

Appendix E
Annual Air Emissions
Information on Maryland Power
Plants

Appendix - Characteristics of Maryland Power Plants (1993 Data)

Annual Emissions (TPY)										
Power Plant	Unit No.	Type	Start Date	Primary Fuel Type	Fuel Consumption*	Emissions Controls	Gen. Cap. (MW)	SO ₂	NO _x	PM
PEPCO Dickerson	1	Boiler	6/59	Coal	445,564	ESP/SC	190	12,603	3,716	229
	2	Boiler	4/60	Coal	437,271	ESP/SC	190	12,367	3,909	223
	3	Boiler	3/62	Coal	362,596	ESP/SC	190	10,184	3,237	185
	TOTAL:						570	35,154	10,862	637
(Station H) (Station H)	4	Turbine	1967	#2 Oil	18	---	13	0.09	0.9	0.03
	1	Turbine	1992	Nat. gas	1,123,638	WI	139	4.7	86	6.6
	2	Turbine	1993	Nat. gas	824,771	WI	139	4.7	60	7.1
	TOTAL:						291	9	147	14
PLANT TOTAL:										
PEPCO Morgantown	1	Boiler	6/70	Coal	1,010,809	ESP	603	35,772	13,143	1,917
	2	Boiler	6/71	Coal	1,184,508	ESP	603	41,276	15,377	2,243
	TOTAL:						1,206	77,048	28,520	4,160
	1	Turbine	1970	#2 Oil	141	---	16	1	6.7	0.2
	2	Turbine	1971	#2 Oil	129	---	16	0.8	6.1	0.2
	3	Turbine	1973	#2 Oil	916	---	54	6.2	43	2.1
	4	Turbine	1973	#2 Oil	836	---	54	5.9	39	2.0
	5	Turbine	1973	#2 Oil	898	---	54	6.2	42	2.4
	6	Turbine	1973	#2 Oil	850	---	54	5.9	39	2.0
	TOTAL:						248	26	176	8.9
PLANT TOTAL:										
PEPCO Chalk Point	1	Boiler	8/64	Coal	758,000	ESP	355	26,636	12,046	287
	2	Boiler	3/65	Coal	561,891	ESP	355	19,836	8,943	213
	3	Boiler	6/75	#6 Oil	96,948	---	640	14,481	2,394	753
	4	Boiler	12/81	#6 Oil	62,709	---	640	3,716	1,580	200
TOTAL:						1,990	64,669	24,963	1,453	

* Units: Coal -- tons; Oil -- thousand gallons; Nat. gas -- thousand cubic feet

Notes: ESP = Electrostatic precipitator
SC = Scrubber
WI = Water injection
MC = Multi-cyclone
MW = Megawatts
TPY = Tons per year

Appendix - Characteristics of Maryland Power Plants (1993 Data) (Continued)

