

OAR - 0400065

52-101

National Emission Inventory (NEI) Emission Factor and Inventory Group, OAQPS U.S. EPA, RTP, NC 27711																		
St	FIPS	St	FIPS	Cnty	Site	Plant ID	Site SIC*	Street	City	Zip	AIRS Pt	CO tons/year	NH3 tons/year	NOX tons/year	PM10 tons/year	PM25 tons/year	SO2 tons/year	VOC tons/year
NEI 1997	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2421	RT 1424/0.5 MIN CHATHAM	CHATHAM	24531	1	5.30	0.00	0.90	1.57	1.45	0.20	1.85
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2421	RT 1424/0.5 MIN CHATHAM	CHATHAM	24531	20	0.00	0.00	0.00	30.51	13.87	0.00	0.00
NEI 1998	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2421	RT 1424/0.5 MIN CHATHAM	CHATHAM	24531	1	5.46	0.00	0.93	1.62	1.50	0.21	1.91
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2421	RT 1424/0.5 MIN CHATHAM	CHATHAM	24531	20	0.00	0.00	0.00	31.19	14.17	0.00	0.00
NEI 1999	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2421	2421 - Sawmills and planing mills, general										
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2436	100 Paul Rd SW Chatham	Chatham	24531	1	6.80	0.00	1.15	2.01	1.87	0.26	2.28
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	20	0.00	0.00	0.00	0.40	0.29	0.00	0.00
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	21	0.00	0.00	0.00	3.42	2.42	0.00	3.10
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	22	0.00	0.00	0.00	0.00	0.00	0.00	12.77
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	23	0.02	0.00	0.25	0.02	0.02	0.18	0.01
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	24	0.00	0.00	0.00	1.78	1.37	0.00	0.00
NEI 2001	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	2435 - Hardwood Veneer And Plywood										
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	1	7.53	0.00	1.27	2.23	2.07	0.26	2.64
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	20	0.00	0.00	0.00	0.44	0.33	0.00	0.00
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	21	0.00	0.00	0.00	3.79	2.68	0.00	3.43
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	22	0.00	0.00	0.00	0.00	0.00	0.00	14.14
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	23	0.02	0.00	0.30	0.03	0.02	0.21	0.02
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	24	0.00	0.00	0.00	1.97	1.51	0.00	0.00
NEI 2002	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	2435 - Hardwood Veneer And Plywood										
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	1	7.53	0.00	1.27	2.23	2.07	0.28	2.63
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	20	0.00	0.00	0.00	0.44	0.33	0.00	0.00
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	21	0.00	0.00	0.00	3.79	2.68	0.00	3.43
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	22	0.00	0.00	0.00	0.00	0.00	0.00	14.14
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	23	0.02	0.00	0.30	0.03	0.02	0.21	0.02
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	24	0.00	0.00	0.00	1.97	1.51	0.00	0.00
NEI 2003	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	2435 - Hardwood Veneer And Plywood										
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	1	7.53	0.00	1.27	2.23	2.07	0.28	2.63
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	20	0.00	0.00	0.00	0.44	0.33	0.00	0.00
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	21	0.00	0.00	0.00	3.79	2.68	0.00	3.43
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	22	0.00	0.00	0.00	0.00	0.00	0.00	14.14
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	23	0.02	0.00	0.30	0.03	0.02	0.21	0.02
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	24	0.00	0.00	0.00	1.97	1.51	0.00	0.00
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	2435 - Hardwood Veneer And Plywood										
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	1	7.53	0.00	1.27	2.23	2.07	0.28	2.63
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	20	0.00	0.00	0.00	0.44	0.33	0.00	0.00
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	21	0.00	0.00	0.00	3.79	2.68	0.00	3.43
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	22	0.00	0.00	0.00	0.00	0.00	0.00	14.14
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	23	0.02	0.00	0.30	0.03	0.02	0.21	0.02
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	24	0.00	0.00	0.00	1.97	1.51	0.00	0.00
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	2435 - Hardwood Veneer And Plywood										
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	1	7.53	0.00	1.27	2.23	2.07	0.28	2.63
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	20	0.00	0.00	0.00	0.44	0.33	0.00	0.00
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	21	0.00	0.00	0.00	3.79	2.68	0.00	3.43
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	22	0.00	0.00	0.00	0.00	0.00	0.00	14.14
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	23	0.02	0.00	0.30	0.03	0.02	0.21	0.02
	51	VA	143	PITTSYLVANIA CO	COLUMBIA FOREST PRODUCTS	0017	2435	100 Paul Rd SW Chatham	Chatham	24531	24	0.00	0.00	0.00	1.97	1.51	0.00	0.00

* Standard Industrial Code

5A-02

FACILITY_NAME	STREET	CITY	STATE	ZIPCODE	FACILITY_ADDRESS	EPA_REGION	INVENTORY_YEAR	SIC	LATITUDE	LONGITUDE	CO	NH3	NOX	PM_CON	PM10_PRI	PM25_FL	PM25_PRI	SO2	VOC
COLUMBIA FOREST PRODUCTS	100 Paul Rd SW	Chatham VA	VA	24531	100 Paul Rd SW Chatham VA 24531	03	1999	2435	36.8235	-79.4058	6.817	1.403	2.715	4.919	7.633	3.252	5.97	0.436	18.262

5A-03

(see 5A-24 through 5A-28 for complete document.)

