  $SO_2$ , and CO: To be determined by the study.  
Not required for PSD permit because of temporary emissions exclusion.

## G. A detailed plan of study including specific estimates of:

- 1. Scheduling of construction, operation, and testing: Present schedule calls for foundations to be poured in November. Steelwork and platforming to follow in December, and equipment start-up in January, 1982. All of this is predicated upon ordering longest delivery equipment on July 1, 1981. Delay in ordering moves the schedule day for day.
- 2. Combinations and types of fuels to be tested giving ultimate analyses and BTU values. Quantities of fuels should be included: Testing will begin immediately after start-up and is expected to take 6 months in the initial phases. Longer range testing could take up to 2 years.

Fuel combinations will vary from 0 to 50% in wood with the remainder in fossil fuel. Testing will be run with these varied throughout the range. Fuels will not be combined in individual burners under present plan.

Ultimate analysis is that typical of southern pine species as follows:

C - 52.15  
 H - 5.75  
 $O_2$  - 38.00  
 Ash - 3.90  
 HHV = 8945 BTU/#  
 $N_2$  - 0.16  
 S - 0.04

3. Information and data to be collected: The data to be collected will be that necessary to deliver the following information:
- Load variation vs. moisture content and particle size
  - Excess air requirements
  - Need for support fuels
  - Combustion control and light-off
  - Combustion safety
  - Flame Shaping
  - Explosion and fire risk vs. moisture content
    - " " " " " particle size
    - " " " " " conveying air quantities
  - Ash quantity generated vs. moisture content
    - " " " " " particle size
  - Fallout distribution: Furnace vs. Hopper vs. Uptake
  - Scrubber differential
4. Data to be provided to the Department and a schedule for providing this information: All environmental data collected will be provided to the Department as it is developed. These include particulate,  $SO_2$ ,  $C_xH_y$ ,  $NO_x$ , and CO.
3. A list of all rules, permits, or certification conditions, and other requirements of the law that might be temporarily violated as a result of the testing, demonstration, or research program.
- A. Rule: Ch. 17-2.05(6)(I)(2)(b) - particulate & opacity
- B. Permits: Permit No. AO62-10946, Condition No. 2 - Plume Density
- C. Certifications: None applicable.
4. The proposed duration of the program: This has been addressed in the 4/27/81 letter sent by Mr. Millican.
5. The purpose of the program: The purpose of the testing program is to:
- (1) Evaluate the feasibility of recovering and recycling dried wood fines as a replacement for residual oil in existing power boilers.
  - (2) Develop the information necessary to design a full-scale installation complete with acceptable environmental controls.
- The economic and energy potentials can be estimated on the basis of existing permitted capacity assuming complete replacement of residual oil with wood fines. This would represent the maximum possible economic and energy impact.
- On this basis one barrel of oil is roughly equivalent to one ton of wood. At 6.3 MMBTU/barrel and a 250 MMBTU/hour operating rate, this equals 39.7 barrels/hour. At 24 hours/day and 350 days/year, this would be 332,640 barrels/year. With the current cost differential between wood and oil of \$6 per equivalent barrel of oil, this equals approximately 2 million dollars per year for this boiler.



## ATTACHMENT I

EQUIPMENT NUMBER

22-0450

PLANT	PROJ. NO.	PROJECT	UNIT APPROVAL			DATE	NO. REQ'D	SUPPLIER
			SPECIALISTS	CONTR.	P.E.			
Foley		No. 1 Bark Boiler				3/15/76	One	Peabody
		Scrubber						Equipment

ITEM: VENTURI SCRUBBERDATE: March 15, 1976

DRAWINGS: \_\_\_\_\_

SPECIFICATION:GENERAL

This specification is for the purchase of a venturi scrubber, flooded elbow, and separator. The scrubber will be installed on a bark-burning boiler in the Buckeye Cellulose Mill at Perry, Florida. The boiler burns bark from southern pine trees 95-100% of the time (24 hours/day, 350 days/year). No. 6 fuel oil is burned in combination with the bark 5-10% of the time. The scrubber will scrub particulate matter from the boiler flue gas stream. The scrubber will treat only a portion of the total flue gas volume.

The equipment shall conform to the description on Sketch EH-76-14-100, which is attached to Peabody Engineering proposal H-76-14. The configuration shall be left hand entry instead of right hand entry as shown in the sketch.