Annual Emissions (TPY)											
Power Plant	Unit No.	Type	Start Date	Primary Fuel Type	Fuel Consumption*	Emissions Controls	Gen. Cap. (MW)	SO ₂	NO _x	PM	
PEPCO Chalk Point (Cont.)	1	Turbine	1967	#2 Oil	111	---	18	0.7	5.5	0.4	
	2	Turbine	1974	#2 Oil	145	---	30	1.0	7.2	0.3	
	3	Turbine	1991	Nat. gas	304,561	WI	83	6.8	25	2.3	
	4	Turbine	1991	Nat. gas	318,664	WI	83	3.2	8.4	0.5	
	5	Turbine	1991	Nat. gas	391,798	WI	105	1.5	7.8	0.7	
	6	Turbine	1991	Nat. gas	374,418	WI	105	2.5	10	0.6	
TOTAL:							424	16	64	4.8	
PLANT TOTAL:											
BGE Brandon Shores	1	Boiler	5/84	Coal	1,231,301	ESP	685	16,508	7,787	374	
	2	Boiler	5/91	Coal	1,709,138	ESP	685	22,935	11,900	562	
PLANT TOTAL:							1,370	39,443	19,687	936	
BGE C.P. Crane	1	Boiler	7/61	Coal	388,163	Baghouse	190	18,876	6,197	201	
	2	Boiler	2/63	Coal	433,632	Baghouse	209	21,901	7,746	110	
	TOTAL:							399	40,777	13,943	311
PLANT TOTAL:							14	0.8	1.9	0.1	
BGE H.A. Wegner	1	Boiler	2/56	Nat. gas	787,950	ESP/MC	133	663	202	12	
	2	Boiler	1/59	Coal	220,364	ESP/MC	136	3,659	2,430	114	
	3	Boiler	8/66	Coal	642,133	ESP	359	10,644	9,812	50	
	4	Boiler	8/72	#6 Oil	39,395	MC	415	3,072	1,624	115	
	TOTAL:							1,043	18,038	14,068	291
	2	Turbine	1967	#2 Oil	28	---	17	0.4	0.9	0.07	
PLANT TOTAL:							1,060	18,038	14,069	291	
BGE Gould Street	3	Boiler	12/52	#6 Oil	13,270	ESP	104	1,018	299	190	
	PLANT TOTAL:							104	1,018	299	190

* Units: Coal -- tons; Oil -- thousand gallons; Nat. gas -- thousand cubic feet

Notes: ESP = Electrostatic precipitator
SC = Scrubber
WI = Water injection
MC = Multi-cyclone
MW = Megawatts
TPY = Tons per year

* Units: Coal -- tons; Oil -- thousand gallons; Nat. gas -- thousand cubic feet

Notes: ESP = Electrostatic precipitator
SC = Scrubber
WI = Water injection
MC = Multi-cyclone
MW = Megawatts
TPY = Tons per year

Appendix - Characteristics of Maryland Power Plants (1993 Data) (Continued)

Power Plant							Annual Emissions (TPY)				
Power Plant	Unit No.	Type	Start Date	Primary Fuel Type	Fuel Consumption*	Emissions Controls	Gen. Cap. (MW)	SO ₂	NO _x	PM	
BGE Riverside	1	Boiler	1944	#6 Oil	578	ESP	60	44	20	1.2	
	2	Boiler	4/44	#6 Oil	0	ESP	60	0	0	0	
	3	Boiler	8/48	#6 Oil	433	ESP	60	32	17	1.2	
	4	Boiler	9/51	#6 Oil	1,427	MC	72	127	32	4.1	
	5	Boiler	8/53	#6 Oil	550	MC	81	541	246	18	
						TOTAL:	333	744	315	25	
	6	Turbine	1970	Nat. gas	42,219	---	128	1.1	8.8	0.3	
	7	Turbine	1970	#2 Oil	58	---	22	0.8	2.0	0.1	
	8	Turbine	1970	#2 Oil	41	---	22	0.5	1.8	0.1	
						TOTAL:	172	2.4	13	0.5	
						PLANT TOTAL:	505	746	328	26	
BGE Westport	3	Boiler	8/41	#6 Oil	1,322	ESP	60	103	40	2.2	
	4	Boiler	6/50	#6 Oil	1,852	ESP/MC	69	143	86	5.1	
						TOTAL:	129	246	126	7.3	
	1	Turbine	1969	Nat. gas	176,853	---	132	4.6	25	1.2	
						PLANT TOTAL:	261	251	151	8.5	
BGE Philadelphia Road	1	Turbine	1970	#2 Oil	106	---	14	1.5	3.6	0.3	
	2	Turbine	1970	#2 Oil	107	---	14	1.5	3.6	0.7	
	3	Turbine	1970	#2 Oil	35	---	14	0.5	1.2	0.1	
	4	Turbine	1970	#2 Oil	59	---	14	0.8	2.0	0.2	
						PLANT TOTAL:	56	4.3	10	1.3	
BGE Perryman	1	Turbine	1971	#2 Oil	392	---	50	5.4	13	1.0	
	2	Turbine	1971	#2 Oil	384	---	50	5.3	13	1.0	
	3	Turbine	1971	#2 Oil	506	---	50	7.0	17	1.3	
	4	Turbine	1971	#2 Oil	80	---	50	1.1	2.7	0.2	
						PLANT TOTAL:	200	19	46	3.5	