State	Location Z	HAP Category Name	Urban 33	Emissions (TPY)	Emission T
		Naphthalene	0	1.0740777490057E-07	01
		Sum of 33 Urban HAPs	-1	1.67780587173776E-02	01
		Arsenic Compounds(Inorganic Including Arsine)	-1	1.03605851846457E-04	01
		Cadmium Compounds	-1	2.56321053063847E-05	01
		Chromium Compounds	-1	1.95172524120357E-04	01
		Dioxins/Furans (total, non TEQ)	-1	3.05114589814158E-09	01
		Hydrochloric Acid (Hydrogen Chloride [Gas Only])	0	9.50511760553127E-03	01
		Lead Compounds	-1	5.48128019604122E-04	01
		Sum of 188 HAPs	0	2.62832885348801E-02	01
		Mercury Compounds	-1	6.33674939803655E-06	01
VA	24531	Phenol	0	0.09623533	01
		Nickel Compounds	-1	2.56321053063847E-05	01
		Polycyclic Organic Matter as 15-PAH	0	5.85348218248982E-09	01
		Polycyclic Organic Matter as 7-PAH	-1	1.0492859065074E-09	01
VA	24531	Sum of 188 HAPs	0	0.46718146	01
VA	24531	Sum of 33 Urban HAPs	-1	0.04111873	01
VA	24531	Formaldehyde	-1	0.04111873	01
VA	24531	Methanol	0	0.27996	01
VA	24531	Methyl Isobutyl Ketone (Hexone)	0	0.0498674	01
		Manganese Compounds	-1	1.58735472613641E-02	01



VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

1999 EMISSION STATEMENT

Please correct any errors in the information below (cross out & replace)

FACILITY NAME COLUMBIA FOREST PRODUCTS	REGISTRATION # 30120	CONTACT PERSON BOWEN, GEORGE COWAN, DOANE	
FACILITY LOCATION RT 1424/0.5 MI N CHATHAM		FACILITY JURISDICTION PITTSYLVANIA	
FACILITY MAILING ADDRESS COLUMBIA FOREST PDTS PO DRAWER F	MAILING CITY AND STATE CHATHAM, VA	ZIP CODE 24531	
PARENT COMPANY (IF APPLICABLE)	TELEPHONE NUMBER (804)432-2591	PRIMARY SIC CODE 2435	For Agency Use Only F
		2424	

- Check here if this emission statement contains confidential operating data.
- Check here if this emission statement contains hazardous air pollutant data. - Formaldehyde emission estimates attached.

FACILITY TOTALS (Sum daily and annual emissions for all points/segments from attached pages)

TOTAL VOC EMISSIONS FOR 1999	N/A LBS/DAY	16.4 TONS/YR
TOTAL NO_x EMISSIONS FOR 1999	N/A LBS/DAY	13.6 TONS/YR <i>10 gms</i>
TOTAL SO₂ EMISSIONS FOR 1999	N/A LBS/DAY	0.9 TONS/YR
TOTAL PM₁₀ EMISSIONS FOR 1999	N/A LBS/DAY	10.3 TONS/YR
TOTAL TRS EMISSIONS FOR 1999	N/A LBS/DAY	--- TONS/YR
TOTAL TNMOC EMISSIONS FOR 1999 <i>N/A</i>	N/A LBS/DAY	16.4 TONS/YR
TOTAL non-VOC/non-PM₁₀ HAP EMISSIONS FOR 1999	N/A LBS/DAY	--- TONS/YR

PLEASE ATTACH "ANNUAL UPDATE" FORM.
PLEASE ATTACH "EMISSION STATEMENT CERTIFICATION" with appropriate signature.

ATTACHMENT 2
EMISSIONS STATEMENT CERTIFICATION FORM



VIRGINIA DEPARTMENT OF
ENVIRONMENTAL QUALITY

EMISSION STATEMENT CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(see reverse side for instructions)

SIGNATURE: David A. Abts DATE: 2/28/00

PRINTED NAME: David Abts

TITLE: Facility Manager

COMPANY: Columbia Forest Products, Chatham Facility

REGISTRATION NUMBER: 30120

TELEPHONE NUMBER: (804) 432-2591

ATTACHMENT 3
1999 EMISSIONS STATEMENT FORM
and FACILITY SUMMARY -
TARGETED PRIORITY HAPs TOTALS

FACILITY SUMMARY – TARGETED PRIORITY HAPS TOTALS

(Sum annual emissions for all points/segments from attached pages)

CHEMICAL NAME	CAS NUMBER	Annual Emissions (TONS per YEAR)
1,4-Dioxane	123911	
1,3-Butadiene	106990	
1,3-Dichloropropene	542756	
1,2-Dichloropropane	78875	
1,4-Dichlorobenzene	106467	
1,2-Dibromoethane	106934	
2,3,7,8-TCDF/2,3,7,8-TCDF (dioxins/furans)	1746016	
2-Nitropropane	79469	
Acetaldehyde	75070	
Acrolein	107028	
Acrylamide	79061	
Acrylonitrile	107131	
Arsenic & compounds	n/a	
Benzene	71432	
Benzyl chloride	100447	
Beryllium & compounds	n/a	
Bis(2-ethylhexyl)phthalate	117817	
Cadmium & compounds	n/a	
Carbon tetrachloride	56235	
Chlorine	7782505	
Chloroform	57663	
Chromium & compounds	n/a	
Coke oven emissions	n/a	
Ethyl acrylate	140885	
Ethylene oxide	75218	
Ethylene dichloride	107062	
Ethylene dichloride	75343	
Formaldehyde	50000	
Glycol ethers	n/a	
Hexachlorobenzene	118741	
Hexachlorocyclopentadiene	77474	
Hydrazine	302012	
Hydrochloric acid	7647010	
Hydrogen fluoride	7664393	
Lead & compounds	n/a	
Maleic anhydride	108316	
Manganese & compounds	n/a	
MDI (methylene diphenyl diisocyanate)	101688	
Mercury & compounds	n/a	
Methyl chloroform	71556	
Methyl bromide	74839	
Methyl chloride	74873	
Methylene chloride	75092	
Nickel & compounds	n/a	
Phosgene	75445	
Phosphine	7803512	
Phosphorus	7723140	
POM (PAHs) (excluding naphthalene)	n/a	
Quinoline	91225	
Tetrachloroethylene	127184	
Titanium tetrachloride	7550430	
Toluene	108883	
Trichloroethylene	79016	
Vinyl chloride	75014	

3.35 tons/year

5A-09

**ATTACHMENT 4
SUPPORTING CALCULATIONS**

Table 1
1999 Emission Calculations
Option I: Emission Factor Method
Hogged Fuel-fired Boiler
Columbia Forest Products, Chatham, Virginia