DESCRIPTION OF EQUIPMENT

Venturi and Flooded Elbow - The venturi shall be constructed per Sketch EH-76-14-100. The venturi throat shall be designed to pass design flow at 7" wc with the adjustable cone in the fully open position. The venturi wall shall be completely wetted. The adjustable cone in the venturi throat shall be adjustable from outside the equipment. The venturi/flooded elbow unit shall be flanged on the inlet and outlet. The elbow shall be flooded with liquid to prevent abrasion of the metal wall as the gas makes the 90° turn.

Separator - The separator shall be constructed per Sketch EH-76-14-100. The separator shall be flanged on the inlet, outlet, and liquid discharge. The manway shall be 18"x18". The configuration shall be left hand entry instead of right hand entry as shown in Sketch EH-76-14-100. The separator shall be supplied with supporting legs.

EFFICIENCY GUARANTEE

The scrubber shall be guaranteed to meet efficiencies as follows:

<u>Particle Size</u>		<u>Efficiency</u>		
<u>Range</u>	<u>Average Size</u>	<u>Pressure Drop</u>		
<u>Microns</u>	<u>Microns</u>	<u>5" wc</u>	<u>10" wc</u>	<u>15" wc</u>
0-1/2	0.25	45%	70%	80%
1/2-1	0.75	70	80	85
1-5	3	97	98.5	99.65
5-10	7.5	99.5	99.7	99.80
>10	12	99.6	99.8	99.85

MATERIALS OF CONSTRUCTION

The venturi, flooded elbow, and separator shall be constructed of 3/16" thick 316L stainless steel. The mist eliminator in the separator shall be 316L of Peabody's standard thickness.

STRUCTURAL DESIGN

The equipment shall be designed to withstand a vacuum of -22" wc and a positive pressure equal to the pressure exerted when the system is filled with water.

INLET CONDITIONS

Volume 30,000 acfm  
 Temperature 450°F  
 Moisture content 15% by volume  
 Dust load 50 lb/hr (0.39 gr/sdcf) to 90 lb/hr (0.70 gr/sdcf)  
 Specific gravity of dust 1.54  
 Particle size distribution:

<u>Diameter Microns</u>	<u>Percent by Weight</u>
0-1/2	6.5
1/2-1	5.4
1-5	35.3
5-10	21.0
>10	31.8

Fresh water at 80°F is available for scrubbing.

OUTLET CONDITIONS

Volume 23,000 acfm  
 Temperature 148°F  
 Moisture content 0.2 lb H<sub>2</sub>O/lb dry gas

OPERATING CONDITIONS

Scrubbing liquid	220 gpm @ 20 psig
Evaporative loss	14 gpm
Blowdown	6 gpm
Makeup water	20 gpm
Solids concentration	3%

INSPECTION

The purchaser reserves the right to inspect the scrubber in the vendor's shop at any time during its construction.

WELDING

Welders and weld procedures must be qualified per Section 9 of the ASME Code.

Welding procedures shall be sent to the purchaser for review.

*Lamar Soper*  
Lamar Soper

LS/bb



ATTACHED 6-7 11

**COEN**



**COMPANY Inc.**

**BILL OF MATERIALS**

**BURLINGAME, CALIFORNIA**

**CUSTOMER:** BUCKEYE CELLULOSE CORPORATION  
**USER:** BUCKEYE CELLULOSE CORPORATION  
**NO. OF INST. BOOKS FOR CUSTOMER:**

**P.O. NO:** 60730  
**LOCATION:** FOLEY, FLORIDA

**JOB DRAWINGS:**

**ARRANGEMENT:** D-0900-227  
**FURNACE THROAT:** D-0326-097  
**APPLICATION WIRING:** C-0679-365  
**OIL BURNER ASSEMBLY:** D-1000-164  
**BASE BURNER ARRANGEMENT:** C-0900-221

**BURNER VISE:** A-0700-049  
**REGISTER HANGER:** 8-2012-031

**JOB SPECIFICATIONS:**

TWO LOOSE CCD-26 REGISTER BURNER ASSEMBLIES FIRING GAS, OIL, & WOODFINES. TEST INSTALLATION REPLACING TWO OF FOUR EXISTING B & W REGISTER-BURNERS. EACH REGISTER BURNER DESIGNED TO INPUT 62 MILLION BTU/HR.