* Units: Coal -- tons; Oil -- thousand gallons; Nat. gas -- thousand cubic feet

Notes: ESP = Electrostatic precipitator
SC = Scrubber
WI = Water injection
MC = Multi-cyclone
MW = Megawatts
TPY = Tons per year

Appendix - Characteristics of Maryland Power Plants (1993 Data) (Continued)

Power Plant	Unit No.	Type	Start Date	Primary Fuel Type	Fuel Consumption*	Emissions Controls	Gen. Cap. (MW)	Annual Emissions (TPY)			
								SO ₂	NO _x	PM	
BGE Notch Cliff	1	Turbine	1969	Nat. gas	26,762	---	16	0.7	5.6	0.2	
	2	Turbine	1969	Nat. gas	34,606	---	16	0.9	7.3	0.2	
	3	Turbine	1969	Nat. gas	34,818	---	16	0.9	7.3	0.2	
	4	Turbine	1969	Nat. gas	32,146	---	16	0.7	5.7	0.2	
	5	Turbine	1969	Nat. gas	14,427	---	16	0.4	3.0	0.1	
	6	Turbine	1969	Nat. gas	21,808	---	16	0.7	4.6	0.2	
	7	Turbine	1969	Nat. gas	15,747	---	16	0.4	3.3	0.1	
	8	Turbine	1969	Nat. gas	20,487	---	16	0.5	4.3	0.1	
PLANT TOTAL:								5.2	41	1.3	
SMECO	1	Turbine	1990	Nat. gas	315,331	WI	77	3.1	29	0.9	
	PLANT TOTAL:							3.1	29	0.9	
PE R.P. Smith	3	Boiler	10/47	Coal	10,317	ESP	35	183	108	18	
	4	Boiler	11/58	Coal	114,277	ESP	75	2,028	1,200	195	
PLANT TOTAL:								2,211	1,308	213	
DP&L Vienna	8	Boiler	12/71	#6 Oil	42,779	MC	162	5,268	694	214	
	1	Turbine	1968	#2 Oil	237	---	16	1.5	5.6	0.4	
PLANT TOTAL:								5,270	700	214	
EUC Airport Park	1	Diesel	1978	#2 Oil	123	---	6.25	7.7	55	3.5	
	2	Diesel	1978	#2 Oil	100	---	6.25	6.3	45	2.8	
	3	Diesel	1989	#6 Oil	208	---	6.25	13	82	5.2	
	4	Diesel	1989	#6 Oil	225	---	6.25	14	85	5.8	
PLANT TOTAL:								41	267	17	

* Units: Coal -- tons; Oil -- thousand gallons; Nat. gas -- thousand cubic feet

Notes: ESP = Electrostatic precipitator
SC = Scrubber
WI = Water injection
MC = Multi-cyclone
MW = Megawatts
TPY = Tons per year

Appendix - Characteristics of Maryland Power Plants (1993 Data) (Continued)