Registration No. : 30120 Point No. : 001 Segment No. : 01 SCC No. : 10300903

Criteria Pollutant	Emission Factor (lb/ton fuel)	Annual Emissions (tons/yr)
VOC	0.22 (1)	0.3 (a)
NO _x	1.5 (2)	2.2 (a)
SO ₂	0.075 (2)	0.1 (a)
PM ₁₀	2.6 (2)	3.9 (a)
TRS	N/A	N/A
HAP	--	Insignificant (4)

Notes:

- (a) Annual Emissions = [emission factor (lb/ton-fuel)] X [hogged fuel usage [50% MC] (ton-fuel/yr)] X (ton/2000 lb)
Corrected hogged fuel usage [50% MC] (ton-fuel/yr) = 2,977 (6)
- (b) Corrected hogged fuel usage = [hogged fuel usage (tons/yr)] X [(1-MCa)/(1-MC)]
Hogged fuel usage (10%MC) [tons/year] = 3,402 (5)
Actual moisture content (MCa) [%] = 10% (6)
Emission factor moisture content (MC) [%] = 50% (7)

References:

- (1) AP-42 Table 1-6.3 (2/99), Emission Factors For Total Organic Compounds (TOC), Methane (CH₄), Nitrous Oxide (N₂O), and Carbon Dioxide (CO₂) From Wood Waste Combustion, Stoker boiler.
- (2) AP-42 Table 1.6-2 (2/99), Emission Factors For Nitrogen Oxides (NO_x), Sulfur Oxides (SO_x), And Carbon Monoxide (CO) From Wood Waste Combustion; Stoker Boiler.
- (3) AP-42 Table 1.6-1 (2/99), Emission Factors For Particulate Matter (PM), Particulate Matter less than 10 Microns (PM-10), And Lead (Pb) From Wood Waste Combustion, wood fired boiler with a mechanical collector and no flyash reinjection.
- (4) HAP emissions from the Boiler are less than 0.5 tons per year.
- (5) Chatham Record Keeping Spreadsheets.
- (6) Provided by facility (Chatham).
- (7) AP-42 emission factors are based on firing fuel with a moisture content of 50%, so the fuel usage is corrected to account for this.

Table 2
1999 Emission Calculations
Option I: Emission Factor Method
Hogged Fuel-fired Boiler
Columbia Forest Products, Chatham, Virginia

Registration No. : 30120 Point No. : 001 Segment No. : 01 SCC No. : 10300903

HAP	Emission Factor (lb/ton-fuel)	HAP Annual Emission Rate ⁽²⁾ (tons/yr)
Acetaldehyde	1.92E-03	5.88E-03
Acrolein	4.00E-06	1.22E-05
Benzene	9.95E-03	3.05E-02
2,4-Dinitrophenol	4.23E-06	1.30E-05
Formaldehyde	8.20E-03	2.51E-02
Naphthalene	3.39E-03	1.04E-02
4-Nitrophenol	2.07E-06	9.09E-06
Phenols ⁽⁴⁾	1.47E-04	4.50E-04
2,3,7,8-Tetrachloro-dibenzo-p-dioxin	3.60E-11	1.10E-10
Cobalt	1.30E-04	3.98E-04
Arsenic	8.53E-05	2.61E-04
Cadmium	2.12E-05	6.49E-05
Chromium (total)	1.56E-04	4.78E-04
Manganese	1.26E-02	3.86E-02
Mercury	5.15E-06	1.58E-05
Nickel	6.90E-05	2.11E-04
Selenium	4.59E-05	1.41E-04
PM10 ⁽⁵⁾	--	9.35E-04
Total HAP Emissions:		0.11

POM Polycyclic Organic Compounds	Emission Factor ⁽¹⁾ (lb/ton-fuel)	POM Annual Emission Rate ⁽²⁾ (tons/yr)
Acenaphthene	4.10E-06	1.26E-05
Fluorene	8.22E-06	2.52E-05
Phenanthrene	5.02E-05	1.54E-04
Fluoranthene	1.83E-05	5.60E-05
Benzo(a)anthracene	3.27E-06	1.00E-05
Benzofluoranthene	1.08E-06	3.31E-06
Benzo(k)fluoranthene	7.65E-07	2.34E-06
Benzo(b+k)fluoranthene	2.90E-05	8.88E-05
Benzo(a)pyrene	6.75E-08	2.07E-07
Benzo(g,h,i)perylene	1.41E-06	4.32E-06
2-Chlorophenol	5.13E-07	1.57E-06
Chrysene	4.52E-07	1.38E-06
Indeno(1,2,3,c,d)pyrene	3.60E-07	1.10E-06
Acenaphthylene	4.76E-05	1.46E-04
Methyl anthracene	1.40E-04	4.29E-04
Total POM Emissions:		9.35E-04

Notes:

- (a) annual emissions = [emission factor (lb/ton-fuel)] X [corrected hogged fuel usage (ton-fuel/yr)] X (ton/2000 lb)
corrected hogged fuel usage (ton-fuel/yr) = 6,123.6 (b)
- (b) corrected hogged fuel usage = [hogged fuel usage (tons/yr)] X [(1-MCa)/(1-MC)]
hogged fuel usage (10% MC) [tons/year] = 3,402 (4)
- actual moisture content (MCa) [%] = 10% (4)
- emission factor moisture content (MC) [%] = 30% (5)

References:

- (1) AP-42 Tables 1.6-4 and 1.6-5, organic compounds from wood waste combustion with PM controls.
- (2) Emission factor value includes phenol, which is a HAP, plus substituted phenols which are not HAPs.
- (3) POM emission estimates are shown in the lower table.
- (4) Provided by facility (estimates from Chatham).
- (5) AP-42 emission factors are based on firing fuel with a moisture content of 50%, so the fuel usage is corrected to account for this.

1999 Emission Calculations
Option II: Engineering Estimates or Material Balance Method
Baghouse Emissions
Columbia Forest Products, Chatham, Virginia

Registration No. : 30120

Point No. : 020, 024 and 025(?)

Segment No. : 01

SCC No. : 30700798
30700799 and ?

