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Office of Air Quality  
Planning and Standards  
Research Triangle Park, NC 27711

EPA-454/R-93-021b  
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Air

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# REGIONAL INTERIM EMISSION INVENTORIES (1987-1991)

## VOLUME II: EMISSION SUMMARIES



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## **FOREWORD**

The purpose of these interim inventories is to provide a preliminary base year regional inventory from which Regional Oxidant Modeling (ROM) can be performed in support of the State Urban Airshed Modeling (UAM). The primary reason for releasing these inventories at this time is to allow for comparison between the emissions data currently being used in ROM and the State emissions data submitted into AIRS and being used in the UAM State Implementation Plan applications.

EPA's long term plan is to incorporate the State submitted emissions data from AIRS into these interim inventories thereby assuring that the ROM modeling and UAM modeling are based on consistent inventories. In releasing these inventories now, before this full incorporation is complete, we hope to avoid any major problems in unknown data inconsistencies which may occur due to the differences in the two data sets.

## **ACKNOWLEDGEMENTS**

This report describes the development of Interim Regional Emission Inventories for the years 1987 - 1991, a project administered by the U.S. Environmental Protection Agency (EPA) Office of Air Quality Planning and Standards (OAQPS). The project has been a cooperative effort involving personnel from both the OAQPS Emission Inventory (EIB) and Source Receptor Analysis (SRAB) Branches.

Principal data gathering, computer analysis and quality assurance were performed by E.H. Pechan and Associates, Incorporated and EC/R Incorporated under EPA Contract No. 68-D0-0120, Work Assignment No. II-60. Chet Wayland of SRAB was the principal Work Assignment Manager. David Mobley, Steve Bromberg, and David Misenheimer of the EIB and Norm Possiel of the SRAB also contributed to this effort.

## **EXECUTIVE SUMMARY**

The Clean Air Act Amendments of 1990 (Act) require many States to perform urban scale modeling analyses to demonstrate that proposed control strategies are sufficient to attain the National Ambient Air Quality Standard (NAAQS) for ozone. Results obtained with urban models may be sensitive to assumptions made about pollution transported into the urban modeling domain. Thus, the Environmental Protection Agency (EPA) will be running the ROM to provide base and future year boundary conditions. For the base year, this entails multiple ROM runs covering approximately 180 episode days over a 5 year period (1987-91). For the future base year modeling, attainment years 1996, 1999, 2005 and 2007 will need to be modeled. To support ROM runs, an emission inventory is needed for the regional airshed. Since States are not required to develop or submit State-wide emission inventories for all source categories and since nonattainment area emission inventories are not required to be submitted and approved in a time-frame to support ROM runs, EPA developed an interim emission inventory for 1987 to 1991 base years.

The 1987 - 1991 Interim Regional Emission Inventories are composed of annual, county-level estimates by source category of point, area and mobile source emissions. The methodologies used in developing these components are discussed in detail in "1987-1991 Interim Regional Emission Inventories: Volume I, Development Methodologies". "Volume II, Interim Emissions Summary", contains summaries of the results. "Volume III, Incorporation Methodologies", will describe methodologies to incorporate the State data into the interim data. "Volume IV, Emissions Summary", will present results from State submittals and EPA estimates. Volumes III and IV should be released later this year.

Because urban model performance will be evaluated for episodes in 1987-91, a regionwide inventory must be available for use in ROM for each of these years. This regional inventory is labeled as a "interim inventory", because the plan is to ultimately incorporate the State 1990 submittals into the 1990 interim regional inventory to ensure that the ROM and the UAM are using emissions data which are as similar as possible. Areas where State submittals are not available or required would be covered by the interim inventory.

Initially, the base year ROM runs (1987-91) will be based entirely on the interim regional inventory in order to provide timely information to States for their evaluation of urban model performance. The future year (1996, 1999, 2005, 2007) ROM runs will be based on a revised version of the 1990 interim inventory which includes as much State data as can be included by the time the modeling must begin.

As previously noted, the interim regional inventories are not intended to replace the State inventory submittals. Further, the 1987 - 1991 interim regional inventories are county-level, annual emission estimates (i.e., they include no activity data or emission

factor data.) Thus, the information provided by the interim inventory is not compatible with the information required for AIRS submittals.

A summary of how the 1987 - 1991 interim regional inventories have been derived follows.

- Point Source Data:
  - Fossil-Fuel Steam Utilities
  - Derived from Forms EIA-767 and EIA-759 for each year (1987-91)
  - Non-Utility Point
  - Projected from 1985 NAPAP Inventory values for each year ('87-'91)
- Area Source Data:
  - Solvents
    - Solvent usage estimates obtained for 1989 and backcasted/projected for each year ('87-'88, '90-'91) based on U.S. Paint Industry Data Base and Industrial Solvent Marketing reports
  - Other Area Sources
    - Projected from the 1985 NAPAP Inventory for each year ('87-'91) using Bureau of Economic Analysis (BEA) earnings and population data and State Energy Data System (SEDS) fuel consumption data
  - Off-Highway Sources
    - Based on EPA's 1990 off-highway emission estimates and projected/backcasted using BEA data for other years ('87-89, '91)
- Mobile Source Data:
  - Vehicle Miles Traveled (VMT)
    - Federal Highway Administration's Highway Performance Monitoring System (HPMS) for all years ('87-'91)
  - Mobile Emission Factors
    - EPA's MOBILE5 Mobile Source Emission Factor Model for all years ('87-'91)

This methodology should produce an emission inventory which presents a reasonable representation of aggregate emissions from a large geographic area. The results for a given source or locality (e.g., nonattainment area) cannot be as accurate as estimates derived from site-specific information. Therefore, caution should be exercised in any interpretation or use of information from the interim inventory.

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## **SECTION I**

## **INTRODUCTION**

## **SECTION I INTRODUCTION**

The U.S. Environmental Protection Agency (EPA) is planning to conduct regional oxidant modeling for much of the Eastern United States. To support this modeling, a comprehensive 1990 emission inventory is needed. Under the Clean Air Act (CAA), States were required to submit 1990 emission inventories, but many of these inventories were not completed by the November 1992 deadline. In addition, States were required to submit inventories only for their nonattainment areas, while regional modeling requires emissions for all counties. Theoretically, this 1990 point source data should be available from the AIRS Facility Subsystem (AFS), but few States have updated their point source data to reflect a base year of 1990, or are expected to do so in time to be utilized in this analysis.

This effort focused on the development of a comprehensive 1990 emissions inventory -- the 1990 Interim Inventory. Since many of the ozone episodes to be simulated occurred in years other than 1990, emission inventory data for years other than 1990 (1987, 1988, 1989, 1990, and 1991) are also needed. The pollutants covered in this inventory are volatile organic compounds (VOC), nitrogen oxides ( $\text{NO}_x$ ), carbon monoxide (CO), and sulfur dioxide ( $\text{SO}_2$ ).

The purpose of this volume is to provide emission summaries of this inventory at the national, regional, State, and ozone nonattainment area level. The tiered approach to source categorization was used for the emission summary tables in this volume. The tiered approach consists of broad category assignments at the highest level (Tier 1), more focused subcategories at the intermediate level (Tier 2), and pollutant specific categories at the lowest level (Tier 3). Tier 3 categories were designed such that sources affected by the same regulations and standards (such as CTG, NSPS, or NESHAPS) would be in the same Tier 3 category. All of the summary tables in this volume list emissions at the Tier 1 level.

This volume is divided into five sections: (1) Introduction, (2) National Summary Table, (3) Regional Summary Tables, (4) State Summary Tables, (5) Ozone Nonattainment Area Summary Tables. The ozone nonattainment summary tables include emissions for ozone nonattainment areas classified as serious or above. Since the Interim Inventory is a county-level inventory, the ozone nonattainment area summaries contain *total* county emissions for all counties *entirely within or partially within a nonattainment area*. Counties partially within more than one nonattainment area were assigned to a single nonattainment area. For nonattainment areas that span more than one State, the ozone nonattainment summary tables include emissions from all counties within the nonattainment area, regardless of which State the counties are in.

**SECTION II**  
**NATIONAL SUMMARY TABLE, 1987-1991**

**Table II-1**  
**National Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	33,656	36,312	37,084	35,507	35,230	
02	Fuel Combustion - Industrial	422,362	289,885	284,062	284,183	289,200	
03	Fuel Combustion - Other	482,392	470,437	452,275	436,525	425,996	
04	Chemical and Allied Prod. Mfg	1,633,317	1,751,859	1,747,822	1,771,030	1,778,220	
05	Metals Processing	69,722	73,809	73,875	72,322	69,405	
06	Petro. & Related Industries	752,000	732,771	730,607	736,992	745,003	
07	Other Industrial Processes	460,309	478,563	476,430	477,839	475,411	
08	Solvent Utilization	5,828,445	6,034,028	6,052,726	6,063,062	6,063,958	
09	Storage and Transport	1,893,225	1,947,625	1,856,260	1,861,130	1,867,551	
10	Waste Disposal & Recycling	2,256,312	2,309,934	2,290,017	2,261,766	2,217,434	
11	Highway Vehicles	7,996,798	7,859,792	6,927,238	6,778,531	6,619,474	
12	Off-Highway	2,249,030	2,227,375	2,177,682	2,119,513	2,060,164	
14	Miscellaneous	566,540	584,789	579,055	576,391	567,393	
	<b>Total</b>	<b>24,644,107</b>	<b>24,797,177</b>	<b>23,685,132</b>	<b>23,474,789</b>	<b>23,214,440</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	7,111,381	7,513,871	7,591,050	7,510,033	7,435,945	
02	Fuel Combustion - Industrial	3,294,220	3,442,664	3,475,191	3,534,932	3,603,913	
03	Fuel Combustion - Other	709,615	737,353	729,533	731,552	744,979	
04	Chemical and Allied Prod. Mfg	369,918	397,305	393,826	398,188	400,421	
05	Metals Processing	75,768	82,147	83,447	81,311	78,727	
06	Petro. & Related Industries	100,654	99,824	96,765	100,461	102,891	
07	Other Industrial Processes	319,510	314,775	310,726	305,886	297,763	
08	Solvent Utilization	2,557	2,656	2,589	2,494	2,394	
09	Storage and Transport	3,102	3,458	3,445	3,482	3,517	
10	Waste Disposal & Recycling	85,273	85,224	83,755	82,300	80,822	
11	Highway Vehicles	8,017,896	8,141,176	7,880,436	8,023,767	7,933,603	
12	Off-Highway	2,722,711	2,826,402	2,855,244	2,842,972	2,769,223	
14	Miscellaneous	131,542	134,295	133,413	133,008	131,625	
	<b>Total</b>	<b>22,944,146</b>	<b>23,781,149</b>	<b>23,639,420</b>	<b>23,750,385</b>	<b>23,585,822</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	298,954	311,428	317,896	313,049	310,758	
02	Fuel Combustion - Industrial	680,983	704,954	709,305	715,795	723,349	
03	Fuel Combustion - Other	6,338,005	6,171,792	5,942,112	5,726,064	5,582,746	
04	Chemical and Allied Prod. Mfg	1,755,989	1,873,063	1,879,781	1,892,841	1,905,516	
05	Metals Processing	1,984,420	2,100,507	2,131,507	2,079,906	1,992,126	
06	Petro. & Related Industries	454,581	440,888	436,410	435,153	438,951	
07	Other Industrial Processes	712,937	710,752	715,894	716,737	711,308	
08	Solvent Utilization	1,532	1,659	1,698	1,694	1,678	
09	Storage and Transport	91,378	100,493	100,850	101,537	103,266	
10	Waste Disposal & Recycling	1,850,485	1,806,198	1,747,157	1,686,116	1,644,094	
11	Highway Vehicles	66,519,305	66,249,272	61,169,208	61,146,034	60,296,515	
12	Off-Highway	15,332,813	15,295,752	14,996,750	14,641,662	14,237,627	
14	Miscellaneous	4,198,049	4,327,034	4,285,805	4,266,745	4,202,042	
	<b>Total</b>	<b>100,219,431</b>	<b>100,093,791</b>	<b>94,434,374</b>	<b>93,723,332</b>	<b>92,149,975</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	15,690,428	15,965,257	16,191,610	15,843,828	15,585,541	
02	Fuel Combustion - Industrial	3,067,924	3,111,028	3,085,505	3,105,807	3,139,469	
03	Fuel Combustion - Other	662,565	660,036	622,988	597,447	607,953	
04	Chemical and Allied Prod. Mfg	409,853	432,511	423,389	423,514	425,804	
05	Metals Processing	945,706	1,031,547	986,970	908,160	873,987	
06	Petro. & Related Industries	445,277	442,904	428,569	439,675	443,833	
07	Other Industrial Processes	418,387	410,947	405,113	401,135	391,412	
08	Solvent Utilization	863	895	869	836	805	
09	Storage and Transport	18,925	20,759	20,734	20,793	21,012	
10	Waste Disposal & Recycling	34,945	36,441	36,302	36,400	36,318	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	239,797	253,795	259,375	265,401	273,778	
14	Miscellaneous	4,321	4,321	4,321	4,321	4,321	
	<b>Total</b>	<b>21,938,992</b>	<b>22,370,441</b>	<b>22,465,745</b>	<b>22,047,318</b>	<b>21,804,234</b>	

**SECTION III**  
**REGIONAL SUMMARY TABLES, 1987-1991**

**Table III-1**  
**Region 1 Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
VOC							
	01	Fuel Comb. - Electric Utilities	1,889	2,135	2,131	1,727	1,613
	02	Fuel Combustion - Industrial	4,619	4,632	4,636	4,517	4,372
	03	Fuel Combustion - Other	32,733	32,049	31,068	29,883	29,390
	04	Chemical and Allied Prod. Mfg	14,598	14,717	14,735	14,855	14,741
	05	Metals Processing	1	1	1	1	1
	06	Petro. & Related Industries	855	940	916	790	755
	07	Other Industrial Processes	9,464	9,532	9,169	8,967	8,665
	08	Solvent Utilization	311,889	325,173	321,462	316,092	313,906
	09	Storage and Transport	71,358	74,200	68,510	67,835	67,274
	10	Waste Disposal & Recycling	25,062	24,744	23,980	23,080	22,467
	11	Highway Vehicles	359,313	348,859	289,934	304,000	298,900
	12	Off-Highway	110,504	109,365	105,145	100,025	96,777
	14	Miscellaneous	2,955	2,926	2,979	2,967	2,859
		Total	945,240	949,272	874,666	874,737	861,719
NOx							
	01	Fuel Comb. - Electric Utilities	133,177	140,414	146,627	131,078	124,652
	02	Fuel Combustion - Industrial	40,806	43,850	39,776	41,799	43,448
	03	Fuel Combustion - Other	51,791	54,763	55,599	57,406	59,521
	04	Chemical and Allied Prod. Mfg	32	34	36	37	36
	05	Metals Processing	0	0	0	0	0
	06	Petro. & Related Industries	35	38	34	31	29
	07	Other Industrial Processes	2,651	2,616	2,550	2,463	2,333
	08	Solvent Utilization	5	5	5	5	5
	09	Storage and Transport	0	0	0	0	0
	10	Waste Disposal & Recycling	5,221	5,376	5,379	5,308	5,187
	11	Highway Vehicles	354,031	344,721	328,707	355,997	354,250
	12	Off-Highway	89,863	95,470	90,903	83,448	76,638
	14	Miscellaneous	381	376	384	383	366
		Total	677,991	687,662	670,000	677,954	666,465
CO							
	01	Fuel Comb. - Electric Utilities	8,752	9,173	9,764	8,490	7,668
	02	Fuel Combustion - Industrial	20,320	20,837	20,325	20,115	19,841
	03	Fuel Combustion - Other	424,010	414,114	400,840	384,761	377,403
	04	Chemical and Allied Prod. Mfg	183	203	222	246	240
	05	Metals Processing	1,498	1,515	1,409	1,304	1,239
	06	Petro. & Related Industries	49	52	48	43	41
	07	Other Industrial Processes	12,113	12,238	12,140	11,666	11,169
	08	Solvent Utilization	31	32	35	33	31
	09	Storage and Transport	29	31	32	30	28
	10	Waste Disposal & Recycling	106,617	105,049	102,157	98,351	96,156
	11	Highway Vehicles	3,210,433	3,130,853	2,809,513	3,012,658	2,990,947
	12	Off-Highway	627,606	624,560	601,211	571,337	550,600
	14	Miscellaneous	16,557	16,344	16,723	16,637	15,858
		Total	4,428,197	4,335,001	3,974,418	4,125,670	4,071,221
SO2							
	01	Fuel Comb. - Electric Utilities	385,677	425,501	427,672	367,030	357,118
	02	Fuel Combustion - Industrial	99,167	96,420	93,611	91,605	87,423
	03	Fuel Combustion - Other	60,598	69,223	66,443	68,732	71,229
	04	Chemical and Allied Prod. Mfg	291	306	329	316	304
	05	Metals Processing	5	5	5	5	4
	06	Petro. & Related Industries	78	85	76	68	65
	07	Other Industrial Processes	5,463	5,467	5,377	5,132	4,852
	08	Solvent Utilization	1	1	1	1	1
	09	Storage and Transport	0	0	0	0	0
	10	Waste Disposal & Recycling	2,989	3,231	3,322	3,354	3,270
	11	Highway Vehicles	0	0	0	0	0
	12	Off-Highway	2,030	2,139	2,167	2,216	2,317
	14	Miscellaneous	0	0	0	0	0
		Total	556,299	602,377	599,003	538,458	526,583