Annual Emissions (TPY)											
Power Plant	Unit No.	Type	Start Date	Primary Fuel Type	Fuel Consumption*	Emissions Controls	Gen. Cap. (MW)	SO ₂	NO _x	PM	
EUC Easton	4	Diesel	1941	#2 Oil	1	---	0.6	0.001	0.02	0.001	
	5	Diesel	1947	#2 Oil	1	---	0.8	0.004	0.06	0.005	
	6	Diesel	1950	#2 Oil	1	---	1.2	0.005	0.08	0.006	
	7	Diesel	1954	#2 Oil	20	---	2.4	0.3	7.7	0.4	
	8	Diesel	1957	#2 Oil	29	---	2.5	0.5	6.7	0.5	
	9	Diesel	1961	#2 Oil	34	---	2.2	0.6	7.4	0.6	
	10	Diesel	1966	#2 Oil	62	---	3.5	1.0	14	1.1	
	11	Diesel	1968	#2 Oil	52	---	3.6	0.8	12	0.9	
	12	Diesel	1970	#2 Oil	77	---	4.1	1.2	31	1.3	
	13	Diesel	1973	#2 Oil	99	---	5.6	1.6	59	1.7	
	14	Diesel	1973	#2 Oil	91	---	5.6	1.5	51	1.7	
	PLANT TOTAL:						32	7.5	189	8.2	
	Town of Berlin	1	Diesel	1937	#2 Oil	6	---	0.2	0.1	1.4	0.1
		2	Diesel	1939	#2 Oil	8	---	0.3	0.2	2.1	0.2
3		Diesel	1950	#2 Oil	15	---	0.56	0.3	3.6	0.4	
4		Diesel	1990	#2 Oil	39	---	2.5	0.2	2.4	0.06	
5		Diesel	1961	#2 Oil	27	---	1.14	0.6	6.8	0.7	
PLANT TOTAL:						4.7	1.4	16	1.5		

* Units: Coal -- tons; Oil -- thousand gallons; Nat. gas -- thousand cubic feet

Notes: ESP = Electrostatic precipitator
SC = Scrubber
WI = Water injection
MC = Multi-cyclone
MW = Megawatts
TPY = Tons per year

Stationary Source NOx Emissions in Maryland 1980-1994

Year	Emissions (TPY)	
	Power Plants	All Sources
1980	67482	113056
1981	58364	103173
1982	58364	103396
1983	68413	107229
1984	77219	115595
1985	86555	125453
1986	76078	109919
1987	82925	118475
1988	90580	127066
1989	102785	138234
1990	120396	156113
1991	84574	128107
1992	113327	155752
1993	116323	149858
1994	115045	152871

Stationary Source SOx Emissions in Maryland 1980-1994

Year	Emissions (TPY)	
	Power Plants	All Sources
1980	219472	281280
1981	199056	257681
1982	199056	257882
1983	215547	268184
1984	225207	274689
1985	244920	294290
1986	241025	281255
1987	250266	293229
1988	278282	323608
1989	301233	345073
1990	282971	322326
1991	249122	293044
1992	269809	310085
1993	284843	334074
1994	254775	295286