Point No.	Segment Description	SCC Code	Annual Rate ⁽¹⁾ (tons/yr)	Cyclone Efficiency (%)	Baghouse Control Efficiency (%)	Annual Emissions ^(a) PM ₁₀ (tons/yr)
020	Sawing/Sanding Plywood (Clarke Baghouse)	30700798	2,674 (1)	85%	99.9% (4)	0.4
024	Woodworking Operation (Hog Baghouse)	30700799	11,897 (2)	85%	99.9% (4)	1.8
025	UV Line Baghouse (Pneumafil)	?	3,424 (3)	N/A	99.9% (4)	3.4
Total						5.6

Notes:

(a) Calculated rate [tons/yr] = [process rate [tons/yr]] X [1 - cyclone control efficiency] X [1 - baghouse control efficiency]

References:

- (1) Revised State Operating Permit Application, November 5, 1997 (Table 1A), based on maximum throughput for Clarke baghouse plus 10% previously routed to the UV baghouse.
- (2) Revised State Operating Permit Application, November 5, 1997 (Table 1A), based on maximum throughput for Hog baghouse.
- (3) Revised State Operating Permit Application, November 5, 1997 (Table 1A), based on maximum throughput for UV Line baghouse less 10% redirected to Clarke baghouse.
- (4) Revised State Operating Permit Application, November 5, 1997 (Wood Residual Calculations - Emissions Unit 2)

1999 Emission Calculations
Option II: Engineering Estimates or Material Balance Method
UV Roll Coater
Columbia Forest Products, Chatham, Virginia

Registration No. : 30120Point No. : 021Segment No. : 01SCC No. : 40202199

Process	Emission Factor (lbs VOC/Mft ²)	Surface Area (ft ²)	Annual Emissions VOCs (tons/yr)
UV Coating Operations	0.143 (1)	44,045,760 (a)	3.1 (b)
		Total	3.1

Notes:(a) Surface Area = Number of Panels [panels/yr] X (64 ft²/panel)

Number of Panels [panels/yr] = 688,215 (2)

(b) Annual Emissions = Emission Factor [lbs VOC/Mft²] X Surface Area [ft²] X (Mlb/1000 ft²) X (ton/2000 lbs)**References:**(1) Based on UV line permit application 84,096 Mft² and 52,428 gallons of highest VOC product (0.23 lb/gal).

(2) Chatham Record Keeping Spreadsheets.

1999 Emission Calculations
Option II: Engineering Estimates or Material Balance Method
Press Emissions
Columbia Forest Products, Chatham, Virginia

Registration No. : 30120 Point No. : 022 Segment No. : 01 SCC No. : 30700707

Raw Material ⁽¹⁾				Raw Material Component ⁽¹⁾				Annual Resin Usage (lbs/yr)	Annual Emissions ^(a)		
Common Name	Product Name	Manufacturer	Density (lb/gal)	Name	Amount In Product	VOC (Y/N)	HAP (Y/N)		VOC (tons/yr)	HAP (tons/yr)	
Resin	CR-595LF	Borden	10.51	Total VOC *	0.457	Wt%	Y	5,588,450 (2)	12.8	8.7	
				Formaldehyde	0.120	Wt%	Y				3.4
				Methanol	0.190	Wt%	Y				5.3
				Diethanolamine	0.001	Wt%	Y				0.0
Total:									12.8	8.7	

* Includes Formaldehyde, Methanol, and Diethanolamine

Notes:

(a) Annual Emissions = [resin usage (lb/yr)] X [VOC amount in product (%)] / [2000 lb/ton] OR
 Annual Emissions = [resin usage (lb/yr)] X [HAP amount in product (%)] / [2000 lb/ton]

References:

- (1) Information provided by vendor, MSDSs and/or Certified Product Data Sheet (4/27/99).
- (2) Chatham Record Keeping Spreadsheets.

Table 6
1999 Emission Calculations
Option 1: Emission Factor Method
Diesel Engine
Columbia Forest Products, Chatham, Virginia

Registration No. : 30120 Point No. : 023 Segment No. : 01 SCC No. : 20200401

Criteria Pollutant	Emission Factor (lb/MMBtu)	Annual Emissions (tons/yr)
VOC	0.36 (1)	0.1 (a)
NOx	4.4 (1)	11.4 1.6 (a)
SO ₂	0.29 (1)	0.7 (a)
PM ₁₀	0.31 (1)	0.8 (a)
TRS	N/A	N/A
HAP	--	Insignificant

Notes:

(a) Annual Emissions = [emission factor (lb/MMBtu)] X [Fuel usage (gallons/yr)] X (140,000 Btu/gal) X
MMBtu/1,000,000 Btu X (ton/2000 lb)

Fuel usage (gallons/yr) = 5,168 (2)

References:

- (1) AP-42 Table 3.3-1 (10/96), Emission Factors For Uncontrolled Gasoline And Diesel Industrial Engines, Diesel Fuel.
(2) Chatham Record Keeping Spreadsheets.

Table 7
1999 Emission Calculations
Option 1: Emission Factor Method
Diesel Engine
Columbia Forest Products, Chatham, Virginia

Registration No. : 30120Point No. : 023Segment No. : 01SCC No. : 20200401

HAP	Emission Factor ⁽¹⁾ (lb/MMBtu)	HAP Annual Emission Rate ^(a) (tons/yr)
Acetaldehyde	7.67E-04	2.77E-04
Acrolein	9.25E-05	3.35E-05
Benzene	9.33E-03	3.38E-03
Formaldehyde	1.18E-03	4.27E-04
Naphthalene	8.48E-05	3.07E-05
1,3-Butadiene	3.91E-05	1.41E-05
Toluene	4.09E-04	1.48E-04
Xylenes	2.85E-04	1.03E-04
Propylene	2.58E-03	9.33E-04
POM (2)	--	3.01E-05
Total HAP Emissions:		5.37E-03