**Table III-2**  
**Region 2 Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	2,542	3,020	3,151	2,789	2,461	
02	Fuel Combustion - Industrial	11,952	8,809	8,534	8,209	7,871	
03	Fuel Combustion - Other	41,602	40,359	38,534	37,001	36,044	
04	Chemical and Allied Prod. Mfg	78,603	85,002	82,870	85,650	83,293	
05	Metals Processing	5,202	5,559	5,542	5,693	5,595	
06	Petro. & Related Industries	16,296	15,745	17,388	14,106	16,307	
07	Other Industrial Processes	56,458	64,800	62,837	59,567	57,082	
08	Solvent Utilization	488,503	509,004	503,468	494,707	491,213	
09	Storage and Transport	169,828	170,790	163,475	161,744	157,721	
10	Waste Disposal & Recycling	97,891	99,134	95,652	91,865	88,314	
11	Highway Vehicles	645,811	593,932	515,253	490,804	472,883	
12	Off-Highway	143,354	142,329	137,617	132,213	127,017	
14	Miscellaneous	6,010	6,010	6,010	6,010	6,010	
	Total	1,764,053	1,744,493	1,640,332	1,590,358	1,551,812	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	226,636	246,296	269,139	255,851	234,912	
02	Fuel Combustion - Industrial	82,965	86,981	87,247	85,359	83,335	
03	Fuel Combustion - Other	110,757	114,220	108,221	111,968	114,416	
04	Chemical and Allied Prod. Mfg	13,001	14,128	14,061	14,427	14,175	
05	Metals Processing	3,311	3,323	3,251	3,104	2,907	
06	Petro. & Related Industries	224	216	218	225	221	
07	Other Industrial Processes	6,121	6,317	6,074	5,788	5,512	
08	Solvent Utilization	6	7	7	6	6	
09	Storage and Transport	75	79	78	82	81	
10	Waste Disposal & Recycling	10,276	10,637	10,731	10,795	10,617	
11	Highway Vehicles	621,731	586,895	578,150	573,811	558,464	
12	Off-Highway	149,215	155,783	154,785	149,325	139,288	
14	Miscellaneous	816	816	816	816	816	
	Total	1,225,132	1,225,698	1,232,778	1,211,556	1,164,749	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	15,139	16,198	17,474	16,965	15,473	
02	Fuel Combustion - Industrial	14,547	14,195	14,226	14,002	13,602	
03	Fuel Combustion - Other	527,796	511,384	490,294	469,045	456,457	
04	Chemical and Allied Prod. Mfg	4,148	4,584	4,444	4,572	4,432	
05	Metals Processing	560	510	485	466	434	
06	Petro. & Related Industries	270	260	263	271	267	
07	Other Industrial Processes	19,522	14,566	13,930	13,757	13,148	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	14	14	14	14	14	
10	Waste Disposal & Recycling	99,774	98,169	95,141	91,879	89,523	
11	Highway Vehicles	5,392,089	5,070,208	4,720,916	4,628,221	4,522,255	
12	Off-Highway	1,139,273	1,139,814	1,101,439	1,057,912	1,013,972	
14	Miscellaneous	33,590	33,590	33,590	33,590	33,590	
	Total	7,246,721	6,903,492	6,492,216	6,330,694	6,163,165	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	506,993	499,286	540,412	520,788	486,625	
02	Fuel Combustion - Industrial	150,592	164,659	161,469	157,305	151,432	
03	Fuel Combustion - Other	113,114	113,711	97,361	100,641	100,873	
04	Chemical and Allied Prod. Mfg	6,066	6,581	6,524	6,710	6,581	
05	Metals Processing	4,273	4,196	4,264	4,116	3,933	
06	Petro. & Related Industries	5,347	5,163	5,221	5,380	5,296	
07	Other Industrial Processes	3,254	3,180	3,064	2,924	2,773	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	6	7	6	7	6	
10	Waste Disposal & Recycling	5,702	6,036	6,183	6,311	6,224	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	15,153	16,055	16,419	16,819	17,271	
14	Miscellaneous	4	4	4	4	4	
	Total	810,503	818,879	840,927	821,005	781,018	

**Table III-3**  
**Region 3 Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	3,942	4,181	4,455	3,725	3,667	
02	Fuel Combustion - Industrial	4,990	5,075	5,127	5,078	4,944	
03	Fuel Combustion - Other	69,639	67,312	64,181	62,049	60,574	
04	Chemical and Allied Prod. Mfg	177,538	183,827	182,822	195,257	193,502	
05	Metals Processing	11,839	12,496	12,887	12,324	11,429	
06	Petro. & Related Industries	34,549	34,693	34,736	35,144	35,248	
07	Other Industrial Processes	32,302	32,254	31,548	30,981	30,209	
08	Solvent Utilization	701,898	732,697	733,060	731,000	722,523	
09	Storage and Transport	154,842	158,692	149,326	149,972	150,117	
10	Waste Disposal & Recycling	452,793	463,831	458,208	446,943	422,753	
11	Highway Vehicles	779,630	766,022	660,059	633,728	616,930	
12	Off-Highway	195,813	194,604	190,117	184,259	177,608	
14	Miscellaneous	8,280	8,289	8,295	8,290	8,276	
	<b>Total</b>	<b>2,628,057</b>	<b>2,663,972</b>	<b>2,534,821</b>	<b>2,498,750</b>	<b>2,437,779</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	875,779	920,468	943,226	872,342	839,822	
02	Fuel Combustion - Industrial	231,693	234,302	235,964	236,371	233,407	
03	Fuel Combustion - Other	89,838	87,795	87,748	87,828	89,062	
04	Chemical and Allied Prod. Mfg	14,899	15,304	14,539	14,060	13,769	
05	Metals Processing	9,979	9,979	10,432	10,143	9,406	
06	Petro. & Related Industries	3,841	3,823	3,666	3,816	3,803	
07	Other Industrial Processes	35,679	36,051	35,466	34,245	32,509	
08	Solvent Utilization	1,835	1,915	1,863	1,776	1,686	
09	Storage and Transport	55	56	54	54	53	
10	Waste Disposal & Recycling	10,144	10,095	9,929	9,753	9,563	
11	Highway Vehicles	761,816	777,653	754,848	767,546	761,377	
12	Off-Highway	230,846	244,375	248,675	244,951	231,249	
14	Miscellaneous	1,372	1,373	1,374	1,373	1,371	
	<b>Total</b>	<b>2,267,777</b>	<b>2,343,189</b>	<b>2,347,782</b>	<b>2,284,258</b>	<b>2,227,078</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	30,564	31,963	33,541	29,855	29,058	
02	Fuel Combustion - Industrial	35,381	35,597	36,063	36,263	35,958	
03	Fuel Combustion - Other	897,106	868,458	830,024	800,412	780,704	
04	Chemical and Allied Prod. Mfg	275,601	283,824	273,842	272,775	267,909	
05	Metals Processing	299,443	315,427	322,661	311,105	292,558	
06	Petro. & Related Industries	36,884	38,545	37,672	37,054	37,354	
07	Other Industrial Processes	25,344	25,613	25,819	25,651	24,983	
08	Solvent Utilization	37	45	51	50	45	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	134,731	131,535	127,084	122,663	119,201	
11	Highway Vehicles	6,499,802	6,527,469	5,973,131	5,902,332	5,824,374	
12	Off-Highway	1,447,181	1,441,752	1,409,634	1,365,682	1,316,476	
14	Miscellaneous	51,379	51,447	51,486	51,451	51,349	
	<b>Total</b>	<b>9,733,451</b>	<b>9,751,673</b>	<b>9,121,007</b>	<b>8,955,291</b>	<b>8,779,969</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	2,661,727	2,746,529	2,756,351	2,649,619	2,582,078	
02	Fuel Combustion - Industrial	324,384	329,381	323,193	321,965	315,009	
03	Fuel Combustion - Other	129,683	111,828	106,854	105,206	105,048	
04	Chemical and Allied Prod. Mfg	15,404	16,059	15,814	16,344	16,026	
05	Metals Processing	67,984	71,277	73,680	70,824	65,990	
06	Petro. & Related Industries	33,570	34,636	33,097	33,373	33,503	
07	Other Industrial Processes	57,259	56,902	56,216	54,733	52,213	
08	Solvent Utilization	685	714	696	667	638	
09	Storage and Transport	1,962	2,017	1,938	1,926	1,890	
10	Waste Disposal & Recycling	3,823	3,918	3,953	3,980	3,936	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	22,683	24,021	24,555	25,140	25,884	
14	Miscellaneous	26	26	26	26	26	
	<b>Total</b>	<b>3,319,190</b>	<b>3,397,307</b>	<b>3,396,375</b>	<b>3,283,801</b>	<b>3,202,239</b>	

**Table III-4**  
**Region 4 Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	7,342	7,877	7,798	7,942	8,132	
02	Fuel Combustion - Industrial	25,945	25,678	25,699	25,706	25,634	
03	Fuel Combustion - Other	100,187	97,898	93,879	90,676	88,595	
04	Chemical and Allied Prod. Mfg	452,959	463,584	468,600	472,730	468,962	
05	Metals Processing	12,972	13,915	13,930	13,906	13,443	
06	Petro. & Related Industries	101,463	96,263	99,812	100,947	101,017	
07	Other Industrial Processes	129,411	131,719	130,944	131,830	132,435	
08	Solvent Utilization	1,097,399	1,131,027	1,141,881	1,149,331	1,167,202	
09	Storage and Transport	335,237	344,713	329,438	329,986	332,175	
10	Waste Disposal & Recycling	615,150	628,112	626,895	617,352	607,532	
11	Highway Vehicles	1,733,968	1,721,130	1,482,209	1,469,847	1,426,654	
12	Off-Highway	462,746	459,226	448,089	437,941	427,685	
14	Miscellaneous	123,275	127,911	128,537	124,965	125,500	
	Total	5,198,053	5,249,053	4,997,710	4,973,156	4,924,967	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	1,603,239	1,698,874	1,659,304	1,691,710	1,695,662	
02	Fuel Combustion - Industrial	420,761	437,955	450,384	454,102	467,920	
03	Fuel Combustion - Other	81,567	85,442	82,286	85,794	88,185	
04	Chemical and Allied Prod. Mfg	113,618	118,534	117,642	117,990	119,027	
05	Metals Processing	24,632	25,996	26,245	25,129	24,672	
06	Petro. & Related Industries	3,885	4,126	3,811	3,751	3,782	
07	Other Industrial Processes	81,983	82,432	82,128	80,600	79,201	
08	Solvent Utilization	244	245	244	236	232	
09	Storage and Transport	96	103	105	106	105	
10	Waste Disposal & Recycling	17,165	16,844	16,380	15,941	15,626	
11	Highway Vehicles	1,601,105	1,621,105	1,591,797	1,618,244	1,609,018	
12	Off-Highway	519,787	543,938	540,782	540,724	523,979	
14	Miscellaneous	29,833	30,547	30,642	30,093	30,174	
	Total	4,497,914	4,666,140	4,601,749	4,664,422	4,657,582	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	61,989	64,702	64,264	66,065	66,629	
02	Fuel Combustion - Industrial	116,331	119,645	121,089	121,122	122,153	
03	Fuel Combustion - Other	1,329,023	1,296,393	1,245,558	1,201,622	1,173,330	
04	Chemical and Allied Prod. Mfg	136,762	143,257	145,369	147,533	147,692	
05	Metals Processing	218,749	234,207	232,901	232,403	226,114	
06	Petro. & Related Industries	23,662	24,082	22,490	23,192	23,771	
07	Other Industrial Processes	444,574	446,796	452,721	454,443	453,187	
08	Solvent Utilization	378	397	400	400	397	
09	Storage and Transport	819	892	927	948	936	
10	Waste Disposal & Recycling	321,272	312,862	302,153	291,198	284,307	
11	Highway Vehicles	13,280,428	13,337,774	12,203,406	12,272,066	12,109,563	
12	Off-Highway	3,123,184	3,115,242	3,046,985	2,982,793	2,913,904	
14	Miscellaneous	929,817	963,237	967,743	941,995	945,855	
	Total	19,986,988	20,059,486	18,806,005	18,735,779	18,467,836	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	4,366,222	4,438,111	4,454,945	4,503,155	4,430,622	
02	Fuel Combustion - Industrial	553,686	575,324	598,480	619,232	682,399	
03	Fuel Combustion - Other	84,055	97,250	91,724	97,612	102,696	
04	Chemical and Allied Prod. Mfg	98,516	103,710	101,493	101,871	102,052	
05	Metals Processing	42,287	44,332	43,946	43,563	42,445	
06	Petro. & Related Industries	73,900	74,756	73,060	73,404	72,426	
07	Other Industrial Processes	126,109	126,508	126,629	125,228	123,659	
08	Solvent Utilization	65	65	63	60	59	
09	Storage and Transport	544	581	590	596	589	
10	Waste Disposal & Recycling	4,046	4,067	4,021	3,967	3,923	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	26,667	28,142	28,668	29,348	30,363	
14	Miscellaneous	928	928	928	928	928	
	Total	5,377,023	5,493,773	5,524,547	5,598,962	5,592,162	

**Table III-5**  
**Region 5 Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	6,501	6,654	6,816	6,885	6,823	
02	Fuel Combustion - Industrial	11,360	11,477	11,184	11,304	11,176	
03	Fuel Combustion - Other	108,726	105,571	101,189	97,142	94,250	
04	Chemical and Allied Prod. Mfg	126,935	132,250	132,977	136,056	135,061	
05	Metals Processing	27,428	28,461	28,079	26,749	25,424	
06	Petro. & Related Industries	100,565	101,427	100,724	100,797	100,709	
07	Other Industrial Processes	142,646	149,262	150,999	155,586	156,257	
08	Solvent Utilization	1,444,831	1,474,657	1,488,222	1,475,683	1,451,061	
09	Storage and Transport	294,615	302,825	283,897	283,544	283,359	
10	Waste Disposal & Recycling	206,618	207,570	203,080	196,309	189,394	
11	Highway Vehicles	1,475,083	1,461,418	1,268,273	1,265,821	1,249,719	
12	Off-Highway	383,530	377,663	371,263	359,075	345,699	
14	Miscellaneous	9,403	9,403	9,403	9,403	9,403	
	Total	4,338,242	4,368,637	4,156,106	4,124,353	4,058,335	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	1,903,071	1,949,678	1,977,425	1,982,041	1,949,827	
02	Fuel Combustion - Industrial	487,583	510,837	503,145	503,808	499,475	
03	Fuel Combustion - Other	172,570	186,351	187,561	186,164	187,724	
04	Chemical and Allied Prod. Mfg	12,431	12,932	12,895	13,170	13,060	
05	Metals Processing	23,285	24,655	24,961	24,230	23,190	
06	Petro. & Related Industries	9,322	9,179	9,048	8,909	8,855	
07	Other Industrial Processes	39,864	38,154	37,579	36,928	35,310	
08	Solvent Utilization	377	393	378	381	376	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	18,819	18,672	18,266	17,928	17,582	
11	Highway Vehicles	1,517,514	1,564,269	1,466,625	1,525,175	1,506,788	
12	Off-Highway	406,581	419,045	440,233	437,597	419,639	
14	Miscellaneous	1,218	1,218	1,218	1,218	1,218	
	Total	4,592,632	4,735,383	4,679,333	4,737,548	4,663,043	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	55,646	57,005	58,880	59,062	58,466	
02	Fuel Combustion - Industrial	80,165	84,236	83,519	83,287	82,579	
03	Fuel Combustion - Other	1,468,724	1,424,474	1,368,887	1,312,367	1,273,414	
04	Chemical and Allied Prod. Mfg	149,504	156,250	156,302	159,226	157,455	
05	Metals Processing	1,011,411	1,050,866	1,054,618	1,008,457	962,123	
06	Petro. & Related Industries	211,831	208,483	204,848	199,526	198,079	
07	Other Industrial Processes	26,837	25,882	25,666	25,711	25,071	
08	Solvent Utilization	507	538	534	530	522	
09	Storage and Transport	4,864	5,078	5,252	5,079	4,874	
10	Waste Disposal & Recycling	474,626	461,244	443,720	426,303	413,605	
11	Highway Vehicles	13,161,924	13,241,688	11,961,086	12,226,096	12,110,328	
12	Off-Highway	2,215,463	2,213,627	2,182,160	2,118,662	2,043,583	
14	Miscellaneous	51,772	51,772	51,772	51,772	51,772	
	Total	18,913,274	18,981,142	17,597,246	17,676,076	17,381,871	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	5,396,412	5,446,519	5,514,386	5,397,490	5,294,496	
02	Fuel Combustion - Industrial	1,021,399	1,037,578	1,010,310	1,020,517	1,008,360	
03	Fuel Combustion - Other	130,204	138,689	133,728	133,644	132,841	
04	Chemical and Allied Prod. Mfg	44,616	46,178	45,519	46,687	46,367	
05	Metals Processing	84,337	88,924	89,741	86,623	82,704	
06	Petro. & Related Industries	83,971	83,663	79,658	80,473	79,856	
07	Other Industrial Processes	56,812	54,276	53,162	52,398	50,005	
08	Solvent Utilization	59	62	60	60	59	
09	Storage and Transport	1,727	1,802	1,853	1,778	1,762	
10	Waste Disposal & Recycling	5,414	5,490	5,448	5,450	5,389	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	16,974	17,939	18,285	18,690	19,513	
14	Miscellaneous	1	1	1	1	1	
	Total	6,841,926	6,921,119	6,952,150	6,843,810	6,721,352	