**BOILER DATA:** MANUFACTURER: BABCOCK & WILCOX; TYPE: FIELD-ERECTED; CAPACITY: 200,000 F  
JOBSITE: SEA LEVEL, INDOOR INSTALLATION; OPERATING PRESSURE & FEEDWATER CONDITIONS NOT KNOWN.

**ELECTRIC POWER:** 115 V.A.C.

**CONTROLS:** BY OTHERS.

**COMBUSTION AIR:** PRESSURE AT WINDBOX 5.2" W.C. AT CAPACITY; TEMPERATURE 350° F.

**OIL FUEL:** #6 OIL SUPPLIED AT 90 PSIG TO BURNERS AT CAPACITY; ATOMIZING STEAM SUPPLIED AT 120 PSIG TO BURNERS AT CAPACITY.

**GAS FUEL:** NATURAL GAS SUPPLIED AT 15.5 PSIG TO BURNERS AT CAPACITY; PILOT GAS SUPPLIED AT 1 PSIG & 300 SCFM FROM AN UNINTERRUPTIBLE SOURCE.

**WOOD FUEL:** SUPPLIED AT 8000 LB/HR. THE WOOD FINES SHOULD BE DRY TO LESS THAN 10% MOISTURE BY WEIGHT (WET BASIS). MAXIMUM PARTICLE SIZE SHOULD BE 1/32" OR LESS IN ANY DIRECTION. TO ASSURE OPTIMUM COMBUSTION, 40% OR MORE OF THE WOOD FUEL MUST BE "FLOUR-LIKE" OR LESS THAN 35 U.S. STANDARD MESH. THE WOOD ASH FUSION TEMPERATURE SHALL NOT BE BELOW 1,800° F. CONVEYING AIR FLOW IS 2000 SCFM SUPPLIED AT 6" W.C.(AT EACH SCROLL INLET).

**BASE BURNER SUSTAINING FUEL:** NATURAL GAS SUPPLIED AT 1 PSIG & 500 SCFM.

**PURGE AIR:** TO GUIDE PIPES, 1-1/2" SIZE CONNECTION FROM F.D. DUCT UPSTREAM OF AIR HEATER; TO SCANNERS, 1 PSIG & 10 SCFM CLEAN, DRY AIR TO EACH SCANNER. TO BASE BURNER GUIDE PIPE, 1 PSIG TO 1/2" NPT CONNECTION.

**BASE BURNER WOOD FUEL:** SUPPLIED AT 775 LB/HR. CONVEYING AIR FLOW IS 233 SCFM SUPPLIED AT 9" W.C. (AT EACH BURNER).

**ENGINEER:** CHARLES A. WHITE

**BILL OF MATERIALS:** TWO CCD-26 REGISTER-BURNERS (SEE ABOVE)

**COEN FILE NO:** 10D-8381-1

**PAGE** 1 OF 10

**NO. OF UNITS:** SEE ABOVE

**REV:**

ITEM	QTY	COEN NO.	DESCRIPTION
"F" CONTROLS (NOTE: QUANTITIES INDICATED ARE TOTALS FOR JOB) - LOW RIGHT REGISTER			
F30R	1	:: 2315-062-01	POWER UNIT, REGISTER LOUVER DRIVE, AC04041200N. 3-15 PSI BAILEY
F31R	1	:: D-2500-101-01(T)	POWER UNIT MOUNTING ASSY., RIGHT HAND SIDE
F32R	1	:: B-2501-324-01(T)	DRIVE ROD ASSY., 24" C.C.
F35R	1	D-2400-009-03	SWITCH ASSEMBLY, NEMA 4, THREE SWITCHES: "PROOF OF PURGE", "PROOF OF LOW-FIRE", & SPARE
F38R	1	:: D-2500-100-02	REGISTER LOUVER DRIVE ASSEMBLY, ABOVE CENTERLINE R.H.