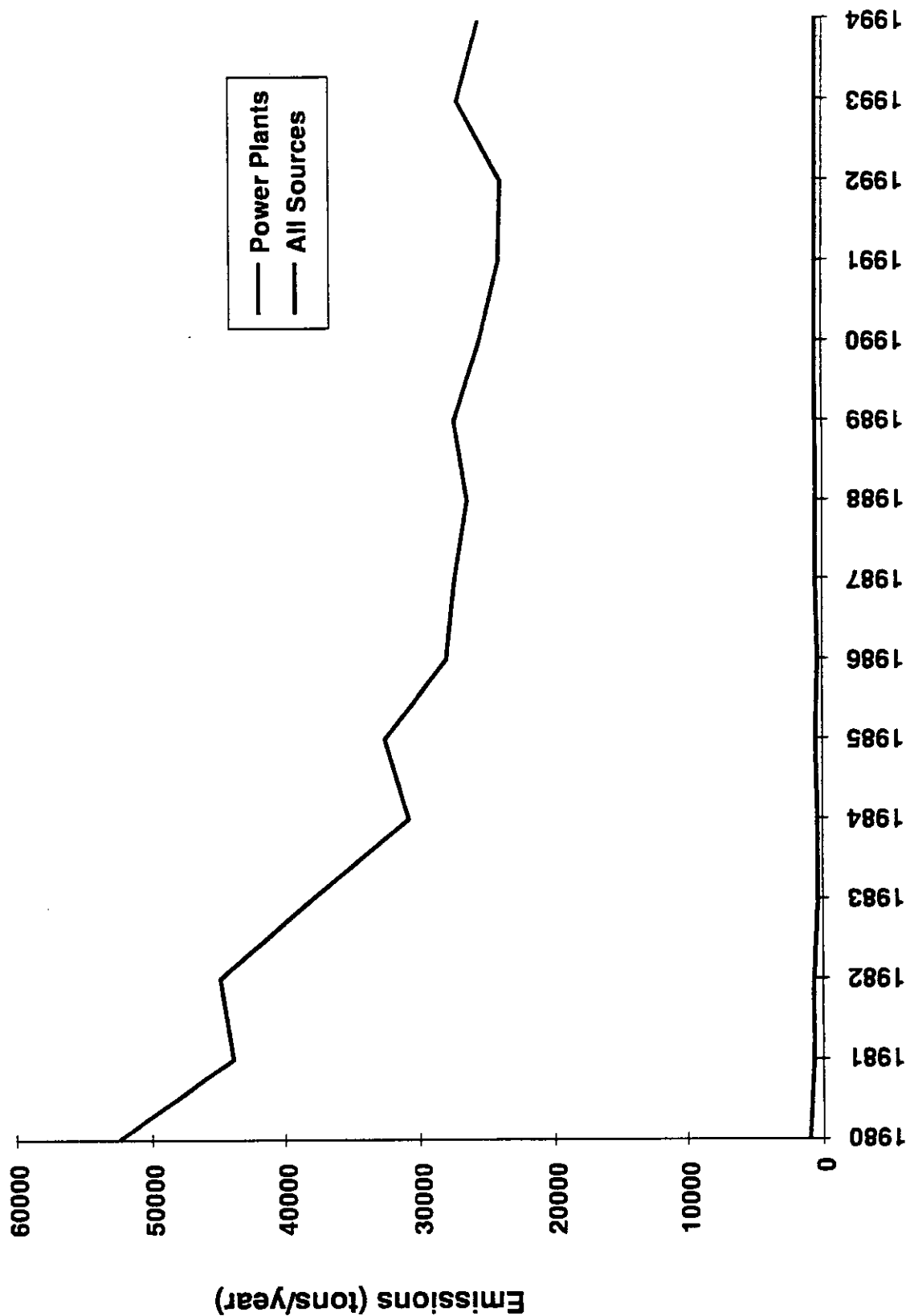
Stationary Source VOC Emissions in Maryland 1980-1994

Year	Emissions (TPY)	
	Power Plants	All Sources
1980	1017	52286
1981	706	43935
1982	706	44780
1983	358	38037
1984	395	30738
1985	445	32477
1986	368	27993
1987	441	27254
1988	474	26352
1989	557	27350
1990	464	25360
1991	417	23873
1992	468	23718
1993	512	26985
1994	556	25351