**Table III-6**  
**Region 6 Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	5,794	6,082	6,257	6,170	6,144	
02	Fuel Combustion - Industrial	347,044	217,271	211,742	212,147	218,061	
03	Fuel Combustion - Other	26,004	24,999	23,842	22,731	21,980	
04	Chemical and Allied Prod. Mfg	640,796	721,835	708,717	708,605	727,815	
05	Metals Processing	11,030	11,888	11,896	12,156	12,069	
06	Petro. & Related Industries	348,024	334,238	327,532	335,777	340,425	
07	Other Industrial Processes	47,357	48,102	47,565	47,504	48,065	
08	Solvent Utilization	535,906	558,621	553,678	562,931	573,200	
09	Storage and Transport	515,446	534,196	511,420	513,294	520,604	
10	Waste Disposal & Recycling	664,458	690,142	687,997	695,293	701,611	
11	Highway Vehicles	1,176,464	1,150,003	994,304	925,259	882,208	
12	Off-Highway	395,991	390,089	378,906	371,230	363,074	
14	Miscellaneous	37,501	49,989	43,529	44,438	38,204	
	Total	4,751,814	4,737,456	4,507,385	4,457,535	4,453,460	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	1,092,715	1,171,680	1,183,440	1,171,872	1,165,216	
02	Fuel Combustion - Industrial	1,465,572	1,537,465	1,563,499	1,607,131	1,659,923	
03	Fuel Combustion - Other	65,798	63,723	64,044	57,452	57,080	
04	Chemical and Allied Prod. Mfg	153,579	169,383	166,816	167,998	172,483	
05	Metals Processing	7,040	7,662	7,561	7,740	7,754	
06	Petro. & Related Industries	67,860	66,896	64,569	68,179	70,729	
07	Other Industrial Processes	75,846	71,281	68,755	67,753	67,837	
08	Solvent Utilization	39	40	41	41	41	
09	Storage and Transport	2,307	2,561	2,519	2,534	2,599	
10	Waste Disposal & Recycling	10,207	10,363	10,135	9,957	9,862	
11	Highway Vehicles	1,093,907	1,113,706	1,056,643	1,039,919	1,004,306	
12	Off-Highway	503,787	517,747	516,244	525,751	531,294	
14	Miscellaneous	7,346	9,267	8,273	8,413	7,454	
	Total	4,546,004	4,741,775	4,712,537	4,734,738	4,756,577	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	69,831	71,831	72,843	72,591	72,129	
02	Fuel Combustion - Industrial	278,449	290,110	292,598	299,125	307,374	
03	Fuel Combustion - Other	338,775	325,933	311,204	298,128	288,470	
04	Chemical and Allied Prod. Mfg	1,019,167	1,107,572	1,117,877	1,130,223	1,151,522	
05	Metals Processing	9,945	11,033	11,025	11,316	11,244	
06	Petro. & Related Industries	121,903	112,401	110,618	113,175	116,367	
07	Other Industrial Processes	102,971	104,880	103,663	104,485	106,453	
08	Solvent Utilization	579	646	678	680	683	
09	Storage and Transport	85,282	94,080	94,193	95,041	96,999	
10	Waste Disposal & Recycling	154,320	149,215	143,560	138,045	133,841	
11	Highway Vehicles	9,029,854	8,947,402	8,060,788	7,686,570	7,361,930	
12	Off-Highway	2,654,342	2,639,176	2,577,698	2,543,183	2,502,796	
14	Miscellaneous	270,366	360,376	313,812	320,367	275,431	
	Total	14,135,785	14,214,653	13,210,557	12,812,928	12,425,238	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	699,347	722,063	794,888	802,152	820,228	
02	Fuel Combustion - Industrial	592,333	580,797	566,497	565,325	567,770	
03	Fuel Combustion - Other	74,921	56,155	61,457	20,457	12,399	
04	Chemical and Allied Prod. Mfg	162,882	171,812	171,244	175,369	179,066	
05	Metals Processing	152,999	179,974	180,309	182,219	178,167	
06	Petro. & Related Industries	191,990	187,815	182,169	191,426	197,154	
07	Other Industrial Processes	80,682	76,518	73,879	73,195	73,743	
08	Solvent Utilization	51	51	47	46	46	
09	Storage and Transport	13,548	15,032	14,958	15,058	15,397	
10	Waste Disposal & Recycling	9,663	10,391	10,096	10,093	10,349	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	60,119	63,682	65,156	66,679	68,602	
14	Miscellaneous	147	147	147	147	147	
	Total	2,038,682	2,064,438	2,120,848	2,102,165	2,123,069	

**Table III-7**  
**Region 7 Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	2,072	2,199	2,207	2,262	2,311	
02	Fuel Combustion - Industrial	3,264	3,402	3,531	3,608	3,571	
03	Fuel Combustion - Other	21,669	21,142	20,134	19,481	19,032	
04	Chemical and Allied Prod. Mfg	91,370	96,506	102,790	101,039	98,109	
05	Metals Processing	303	299	282	262	246	
06	Petro. & Related Industries	15,345	15,320	14,997	15,319	15,617	
07	Other Industrial Processes	9,743	9,993	10,113	9,974	9,874	
08	Solvent Utilization	348,526	362,981	352,024	358,403	349,421	
09	Storage and Transport	116,023	119,452	114,633	115,351	114,587	
10	Waste Disposal & Recycling	31,729	30,957	29,875	28,742	27,827	
11	Highway Vehicles	391,691	387,492	364,071	349,083	342,710	
12	Off-Highway	122,755	120,465	117,011	112,906	108,988	
14	Miscellaneous	6,594	6,560	5,474	6,471	5,304	
	<b>Total</b>	<b>1,161,081</b>	<b>1,176,767</b>	<b>1,137,139</b>	<b>1,122,899</b>	<b>1,097,597</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	530,562	569,459	585,076	594,868	600,745	
02	Fuel Combustion - Industrial	169,139	173,755	169,795	170,479	168,874	
03	Fuel Combustion - Other	35,220	39,212	37,836	37,542	37,825	
04	Chemical and Allied Prod. Mfg	33,135	34,021	35,803	35,233	34,724	
05	Metals Processing	1,548	1,553	1,458	1,458	1,366	
06	Petro. & Related Industries	2,406	2,285	2,206	2,162	2,200	
07	Other Industrial Processes	22,892	22,542	21,859	22,118	20,941	
08	Solvent Utilization	23	23	23	22	21	
09	Storage and Transport	23	23	23	23	22	
10	Waste Disposal & Recycling	5,166	5,054	4,914	4,755	4,646	
11	Highway Vehicles	442,442	458,492	441,162	445,082	438,515	
12	Off-Highway	184,505	190,112	191,140	191,209	189,657	
14	Miscellaneous	970	965	797	951	771	
	<b>Total</b>	<b>1,428,029</b>	<b>1,497,494</b>	<b>1,492,091</b>	<b>1,505,902</b>	<b>1,500,309</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	18,457	19,617	19,713	20,334	21,001	
02	Fuel Combustion - Industrial	26,071	26,773	26,204	26,281	26,051	
03	Fuel Combustion - Other	294,655	287,168	274,919	264,862	258,411	
04	Chemical and Allied Prod. Mfg	141,715	144,223	148,997	145,730	143,830	
05	Metals Processing	42,562	42,789	40,263	40,311	37,803	
06	Petro. & Related Industries	2,737	2,600	2,509	2,460	2,503	
07	Other Industrial Processes	2,320	2,289	2,205	2,224	2,093	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	282	296	327	318	311	
10	Waste Disposal & Recycling	151,742	146,983	141,133	135,276	130,955	
11	Highway Vehicles	3,485,433	3,480,141	3,346,872	3,289,991	3,250,556	
12	Off-Highway	898,969	890,205	871,445	842,396	810,920	
14	Miscellaneous	43,133	42,885	35,057	42,246	33,831	
	<b>Total</b>	<b>5,108,075</b>	<b>5,085,969</b>	<b>4,909,644</b>	<b>4,812,430</b>	<b>4,718,264</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	1,243,548	1,190,872	1,192,077	1,103,108	1,103,897	
02	Fuel Combustion - Industrial	150,875	151,395	150,467	150,486	148,030	
03	Fuel Combustion - Other	28,494	31,251	29,216	31,839	33,708	
04	Chemical and Allied Prod. Mfg	4,740	4,749	4,943	4,824	4,795	
05	Metals Processing	67,841	68,115	63,932	64,144	60,092	
06	Petro. & Related Industries	10,549	10,022	9,675	9,481	9,648	
07	Other Industrial Processes	52,386	51,477	50,037	50,724	48,255	
08	Solvent Utilization	2	2	2	2	2	
09	Storage and Transport	2	2	2	2	2	
10	Waste Disposal & Recycling	1,280	1,281	1,279	1,263	1,260	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	7,772	8,190	8,332	8,470	8,904	
14	Miscellaneous	1	1	1	1	1	
	<b>Total</b>	<b>1,567,489</b>	<b>1,517,357</b>	<b>1,509,962</b>	<b>1,424,344</b>	<b>1,418,593</b>	

**Table III-8**  
**Region 8 Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)			
			1987	1988	1989	1990
<b>VOC</b>						
01	Fuel Comb. - Electric Utilities	1,964	2,249	2,215	2,282	2,460
02	Fuel Combustion - Industrial	2,971	2,983	3,055	3,076	3,115
03	Fuel Combustion - Other	15,218	14,962	14,494	13,782	13,441
04	Chemical and Allied Prod. Mfg	67	51	52	53	55
05	Metals Processing	385	593	646	646	638
06	Petro. & Related Industries	34,297	33,432	34,174	34,722	35,337
07	Other Industrial Processes	1,169	1,134	1,106	1,076	1,091
08	Solvent Utilization	147,727	148,457	153,466	155,252	163,393
09	Storage and Transport	65,989	67,054	63,855	64,219	64,474
10	Waste Disposal & Recycling	14,305	14,058	13,667	13,267	12,894
11	Highway Vehicles	248,733	240,534	215,209	206,558	199,813
12	Off-Highway	72,404	71,211	69,621	68,193	67,546
14	Miscellaneous	89,672	89,710	89,710	89,720	89,722
	Total	694,899	686,429	661,269	652,846	653,979
<b>NOx</b>						
01	Fuel Comb. - Electric Utilities	406,634	462,106	458,070	471,560	476,888
02	Fuel Combustion - Industrial	134,646	143,615	151,313	151,477	155,335
03	Fuel Combustion - Other	25,629	26,846	26,020	26,052	28,368
04	Chemical and Allied Prod. Mfg	3,030	3,706	4,141	6,020	6,185
05	Metals Processing	4,521	7,408	7,994	8,050	8,023
06	Petro. & Related Industries	3,691	3,575	3,673	3,719	3,792
07	Other Industrial Processes	11,841	11,118	11,272	11,368	11,315
08	Solvent Utilization	0	0	0	0	0
09	Storage and Transport	5	5	5	5	5
10	Waste Disposal & Recycling	2,025	1,975	1,918	1,860	1,820
11	Highway Vehicles	247,543	261,089	242,944	243,187	238,057
12	Off-Highway	120,097	122,519	123,675	125,564	131,296
14	Miscellaneous	22,153	22,153	22,153	22,153	22,153
	Total	981,814	1,066,115	1,053,177	1,071,016	1,083,236
<b>CO</b>						
01	Fuel Comb. - Electric Utilities	16,965	19,359	19,067	19,594	20,115
02	Fuel Combustion - Industrial	26,944	28,156	29,318	29,356	30,068
03	Fuel Combustion - Other	201,191	196,590	190,184	181,028	175,627
04	Chemical and Allied Prod. Mfg	71	72	66	78	80
05	Metals Processing	33,014	46,005	50,929	50,275	48,651
06	Petro. & Related Industries	53,298	50,446	53,950	55,184	56,544
07	Other Industrial Processes	12,365	11,594	11,442	11,142	11,481
08	Solvent Utilization	0	0	0	0	0
09	Storage and Transport	1	1	1	1	1
10	Waste Disposal & Recycling	71,014	68,948	66,448	63,831	62,093
11	Highway Vehicles	2,585,759	2,501,240	2,251,490	2,168,169	2,074,493
12	Off-Highway	549,088	542,953	534,668	527,102	518,216
14	Miscellaneous	678,147	678,147	678,147	678,147	678,147
	Total	4,227,856	4,143,509	3,885,711	3,783,906	3,675,515
<b>SO2</b>						
01	Fuel Comb. - Electric Utilities	220,375	260,154	256,078	252,750	251,196
02	Fuel Combustion - Industrial	82,241	80,472	84,027	81,417	82,547
03	Fuel Combustion - Other	13,548	13,618	10,485	12,232	22,104
04	Chemical and Allied Prod. Mfg	10,701	10,948	10,457	11,861	12,200
05	Metals Processing	31,503	36,346	41,218	40,011	37,755
06	Petro. & Related Industries	13,949	13,745	13,164	13,402	13,761
07	Other Industrial Processes	6,203	5,681	5,535	5,511	5,500
08	Solvent Utilization	0	0	0	0	0
09	Storage and Transport	43	41	39	38	38
10	Waste Disposal & Recycling	400	393	389	378	377
11	Highway Vehicles	0	0	0	0	0
12	Off-Highway	4,955	5,225	5,309	5,412	5,711
14	Miscellaneous	825	825	825	825	825
	Total	384,742	427,446	427,526	423,836	432,013

**Table III-9**  
**Region 9 Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	1,419	1,722	1,845	1,524	1,373	
02	Fuel Combustion - Industrial	6,102	6,453	6,398	6,467	6,513	
03	Fuel Combustion - Other	20,719	20,587	20,307	19,958	19,889	
04	Chemical and Allied Prod. Mfg	10,507	12,000	11,868	11,794	11,734	
05	Metals Processing	392	413	408	383	364	
06	Petro. & Related Industries	79,790	79,824	78,185	76,216	76,542	
07	Other Industrial Processes	24,271	24,321	24,469	24,681	24,495	
08	Solvent Utilization	595,416	626,291	636,589	645,439	655,909	
09	Storage and Transport	109,035	113,540	110,260	112,195	113,467	
10	Waste Disposal & Recycling	129,148	132,234	131,670	130,086	126,352	
11	Highway Vehicles	914,642	924,017	883,270	878,552	874,689	
12	Off-Highway	278,557	278,929	277,110	271,322	264,735	
14	Miscellaneous	92,689	93,002	93,573	92,750	91,519	
	Total	2,262,686	2,313,331	2,275,952	2,271,366	2,267,579	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	298,552	313,184	325,142	296,231	297,052	
02	Fuel Combustion - Industrial	206,192	218,001	216,194	225,668	233,440	
03	Fuel Combustion - Other	56,321	57,637	58,915	60,512	62,117	
04	Chemical and Allied Prod. Mfg	2,498	2,794	2,750	2,725	2,715	
05	Metals Processing	880	942	885	773	744	
06	Petro. & Related Industries	7,897	8,189	8,020	7,967	7,930	
07	Other Industrial Processes	32,318	33,488	34,082	33,334	31,849	
08	Solvent Utilization	28	29	29	28	27	
09	Storage and Transport	446	536	564	570	553	
10	Waste Disposal & Recycling	3,866	3,857	3,803	3,739	3,709	
11	Highway Vehicles	1,063,344	1,096,392	1,099,808	1,128,069	1,134,718	
12	Off-Highway	407,939	420,285	427,478	419,571	398,372	
14	Miscellaneous	20,299	20,299	20,389	20,266	20,081	
	Total	2,100,580	2,175,632	2,198,059	2,199,452	2,193,306	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	19,970	19,911	20,585	18,370	18,115	
02	Fuel Combustion - Industrial	54,674	57,036	56,928	57,765	58,243	
03	Fuel Combustion - Other	274,599	272,336	268,464	263,358	262,083	
04	Chemical and Allied Prod. Mfg	27,580	31,763	31,319	31,036	30,916	
05	Metals Processing	62,871	63,826	65,833	61,019	58,999	
06	Petro. & Related Industries	1,864	1,933	1,892	1,876	1,867	
07	Other Industrial Processes	14,162	14,882	13,820	13,491	13,096	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	85	100	103	104	101	
10	Waste Disposal & Recycling	245,661	243,033	238,789	233,286	231,318	
11	Highway Vehicles	7,510,903	7,647,749	7,527,402	7,620,341	7,685,189	
12	Off-Highway	2,120,932	2,130,281	2,114,295	2,076,068	2,022,490	
14	Miscellaneous	679,321	679,305	683,525	677,801	669,097	
	Total	11,012,622	11,162,154	11,022,955	11,054,514	11,051,514	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	146,579	174,167	189,871	184,060	186,354	
02	Fuel Combustion - Industrial	43,260	45,654	47,391	45,620	45,681	
03	Fuel Combustion - Other	10,916	9,957	8,752	10,700	11,222	
04	Chemical and Allied Prod. Mfg	51,544	56,133	51,000	43,471	42,152	
05	Metals Processing	469,004	510,424	460,361	386,247	373,359	
06	Petro. & Related Industries	27,692	28,782	28,141	27,845	27,733	
07	Other Industrial Processes	12,372	12,723	12,608	12,351	11,940	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	876	1,060	1,126	1,140	1,103	
10	Waste Disposal & Recycling	1,143	1,151	1,138	1,134	1,125	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	67,275	71,268	72,958	74,693	76,714	
14	Miscellaneous	664	664	664	664	664	
	Total	831,323	911,983	874,008	787,925	778,045	