ITEM	QTY	COEN NO.	DESCRIPTION
"F" CONTROLS (NOTE: QUANTITIES INDICATED ARE TOTALS FOR JOB) - LOWER LEFT REGISTER			
F30L	1	:: 2315-062-01	POWER UNIT, REGISTER LOUVER DRIVE, AC04041200N, 3-15 PSI BAILEY
F31L	1	:: D-2500-101-01(T)	POWER UNIT MOUNTING ASSEMBLY., LEFT HAND SIDE
F32L	1	:: B-2501-324-01(T)	DRIVE ROD ASSY., 24" C.C.
F35L	1	D-2400-009-03	SWITCH ASSEMBLY, NEMA 4, THREE SWITCHES: "PROOF OF PURGE", "PROOF OF LOW-FIRE" & SPARE
F38L	1	:: D-2500-400-01	REGISTER LOUVER DRIVE ASSEMBLY, ABOVE CENTERLINE L.H.

ITEM	QTY	COEN NO.	DESCRIPTION	
"L" ELECTRICAL EQUIPMENT (NOTE: QUANTITIES INDICATED ARE TOTALS FOR JOB)				
L1	2	PO10140-01	ENCLOSURE, NEMA 4, TO HOUSE L3, L4, L5, L6 & L7, MODEL A24H20BLP, ENCLOSURE TO MOUNT ON ITEM F38	HOFFMAN
L2	2	PO10140-02	ELECTRICAL ENCLOSURE MOUNTING INSERT, MODEL A-24P20	HOFFMAN
L3	2	3530-006-01(T)	TRANSFORMER, IGNITION, 120/6000V, P/N 612-6A7 (NOTE: MOUNT IN L1)	WEBSTER
L4	4	3550-304-01(T)	TERMINAL BLOCK, 671-20 (20 POLE) (NOTE: TWO TO MOUNT IN EACH L1 ENCLOSURE)	KUKLA
L5	2	2401-400-01(T)	CONTROLLER CHASSIS, WITH COVER, P/N 70D40	ECA
L6	2	2401-400-06(T)	AMPLIFIER, PB4, P/N 72DIR1	ECA
L7	2	2401-400-02(T)	FRAME, OPEN MOUNTING FOR ITEM L5 & L6 P/N 60-1466-2	ECA
			(NOTE: ONE EACH OF ITEMS L5, L6 & L7 MOUNT IN EACH L1 ENCLOSURE)	
			(NOTE: REGISTER DEPTH = 69")	
L8	2	2401-0311-02(T)	SCANNER, FLAME, 48PT2, MODEL 9003, INCLUDES: 1/8" DIA. ORIFICE	ECA
			(NOTE: ONE MOUNTS ON EACH REGISTER DOOR)	

\*\* SHIP LOOSE

DATE

BY

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REV

COEN COMPANY, INC.  
COMBUSTION ENGINEERS  
BURLINGAME CALIF

4-7-81

SR

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ITEM	QTY	COEN NO.	DESCRIPTION
"M" REGISTER ASSEMBLY (NOTE: QUANTITIES INDICATED ARE TOTALS FOR JOB)			
M1R	1	D-2000-419-02(T)	REGISTER ASSEMBLY, CCD-26 WITH SOLID FUEL "SCROLL" INJECTION ELEMENT, GAS RING BURNER ELEMENT AND "B" BLADES, OVERALL DEPTH = 69" REGISTER EXTENSION = 45-3/8" (STD. LENGTH = 23-5/8") LOUVER DRIVE LOCATION: CORE - #25; ANNULUS - #15 INSULATION: 4"  GAS RING INLET CONNECTION AT 3:00 O'CLOCK  SOLID FUEL SCROLL INLET CONNECTION AT 3:00 O'CLOCK
M1L	1	D-2000-419-02(T)	REGISTER ASSEMBLY, CCD-26 WITH SOLID FUEL "SCROLL" INJECTION ELEMENT, GAS RING BURNER ELEMENT AND "B" BLADES, OVERALL DEPTH = 69" REGISTER EXTENSION = 45-3/8" (STD. LENGTH = 23-5/8") LOUVER DRIVE LOCATION: CORE - #25; ANNULUS - #15 INSULATION: 4"  GAS RING INLET CONNECTION AT 9:00 O'CLOCK  SOLID FUEL SCROLL INLET CONNECTION AT 9:00 O'CLOCK
M1A	2	B-2011-014-01(T)	LEVER ASSY., ADDED AT ANNULUS CONTROL (NOTE: ONE PER REGISTER ASSEMBLY - M1)
M2	2	C-2011-229-01	REGISTER MODIFICATION TO CORE BLADE ASSEMBLY, ADAPT TO EXISTING WINDBOX CUTOUT AND MOUNTING BOLT PATTERN. DESIGN CRITERIA: EXISTING WINDBOX CUTOUT I.D. = 41-1/4" EXISTING REGISTER FRONT PLATE BOLTING PATTERN = (36) 1/2" BOLT; EQUALLY SPACED ON CENTERLINES - 43" B.C. (NOTE: ONE PER REGISTER ASSEMBLY - M1)
M3	2	D-2023-025-40	REGISTER DOOR, SIZE 3, SINGLE HUB, NON-SWING, 4" BORE TO ACCEPT SOLID FUEL BASE BURNER AND 2 MV ATOMIZER PILOT AT 9:00 O'CLOCK SCANNER AT 11:00 O'CLOCK 4" INSULATION
M3A	2	C-1517-034-01	HUB ADAPTER FOR 2 MV (NOTE: ONE PER REGISTER ASSEMBLY - M1)
M4	2	D-2000-078-07	SCANNER MOUNT ASSY. AT 11:00 O'CLOCK, 1/2" NPT, SIZE WITH PURGE - COOL COMBUSTION AIR FROM UPSTREAM OF AIR PREHEATER TO BE SUPPLIED  (NOTE: ONE PER REGISTER DOOR ASSEMBLY)