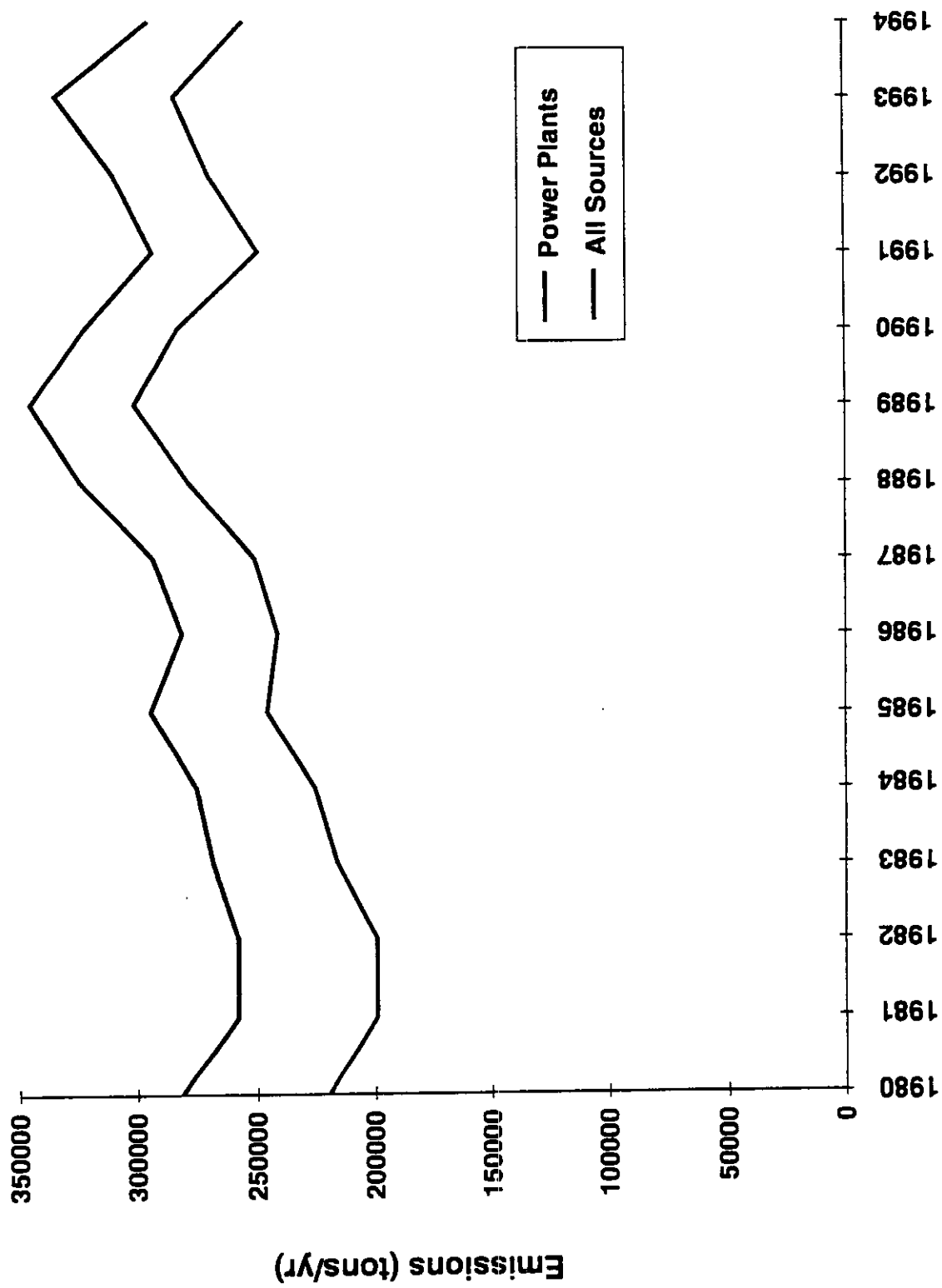
Stationary Source PM Emissions in Maryland 1980-1994

Year	Emissions (TPY)	
	Power Plants	All Sources
1980	14198	39947
1981	6074	30470
1982	6074	30652
1983	5344	25735
1984	5920	28762
1985	6439	29747
1986	5223	25307
1987	4501	22622
1988	6007	24391
1989	9230	25661
1990	5518	22918
1991	5280	20928
1992	7876	21053
1993	8504	20611
1994	5480	18343