**Table III-10**  
**Region 10 Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	192	195	209	201	245	
02	Fuel Combustion - Industrial	4,116	4,106	4,156	4,072	3,945	
03	Fuel Combustion - Other	45,896	45,558	44,648	43,824	42,802	
04	Chemical and Allied Prod. Mfg	39,944	42,089	42,393	44,992	44,949	
05	Metals Processing	169	184	203	203	197	
06	Petro. & Related Industries	20,817	20,890	22,143	23,173	23,045	
07	Other Industrial Processes	7,489	7,446	7,680	7,674	7,239	
08	Solvent Utilization	156,349	165,121	168,875	174,225	176,129	
09	Storage and Transport	60,851	62,163	61,448	62,991	63,772	
10	Waste Disposal & Recycling	19,158	19,153	18,992	18,829	18,290	
11	Highway Vehicles	271,463	266,384	254,656	254,879	254,968	
12	Off-Highway	83,378	83,493	82,805	82,349	81,035	
14	Miscellaneous	190,161	190,988	191,546	191,377	190,597	
	Total	899,982	907,768	899,752	908,790	907,213	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	41,019	41,713	43,601	42,481	51,168	
02	Fuel Combustion - Industrial	54,863	55,902	57,874	58,739	58,755	
03	Fuel Combustion - Other	20,126	21,365	21,304	20,835	20,681	
04	Chemical and Allied Prod. Mfg	23,695	26,470	25,144	26,527	24,249	
05	Metals Processing	573	630	661	684	665	
06	Petro. & Related Industries	1,493	1,496	1,520	1,703	1,549	
07	Other Industrial Processes	10,316	10,776	10,963	11,290	10,958	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	95	95	97	108	98	
10	Waste Disposal & Recycling	2,385	2,352	2,301	2,263	2,210	
11	Highway Vehicles	314,462	316,855	319,752	326,738	328,110	
12	Off-Highway	110,092	117,128	121,331	124,832	127,812	
14	Miscellaneous	47,155	47,282	47,368	47,342	47,222	
	Total	626,274	642,062	651,914	663,541	673,477	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	1,642	1,670	1,765	1,725	2,105	
02	Fuel Combustion - Industrial	28,102	28,371	29,035	28,477	27,480	
03	Fuel Combustion - Other	582,126	574,944	561,738	550,483	536,848	
04	Chemical and Allied Prod. Mfg	1,258	1,316	1,344	1,424	1,441	
05	Metals Processing	304,367	334,330	351,382	363,251	352,960	
06	Petro. & Related Industries	2,084	2,085	2,118	2,374	2,158	
07	Other Industrial Processes	52,730	52,013	54,488	54,166	50,628	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	2	2	2	2	2	
10	Waste Disposal & Recycling	90,728	89,160	86,972	85,284	83,096	
11	Highway Vehicles	2,362,681	2,364,746	2,314,605	2,339,590	2,366,881	
12	Off-Highway	556,774	558,141	557,216	556,528	544,671	
14	Miscellaneous	1,443,968	1,449,934	1,453,952	1,452,738	1,447,112	
	Total	5,426,462	5,456,711	5,414,616	5,436,042	5,415,381	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	63,549	62,054	64,928	63,677	72,928	
02	Fuel Combustion - Industrial	49,988	49,350	50,060	52,336	50,817	
03	Fuel Combustion - Other	17,033	18,354	16,969	16,386	15,835	
04	Chemical and Allied Prod. Mfg	15,094	16,036	16,066	16,062	16,262	
05	Metals Processing	25,473	27,953	29,515	30,408	29,538	
06	Petro. & Related Industries	4,231	4,236	4,308	4,824	4,391	
07	Other Industrial Processes	17,848	18,217	18,606	18,940	18,473	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	218	218	221	248	226	
10	Waste Disposal & Recycling	484	482	475	472	466	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	16,171	17,135	17,528	17,934	18,499	
14	Miscellaneous	1,726	1,726	1,726	1,726	1,726	
	Total	211,815	215,761	220,402	223,011	229,159	

**SECTION IV  
STATE SUMMARY TABLES, 1987-1991**

**Table IV-1**  
**Alabama Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	727	704	773	774	833	
02	Fuel Combustion - Industrial	6,004	6,030	6,149	6,169	6,162	
03	Fuel Combustion - Other	7,880	7,742	7,292	7,063	6,882	
04	Chemical and Allied Prod. Mfg	102,156	102,121	102,926	106,949	106,817	
05	Metals Processing	7,185	7,853	7,685	7,603	7,408	
06	Petro. & Related Industries	66,707	61,146	65,259	66,584	66,638	
07	Other Industrial Processes	7,763	7,916	7,763	7,576	7,550	
08	Solvent Utilization	100,507	105,035	104,653	105,121	105,975	
09	Storage and Transport	25,637	26,053	25,008	25,251	25,423	
10	Waste Disposal & Recycling	67,496	68,834	68,476	67,538	66,460	
11	Highway Vehicles	191,761	185,756	160,043	156,837	153,844	
12	Off-Highway	42,661	41,963	40,523	39,374	38,467	
14	Miscellaneous	9,306	9,615	9,605	9,542	9,477	
	<b>Total</b>	<b>635,797</b>	<b>630,775</b>	<b>606,159</b>	<b>606,388</b>	<b>601,942</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	185,904	181,148	195,208	194,775	211,438	
02	Fuel Combustion - Industrial	58,535	62,478	64,161	64,499	65,448	
03	Fuel Combustion - Other	11,636	14,161	15,181	16,175	17,187	
04	Chemical and Allied Prod. Mfg	1,948	1,979	2,029	2,124	2,142	
05	Metals Processing	2,195	2,400	2,348	2,323	2,262	
06	Petro. & Related Industries	177	177	177	179	173	
07	Other Industrial Processes	18,769	18,751	18,459	17,864	17,666	
08	Solvent Utilization	10	10	10	10	10	
09	Storage and Transport	25	24	24	25	25	
10	Waste Disposal & Recycling	1,872	1,823	1,755	1,695	1,654	
11	Highway Vehicles	142,055	156,324	140,800	143,492	143,579	
12	Off-Highway	52,831	55,167	54,949	55,865	56,287	
14	Miscellaneous	2,311	2,358	2,357	2,347	2,337	
	<b>Total</b>	<b>478,274</b>	<b>496,806</b>	<b>497,464</b>	<b>501,377</b>	<b>520,215</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	6,265	6,063	6,655	6,680	7,194	
02	Fuel Combustion - Industrial	18,489	19,213	19,594	19,637	19,729	
03	Fuel Combustion - Other	102,155	99,348	93,702	90,228	87,619	
04	Chemical and Allied Prod. Mfg	25,917	25,903	26,096	27,197	27,161	
05	Metals Processing	94,197	102,962	100,759	99,687	97,111	
06	Petro. & Related Industries	45	43	44	45	45	
07	Other Industrial Processes	89,517	89,099	90,969	90,923	90,771	
08	Solvent Utilization	219	227	224	223	222	
09	Storage and Transport	14	13	12	12	12	
10	Waste Disposal & Recycling	44,623	43,242	41,522	39,894	38,817	
11	Highway Vehicles	1,341,554	1,331,819	1,215,244	1,216,493	1,215,811	
12	Off-Highway	280,796	277,425	269,522	262,490	256,486	
14	Miscellaneous	70,124	72,346	72,270	71,821	71,351	
	<b>Total</b>	<b>2,073,920</b>	<b>2,067,710</b>	<b>1,936,620</b>	<b>1,925,336</b>	<b>1,912,333</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	528,929	496,826	555,054	528,639	573,761	
02	Fuel Combustion - Industrial	59,440	59,708	60,154	60,693	60,608	
03	Fuel Combustion - Other	27,809	39,454	44,472	49,025	53,622	
04	Chemical and Allied Prod. Mfg	16,191	16,182	16,303	16,990	16,968	
05	Metals Processing	7,374	8,059	7,887	7,803	7,602	
06	Petro. & Related Industries	43,865	43,860	43,917	44,237	42,997	
07	Other Industrial Processes	26,715	26,639	26,764	26,377	26,228	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	93	93	93	97	97	
10	Waste Disposal & Recycling	332	325	313	303	297	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	2,561	2,697	2,742	2,797	2,904	
14	Miscellaneous	75	75	75	75	75	
	<b>Total</b>	<b>713,388</b>	<b>693,924</b>	<b>757,780</b>	<b>737,040</b>	<b>785,163</b>	

**Table IV-2**  
**Arizona Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	482	522	613	584	600	
02	Fuel Combustion - Industrial	469	557	517	586	656	
03	Fuel Combustion - Other	3,041	3,016	2,952	2,850	2,866	
04	Chemical and Allied Prod. Mfg	322	386	392	391	383	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	253	272	291	281	284	
07	Other Industrial Processes	81	80	78	76	76	
08	Solvent Utilization	59,052	62,761	63,238	63,253	65,214	
09	Storage and Transport	20,713	21,402	20,379	20,673	21,014	
10	Waste Disposal & Recycling	14,275	14,563	14,149	13,790	13,473	
11	Highway Vehicles	134,645	128,928	120,323	115,089	113,312	
12	Off-Highway	39,749	39,298	38,256	37,183	36,877	
14	Miscellaneous	10,452	10,452	10,452	10,452	10,452	
	<b>Total</b>	<b>283,540</b>	<b>282,243</b>	<b>271,645</b>	<b>265,213</b>	<b>265,214</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	98,433	108,653	127,720	120,821	123,053	
02	Fuel Combustion - Industrial	32,788	41,222	37,364	42,171	47,381	
03	Fuel Combustion - Other	4,299	4,305	4,140	4,154	4,198	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	554	602	543	456	441	
06	Petro. & Related Industries	35	35	38	37	37	
07	Other Industrial Processes	1,208	1,202	1,120	1,076	1,051	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	643	647	635	620	620	
11	Highway Vehicles	138,504	141,447	140,316	142,868	142,234	
12	Off-Highway	58,109	57,140	54,762	53,509	52,325	
14	Miscellaneous	2,762	2,762	2,762	2,762	2,762	
	<b>Total</b>	<b>337,339</b>	<b>358,020</b>	<b>369,404</b>	<b>368,478</b>	<b>374,105</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	4,245	4,559	5,540	5,094	5,302	
02	Fuel Combustion - Industrial	4,704	5,858	5,333	6,017	6,757	
03	Fuel Combustion - Other	39,986	39,601	38,770	37,576	37,805	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	322	350	316	265	256	
06	Petro. & Related Industries	2	2	2	2	2	
07	Other Industrial Processes	4,990	5,532	4,353	4,206	4,117	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	25,165	25,023	24,495	23,745	23,812	
11	Highway Vehicles	917,886	892,976	861,246	842,323	827,928	
12	Off-Highway	315,980	314,044	305,792	297,650	294,881	
14	Miscellaneous	80,152	80,152	80,152	80,152	80,152	
	<b>Total</b>	<b>1,393,437</b>	<b>1,368,101</b>	<b>1,326,003</b>	<b>1,297,034</b>	<b>1,281,016</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	88,573	97,886	119,946	120,401	122,329	
02	Fuel Combustion - Industrial	6,031	5,321	6,391	4,173	3,530	
03	Fuel Combustion - Other	652	598	489	514	503	
04	Chemical and Allied Prod. Mfg	47,309	51,483	46,431	38,949	37,647	
05	Metals Processing	468,847	510,257	460,196	386,094	373,213	
06	Petro. & Related Industries	55	56	61	60	60	
07	Other Industrial Processes	2,843	2,859	2,589	2,483	2,421	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	156	159	158	155	155	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	1,227	1,281	1,296	1,320	1,384	
14	Miscellaneous	101	101	101	101	101	
	<b>Total</b>	<b>615,799</b>	<b>670,006</b>	<b>637,663</b>	<b>554,255</b>	<b>541,347</b>	

**Table IV-3**  
**Arkansas Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	440	445	424	442	443	
02	Fuel Combustion - Industrial	1,476	1,620	1,667	1,615	1,636	
03	Fuel Combustion - Other	4,720	4,544	4,348	4,158	4,030	
04	Chemical and Allied Prod. Mfg	11,808	11,927	12,996	12,572	12,794	
05	Metals Processing	3,687	3,795	3,885	3,918	3,873	
06	Petro. & Related Industries	5,227	5,227	5,227	5,234	5,279	
07	Other Industrial Processes	5,145	5,193	5,231	5,390	5,459	
08	Solvent Utilization	60,107	64,102	62,921	63,143	65,437	
09	Storage and Transport	32,274	33,443	32,671	33,119	33,064	
10	Waste Disposal & Recycling	9,615	9,506	9,268	9,061	8,915	
11	Highway Vehicles	79,893	79,757	73,823	70,775	68,137	
12	Off-Highway	24,100	23,672	22,972	22,306	21,684	
14	Miscellaneous	2,331	2,331	2,331	2,331	2,331	
	Total	240,828	245,568	237,771	234,071	233,086	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	79,999	81,164	77,761	82,308	82,426	
02	Fuel Combustion - Industrial	31,671	41,888	48,797	44,617	46,342	
03	Fuel Combustion - Other	5,060	5,229	5,234	5,153	5,182	
04	Chemical and Allied Prod. Mfg	2,101	2,119	2,310	2,230	2,269	
05	Metals Processing	3	2	2	2	2	
06	Petro. & Related Industries	1,031	1,031	1,031	1,031	1,019	
07	Other Industrial Processes	5,814	5,826	5,645	5,712	5,770	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	1,204	1,162	1,123	1,091	1,062	
11	Highway Vehicles	89,210	91,700	90,015	91,814	91,126	
12	Off-Highway	22,494	23,757	23,811	24,179	23,659	
14	Miscellaneous	581	581	581	581	581	
	Total	239,171	254,464	256,316	258,722	259,444	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	4,184	4,087	4,001	4,204	4,159	
02	Fuel Combustion - Industrial	19,457	21,370	22,474	21,607	21,867	
03	Fuel Combustion - Other	63,238	60,946	58,407	55,814	54,104	
04	Chemical and Allied Prod. Mfg	42,242	42,553	46,287	44,684	45,453	
05	Metals Processing	987	1,104	1,152	1,186	1,172	
06	Petro. & Related Industries	19,908	19,908	19,908	19,908	20,254	
07	Other Industrial Processes	15,594	15,685	15,194	15,375	15,645	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	22,640	21,921	21,060	20,189	19,606	
11	Highway Vehicles	609,827	621,439	596,861	585,487	577,451	
12	Off-Highway	138,328	137,431	134,187	131,604	128,421	
14	Miscellaneous	17,194	17,194	17,194	17,194	17,194	
	Total	953,603	963,643	936,729	917,256	905,331	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	66,992	72,088	67,293	69,160	71,068	
02	Fuel Combustion - Industrial	22,890	18,269	25,674	21,380	20,604	
03	Fuel Combustion - Other	947	759	852	687	649	
04	Chemical and Allied Prod. Mfg	2,171	2,181	2,360	2,278	2,316	
05	Metals Processing	8	9	9	9	9	
06	Petro. & Related Industries	6,771	6,771	6,771	6,771	6,718	
07	Other Industrial Processes	5,293	5,308	5,143	5,205	5,264	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	229	225	221	218	215	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	630	661	673	686	717	
14	Miscellaneous	19	19	19	19	19	
	Total	105,953	106,293	109,018	106,416	107,582	