POM Polycyclic Organic Compounds	Emission Factor ⁽¹⁾ (lb/ton-fuel)	POM Annual Emission Rate ^(a) (tons/yr)
Acenaphthene	1.42E-06	5.14E-07
Fluorene	2.92E-05	1.06E-05
Phenanthrene	2.94E-05	1.06E-05
Anthracene	1.87E-06	6.76E-07
Fluoranthene	7.61E-06	2.75E-06
Pyrene	4.78E-06	1.73E-06
Benzo(a)anthracene	1.68E-06	6.08E-07
Benzo(b)fluoranthene	9.91E-08	3.59E-08
Benzo(k)fluoranthene	1.55E-07	5.61E-08
Benzo(a)pyrene	1.88E-07	6.80E-08
Benzo(g,h,i)perylene	4.89E-07	1.77E-07
Dibenz(a,h)anthracene	5.83E-07	2.11E-07
Chrysene	3.53E-07	1.28E-07
Indeno(1,2,3-c,d)pyrene	3.75E-07	1.36E-07
Acenaphthylene	5.06E-06	1.83E-06
Total POM Emissions:		3.01E-05

Notes:

(a) Annual Emissions = [emission factor (lb/MMBtu)] X [Fuel usage (gallons/yr)] X (140,000 Btu/gal) X
MMBtu/1,000,000 Btu X (ton/2000 lb)
Fuel usage (gallons/yr) =

5,168 (3)

References:

- (1) AP-42 Tables 3.3-2 (10/96), Speciated Organic Compound Emission Factors For Uncontrolled Diesel Engines.
(2) POM emission estimates are shown in the lower table.
(3) Annual Update for Calendar Year 1999.

Table 8
Emission Point Summary
1999 Estimated Actual Emissions
Columbia Forest Products, Chatham, Virginia

Emission Points		1999 Estimated Actual Emissions				
Description	Point Number	PM ₁₀ (ton/yr)	SO ₂ (ton/yr)	NO _x (ton/yr)	VOC (ton/yr)	HAP (ton/yr)
Boiler	001	3.9	0.1	2.2	0.3	Insignificant
Sawing/Sanding Plywood (Clarke Baghouse)	020	0.4	--	--	--	--
Woodworking Operation (Hog Baghouse)	024	1.8	--	--	--	--
UV Line Baghouse (Pneumafil)	025(?)	3.4	--	--	--	--
UV Roll Coater	021	--	--	--	3.1	--
Press	022	--	--	--	12.8	8.7
Diesel Engine	023	0.8	0.7	11.4	0.1	Insignificant
	Total	10.3	0.9	13.6	16.4	8.7

Registration Number : 30120

AFS Plant Id: 143-00017

Plant Name : Columbia Forest Products

EMISSIONS INVENTORY REPORT (STACK/POINT) (TONS/YEAR)

Parameter Lis:

Pollutant Type: All Pollutants
Years: 1999 - 1999

Inventory Year 1999

Stack #: 1

Point #:	CO	NO2	PM	PM 10	SC2	VOC
Segment #: 1	6.80	1.16	2.25	2.02	0.26	2.38
Stack #: 2	6.80	1.16	2.25	2.02	0.26	2.38

*SA
CFP*

Point #: 20

Segment #:	PM	PM 10
1	0.02	0.40
2	0.02	0.40 ✓

*0.3
0.08*

Stack #: 3

Point #:	PM	PM 10	VOC
Segment #: 1	3.42	3.42	3.10
Stack #: 22	3.42	3.42 ✓	3.10

Point #:	FORM	NTHOL	VOC
Segment #: 1	3.35		12.77
Stack #: 23	3.35	5.30	12.77

Stack #: 23

changed to February

Point #:	CO	NO2	PM	PM 10	SO2	VOC
Segment #: 1	0.34	1.59	0.11	0.11	0.10	0.13
Stack #: 24	0.34	1.59	0.11	0.11	0.10	0.13

Stack #:

Segment #1 PM-1.78 ✓ BM-16 1-8

Run Date: 09/20/2000 10:59:25 AM

Registration Number: 30120

Plant Name:

Columbia Forest Products

Commonwealth of Virginia
Department of Environmental Quality
AFS Plant ID: 143-00017

Page 1 of 1

STACK, POINT, SEGMENT REPORT

Inventory Year: 1999

Stack #: 1

WOOD-FIRED BOILER

Point #: 1

Wood-fired Boiler

Segment #: 1

Stack #: 2 SAWING/SANDING PLYWOOD

Point #: 20

Clarke Baghouse

Segment #: 1

Stack #: 3 UV COATING LINE

Point #: 21

UV FINISHING LINE

Segment #: 1

UV ROLL COATER-VOC TON/YR

Segment #: 2

Stack #: 22 PRESSES

Point #: 22

PRESSES

Segment #: 1

PRESS EMISS TONS- VOC

Segment #: 2

Press Emissions tons Formaldehyde

Segment #: 3

Press Emission tons Methanol

Stack #: 23

DIESEL ENGINE

Point #: 23

DIESEL ENGINE

Segment #: 1

DIESEL ENGINE

Stack #: 24

WOODWORKING DUST SYSTEMS

Point #: 24

WOODWORKING DUST SYSTEMS

Segment #: 1

WOODWORK OPER TONS WASTE

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Registration Number : 30120

County - Plant Id: 143-00017

Plant Name : Columbia Forest Products

POLLUTANT EMISSIONS REPORT (STACK/POINT) (TONS/YEAR)

Parameter List

Pollutant Type: All Pollutants
Years: 2001-2002

Inventory Year 2002

Stack #: 1	<i>Ben's</i>						
Point #: 1	CC	NO2	PM	PM 10	SO2	VOC	
Segment #: 1	41.36	4.56	7.91	7.91	0.23	0.67	
Stack #: 20	41.36	4.56	7.91	7.91	0.23	0.67	

Point #: 20	PM	EM 10
Segment #: 1	0.40	0.40
	0.40	0.40

Stack #: 21	<i>UVA</i>						
Point #: 21	PM	EM 10	VOC				
Segment #: 2	3.42	3.42					
Segment #: 3			2.30				
	3.42	3.42	2.30				

Stack #: 22	<i>Pro</i>						
Point #: 22	FORM	MTHOL	VOC				
Segment #: 1			9.30				
Segment #: 2	2.40						
Segment #: 3		3.90					
	2.40	3.90	9.30				

Stack #: 23

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Registration Number : 30120
Plant Name : Columbia Forest Products
County - Plant Id: 143-00017