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BURLINGAME, CALIF.

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ITEM	QTY	COEN NO.	DESCRIPTION
"M" REGISTER ASSEMBLY (QUANTITIES INDICATED ARE TOTALS FOR JOB) ....CONTINUED			
M5	2	C-2011-178-03	REGISTER THROAT ASSY., 26" I.D., 304 STAINLESS STEEL, GAS/OIL/WOOD FIRING (NOTE: ONE PER REGISTER)
M6	2	C-2401-156-02	SCANNER PURGE ASSEMBLY (NOTE: ONE PER REGISTER)
M10R	1	D-1610-206-01	SOLID FUEL SCROLL BURNER, HOGGED WOOD FINES, ABRASION- RESISTANT STEEL AND STAINLESS STEEL CONSTRUCTION, TOP RIGHT (3:00 O'CLOCK) INLET CONNECTION
M10L	1	D-1610-206-01	SOLID FUEL SCROLL BURNER, HOGGED WOOD FINES, ABRASION- RESISTANT STEEL AND STAINLESS STEEL CONSTRUCTION, BOTTOM LEFT (9:00 O'CLOCK) INLET CONNECTION
M11	2	C-2011-240-01	SCROLL SUPPORT (NOTE: ONE PER REGISTER)
M12	2	B-3810-070-01	NAMEPLATE, STAMP COEN FILE NO. "10D-8381-1"
M13	2	** B-2012-031-01	SUPPORT HANGER, REGISTER (NOTE: ONE PER REGISTER ASSEMBLY - M1)

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ITEM	QTY	COEN NO.	DESCRIPTION
- "P" OIL BURNER (QUANTITIES SHOWN ARE TOTAL FOR JOB)			
P1	3	D-1022-044-20	BURNER GUN ASSY., #2MV, SINGLE GUN ARRANGEMENT 81" NOMINAL LENGTH (ONE SPARE**)
P2	3	C-1001-740-02	MIXER & WHIRLPLATE ASSY, 30 HOLE #6 MIXER
P3	3	C-1022-059-01	NOZZLE BODY, TYPE INTERMEDIATE
P4	3	B-1022-005-01	NOZZLE CAP
P5	3	C-1022-016-07	NOZZLE CAP DRILLING - 10 HOLE -3/16" DIA. - 80°
P6	3	A-1001-216-01	RESTRICTOR, OIL DRILLED 0.26" DIA., STEEL
	3	A-5040-009-01	SPRING, RESTRICTOR
P8	2	D-1001-508-01	SOCKET ASSEMBLY, R.H.
P10	2	C-1001-186-81	GUIDE PIPE, 81" NOMINAL LENGTH, W/6" S.S. END
	2	C-1001-550-05	ADDITION, R.H. PURGING CONNECTION
P11	2	F-2212-312-01	BURNER SHIELD, CW, 12" DIA. STAINLESS STEEL
P12	2	D-1000-082-06	SOCKET PIPING ASSY, OIL
P13	2	D-1000-083-07	SOCKET PIPING ASSY, STEAM
P17	2	4110-006-06	HOSE, OIL, BRZ., 1-1/4" DIA., 42" LONG
P18	2	4110-006-06	HOSE, STEAM, BRZ., 1-1/4" DIA., 42" LONG
P19	1	** A-5480-527-02	WISE & WRENCH KIT
P23	2	** C-1001-631-81	PLUG, GUIDE PIPE
P24	2	C-4130-009-01	HOSE ASSY., GUIDE PIPE PURGE
P28	2	D-1001-487-02	BURNER POSITION SWITCH ASSY., RIGHT HAND