**Table IV-4**  
**California Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	678	877	932	652	466	
02	Fuel Combustion - Industrial	5,584	5,826	5,796	5,788	5,747	
03	Fuel Combustion - Other	16,293	16,174	15,946	15,660	15,574	
04	Chemical and Allied Prod. Mfg	10,184	11,613	11,475	11,401	11,350	
05	Metals Processing	391	412	408	382	364	
06	Petro. & Related Industries	79,242	79,260	77,608	75,643	75,968	
07	Other Industrial Processes	24,140	24,192	24,340	24,552	24,367	
08	Solvent Utilization	521,886	548,039	557,194	564,911	572,814	
09	Storage and Transport	81,828	85,162	83,027	84,423	85,063	
10	Waste Disposal & Recycling	107,148	109,486	109,155	107,545	104,232	
11	Highway Vehicles	746,099	760,220	728,625	728,863	726,338	
12	Off-Highway	226,901	227,489	226,238	221,368	215,092	
14	Miscellaneous	81,419	81,721	82,263	81,447	80,207	
	Total	1,901,798	1,950,477	1,923,014	1,922,642	1,917,588	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	144,703	137,635	132,819	112,344	106,808	
02	Fuel Combustion - Industrial	171,701	174,661	176,178	180,691	182,834	
03	Fuel Combustion - Other	49,700	51,028	52,420	53,792	55,198	
04	Chemical and Allied Prod. Mfg	2,498	2,793	2,749	2,725	2,715	
05	Metals Processing	197	208	205	191	182	
06	Petro. & Related Industries	7,862	8,153	7,981	7,929	7,891	
07	Other Industrial Processes	30,248	31,273	31,886	31,161	29,739	
08	Solvent Utilization	27	29	29	27	26	
09	Storage and Transport	59	68	67	66	66	
10	Waste Disposal & Recycling	3,101	3,086	3,042	2,992	2,961	
11	Highway Vehicles	889,876	917,115	921,177	945,057	951,144	
12	Off-Highway	330,774	342,633	350,806	343,855	323,834	
14	Miscellaneous	17,336	17,333	17,419	17,298	17,111	
	Total	1,648,087	1,686,022	1,696,784	1,698,135	1,680,514	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	13,504	12,619	12,310	10,591	9,994	
02	Fuel Combustion - Industrial	49,618	50,736	51,054	51,168	50,818	
03	Fuel Combustion - Other	216,165	214,088	210,851	206,433	204,918	
04	Chemical and Allied Prod. Mfg	27,580	31,763	31,318	31,035	30,916	
05	Metals Processing	1,268	1,348	1,331	1,232	1,171	
06	Petro. & Related Industries	1,861	1,931	1,890	1,873	1,864	
07	Other Industrial Processes	9,090	9,272	9,385	9,198	8,894	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	37	43	42	42	42	
10	Waste Disposal & Recycling	214,334	211,774	207,994	203,082	201,055	
11	Highway Vehicles	6,248,986	6,405,790	6,318,289	6,431,375	6,507,030	
12	Off-Highway	1,719,695	1,727,883	1,717,533	1,684,741	1,634,845	
14	Miscellaneous	593,096	593,000	597,005	591,338	582,573	
	Total	9,095,240	9,260,251	9,159,008	9,222,114	9,234,126	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	3,696	14,446	14,875	7,879	1,598	
02	Fuel Combustion - Industrial	35,997	38,660	38,797	39,115	39,437	
03	Fuel Combustion - Other	9,068	8,494	7,521	9,300	9,820	
04	Chemical and Allied Prod. Mfg	4,234	4,649	4,567	4,521	4,504	
05	Metals Processing	157	166	164	152	145	
06	Petro. & Related Industries	27,636	28,726	28,079	27,784	27,672	
07	Other Industrial Processes	8,831	9,081	9,191	9,014	8,696	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	962	967	955	953	945	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	65,156	69,056	70,713	72,409	74,314	
14	Miscellaneous	555	555	555	555	555	
	Total	156,297	174,805	175,422	171,688	167,690	

**Table IV-5**  
**Colorado Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	504	536	558	565	746	
02	Fuel Combustion - Industrial	397	408	463	455	478	
03	Fuel Combustion - Other	6,125	5,947	5,647	5,411	5,238	
06	Petro. & Related Industries	7,069	6,868	6,616	6,749	6,822	
07	Other Industrial Processes	242	246	247	241	240	
08	Solvent Utilization	64,794	67,488	67,783	68,341	69,346	
09	Storage and Transport	21,432	21,643	20,196	20,181	20,188	
10	Waste Disposal & Recycling	4,986	4,876	4,738	4,589	4,441	
11	Highway Vehicles	107,419	101,849	89,008	84,301	80,202	
12	Off-Highway	33,828	33,244	32,380	31,611	31,206	
14	Miscellaneous	4,263	4,263	4,263	4,263	4,263	
	<b>Total</b>	<b>251,065</b>	<b>247,374</b>	<b>231,905</b>	<b>226,712</b>	<b>223,174</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	115,252	119,676	128,186	129,000	135,455	
02	Fuel Combustion - Industrial	29,959	32,788	37,664	36,758	38,441	
03	Fuel Combustion - Other	13,559	14,201	13,739	13,829	13,773	
06	Petro. & Related Industries	386	376	364	328	334	
07	Other Industrial Processes	1,288	1,274	1,270	1,236	1,130	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	588	569	549	531	519	
11	Highway Vehicles	96,893	98,075	94,559	94,677	92,602	
12	Off-Highway	47,573	47,574	47,277	47,625	49,172	
14	Miscellaneous	1,084	1,084	1,084	1,084	1,084	
	<b>Total</b>	<b>306,586</b>	<b>315,622</b>	<b>324,697</b>	<b>325,073</b>	<b>332,514</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	4,438	4,663	4,852	4,868	5,418	
02	Fuel Combustion - Industrial	4,377	4,819	5,548	5,421	5,672	
03	Fuel Combustion - Other	81,549	79,112	75,422	72,385	70,201	
06	Petro. & Related Industries	1,100	1,067	1,053	904	928	
07	Other Industrial Processes	14	14	13	13	12	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	26,656	25,688	24,672	23,692	23,015	
11	Highway Vehicles	1,175,922	1,107,564	973,308	920,596	863,254	
12	Off-Highway	275,159	270,939	266,091	260,590	253,706	
14	Miscellaneous	31,977	31,977	31,977	31,977	31,977	
	<b>Total</b>	<b>1,601,195</b>	<b>1,525,847</b>	<b>1,382,941</b>	<b>1,320,449</b>	<b>1,254,188</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	72,680	82,683	81,202	86,992	85,102	
02	Fuel Combustion - Industrial	7,040	6,460	6,433	5,971	5,966	
03	Fuel Combustion - Other	2,952	3,091	2,413	2,503	2,494	
06	Petro. & Related Industries	2,464	2,409	2,371	2,098	2,144	
07	Other Industrial Processes	1,510	1,495	1,489	1,449	1,325	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	122	119	117	112	111	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	1,457	1,537	1,557	1,585	1,675	
14	Miscellaneous	38	38	38	38	38	
	<b>Total</b>	<b>88,268</b>	<b>97,836</b>	<b>95,623</b>	<b>100,752</b>	<b>98,860</b>	

**Table IV-6**  
**Connecticut Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	486	582	602	463	423	
02	Fuel Combustion - Industrial	273	239	213	213	221	
03	Fuel Combustion - Other	7,348	7,176	6,946	6,692	6,574	
04	Chemical and Allied Prod. Mfg	5,610	5,467	5,521	5,805	5,893	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	132	178	194	159	149	
07	Other Industrial Processes	1,965	1,940	1,865	1,830	1,846	
08	Solvent Utilization	63,782	66,165	65,505	65,006	65,530	
09	Storage and Transport	13,957	14,423	13,141	12,841	12,786	
10	Waste Disposal & Recycling	7,558	7,450	7,194	6,974	6,759	
11	Highway Vehicles	83,365	83,041	68,628	66,990	65,161	
12	Off-Highway	27,778	27,433	26,314	25,050	24,216	
14	Miscellaneous	712	712	712	712	712	
	<b>Total</b>	<b>212,972</b>	<b>214,812</b>	<b>196,840</b>	<b>192,739</b>	<b>190,275</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	23,213	26,824	27,624	23,779	21,232	
02	Fuel Combustion - Industrial	5,482	5,606	5,259	5,526	5,607	
03	Fuel Combustion - Other	13,009	13,680	14,347	14,799	15,370	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	125	126	119	109	107	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	772	761	755	739	720	
11	Highway Vehicles	83,451	83,786	80,916	81,691	80,567	
12	Off-Highway	22,843	24,581	23,198	20,648	18,423	
14	Miscellaneous	89	89	89	89	89	
	<b>Total</b>	<b>148,989</b>	<b>155,457</b>	<b>152,311</b>	<b>147,385</b>	<b>142,121</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	1,968	2,213	2,313	1,875	1,704	
02	Fuel Combustion - Industrial	863	856	821	869	890	
03	Fuel Combustion - Other	93,323	90,680	87,311	83,592	81,717	
04	Chemical and Allied Prod. Mfg	4	4	4	4	4	
05	Metals Processing	654	672	605	551	523	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	53	52	50	46	44	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	18,584	18,179	17,691	17,060	16,642	
11	Highway Vehicles	705,366	710,984	642,177	641,778	632,710	
12	Off-Highway	166,207	164,705	158,297	151,234	146,076	
14	Miscellaneous	3,875	3,875	3,875	3,875	3,875	
	<b>Total</b>	<b>990,903</b>	<b>992,225</b>	<b>913,147</b>	<b>900,889</b>	<b>884,190</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	50,177	61,597	64,851	53,015	47,587	
02	Fuel Combustion - Industrial	8,362	8,100	8,067	8,392	8,463	
03	Fuel Combustion - Other	12,781	13,672	14,623	15,238	15,978	
04	Chemical and Allied Prod. Mfg	1	1	1	1	1	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	71	71	66	56	53	
08	Solvent Utilization	1	1	1	1	1	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	308	310	316	315	308	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	108	113	113	116	123	
14	Miscellaneous	0	0	0	0	0	
	<b>Total</b>	<b>71,812</b>	<b>83,869</b>	<b>88,041</b>	<b>77,138</b>	<b>72,516</b>	

**Table IV-7**  
**Delaware Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	172	220	200	139	158	
02	Fuel Combustion - Industrial	78	81	82	82	82	
03	Fuel Combustion - Other	1,591	1,555	1,511	1,472	1,453	
04	Chemical and Allied Prod. Mfg	31,853	37,508	40,180	56,045	56,801	
06	Petro. & Related Industries	4,272	4,337	4,316	4,281	4,294	
07	Other Industrial Processes	262	255	251	245	244	
08	Solvent Utilization	18,265	20,550	19,845	23,274	23,130	
09	Storage and Transport	4,893	5,038	4,801	4,709	4,696	
10	Waste Disposal & Recycling	992	976	955	927	910	
11	Highway Vehicles	23,589	23,269	20,074	19,184	17,870	
12	Off-Highway	6,008	6,013	5,964	5,771	5,654	
14	Miscellaneous	147	151	153	150	148	
	Total	92,130	99,959	98,336	116,285	115,444	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	27,771	30,514	27,824	24,173	24,424	
02	Fuel Combustion - Industrial	9,873	10,136	10,140	10,112	10,064	
03	Fuel Combustion - Other	2,064	2,061	2,005	2,228	2,403	
04	Chemical and Allied Prod. Mfg	15	16	16	16	16	
06	Petro. & Related Industries	1,327	1,415	1,384	1,334	1,352	
07	Other Industrial Processes	0	0	0	0	0	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	186	186	183	179	177	
11	Highway Vehicles	24,208	24,969	24,427	24,678	24,255	
12	Off-Highway	4,371	4,939	5,057	4,844	4,502	
14	Miscellaneous	20	21	21	21	21	
	Total	69,839	74,262	71,063	67,590	67,219	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	1,235	1,337	1,264	1,008	1,066	
02	Fuel Combustion - Industrial	760	757	757	746	733	
03	Fuel Combustion - Other	20,733	20,241	19,673	19,124	18,861	
04	Chemical and Allied Prod. Mfg	9,896	10,419	10,767	10,705	10,849	
06	Petro. & Related Industries	29,671	31,644	30,943	29,836	30,239	
07	Other Industrial Processes	0	0	0	0	0	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	2,964	2,914	2,839	2,751	2,703	
11	Highway Vehicles	188,475	191,919	176,089	174,520	161,564	
12	Off-Highway	37,715	37,759	37,926	36,820	36,200	
14	Miscellaneous	852	881	896	878	856	
	Total	292,306	297,877	281,158	276,392	263,075	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	56,622	86,905	57,415	46,990	47,662	
02	Fuel Combustion - Industrial	22,279	23,305	23,363	23,584	23,649	
03	Fuel Combustion - Other	2,760	2,400	2,348	3,016	3,604	
04	Chemical and Allied Prod. Mfg	2,622	2,764	2,844	2,821	2,859	
06	Petro. & Related Industries	21,605	23,042	22,532	21,726	22,019	
07	Other Industrial Processes	30	29	28	27	27	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	41	43	44	44	44	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	273	288	295	302	309	
14	Miscellaneous	0	0	0	0	0	
	Total	106,236	138,780	108,873	98,512	100,176	

**Table IV-8**  
**Washington, DC Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
VOC							
01	Fuel Comb. - Electric Utilities	16	28	40	24	13	
02	Fuel Combustion - Industrial	5	5	5	5	5	
03	Fuel Combustion - Other	289	230	247	210	201	
04	Chemical and Allied Prod. Mfg	5	5	5	5	5	
07	Other Industrial Processes	185	169	159	148	139	
08	Solvent Utilization	10,161	10,518	10,295	10,050	9,890	
09	Storage and Transport	1,197	1,257	1,108	1,100	1,115	
10	Waste Disposal & Recycling	83	87	88	88	87	
11	Highway Vehicles	12,829	12,683	10,212	9,978	9,871	
12	Off-Highway	3,223	3,195	3,064	2,988	2,907	
14	Miscellaneous	170	170	170	170	170	
	Total	28,168	28,352	25,397	24,771	24,408	
NOx							
01	Fuel Comb. - Electric Utilities	484	839	1,166	704	390	
02	Fuel Combustion - Industrial	476	476	476	476	476	
03	Fuel Combustion - Other	3,627	3,250	3,171	3,232	3,290	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
07	Other Industrial Processes	0	0	0	0	0	
08	Solvent Utilization	2	2	2	2	2	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	353	371	381	389	385	
11	Highway Vehicles	8,554	8,759	8,288	8,765	8,891	
12	Off-Highway	4,508	4,687	4,695	4,775	4,698	
14	Miscellaneous	21	21	21	21	21	
	Total	18,029	18,409	18,203	18,366	18,155	
CO							
01	Fuel Comb. - Electric Utilities	57	100	138	83	46	
02	Fuel Combustion - Industrial	64	64	64	64	64	
03	Fuel Combustion - Other	3,162	2,689	2,855	2,472	2,376	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
07	Other Industrial Processes	0	0	0	0	0	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	2,523	2,564	2,577	2,578	2,531	
11	Highway Vehicles	103,088	104,559	90,835	92,480	92,708	
12	Off-Highway	25,533	25,066	23,991	22,952	22,059	
14	Miscellaneous	924	924	924	924	924	
	Total	135,355	135,969	121,388	121,558	120,711	
SO2							
01	Fuel Comb. - Electric Utilities	1,837	2,985	4,018	2,523	1,398	
02	Fuel Combustion - Industrial	4	4	4	4	4	
03	Fuel Combustion - Other	5,935	4,206	3,964	3,918	3,962	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
07	Other Industrial Processes	0	0	0	0	0	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	258	270	277	282	279	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	200	210	210	216	225	
14	Miscellaneous	0	0	0	0	0	
	Total	8,236	7,678	8,475	6,945	5,870	

**Table IV-9**  
**Florida Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	2,042	2,270	2,351	2,299	2,577	
02	Fuel Combustion - Industrial	3,443	3,515	3,535	3,446	3,403	
03	Fuel Combustion - Other	7,547	7,418	7,241	7,132	7,074	
04	Chemical and Allied Prod. Mfg	27,485	29,305	30,146	30,647	30,257	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	114	175	167	153	151	
07	Other Industrial Processes	3,725	3,784	3,782	3,620	3,551	
08	Solvent Utilization	191,641	202,918	204,929	207,618	212,049	
09	Storage and Transport	67,067	70,295	66,380	66,148	67,200	
10	Waste Disposal & Recycling	9,127	9,075	8,930	8,804	8,703	
11	Highway Vehicles	441,086	450,681	383,626	389,601	385,888	
12	Off-Highway	123,956	123,833	122,004	120,545	118,385	
14	Miscellaneous	41,926	43,597	43,774	41,831	42,357	
	Total	919,167	946,872	876,870	881,850	881,601	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	320,876	330,603	342,183	332,337	352,131	
02	Fuel Combustion - Industrial	29,038	31,441	31,629	31,105	31,450	
03	Fuel Combustion - Other	9,928	9,510	7,849	8,331	8,403	
04	Chemical and Allied Prod. Mfg	3,843	4,009	3,950	4,000	3,941	
05	Metals Processing	29	30	30	31	29	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	13,037	13,158	13,086	12,148	11,829	
08	Solvent Utilization	9	9	8	8	8	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	1,998	1,990	1,974	1,971	1,952	
11	Highway Vehicles	366,294	374,426	369,311	381,172	382,932	
12	Off-Highway	112,972	117,479	114,819	112,408	105,874	
14	Miscellaneous	10,128	10,385	10,412	10,113	10,194	
	Total	868,157	893,044	895,257	893,629	908,748	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	15,431	16,060	16,977	16,846	18,081	
02	Fuel Combustion - Industrial	11,839	12,318	12,449	12,043	12,003	
03	Fuel Combustion - Other	99,789	98,200	96,165	94,645	93,843	
04	Chemical and Allied Prod. Mfg	5,272	5,414	5,310	5,188	5,122	
05	Metals Processing	2	2	2	2	2	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	46,249	46,550	47,337	44,234	43,670	
08	Solvent Utilization	1	1	1	1	1	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	26,697	26,391	25,920	25,493	25,276	
11	Highway Vehicles	3,296,202	3,401,150	3,055,425	3,128,338	3,135,583	
12	Off-Highway	853,930	857,107	841,775	829,218	812,531	
14	Miscellaneous	317,708	329,753	331,027	317,023	320,816	
	Total	4,673,124	4,792,950	4,432,394	4,473,036	4,466,932	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	691,491	711,540	690,650	646,618	709,784	
02	Fuel Combustion - Industrial	24,460	25,082	24,954	23,734	23,339	
03	Fuel Combustion - Other	12,283	11,561	7,508	8,014	8,313	
04	Chemical and Allied Prod. Mfg	29,825	30,759	30,192	29,730	29,238	
05	Metals Processing	1,540	1,588	1,577	1,621	1,549	
06	Petro. & Related Industries	5,342	4,842	4,592	4,489	4,431	
07	Other Industrial Processes	20,521	20,723	20,421	18,957	18,373	
08	Solvent Utilization	2	2	2	2	2	
09	Storage and Transport	72	74	72	70	70	
10	Waste Disposal & Recycling	671	675	679	693	685	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	9,931	10,489	10,714	10,987	11,276	
14	Miscellaneous	314	314	314	314	314	
	Total	796,458	817,655	791,680	745,235	807,379	