POLLUTANT EMISSIONS REPORT (STACK/POINT) (TONS/YEAR)

Parameter List

Pollutant Type: All Pollutants
Years: 2001-2002

Inventory Year 2002

Stack #:	Point #:	Segment #:	CO	NO2	PM	PM 10	SO2	VOC
23		1	0.00	0.00	0.00	0.00	0.00	0.00
			0.00	0.00	0.00	0.00	0.00	0.00

Stack #:	Point #:	Segment #:	PM	PM 10
24		1	1.78	1.78
			1.78	1.78

*Woodworking
Airst System*

Inventory Year 2001

Stack #:	Point #:	Segment #:	CC	NO2	PM	PM 10	SO2	VOC
1		1	37.82	4.17	11.68	7.23	0.21	0.61
			37.82	4.17	11.68	7.23	0.21	0.61

Stack #:	Point #:	Segment #:	PM	PM 10
20		1	0.40	0.40
			0.40	0.40

Woodworking

Stack #:	Point #:	Segment #:	PM	PM 10	VOC
21		1			2.20
					2.20

Woodworking

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Registration Number : 30120

County - Plant Id: 143-00017

Plant Name : Columbia Forest Products

POLLUTANT EMISSIONS REPORT (STACK/POINT) (TONS/YEAR)

Parameter List

Pollutant Type: All Pollutants
Years: 2001-2002

Inventory Year 2001

Stack #: 21

Point #:	PM	PM 10	VOC
Segment #: 2	3.42	3.42	
	3.42	3.42	2.20

Stack #: 22

Point #:	FORM	MTHOL	VOC
Segment #: 1			13.10
Segment #: 2	3.40		
Segment #: 3		3.90	
	3.40	3.90	13.10

Stack #: 23

Point #:	CO	NO2	PM	PM 10	SO2	VOC
Segment #: 1	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00

Stack #: 24

Point #:	PM	PM 10
Segment #: 1	1.78	1.78
	1.78	1.78

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DEOSCR
AUG 29 2002
LYNCHBUR

NOTE: RESIN DATA FOR
CASCO-RESIN CR-595LP ONLY

Twelve Month Totals
Annual Recordkeeping Calculated Monthly for Operating Permit
Columbia Forest Products, Chatham, VA - Registration No. 30121

Month	21a Boiler Operation		21b Diesel for Log	21c UV Coating		21d Estimated UV VOCs (c) (lbs)	21e Estimated UV HAPs (d) (lbs)	21f UV Coating Purchased (gals)	21g Casco-Resin Purchased (lbs)	21h Formaldehyde From Casco-Resin CR-595LP (lbs)	21i Methanol From Casco-Resin CR-595LP (lbs)	21j Distilled Methanol From Casco-Resin CR-595LP (lbs)	21k Total VOCs From Casco-Resin CR-595LP (lbs)
	Operating Time (hours)	Wood Fuel Burned (tons)		Products Coated (number)	Surface Area (Sq. Ft.)								
1 January 2001	552	296.4	0.0	62,136	1,988,800	121	97	900	51,190	613	971	5	2,336
2 February 2001	578	283.3	0.0	66,484	1,933,488	124	93	1,811	39,880	436	772	4	1,276
3 March 2001	600	257.5	0.0	67,729	4,374,616	266	212	1,280	43,760	509	805	4	1,937
4 April 2001	504	290.4	0.0	66,569	2,130,208	199	155	1,311	42,020	509	806	4	1,928
5 May 2001	552	296.1	0.0	67,278	2,152,896	201	157	1,080	42,210	510	808	4	1,943
6 June 2001	480	237.5	0.0	63,846	2,047,072	191	149	1,275	339,060	396	627	3	1,908
7 July 2001	408	218.9	0.0	48,369	1,554,208	145	113	1,080	227,700	273	433	2	1,041
8 August 2001	376	309.0	0.0	71,804	2,297,728	215	168	1,580	346,940	440	697	4	1,677
9 September 2001	432	231.8	0.0	54,644	1,748,608	163	128	1,590	217,366	279	341	2	1,061
10 October 2001	504	270.4	0.0	62,477	3,994,328	243	196	1,265	271,400	334	529	3	1,272
11 November 2001	408	218.9	0.0	51,410	3,290,240	204	161	1,020	286,820	337	534	3	1,283
12 December 2001	336	180.3	0.0	42,366	2,211,424	168	133	640	187,260	225	356	2	856
Total	5,380	1,990	0	719,276	30,162,656	2,247	1,763	14,933	4,067,526	4,381	7,728	41	18,589
										Totals:	7,728	41	18,589
										Totals:	3,866	0.02	9,239
										Totals:	9.8	9.8	19.6
										(Ton/yr)	(Ton/yr)	(Ton/yr)	(Ton/yr)

Permit limits: 60,000 (gals/yr) 84,096,000 (Sq. Ft./yr) 9.0 (Ton/yr) 9.8 (Ton/yr) 9.8 (Ton/yr)

(a) Wood fuel burned = (Operating hours) X (107 lbs fuel/hr) X (tons/2000 lbs) X (assumes boiler operating at 100% firing rate).
 The wood fuel burned calculations prior to April 1999 use 833.4 lbs (gal/hr) (10% firing rate).
 (b) Surface area = (Number of panels) X (32 Sq. Ft. / Panel). The calculations prior to January 2000 use 64 Sq. Ft. / panel (assumes all panels are coated both sides, a conservatively high assumption).
 (c) VOC estimate = (lbs VOC/Msq Ft.) X (Surface Area) / (1000 Sq. Ft.).
 PTE usage was 84,096 Msq. Ft. and 52,428 gals of highest VOC product (0.1 lbs/gal).
 (d) HAP estimate = (lb HAP/Msq Ft.) X (Surface Area) / (1000 Sq. Ft.).
 Xylene = 0.064 lbs/gal. Prior to April 2000, PTE usage was 84,096 Msq. Ft. and 52,428 gals of highest HAP product (Ethyl Benzene = 0.014 lbs/gal, Xylene = 0.064 lbs/gal).