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ITEM	QTY	COEN NO.	DESCRIPTION			
"Q" PILOT BURNER (NOTE: QUANTITIES LISTED ARE TOTALS FOR JOB)						
Q1	2	D1500-080-66	PILOT ASSY, "FYR'LYTER", STAINLESS STEEL HEAD, 66" LONG			
			(NOTE: ONE PER BURNER)			
Q2	2	4110-053-01	HOSE, BRONZE FLEX, 3/8" NPT, MALE B.E., 16" LONG			
			(NOTE: ONE PER PILOT ASSY.)			
"R" GAS BURNER (NOTE: QUANTITIES LISTED ARE TOTALS FOR JOB)						
R1	2	D-2024-114-15	GAS RING ASSY., 26" I.D., 2-1/2" DIA., STAINLESS STEEL PIPE, 4" NPT CONNECTION			
			(NOTE: ONE PER BURNER)			
R2	2	A-2024-083	GAS RING DRILLING, 104 HOLES, #20 (.161") HOLE DIA.			
			(NOTE: ONE PER BURNER)			
R5	2	:: C-2161-426-01	WINDBOX GAS PIPING & SEAL PLATES			
			(NOTE: ONE ASSY. PER BURNER)			
R7	2	C-2024-202-10	RETENTION BAND - GAS RING, ADDITION FOR SOLID FUEL FIRING APPLICATIONS			
			(NOTE: ONE PER BURNER)			
"W" WOOD FIRING EQUIPMENT (NOTE: QUANTITIES LISTED ARE TOTALS FOR JOB)						
W2	2	:: D-1620-175-01	SCROLL BURNER INLET SECTION, ABRASION-RESISTANT STEEL CONSTRUCTION W/WINDBOX SEAL PLATE			
W3	2	:: D-1620-174-01	SCROLL BURNER INLET TRANSITION, ABRASION-RESISTANT STEEL CONSTRUCTION			
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ITEM	QTY	COEN NO.	DESCRIPTION
"X" SOLID FUEL BASE-BURNER EQUIPMENT, GAS-SUSTAINED (NOTE: QUANTITIES LISTED ARE TOTALS FOR JOB)			
X1	2	D-1517-031-01	BASE-BURNER ASSEMBLY, 12" NOMINAL DIA., NOMINAL LENGTH = A = 70-1/8" (INCL: X2A & B, X3, X4, X9)
X2A	2	C-1517-032-XX	CONVEYING TUBE, OAL = A = 70-1/8" (NOTE: ONE PER BASE-BURNER)
X2B	2	C-1517-033-01	INLET CONVEYING TUBE (NOTE: ONE PER BASE-BURNER)
X3	2	B-1518-007-XX	GUIDE PIPE FOR SUSTAINING BURNER OAL = L = 92-3/8" (NOTE: ONE PER BASE-BURNER)
X4	2		SLEEVE, GUIDE PIPE, SEAMLESS NEOPRENE, 1/8" THICK 2-1/4" I.D. X 1-15/16" I.D. X 3" LONG WITH TWO WORM-DRIVE HOSE CLAMPS (NOTE: ONE SLEEVE PER BASE-BURNER)
X5	2	D-1518-011-01	SUSTAINING BURNER ASSEMBLY, GAS, NOMINAL LENGTH = L = 92-3/8" (INCL: X6A & B, X7, X8) (NOTE: ONE PER BASE-BURNER)
X6A	2	B-1021-006-02	CAP, SUSTAINING GAS NOZZLE, S.S. (NOTE: ONE PER BASE-BURNER)
X6B	2	SKD7910-Q/B-00	CAP DRILLING, 6 HOLES 3/32" DIA. ON 1.06" P.C., 120° TIA
X7	2	B-1518-008-XX	GAS TUBE ASSEMBLY, OAL = L = 92-3/8" (NOTE: ONE PER BASE-BURNER)
X8	2	4110-053-01	HOSE, GAS, BRZ., FLEX, 3/8" NPT, M.B.E., 16" LONG (NOTE: ONE PER BASE-BURNER)
X9	2		HOSE, WOOD CONVEYING, 3" I.D. X 6 FT. LONG #300 GEN-LINE WITH ONE END 3-1/2" I.D. & ONE END WITH 3" O.D. STEM & 3" - 125# FLANGE, WITH HOSE CLAMPS EACH END (NOTE: ONE PER BASE-BURNER)