**Table IV-10**  
**Georgia Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	958	929	903	980	873	
02	Fuel Combustion - Industrial	4,990	5,003	4,972	5,021	4,994	
03	Fuel Combustion - Other	8,822	8,647	8,380	8,100	7,991	
04	Chemical and Allied Prod. Mfg	26,269	26,316	26,490	26,483	26,491	
05	Metals Processing	252	261	268	270	263	
06	Petro. & Related Industries	511	449	427	438	327	
07	Other Industrial Processes	11,827	11,881	11,739	11,728	11,698	
08	Solvent Utilization	129,602	133,793	132,591	132,243	134,777	
09	Storage and Transport	50,418	52,875	50,032	50,375	51,177	
10	Waste Disposal & Recycling	103,416	103,816	100,794	98,760	97,165	
11	Highway Vehicles	261,254	271,109	223,077	229,669	222,672	
12	Off-Highway	62,815	62,277	60,333	59,088	57,791	
14	Miscellaneous	31,668	32,363	33,451	32,010	32,292	
	Total	692,809	709,724	653,461	655,172	648,515	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	223,876	220,761	215,970	229,869	201,353	
02	Fuel Combustion - Industrial	50,225	50,727	50,672	51,199	51,240	
03	Fuel Combustion - Other	12,263	12,720	11,845	12,572	13,003	
04	Chemical and Allied Prod. Mfg	61,686	62,773	61,882	62,908	62,928	
05	Metals Processing	1,239	1,231	1,188	1,162	1,139	
06	Petro. & Related Industries	112	94	86	86	86	
07	Other Industrial Processes	14,508	14,413	14,209	14,225	14,090	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	2,120	2,088	2,031	1,969	1,943	
11	Highway Vehicles	261,573	270,821	265,837	274,805	275,766	
12	Off-Highway	76,664	78,375	75,948	76,198	71,955	
14	Miscellaneous	7,915	8,023	8,189	7,968	8,010	
	Total	712,186	722,031	707,862	732,966	701,516	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	8,200	7,959	7,747	8,410	7,493	
02	Fuel Combustion - Industrial	17,474	17,583	17,555	17,778	17,768	
03	Fuel Combustion - Other	118,481	116,232	112,712	109,126	107,757	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	9,034	8,911	8,697	8,703	8,425	
06	Petro. & Related Industries	489	412	379	374	374	
07	Other Industrial Processes	159,890	159,924	159,944	163,154	163,190	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	37,033	36,384	35,326	34,193	33,728	
11	Highway Vehicles	2,074,201	2,159,280	1,925,444	2,000,491	1,974,997	
12	Off-Highway	448,602	444,858	431,137	421,789	412,489	
14	Miscellaneous	241,661	246,674	254,516	244,127	246,160	
	Total	3,115,069	3,198,221	2,953,463	3,008,150	2,972,386	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	918,671	895,420	835,018	875,450	782,696	
02	Fuel Combustion - Industrial	57,842	57,620	57,389	57,648	57,420	
03	Fuel Combustion - Other	5,230	4,697	2,577	2,118	1,978	
04	Chemical and Allied Prod. Mfg	5,433	5,528	5,450	5,540	5,542	
05	Metals Processing	4,341	4,241	4,062	3,929	3,779	
06	Petro. & Related Industries	1	1	1	1	1	
07	Other Industrial Processes	22,971	22,917	22,798	23,099	23,024	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	325	321	312	306	305	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	2,973	3,138	3,186	3,270	3,399	
14	Miscellaneous	255	255	255	255	255	
	Total	1,018,046	994,142	931,051	971,620	878,403	

**Table IV-11**  
**Idaho Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
02	Fuel Combustion - Industrial	499	522	548	543	545	
03	Fuel Combustion - Other	4,019	3,953	3,824	3,709	3,588	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
06	Petro. & Related Industries	3	5	5	5	4	
07	Other Industrial Processes	82	79	76	74	71	
08	Solvent Utilization	18,244	19,538	20,246	20,704	20,358	
09	Storage and Transport	10,352	10,578	10,573	10,764	10,769	
10	Waste Disposal & Recycling	2,350	2,278	2,205	2,145	2,065	
11	Highway Vehicles	35,545	35,161	33,310	31,822	31,241	
12	Off-Highway	10,167	9,987	9,821	9,685	9,448	
14	Miscellaneous	95,849	95,856	95,921	95,924	95,843	
	<b>Total</b>	<b>177,113</b>	<b>177,961</b>	<b>176,535</b>	<b>175,380</b>	<b>173,936</b>	
<b>NOx</b>							
02	Fuel Combustion - Industrial	11,285	11,740	12,258	12,468	12,866	
03	Fuel Combustion - Other	2,147	2,279	2,493	2,373	2,344	
04	Chemical and Allied Prod. Mfg	1,360	1,450	1,452	1,451	1,462	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	710	729	736	848	839	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	367	354	342	331	318	
11	Highway Vehicles	41,082	41,770	41,289	40,711	39,837	
12	Off-Highway	11,796	12,328	12,692	13,156	13,447	
14	Miscellaneous	22,416	22,417	22,428	22,428	22,416	
	<b>Total</b>	<b>91,167</b>	<b>93,071</b>	<b>93,693</b>	<b>93,771</b>	<b>93,532</b>	
<b>CO</b>							
02	Fuel Combustion - Industrial	2,901	3,028	3,182	3,175	3,223	
03	Fuel Combustion - Other	53,493	52,308	50,533	49,005	47,306	
04	Chemical and Allied Prod. Mfg	6	6	6	6	7	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	2,463	2,446	2,489	2,937	2,973	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	11,949	11,515	11,093	10,747	10,312	
11	Highway Vehicles	314,209	316,364	306,127	295,764	293,913	
12	Off-Highway	68,542	67,686	67,118	66,796	65,275	
14	Miscellaneous	717,301	717,353	717,824	717,846	717,260	
	<b>Total</b>	<b>1,170,866</b>	<b>1,170,711</b>	<b>1,158,377</b>	<b>1,146,280</b>	<b>1,140,273</b>	
<b>SO2</b>							
02	Fuel Combustion - Industrial	8,641	8,267	8,112	8,445	8,653	
03	Fuel Combustion - Other	2,335	2,728	3,248	3,048	2,991	
04	Chemical and Allied Prod. Mfg	15,093	16,036	16,066	16,061	16,261	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	4,622	4,797	4,840	5,148	5,193	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	62	60	58	56	55	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	449	473	480	488	515	
14	Miscellaneous	838	838	838	838	838	
	<b>Total</b>	<b>32,043</b>	<b>33,202</b>	<b>33,645</b>	<b>34,088</b>	<b>34,510</b>	

**Table IV-12**  
**Illinois Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	1,172	1,057	1,014	1,082	1,124	
02	Fuel Combustion - Industrial	5,464	5,589	5,333	5,462	5,378	
03	Fuel Combustion - Other	17,401	16,845	16,104	15,420	14,918	
04	Chemical and Allied Prod. Mfg	39,328	41,432	41,484	43,012	42,640	
05	Metals Processing	2,993	3,208	3,152	3,022	2,860	
06	Petro. & Related Industries	40,417	41,294	40,052	42,135	42,181	
07	Other Industrial Processes	106,424	113,304	115,892	121,049	121,955	
08	Solvent Utilization	321,621	327,930	328,395	327,070	318,257	
09	Storage and Transport	74,614	77,382	72,230	71,862	71,539	
10	Waste Disposal & Recycling	28,725	28,965	28,140	27,502	26,523	
11	Highway Vehicles	315,355	313,534	282,506	262,469	257,336	
12	Off-Highway	74,902	74,156	72,742	70,726	68,039	
14	Miscellaneous	2,491	2,491	2,491	2,491	2,491	
	Total	1,030,914	1,047,194	1,009,541	993,308	975,247	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	354,095	334,778	325,492	345,418	345,571	
02	Fuel Combustion - Industrial	129,843	133,719	130,114	131,890	129,830	
03	Fuel Combustion - Other	41,701	45,847	45,876	45,279	45,685	
04	Chemical and Allied Prod. Mfg	2,772	2,887	2,812	2,924	2,899	
05	Metals Processing	5,137	5,499	5,414	5,196	4,929	
06	Petro. & Related Industries	3,905	3,936	3,658	3,791	3,759	
07	Other Industrial Processes	7,435	6,724	6,312	6,261	5,923	
08	Solvent Utilization	306	313	304	308	305	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	2,826	2,765	2,671	2,609	2,526	
11	Highway Vehicles	305,089	318,519	312,201	310,836	306,519	
12	Off-Highway	105,789	109,571	113,379	113,503	110,105	
14	Miscellaneous	313	313	313	313	313	
	Total	959,218	964,876	948,552	968,333	958,369	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	9,733	8,964	8,685	9,276	9,551	
02	Fuel Combustion - Industrial	14,993	15,496	15,291	15,390	15,152	
03	Fuel Combustion - Other	232,678	225,468	216,334	207,016	200,434	
04	Chemical and Allied Prod. Mfg	27,126	28,683	28,744	29,830	29,597	
05	Metals Processing	98,857	106,063	104,499	100,204	94,955	
06	Petro. & Related Industries	748	753	700	726	720	
07	Other Industrial Processes	1,225	1,153	1,097	1,095	1,036	
08	Solvent Utilization	206	216	211	209	207	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	95,699	92,170	88,282	84,345	81,453	
11	Highway Vehicles	2,788,698	2,794,266	2,590,836	2,485,521	2,443,060	
12	Off-Highway	511,521	514,974	505,578	493,638	474,630	
14	Miscellaneous	13,555	13,555	13,555	13,555	13,555	
	Total	3,795,043	3,801,766	3,573,820	3,440,810	3,364,354	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	868,393	904,446	859,473	900,207	878,507	
02	Fuel Combustion - Industrial	187,948	194,871	188,008	193,496	191,125	
03	Fuel Combustion - Other	25,593	25,881	24,054	24,446	24,490	
04	Chemical and Allied Prod. Mfg	33,907	35,184	34,073	35,426	35,131	
05	Metals Processing	15,294	16,496	16,231	15,513	14,636	
06	Petro. & Related Industries	57,344	57,764	53,684	55,626	55,161	
07	Other Industrial Processes	18,578	16,920	15,922	15,844	14,974	
08	Solvent Utilization	28	28	27	27	27	
09	Storage and Transport	122	130	131	136	135	
10	Waste Disposal & Recycling	906	906	884	889	865	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	3,986	4,211	4,286	4,380	4,595	
14	Miscellaneous	0	0	0	0	0	
	Total	1,212,104	1,256,843	1,196,777	1,245,997	1,219,649	

**Table IV-13**  
**Indiana Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	1,413	1,492	1,625	1,740	1,766	
02	Fuel Combustion - Industrial	802	773	786	784	779	
03	Fuel Combustion - Other	16,058	15,717	14,960	14,451	14,041	
04	Chemical and Allied Prod. Mfg	27,811	28,174	28,714	29,797	30,042	
05	Metals Processing	8,385	8,746	9,038	8,738	8,392	
06	Petro. & Related Industries	17,404	17,457	18,652	17,538	17,583	
07	Other Industrial Processes	18,813	18,465	17,817	17,530	17,591	
08	Solvent Utilization	204,109	208,678	212,827	209,922	204,805	
09	Storage and Transport	45,316	46,637	44,523	44,845	44,745	
10	Waste Disposal & Recycling	39,393	39,853	39,384	38,106	37,039	
11	Highway Vehicles	214,682	208,555	177,616	171,733	170,193	
12	Off-Highway	46,291	45,408	45,025	43,513	41,884	
14	Miscellaneous	1,232	1,232	1,232	1,232	1,232	
	Total	641,715	641,193	612,205	599,934	590,097	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	436,384	479,810	495,116	507,682	505,170	
02	Fuel Combustion - Industrial	126,336	127,767	127,064	127,092	126,329	
03	Fuel Combustion - Other	21,755	23,011	22,886	22,489	22,585	
04	Chemical and Allied Prod. Mfg	1,420	1,439	1,466	1,522	1,534	
05	Metals Processing	11,808	12,325	12,750	12,328	11,842	
06	Petro. & Related Industries	1,631	1,592	1,845	1,605	1,618	
07	Other Industrial Processes	9,136	8,566	8,564	8,509	8,242	
08	Solvent Utilization	13	13	13	13	12	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	3,150	3,117	3,072	3,038	3,001	
11	Highway Vehicles	262,290	264,377	250,133	257,957	253,653	
12	Off-Highway	76,198	78,540	82,946	83,075	82,428	
14	Miscellaneous	155	155	155	155	155	
	Total	950,284	1,000,718	1,006,017	1,025,472	1,016,575	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	12,396	13,125	14,755	15,015	15,268	
02	Fuel Combustion - Industrial	20,066	20,537	20,607	20,499	20,349	
03	Fuel Combustion - Other	211,953	206,954	197,825	190,789	185,367	
04	Chemical and Allied Prod. Mfg	19	19	20	21	21	
05	Metals Processing	553,998	578,277	598,151	578,390	555,528	
06	Petro. & Related Industries	16,691	16,288	18,878	16,417	16,551	
07	Other Industrial Processes	8,868	8,093	8,117	8,124	7,804	
08	Solvent Utilization	2	2	3	2	2	
09	Storage and Transport	4,864	5,077	5,252	5,078	4,874	
10	Waste Disposal & Recycling	64,090	62,134	59,916	57,538	55,818	
11	Highway Vehicles	1,812,134	1,807,072	1,622,139	1,621,599	1,608,607	
12	Off-Highway	283,849	282,314	280,887	271,646	262,333	
14	Miscellaneous	6,701	6,701	6,701	6,701	6,701	
	Total	2,995,638	3,006,599	2,833,257	2,791,825	2,739,228	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	1,462,989	1,459,771	1,519,529	1,511,040	1,513,110	
02	Fuel Combustion - Industrial	351,028	353,412	345,979	349,409	349,157	
03	Fuel Combustion - Other	40,424	43,440	42,663	42,408	42,961	
04	Chemical and Allied Prod. Mfg	3,496	3,468	3,801	3,574	3,604	
05	Metals Processing	44,696	46,623	48,283	46,636	44,816	
06	Petro. & Related Industries	5,809	5,668	6,570	5,713	5,760	
07	Other Industrial Processes	4,997	4,650	4,700	4,671	4,514	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	687	689	687	684	683	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	3,467	3,658	3,723	3,798	4,000	
14	Miscellaneous	0	0	0	0	0	
	Total	1,917,596	1,921,385	1,975,938	1,967,940	1,968,608	

**Table IV-14**  
**Iowa Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	463	494	516	543	561	
02	Fuel Combustion - Industrial	240	263	253	267	276	
03	Fuel Combustion - Other	1,965	2,006	1,912	1,854	1,785	
04	Chemical and Allied Prod. Mfg	1,096	1,144	1,193	1,218	1,205	
05	Metals Processing	9	6	6	6	6	
06	Petro. & Related Industries	31	29	27	26	27	
07	Other Industrial Processes	3,234	3,411	3,668	3,694	3,648	
08	Solvent Utilization	87,101	86,552	86,826	88,494	83,796	
09	Storage and Transport	26,903	27,614	26,788	26,721	26,385	
10	Waste Disposal & Recycling	7,949	7,688	7,380	7,076	6,786	
11	Highway Vehicles	79,896	80,286	76,447	74,186	73,883	
12	Off-Highway	27,326	26,586	25,913	25,152	23,986	
14	Miscellaneous	628	628	628	628	628	
	Total	236,847	236,712	231,564	229,872	222,978	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	100,470	106,077	111,379	121,445	124,929	
02	Fuel Combustion - Industrial	26,230	27,997	26,842	27,991	28,293	
03	Fuel Combustion - Other	8,861	10,641	10,052	10,006	10,197	
04	Chemical and Allied Prod. Mfg	5,995	6,180	6,323	6,483	6,414	
05	Metals Processing	7	6	6	6	5	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	3,212	3,215	3,186	3,188	3,049	
08	Solvent Utilization	1	1	1	1	1	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	1,670	1,647	1,615	1,579	1,548	
11	Highway Vehicles	98,754	101,017	100,486	99,903	98,115	
12	Off-Highway	27,975	28,245	29,167	30,022	28,938	
14	Miscellaneous	79	79	79	79	79	
	Total	273,259	285,109	289,141	300,707	301,574	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	4,009	4,298	4,461	4,696	4,848	
02	Fuel Combustion - Industrial	5,079	5,369	5,190	5,375	5,402	
03	Fuel Combustion - Other	24,172	24,236	22,806	22,137	21,547	
04	Chemical and Allied Prod. Mfg	125	134	145	147	146	
05	Metals Processing	2,182	2,247	2,210	2,132	2,037	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	200	199	197	195	187	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	40,620	39,251	37,681	36,117	34,680	
11	Highway Vehicles	735,057	749,241	726,639	713,713	710,957	
12	Off-Highway	160,877	158,678	156,166	152,762	146,187	
14	Miscellaneous	3,417	3,417	3,417	3,417	3,417	
	Total	975,743	987,073	958,917	940,696	929,412	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	197,376	196,233	188,393	180,540	193,259	
02	Fuel Combustion - Industrial	64,142	64,365	66,421	66,594	65,981	
03	Fuel Combustion - Other	15,052	17,941	16,171	17,396	18,042	
04	Chemical and Allied Prod. Mfg	14	14	15	15	15	
05	Metals Processing	18	19	18	18	17	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	5,812	5,836	5,804	5,830	5,573	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	498	510	520	521	526	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	794	836	849	862	907	
14	Miscellaneous	0	0	0	0	0	
	Total	283,710	285,758	278,196	271,779	284,325	