NTI Unique Facility ID	Facility Site Name	Standardized Facility Name	Location Address	Locality Name
NTIVA00017	COLUMBIA FOREST PRODUCTS	COLUMBIA FOREST PRODUCTS		
NTIVA00017	COLUMBIA FOREST PRODUCTS	COLUMBIA FOREST PRODUCTS		
NTIVA00017	COLUMBIA FOREST PRODUCTS	COLUMBIA FOREST PRODUCTS		
NTIVA00017	COLUMBIA FOREST PRODUCTS	COLUMBIA FOREST PRODUCTS		
NTIVA00017	COLUMBIA FOREST PRODUCTS	COLUMBIA FOREST PRODUCTS		
NTIVA00017	COLUMBIA FOREST PRODUCTS	COLUMBIA FOREST PRODUCTS		
NTIVA00017	COLUMBIA FOREST PRODUCTS	COLUMBIA FOREST PRODUCTS		
NTIVA00017	COLUMBIA FOREST PRODUCTS	COLUMBIA FOREST PRODUCTS		
NTIVA00017	COLUMBIA FOREST PRODUCTS	COLUMBIA FOREST PRODUCTS		
NTIVA00017	COLUMBIA FOREST PRODUCTS	COLUMBIA FOREST PRODUCTS		
NTIVA00017	Columbia Forest Products	COLUMBIA FOREST PRODUCTS	100 Paul Road SW	Chatham
NTIVA00017	COLUMBIA FOREST PRODUCTS	COLUMBIA FOREST PRODUCTS		
NTIVA00017	COLUMBIA FOREST PRODUCTS	COLUMBIA FOREST PRODUCTS		
NTIVA00017	COLUMBIA FOREST PRODUCTS	COLUMBIA FOREST PRODUCTS		
NTIVA00017	Columbia Forest Products	COLUMBIA FOREST PRODUCTS	100 Paul Road SW	Chatham
NTIVA00017	Columbia Forest Products	COLUMBIA FOREST PRODUCTS	100 Paul Road SW	Chatham
NTIVA00017	Columbia Forest Products	COLUMBIA FOREST PRODUCTS	100 Paul Road SW	Chatham
NTIVA00017	Columbia Forest Products	COLUMBIA FOREST PRODUCTS	100 Paul Road SW	Chatham
NTIVA00017	Columbia Forest Products	COLUMBIA FOREST PRODUCTS	100 Paul Road SW	Chatham
NTIVA00017	COLUMBIA FOREST PRODUCTS	COLUMBIA FOREST PRODUCTS		

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State	Location Zip Code	HAP Category Name	Urban 33 HAPs	Emissions (TPY)	Emission Type
		Naphthalene	0	1.0740777490057E-07	01
		Sum of 33 Urban HAPs	-1	1.67780587173776E-02	01
		Arsenic Compounds(Inorganic Including Arsine)	-1	1.03605851846457E-04	01
		Cadmium Compounds	-1	2.56321053063847E-05	01
		Chromium Compounds	-1	1.95172524120357E-04	01
		Dioxins/Furans (total, non TEQ)	-1	3.05114589814158E-09	01
		Hydrochloric Acid (Hydrogen Chloride [Gas Only])	0	9.50511760553127E-03	01
		Lead Compounds	-1	5.48128019604122E-04	01
		Sum of 188 HAPs	0	2.62832885348801E-02	01
		Mercury Compounds	-1	6.33674939803655E-06	01
VA	24531	Phenol	0	0.09623533	01
		Nickel Compounds	-1	2.56321053063847E-05	01
		Polycyclic Organic Matter as 15-PAH	0	5.85348218248982E-09	01
		Polycyclic Organic Matter as 7-PAH	-1	1.0492859065074E-09	01
VA	24531	Sum of 188 HAPs	0	0.46718146	01
VA	24531	Sum of 33 Urban HAPs	-1	0.04111873	01
VA	24531	Formaldehyde	-1	0.04111873	01
VA	24531	Methanol	0	0.27996	01
VA	24531	Methyl Isobutyl Ketone (Hexone)	0	0.0498674	01
		Manganese Compounds	-1	1.58735472613641E-02	01

Source Type	MACT Code	NAICS Code	SIC Code	Latitude Measure	Longitude Measure	Source Map Scale	Collection Method
area	0107-4	321	2421	-79.4055633544922	36.8236083984375		027
area	0107-4	321	2421	-79.4055633544922	36.8236083984375		027
area	0107-4	321	2421	-79.4055633544922	36.8236083984375		027
area	0107-4	321	2421	-79.4055633544922	36.8236083984375		027
area	0107-4	321	2421	-79.4055633544922	36.8236083984375		027
area	0107-4	321	2421	-79.4055633544922	36.8236083984375		027
area	0107-4	321	2421	-79.4055633544922	36.8236083984375		027
area	0107-4	321	2421	-79.4055633544922	36.8236083984375		027
area	0107-4	321	2421	-79.4055633544922	36.8236083984375		027
area	0107-4	321	2421	36.8236083984375	-79.4055633544922		027
area	0107-4	321	2421	-79.4055633544922	36.8236083984375		027
area	1624	321211	2435	-79.4488754272461	36.8304557800293	24000	026
area	0107-4	321	2421	-79.4055633544922	36.8236083984375		027
area	0107-4	321	2421	-79.4055633544922	36.8236083984375		027
area	0107-4	321	2421	-79.4055633544922	36.8236083984375		027
area	1624	321211	2435	36.8304557800293	-79.4488754272461	24000	026
area	1624	321211	2435	-79.4488754272461	36.8304557800293	24000	026
area	1624	321211	2435	-79.4488754272461	36.8304557800293	24000	026
area	1624	321211	2435	-79.4488754272461	36.8304557800293	24000	026
area	1624	321211	2435	-79.4488754272461	36.8304557800293	24000	026
area	0107-4	321	2421	-79.4055633544922	36.8236083984375		027

al Accuracy	Reference	ence Point	e Data Sou	Location Default Flag	Data Source	Year
			087	SITE-AVG	M1	1999
			087	SITE-AVG	M1	1999
			087	SITE-AVG	M1	1999
			087	SITE-AVG	M1	1999
			087	SITE-AVG	M1	1999
			087	SITE-AVG	M1	1999
			087	SITE-AVG	M1	1999
			087	SITE-AVG	M1	1999
			087	SITE-AVG	M1	1999
			087	SITE-AVG	M1	1999
10000	001	108	084	SITE-AVG	M2	1999
			087	SITE-AVG	M1	1999
			087	SITE-AVG	M1	1999
			087	SITE-AVG	M1	1999
10000	001	108	084	SITE-AVG	M2	1999
10000	001	108	084	SITE-AVG	M2	1999
10000	001	108	084	SITE-AVG	M2	1999
10000	001	108	084	SITE-AVG	M2	1999
10000	001	108	084	SITE-AVG	M2	1999
			087	SITE-AVG	M1	1999