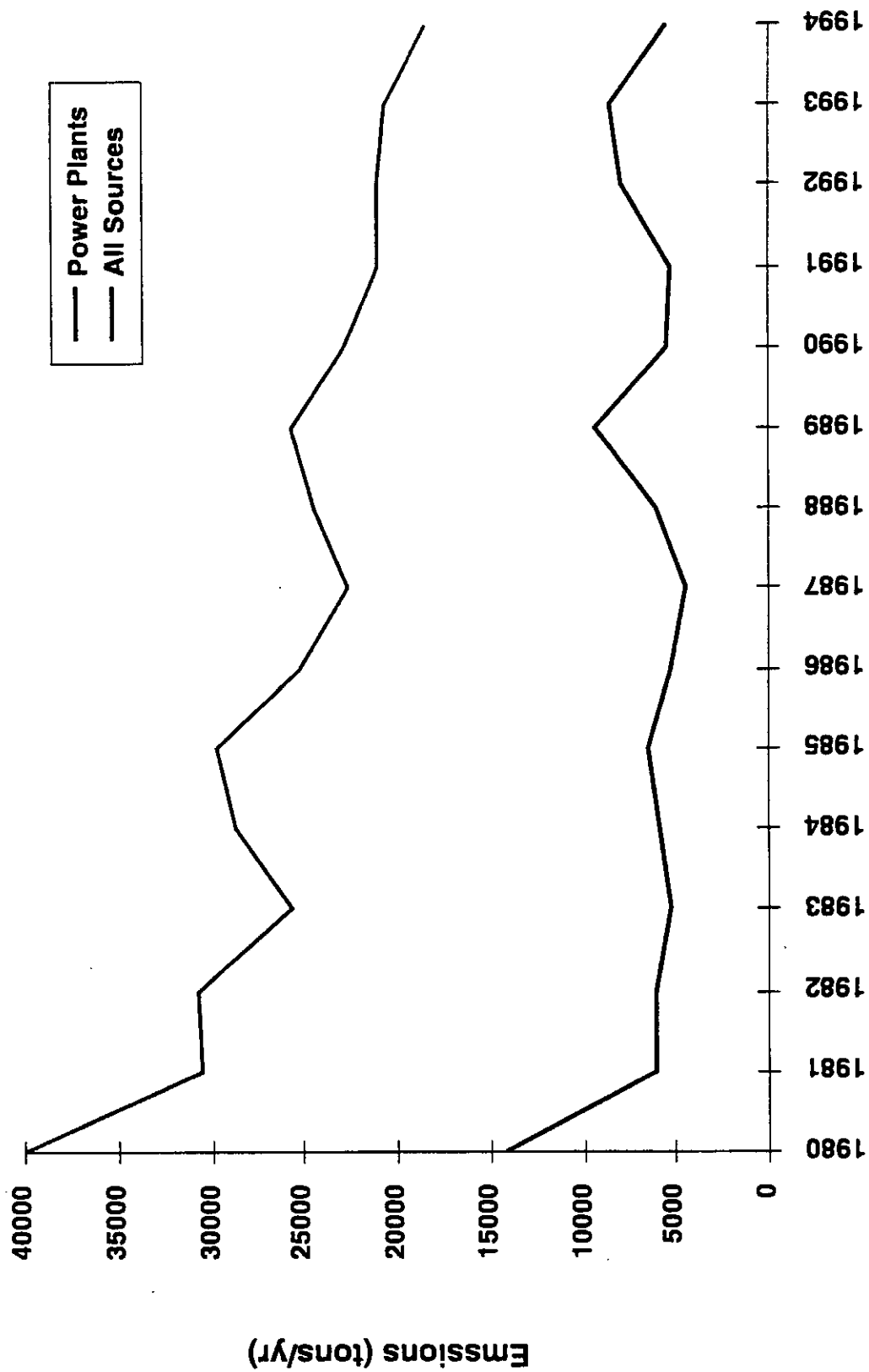
Stationary Source VOC Emissions in Maryland 1980-1994



Stationary Source SO_x Emissions in Maryland 1980-1994



Stationary Source PM Emissions in Maryland 1980-1994



Stationary Source NO_x Emissions in Maryland 1980-1994