**Table IV-15**  
**Kansas Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	564	563	559	581	580	
02	Fuel Combustion - Industrial	1,036	1,043	999	1,003	990	
03	Fuel Combustion - Other	1,603	1,572	1,513	1,443	1,407	
04	Chemical and Allied Prod. Mfg	4,280	4,095	3,957	3,850	3,919	
06	Petro. & Related Industries	14,789	14,720	14,440	14,750	15,048	
07	Other Industrial Processes	2,767	2,787	2,726	2,653	2,673	
08	Solvent Utilization	72,184	76,478	67,797	72,538	70,877	
09	Storage and Transport	33,447	34,092	32,434	32,397	32,445	
10	Waste Disposal & Recycling	7,140	7,014	6,804	6,576	6,439	
11	Highway Vehicles	80,223	82,355	75,733	72,025	70,914	
12	Off-Highway	26,817	26,345	25,325	24,750	24,106	
14	Miscellaneous	4,122	4,088	3,002	4,000	2,832	
	<b>Total</b>	<b>248,977</b>	<b>255,156</b>	<b>235,294</b>	<b>236,569</b>	<b>232,234</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	124,695	120,119	119,256	126,009	123,169	
02	Fuel Combustion - Industrial	111,208	113,621	110,751	110,828	109,329	
03	Fuel Combustion - Other	7,053	7,870	7,692	7,616	7,651	
04	Chemical and Allied Prod. Mfg	7,865	7,525	7,271	7,074	7,200	
06	Petro. & Related Industries	2,400	2,278	2,200	2,155	2,194	
07	Other Industrial Processes	2,464	2,326	2,269	2,285	2,248	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	13	12	12	11	11	
10	Waste Disposal & Recycling	986	964	939	907	888	
11	Highway Vehicles	86,406	91,288	86,776	88,558	87,809	
12	Off-Highway	62,819	64,927	64,049	65,658	66,933	
14	Miscellaneous	620	615	447	601	421	
	<b>Total</b>	<b>406,534</b>	<b>411,551</b>	<b>401,665</b>	<b>411,707</b>	<b>407,859</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	5,477	5,517	5,506	5,785	5,927	
02	Fuel Combustion - Industrial	16,168	16,482	16,053	16,060	15,855	
03	Fuel Combustion - Other	21,609	21,151	20,435	19,514	19,029	
04	Chemical and Allied Prod. Mfg	59,031	56,479	54,574	53,094	54,042	
06	Petro. & Related Industries	2,726	2,588	2,499	2,448	2,492	
07	Other Industrial Processes	80	76	74	73	72	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	30,036	29,160	28,064	26,855	26,135	
11	Highway Vehicles	709,779	740,991	688,377	676,623	668,987	
12	Off-Highway	153,565	151,633	146,647	143,663	140,251	
14	Miscellaneous	28,828	28,580	20,752	27,942	19,526	
	<b>Total</b>	<b>1,027,302</b>	<b>1,052,661</b>	<b>982,985</b>	<b>972,060</b>	<b>952,321</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	141,070	113,834	97,780	87,711	83,203	
02	Fuel Combustion - Industrial	18,891	17,957	17,291	17,166	17,055	
03	Fuel Combustion - Other	313	403	499	349	344	
04	Chemical and Allied Prod. Mfg	2,257	2,143	2,069	2,027	2,063	
06	Petro. & Related Industries	10,493	9,962	9,618	9,422	9,590	
07	Other Industrial Processes	9,675	9,229	9,025	9,060	8,940	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	2	2	2	2	2	
10	Waste Disposal & Recycling	211	209	207	204	204	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	3,290	3,468	3,529	3,596	3,789	
14	Miscellaneous	0	0	0	0	0	
	<b>Total</b>	<b>186,206</b>	<b>157,213</b>	<b>140,025</b>	<b>129,541</b>	<b>125,194</b>	

**Table IV-16**  
**Kentucky Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	1,000	1,146	1,017	1,079	1,099	
02	Fuel Combustion - Industrial	2,266	1,598	1,634	1,634	1,624	
03	Fuel Combustion - Other	15,550	15,135	14,274	13,759	13,297	
04	Chemical and Allied Prod. Mfg	9,440	9,928	10,067	10,365	10,457	
05	Metals Processing	3,647	3,802	3,963	4,065	3,830	
06	Petro. & Related Industries	9,863	10,233	9,747	9,637	9,586	
07	Other Industrial Processes	41,539	42,653	42,665	43,532	43,830	
08	Solvent Utilization	81,887	85,205	85,391	85,896	85,916	
09	Storage and Transport	24,924	26,279	24,602	24,890	25,168	
10	Waste Disposal & Recycling	12,153	11,998	11,664	11,374	10,999	
11	Highway Vehicles	130,072	127,673	108,936	103,864	102,356	
12	Off-Highway	40,607	40,119	39,215	38,222	37,191	
14	Miscellaneous	826	826	826	826	826	
	Total	373,780	376,602	354,005	349,148	346,185	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	300,164	354,837	313,154	330,624	339,412	
02	Fuel Combustion - Industrial	63,185	66,440	69,568	67,872	68,257	
03	Fuel Combustion - Other	9,838	10,684	10,139	10,204	10,255	
04	Chemical and Allied Prod. Mfg	571	600	609	628	634	
05	Metals Processing	1,677	1,728	1,680	1,620	1,526	
06	Petro. & Related Industries	2,202	2,424	2,133	1,989	2,007	
07	Other Industrial Processes	8,135	8,310	8,771	9,079	8,621	
08	Solvent Utilization	41	43	43	43	41	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	1,800	1,772	1,711	1,642	1,594	
11	Highway Vehicles	134,621	137,377	132,357	134,972	133,433	
12	Off-Highway	62,607	65,559	67,387	67,730	68,477	
14	Miscellaneous	112	112	112	112	112	
	Total	584,957	649,890	607,671	626,521	634,375	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	8,587	9,840	8,684	9,214	9,393	
02	Fuel Combustion - Industrial	10,625	11,121	11,572	11,367	11,406	
03	Fuel Combustion - Other	205,473	199,339	188,781	181,500	175,314	
04	Chemical and Allied Prod. Mfg	4,066	4,274	4,338	4,473	4,514	
05	Metals Processing	32,849	33,591	33,420	33,294	31,373	
06	Petro. & Related Industries	8,751	9,633	8,480	7,906	7,979	
07	Other Industrial Processes	18,813	19,237	20,778	21,475	21,420	
08	Solvent Utilization	5	6	6	6	5	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	28,502	27,533	26,375	25,260	24,385	
11	Highway Vehicles	1,044,400	1,054,737	952,242	938,615	933,164	
12	Off-Highway	216,895	216,049	212,411	208,684	202,394	
14	Miscellaneous	4,690	4,690	4,690	4,690	4,690	
	Total	1,583,662	1,590,056	1,471,780	1,446,489	1,426,041	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	709,278	767,385	889,590	905,631	880,041	
02	Fuel Combustion - Industrial	56,335	56,483	59,652	57,422	56,820	
03	Fuel Combustion - Other	7,631	9,131	7,220	7,821	7,862	
04	Chemical and Allied Prod. Mfg	3,289	3,462	3,498	3,596	3,629	
05	Metals Processing	7,545	7,714	7,678	7,653	7,211	
06	Petro. & Related Industries	10,391	11,439	10,069	9,388	9,474	
07	Other Industrial Processes	11,042	11,212	11,903	12,347	11,754	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	566	605	607	587	584	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	3,498	3,696	3,765	3,851	4,008	
14	Miscellaneous	0	0	0	0	0	
	Total	809,579	871,131	993,986	1,008,301	981,387	

**Table IV-17**  
**Louisiana Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	579	663	642	654	659	
02	Fuel Combustion - Industrial	10,819	10,850	10,701	10,983	11,093	
03	Fuel Combustion - Other	3,231	3,034	2,941	2,666	2,537	
04	Chemical and Allied Prod. Mfg	90,079	95,097	98,495	100,775	101,799	
05	Metals Processing	5	6	5	6	6	
06	Petro. & Related Industries	77,075	76,801	74,938	76,753	77,062	
07	Other Industrial Processes	10,382	10,461	10,277	10,184	10,235	
08	Solvent Utilization	67,770	73,104	70,049	70,261	70,409	
09	Storage and Transport	50,635	50,406	47,458	48,034	47,950	
10	Waste Disposal & Recycling	124,731	128,239	128,922	132,040	134,010	
11	Highway Vehicles	182,211	192,192	147,385	137,620	129,488	
12	Off-Highway	76,988	76,301	73,509	71,785	70,256	
14	Miscellaneous	23,147	35,635	29,175	30,084	23,850	
	<b>Total</b>	<b>717,659</b>	<b>752,796</b>	<b>694,502</b>	<b>691,850</b>	<b>679,361</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	124,899	136,411	136,949	131,864	134,365	
02	Fuel Combustion - Industrial	301,952	300,984	304,736	313,177	318,693	
03	Fuel Combustion - Other	9,344	7,776	9,413	5,747	5,082	
04	Chemical and Allied Prod. Mfg	30,008	31,573	32,657	33,422	33,771	
05	Metals Processing	1,034	1,002	990	1,021	1,032	
06	Petro. & Related Industries	4,981	4,754	4,556	4,733	4,793	
07	Other Industrial Processes	9,029	9,088	8,870	8,875	8,973	
08	Solvent Utilization	2	3	3	3	3	
09	Storage and Transport	373	395	409	419	423	
10	Waste Disposal & Recycling	2,402	2,401	2,379	2,341	2,307	
11	Highway Vehicles	171,681	172,615	162,857	159,006	151,681	
12	Off-Highway	117,748	125,967	124,208	127,709	129,815	
14	Miscellaneous	4,055	5,976	4,982	5,122	4,162	
	<b>Total</b>	<b>777,513</b>	<b>798,950</b>	<b>793,015</b>	<b>793,444</b>	<b>795,106</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	8,171	8,770	8,529	8,981	8,849	
02	Fuel Combustion - Industrial	65,139	65,332	65,584	66,664	67,697	
03	Fuel Combustion - Other	42,512	40,282	38,366	35,896	34,326	
04	Chemical and Allied Prod. Mfg	547,421	578,350	599,474	613,365	619,787	
05	Metals Processing	449	480	441	457	452	
06	Petro. & Related Industries	3,606	3,369	3,244	3,364	3,402	
07	Other Industrial Processes	43,505	44,412	43,962	43,982	44,441	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	40,971	43,290	44,876	45,916	46,397	
10	Waste Disposal & Recycling	28,729	27,314	25,905	24,434	23,394	
11	Highway Vehicles	1,324,727	1,371,059	1,156,418	1,103,366	1,054,815	
12	Off-Highway	448,760	445,564	430,843	423,676	415,934	
14	Miscellaneous	167,956	257,966	211,402	217,957	173,022	
	<b>Total</b>	<b>2,721,950</b>	<b>2,886,194</b>	<b>2,629,050</b>	<b>2,588,063</b>	<b>2,492,523</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	66,451	82,711	101,241	98,724	103,689	
02	Fuel Combustion - Industrial	145,452	150,857	136,212	144,909	147,492	
03	Fuel Combustion - Other	21,878	14,086	26,453	4,195	913	
04	Chemical and Allied Prod. Mfg	69,238	71,330	73,021	74,870	75,654	
05	Metals Processing	14,948	13,968	13,437	13,918	14,080	
06	Petro. & Related Industries	16,229	15,076	14,536	15,062	15,224	
07	Other Industrial Processes	8,879	9,009	8,918	8,927	9,028	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	5,222	5,519	5,720	5,853	5,914	
10	Waste Disposal & Recycling	473	479	478	475	471	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	24,992	26,502	27,148	27,803	28,538	
14	Miscellaneous	42	42	42	42	42	
	<b>Total</b>	<b>373,810</b>	<b>389,584</b>	<b>407,211</b>	<b>394,781</b>	<b>401,050</b>	

**Table IV-18**  
**Maine Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	128	147	152	105	68	
02	Fuel Combustion - Industrial	2,139	2,184	2,191	2,141	2,036	
03	Fuel Combustion - Other	6,796	6,682	6,451	6,225	6,106	
07	Other Industrial Processes	3,522	3,544	3,413	3,353	3,160	
08	Solvent Utilization	21,959	23,439	23,762	23,880	23,601	
09	Storage and Transport	10,561	11,254	10,552	10,915	10,912	
10	Waste Disposal & Recycling	3,107	3,055	2,970	2,862	2,799	
11	Highway Vehicles	40,299	43,558	35,324	37,234	37,404	
12	Off-Highway	5,456	5,411	5,273	5,085	4,978	
14	Miscellaneous	487	457	510	498	391	
	<b>Total</b>	<b>94,458</b>	<b>99,736</b>	<b>90,603</b>	<b>92,303</b>	<b>91,459</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	4,431	5,119	5,368	3,701	2,397	
02	Fuel Combustion - Industrial	12,726	13,096	13,137	12,970	12,453	
03	Fuel Combustion - Other	5,260	6,490	5,797	6,168	6,371	
07	Other Industrial Processes	1,579	1,595	1,552	1,521	1,437	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	593	588	578	562	552	
11	Highway Vehicles	44,722	48,361	43,695	47,001	47,414	
12	Off-Highway	4,216	4,418	4,455	4,392	4,258	
14	Miscellaneous	69	64	72	70	54	
	<b>Total</b>	<b>73,600</b>	<b>79,734</b>	<b>74,657</b>	<b>76,389</b>	<b>74,939</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	447	511	529	368	237	
02	Fuel Combustion - Industrial	9,131	9,329	9,358	9,137	8,692	
03	Fuel Combustion - Other	88,789	86,875	84,085	80,899	79,239	
07	Other Industrial Processes	7,418	7,552	7,521	7,256	6,865	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	13,694	13,424	13,039	12,543	12,278	
11	Highway Vehicles	381,594	414,245	356,832	380,196	384,043	
12	Off-Highway	23,127	23,147	22,694	21,902	21,348	
14	Miscellaneous	3,121	2,908	3,287	3,201	2,426	
	<b>Total</b>	<b>527,325</b>	<b>557,995</b>	<b>497,348</b>	<b>515,506</b>	<b>515,132</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	13,761	14,590	15,065	11,502	7,474	
02	Fuel Combustion - Industrial	50,445	51,613	51,883	50,735	48,185	
03	Fuel Combustion - Other	9,849	15,649	12,256	12,942	13,293	
07	Other Industrial Processes	4,139	4,213	4,181	4,017	3,797	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	126	129	131	130	129	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	235	248	251	255	267	
14	Miscellaneous	0	0	0	0	0	
	<b>Total</b>	<b>78,558</b>	<b>86,444</b>	<b>83,769</b>	<b>79,584</b>	<b>73,148</b>	