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----- Forwarded by Anne Pope/RTP/USEPA/US on 05/03/2004 09:54 AM -----

Anne Pope

To: [Phil Lorang/RTP/USEPA/US@EPA](mailto:Phil_Lorang/RTP/USEPA/US@EPA), Sarahmitchell@vintagedesigns.com
05/03/2004 09 AM

Subject: Re: Columbia Forest Products, Chatham, VA
(Document link: Anne Pope)

Attached is an excel file with emission data for this facility from the 1999 NEI for HAPs. We have emission reported for two type of operations - industrial wood boiler, and plywood manufacturing. I do not know if the criteria data you received accounted for the HAPs. We have high confidence in the plywood manufacturing data as they were collected as part of standards development.

(See attached file: mitchell columbia forst products VA.xls)

anne pope

Phil Lorang

To: [Anne Pope/RTP/USEPA/US@EPA](mailto:Anne_Pope/RTP/USEPA/US@EPA)
04/23/2004 08 AM

Subject: Re: Columbia Forest Products, Chatham, VA

Phil Lorang, Group Leader
Emission Factor and Inventory Group, EMAD, OAQPS, EPA
919-541-5463

----- Forwarded by Phil Lorang/RTP/USEPA/US on 04/23/2004 08:54 AM ---

sarahmitchell@vintagedesigns.com

To: [Phil Lorang/RTP/USEPA/US@EPA](mailto:Phil_Lorang/RTP/USEPA/US@EPA)
04/22/2004 10:51 AM

Subject: Re: Columbia Forest Products, Chatham, VA

Thank you for your help! I look forward to hearing from Ms. Pope.

I've received from the South Central Regional Office of Virginia's Department of Environmental Quality their emission data for Columbia Forest Products for the years 1998 to 2003. I have therefore been able to compare the DEQ records with the EPA records for 1998, 1999, 2001, and 2002. I noticed that none of the records correlate (for instance, in 2002 the DEQ says that the plant released 41.36 tons of carbon monoxide, whereas the EPA records read 7.53 tons of carbon monoxide). Do the two organizations have different methods of calculating emissions? I'm sure there must be some simple explanation for the discrepancies.....

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columbia_forest_products_va

State and (NTI Unique Facility Site Standard)	Location A	Locality	Na State	Location Zi	HAP Categ	Emissions	MACT Cod	MACT Sou	Year
5'143 NTIVA000' COLUMBI/ COLUMBI/100	Paul R	Chatham	VA	24531	Sum of 18	0.026283	0107-4	Industrial/C	1999
5'143 NTIVA000' COLUMBI/ COLUMBI/100	Paul R	Chatham	VA	24531	Arsenic Co	0.000104	0107-4	Industrial/C	1999
5'143 NTIVA000' COLUMBI/ COLUMBI/100	Paul R	Chatham	VA	24531	Cadmium (	2.56E-05	0107-4	Industrial/C	1999
5'143 NTIVA000' COLUMBI/ COLUMBI/100	Paul R	Chatham	VA	24531	Chromium	0.000'95	0107-4	Industrial/C	1999
5'143 NTIVA000' COLUMBI/ COLUMBI/100	Paul R	Chatham	VA	24531	Dioxins/Fu	3.05E-09	0107-4	Industrial/C	1999
5'143 NTIVA000' COLUMBI/ COLUMBI/100	Paul R	Chatham	VA	24531	Hydrochlor	0.009505	0107-4	Industrial/C	1999
5'143 NTIVA000' COLUMBI/ COLUMBI/100	Paul R	Chatham	VA	24531	Lead Comj	0.000548	0107-4	Industrial/C	1999
5'143 NTIVA000' COLUMBI/ COLUMBI/100	Paul R	Chatham	VA	24531	Manganese	0.015874	0107-4	Industrial/C	1999
5'143 NTIVA000' COLUMBI/ COLUMBI/100	Paul R	Chatham	VA	24531	Mercury Co	6.34E-06	0107-4	Industrial/C	1999
5'143 NTIVA000' COLUMBI/ COLUMBI/100	Paul R	Chatham	VA	24531	Naphthaler	1.07E-07	0107-4	Industrial/C	1999
5'143 NTIVA000' COLUMBI/ COLUMBI/100	Paul R	Chatham	VA	24531	Nickel Cor	2.56E-05	0107-4	Industrial/C	1999
5'143 NTIVA000' COLUMBI/ COLUMBI/100	Paul R	Chatham	VA	24531	Polycyclic (	5.85E-09	0107-4	Industrial/C	1999
5'143 NTIVA000' COLUMBI/ COLUMBI/100	Paul R	Chatham	VA	24531	Polycyclic (	1.05E-09	0107-4	Industrial/C	1999
5'143 NTIVA000' Columbia F	Paul R	Chatham	VA	24531	Sum of 18	0.467'81	1624	Plywood ar	1999
5'143 NTIVA000' Columbia F	Paul R	Chatham	VA	24531	Formaldeh	0.041'19	1624	Plywood ar	1999
5'143 NTIVA000' Columbia F	Paul R	Chatham	VA	24531	Methanol	0.27996	1624	Plywood ar	1999
5'143 NTIVA000' Columbia F	Paul R	Chatham	VA	24531	Methyl Isot	0.049867	1624	Plywood ar	1999
5'143 NTIVA000' Columbia F	Paul R	Chatham	VA	24531	Phenol	0.096235	1624	Plywood ar	1999