** SHIP LOOSE	DATE	BY	CK	APP	REV
COEN COMPANY, INC. COMBUSTION ENGINEERS BURLINGAME CALIF	4-7-81	SR			BMJ40D-8381-1 PG 10 OF 10



First in cellulose



# The Buckeye Cellulose Corporation

Mailing Address: Route 3 Box 260 Perry, Florida 32347 Phone: (904) 584-0121

July 6, 1981

Mr. Mike Harley  
Florida Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32301

Re: Fines Burning PSD Temporary Source Permit

Dear Mr. Harley:

The additional information you requested for Item 3-E in my letter dated June 26, 1981, is enclosed. Please note that the estimated levels for particulate represent worst case conditions and that we anticipate maximum actual emissions which will be appreciably lower.

Qualifying conditions are as follows:

- A. All calculations assume maximum wood burning in 2 burners 100% of the time or 130 MMBTU/hour.
- B. Particulate calculations assume no particulate fallout in the furnace or in the dust hoppers. Also, the particulate to the scrubber will be proportional to the air flow.
- C. Shave-off scrubber efficiency is assumed to be 90%.

Calculations for particulate emissions are as follows:

Particulate - Source Buckeye Test:

$$\begin{aligned} 3.90\% \text{ Ash} \times \frac{130 \text{ MMBTU/hour}}{8,945 \text{ BTU/\#}} &= 560 \text{ \#/hour ash} \\ 50\% \text{ to No. 1 Stack} &= 280 \text{ \#/hour} \\ 50\% \text{ to Scrubber} \times (1 - .90 \text{ eff.}) &= \underline{28 \text{ \#/hour}} \\ \text{TOTAL} &= 308 \text{ \#/hour} \end{aligned}$$

Gaseous emissions are estimated based on average emission data from NCASI testing of wood-fired boilers. The calculations assume that emissions from wood fired in suspension will be the same as wood fired on a grate. One objective of the study is to determine the actual levels of these gaseous emissions. The specific calculations are as follows:



July 6, 1981

A.  $SO_2$  - Source NCASI Technical Bulletin 96:

$$.214 \text{ \#/MMBTU} \times 130 \text{ MMBTU} = 3 \text{ \#/hour } SO_2$$

B.  $NO_x$  - Source NCASI Technical Bulletin 102:

$$.2 \text{ \#/MMBTU} \times 130 \text{ MMBTU} = 26 \text{ \#/hour } NO_x$$

C.  $C_xH_y$  - Source NCASI Technical Bulletin 109:

$$.07 \text{ \#/MMBTU} \times 130 \text{ MMBTU} = 9 \text{ \#/hour } C_xH_y$$

D. CO - Source NCASI Test:

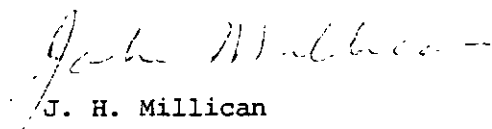
$$.22 \text{ \#/MMBTU} \times 130 \text{ MMBTU/hour} = 29 \text{ \#/hour CO}$$

The EPA CRSTER model to show the impact of the project on levels of particulate is enclosed. This is in accordance with the agreement between Mr. Larry George and Mr. Stan Kruger and is in response to Item 3-F which requested air quality modeling using the EPA CRSTER model.

This should complete all of the final information requested to process this permit application. Your patience and understanding in helping to develop the information are greatly appreciated.

Very truly yours,

THE BUCKEYE CELLULOSE CORPORATION

  
J. H. Millican  
Environmental Manager

JHM/eph

Enclosure

cc: Mr. Doug Dutton  
Florida Department of Environmental Regulation  
3426 Bills Road  
Jacksonville, FL 32207