**Table IV-19**  
**Maryland Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	445	517	663	528	528	
02	Fuel Combustion - Industrial	307	326	338	327	316	
03	Fuel Combustion - Other	3,220	3,171	2,397	2,467	2,372	
04	Chemical and Allied Prod. Mfg	2,124	2,227	2,221	2,307	2,233	
05	Metals Processing	609	641	663	656	610	
06	Petro. & Related Industries	54	69	69	66	63	
07	Other Industrial Processes	1,575	1,583	1,570	1,600	1,547	
08	Solvent Utilization	87,125	90,532	90,502	91,493	90,955	
09	Storage and Transport	26,920	27,809	25,995	25,658	25,809	
10	Waste Disposal & Recycling	2,915	2,972	2,955	2,945	2,810	
11	Highway Vehicles	150,972	146,139	125,234	117,227	113,398	
12	Off-Highway	37,707	37,780	37,073	36,223	34,970	
14	Miscellaneous	2,871	2,876	2,880	2,877	2,866	
	<b>Total</b>	<b>316,850</b>	<b>316,648</b>	<b>292,564</b>	<b>284,380</b>	<b>278,482</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	85,981	92,980	101,339	97,085	91,376	
02	Fuel Combustion - Industrial	17,529	18,007	18,312	18,628	18,240	
03	Fuel Combustion - Other	20,713	17,567	16,898	15,903	15,532	
04	Chemical and Allied Prod. Mfg	708	745	735	775	750	
05	Metals Processing	3,899	3,546	3,788	3,813	3,545	
06	Petro. & Related Industries	17	20	20	20	18	
07	Other Industrial Processes	3,769	4,479	4,495	4,396	4,097	
08	Solvent Utilization	33	33	33	33	32	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	1,800	1,902	1,975	2,038	2,052	
11	Highway Vehicles	141,803	143,134	140,312	141,089	139,578	
12	Off-Highway	38,127	41,141	41,850	41,607	37,910	
14	Miscellaneous	523	524	524	524	522	
	<b>Total</b>	<b>314,906</b>	<b>324,084</b>	<b>330,286</b>	<b>325,916</b>	<b>313,657</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	3,361	3,645	4,400	3,877	3,807	
02	Fuel Combustion - Industrial	2,972	3,141	3,184	3,219	3,166	
03	Fuel Combustion - Other	32,843	32,851	25,949	26,495	25,623	
04	Chemical and Allied Prod. Mfg	6,948	7,303	7,201	7,604	7,359	
05	Metals Processing	2,228	2,026	2,165	2,179	2,026	
06	Petro. & Related Industries	1,042	1,001	981	999	967	
07	Other Industrial Processes	5,245	5,551	5,454	5,540	5,302	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	5,393	5,649	5,736	5,805	5,741	
11	Highway Vehicles	1,233,744	1,222,616	1,113,591	1,084,967	1,064,307	
12	Off-Highway	284,637	284,923	279,701	273,654	264,032	
14	Miscellaneous	19,301	19,340	19,364	19,348	19,268	
	<b>Total</b>	<b>1,597,718</b>	<b>1,588,051</b>	<b>1,467,732</b>	<b>1,433,693</b>	<b>1,401,603</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	255,101	277,551	298,587	282,643	265,487	
02	Fuel Combustion - Industrial	28,394	29,423	28,182	28,608	27,410	
03	Fuel Combustion - Other	47,009	34,978	31,314	27,478	25,425	
04	Chemical and Allied Prod. Mfg	5,723	6,016	5,932	6,264	6,062	
05	Metals Processing	5,255	4,780	5,106	5,140	4,778	
06	Petro. & Related Industries	60	67	67	67	63	
07	Other Industrial Processes	2,033	2,331	2,325	2,299	2,160	
08	Solvent Utilization	2	2	2	2	2	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	1,480	1,566	1,626	1,677	1,687	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	11,034	11,702	11,986	12,278	12,584	
14	Miscellaneous	15	15	15	15	15	
	<b>Total</b>	<b>356,110</b>	<b>368,434</b>	<b>385,148</b>	<b>366,474</b>	<b>345,678</b>	

**Table IV-20**  
**Massachusetts Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	1,105	1,194	1,180	993	992	
02	Fuel Combustion - Industrial	1,452	1,449	1,491	1,434	1,382	
03	Fuel Combustion - Other	10,140	9,879	9,568	9,153	8,959	
04	Chemical and Allied Prod. Mfg	3,352	3,422	3,473	3,316	3,188	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	720	759	719	629	604	
07	Other Industrial Processes	2,827	2,878	2,743	2,709	2,609	
08	Solvent Utilization	162,552	169,040	165,583	162,193	160,012	
09	Storage and Transport	31,289	32,392	29,849	28,847	28,307	
10	Waste Disposal & Recycling	8,985	8,895	8,612	8,243	7,994	
11	Highway Vehicles	155,975	158,437	132,387	130,364	127,312	
12	Off-Highway	59,241	58,722	56,341	53,456	51,662	
14	Miscellaneous	1,273	1,273	1,273	1,273	1,273	
	Total	438,919	448,345	413,226	402,615	394,301	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	79,807	80,714	86,860	77,694	75,856	
02	Fuel Combustion - Industrial	16,582	15,223	14,686	14,455	14,018	
03	Fuel Combustion - Other	23,513	24,643	25,178	25,523	26,334	
04	Chemical and Allied Prod. Mfg	18	19	19	18	18	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	35	38	34	30	29	
07	Other Industrial Processes	451	485	463	435	417	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	2,876	3,053	3,091	3,084	3,001	
11	Highway Vehicles	146,204	148,988	143,526	145,724	144,288	
12	Off-Highway	55,739	58,996	56,069	51,712	48,121	
14	Miscellaneous	160	160	160	160	160	
	Total	325,390	332,323	330,090	318,841	312,246	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	5,423	5,422	5,918	5,313	5,005	
02	Fuel Combustion - Industrial	2,307	2,157	2,149	2,133	2,102	
03	Fuel Combustion - Other	128,950	125,298	120,897	115,423	112,667	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	843	842	803	752	715	
06	Petro. & Related Industries	48	52	47	42	40	
07	Other Industrial Processes	140	150	145	138	133	
08	Solvent Utilization	31	31	34	32	31	
09	Storage and Transport	28	31	31	30	28	
10	Waste Disposal & Recycling	50,154	49,683	48,349	46,600	45,365	
11	Highway Vehicles	1,393,802	1,421,067	1,282,605	1,296,133	1,278,436	
12	Off-Highway	349,341	348,297	334,408	316,395	304,433	
14	Miscellaneous	6,927	6,927	6,927	6,927	6,927	
	Total	1,938,000	1,959,964	1,802,321	1,789,924	1,755,886	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	248,888	263,027	266,209	232,910	238,682	
02	Fuel Combustion - Industrial	31,814	28,504	25,822	24,920	23,466	
03	Fuel Combustion - Other	26,697	28,759	28,100	28,295	29,158	
04	Chemical and Allied Prod. Mfg	283	296	319	304	292	
05	Metals Processing	5	5	4	4	4	
06	Petro. & Related Industries	77	85	76	68	65	
07	Other Industrial Processes	800	832	777	723	691	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	2,350	2,585	2,668	2,706	2,632	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	1,575	1,661	1,687	1,726	1,806	
14	Miscellaneous	0	0	0	0	0	
	Total	312,492	325,759	325,666	291,662	296,800	

**Table IV-21**  
**Michigan Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	1,127	1,132	1,134	1,085	1,083	
02	Fuel Combustion - Industrial	1,072	1,177	1,141	1,117	1,104	
03	Fuel Combustion - Other	22,405	21,572	20,730	19,819	19,221	
04	Chemical and Allied Prod. Mfg	15,330	16,409	16,440	16,368	16,001	
05	Metals Processing	8,577	8,504	8,051	7,343	6,914	
06	Petro. & Related Industries	8,650	8,805	7,957	7,702	7,623	
07	Other Industrial Processes	6,208	6,136	6,054	5,950	5,799	
08	Solvent Utilization	276,338	277,097	279,000	269,973	265,316	
09	Storage and Transport	43,902	45,073	40,603	40,131	40,208	
10	Waste Disposal & Recycling	43,823	43,650	42,730	40,731	38,978	
11	Highway Vehicles	309,418	310,105	281,075	277,312	275,063	
12	Off-Highway	92,501	90,669	88,644	84,876	81,773	
14	Miscellaneous	1,256	1,256	1,256	1,256	1,256	
	<b>Total</b>	<b>830,612</b>	<b>831,590</b>	<b>794,821</b>	<b>773,669</b>	<b>760,345</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	310,584	300,367	297,618	292,937	294,710	
02	Fuel Combustion - Industrial	73,970	83,634	81,963	78,701	77,641	
03	Fuel Combustion - Other	37,772	39,576	39,952	39,922	40,374	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	1,491	1,478	1,401	1,277	1,202	
06	Petro. & Related Industries	684	686	569	536	524	
07	Other Industrial Processes	10,251	10,179	10,211	9,909	9,363	
08	Solvent Utilization	35	37	37	37	36	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	3,929	3,886	3,792	3,693	3,607	
11	Highway Vehicles	310,142	318,154	309,086	315,059	312,898	
12	Off-Highway	59,107	62,217	66,020	63,117	58,738	
14	Miscellaneous	173	173	173	173	173	
	<b>Total</b>	<b>808,141</b>	<b>820,392</b>	<b>810,827</b>	<b>805,366</b>	<b>799,272</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	9,611	9,445	9,433	9,246	9,252	
02	Fuel Combustion - Industrial	11,563	13,116	12,889	12,353	12,210	
03	Fuel Combustion - Other	320,888	307,928	296,957	282,786	273,914	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	225,082	223,132	211,515	192,849	181,494	
06	Petro. & Related Industries	33,914	34,010	28,204	26,579	25,983	
07	Other Industrial Processes	3,903	3,789	3,751	3,723	3,629	
08	Solvent Utilization	297	318	319	318	310	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	98,419	95,521	91,898	88,335	85,808	
11	Highway Vehicles	2,849,269	2,884,084	2,708,087	2,733,140	2,720,815	
12	Off-Highway	292,281	288,920	284,442	271,895	261,626	
14	Miscellaneous	7,102	7,102	7,102	7,102	7,102	
	<b>Total</b>	<b>3,852,334</b>	<b>3,867,370</b>	<b>3,654,603</b>	<b>3,628,329</b>	<b>3,582,149</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	457,754	425,176	403,355	375,772	379,550	
02	Fuel Combustion - Industrial	95,145	94,115	91,521	88,429	85,071	
03	Fuel Combustion - Other	12,481	14,062	13,010	12,920	12,654	
04	Chemical and Allied Prod. Mfg	300	365	352	334	333	
05	Metals Processing	5,107	5,062	4,798	4,374	4,117	
06	Petro. & Related Industries	4,733	4,746	3,936	3,709	3,626	
07	Other Industrial Processes	16,084	15,896	15,939	15,510	14,646	
08	Solvent Utilization	29	31	31	30	30	
09	Storage and Transport	539	561	612	516	514	
10	Waste Disposal & Recycling	1,138	1,151	1,142	1,130	1,110	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	1,091	1,151	1,168	1,195	1,254	
14	Miscellaneous	0	0	0	0	0	
	<b>Total</b>	<b>594,407</b>	<b>562,322</b>	<b>535,869</b>	<b>503,926</b>	<b>502,911</b>	

**Table IV-22**  
**Minnesota Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)			
			1987	1988	1989	1990
<b>VOC</b>						
01	Fuel Comb. - Electric Utilities	475	585	608	605	578
02	Fuel Combustion - Industrial	577	612	607	620	623
03	Fuel Combustion - Other	14,552	14,259	13,785	13,295	12,968
04	Chemical and Allied Prod. Mfg	826	881	905	905	904
05	Metals Processing	72	81	76	75	74
06	Petro. & Related Industries	9,740	10,188	10,710	11,088	11,217
07	Other Industrial Processes	3,339	3,398	3,448	3,409	3,389
08	Solvent Utilization	139,948	144,436	147,965	147,554	146,935
09	Storage and Transport	43,546	44,659	43,277	43,461	43,805
10	Waste Disposal & Recycling	9,114	9,000	8,691	8,404	8,210
11	Highway Vehicles	129,427	132,897	125,101	124,671	124,713
12	Off-Highway	48,735	48,027	47,408	46,073	44,681
14	Miscellaneous	962	962	962	962	962
	Total	401,319	409,990	403,549	401,128	399,066
<b>NOx</b>						
01	Fuel Comb. - Electric Utilities	132,649	147,249	156,905	155,552	149,198
02	Fuel Combustion - Industrial	23,395	24,810	25,775	26,551	26,823
03	Fuel Combustion - Other	15,538	17,864	18,682	18,356	18,599
04	Chemical and Allied Prod. Mfg	626	677	689	688	686
05	Metals Processing	1,184	1,423	1,543	1,665	1,642
06	Petro. & Related Industries	1,047	1,030	1,115	1,129	1,127
07	Other Industrial Processes	2,132	2,191	2,185	2,188	2,183
08	Solvent Utilization	16	22	17	16	16
09	Storage and Transport	0	0	0	0	0
10	Waste Disposal & Recycling	1,667	1,664	1,611	1,567	1,536
11	Highway Vehicles	131,670	136,952	134,742	136,873	136,701
12	Off-Highway	40,169	39,703	42,444	41,986	39,792
14	Miscellaneous	130	130	130	130	130
	Total	350,228	373,721	385,844	386,707	378,439
<b>CO</b>						
01	Fuel Comb. - Electric Utilities	4,208	5,152	5,344	5,325	5,042
02	Fuel Combustion - Industrial	6,155	6,522	6,612	6,757	6,806
03	Fuel Combustion - Other	194,097	190,129	183,767	177,171	172,804
04	Chemical and Allied Prod. Mfg	356	385	392	391	390
05	Metals Processing	2,601	2,836	2,611	2,541	2,537
06	Petro. & Related Industries	60,446	59,475	64,377	65,210	65,078
07	Other Industrial Processes	1,584	1,637	1,629	1,661	1,657
08	Solvent Utilization	0	0	0	0	0
09	Storage and Transport	0	0	0	0	0
10	Waste Disposal & Recycling	44,066	43,489	41,706	40,174	39,189
11	Highway Vehicles	1,270,461	1,314,192	1,261,183	1,263,480	1,259,666
12	Off-Highway	281,851	282,783	280,047	273,363	267,153
14	Miscellaneous	5,435	5,435	5,435	5,435	5,435
	Total	1,871,264	1,912,039	1,853,110	1,841,513	1,825,763
<b>SO2</b>						
01	Fuel Comb. - Electric Utilities	79,552	86,645	85,789	84,468	80,692
02	Fuel Combustion - Industrial	22,782	24,053	25,082	25,717	25,589
03	Fuel Combustion - Other	7,779	9,114	9,485	9,466	9,404
04	Chemical and Allied Prod. Mfg	2,510	2,602	2,722	2,734	2,729
05	Metals Processing	1,893	2,205	2,277	2,387	2,362
06	Petro. & Related Industries	5,233	5,149	5,574	5,646	5,635
07	Other Industrial Processes	2,000	2,046	2,085	2,085	2,081
08	Solvent Utilization	1	1	1	1	1
09	Storage and Transport	0	0	0	0	0
10	Waste Disposal & Recycling	311	319	306	297	294
11	Highway Vehicles	0	0	0	0	0
12	Off-Highway	1,022	1,080	1,099	1,124	1,176
14	Miscellaneous	0	0	0	0	0
	Total	123,088	133,220	134,424	133,930	129,967

**Table IV-23**  
**Mississippi Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	201	234	201	222	189	
02	Fuel Combustion - Industrial	2,521	2,588	2,568	2,627	2,696	
03	Fuel Combustion - Other	6,469	6,184	5,914	5,648	5,465	
04	Chemical and Allied Prod. Mfg	789	874	868	838	867	
06	Petro. & Related Industries	18,757	18,758	18,682	18,542	18,756	
07	Other Industrial Processes	25,598	25,720	25,637	26,130	27,016	
08	Solvent Utilization	77,373	83,585	80,678	80,974	83,834	
09	Storage and Transport	38,479	39,244	38,510	39,085	39,113	
10	Waste Disposal & Recycling	12,397	12,304	11,931	11,641	11,436	
11	Highway Vehicles	102,335	99,568	91,001	84,471	80,817	
12	Off-Highway	42,027	41,515	39,885	38,478	37,325	
14	Miscellaneous	10,765	12,072	10,807	10,505	10,538	
	<b>Total</b>	<b>337,715</b>	<b>342,652</b>	<b>326,687</b>	<b>319,166</b>	<b>318,057</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	51,098	53,650	45,777	51,453	45,474	
02	Fuel Combustion - Industrial	49,026	53,793	58,393	62,285	74,379	
03	Fuel Combustion - Other	5,677	5,022	5,182	5,366	5,545	
04	Chemical and Allied Prod. Mfg	32,023	35,488	35,246	34,021	35,207	
06	Petro. & Related Industries	697	677	657	720	745	
07	Other Industrial Processes	2,714	2,744	2,774	2,870	2,924	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	1,309	1,259	1,201	1,144	1,106	
11	Highway Vehicles	102,791	102,727	99,701	100,775	98,906	
12	Off-Highway	42,818	46,081	45,265	45,236	43,853	
14	Miscellaneous	2,357	2,559	2,364	2,317	2,323	
	<b>Total</b>	<b>290,515</b>	<b>304,004</b>	<b>296,565</b>	<b>306,193</b>	<b>310,466</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	2,365	2,403	2,171	2,571	2,311	
02	Fuel Combustion - Industrial	15,284	16,068	16,564	17,027	18,127	
03	Fuel Combustion - Other	92,610	89,309	85,697	82,021	79,363	
04	Chemical and Allied Prod. Mfg	29,455	32,642	32,420	31,293	32,383	
06	Petro. & Related Industries	14,158	13,758	13,348	14,623	15,133	
07	Other Industrial Processes	23,361	23,433	24,167	25,327	26,112	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	32,066	30,813	29,411	28,026	27,063	
11	Highway Vehicles	745,958	739,977	697,219	673,243	653,723	
12	Off-Highway	261,912	261,780	253,552	247,180	240,981	
14	Miscellaneous	80,137	89,563	80,439	78,265	78,500	
	<b>Total</b>	<b>1,297,308</b>	<b>1,299,747</b>	<b>1,234,993</b>	<b>1,199,580</b>	<b>1,173,702</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	115,078	131,221	107,955	119,116	100,829	
02	Fuel Combustion - Industrial	19,213	32,076	55,501	79,682	145,169	
03	Fuel Combustion - Other	2,264	1,245	1,618	1,794	2,034	
04	Chemical and Allied Prod. Mfg	20,045	22,214	22,064	21,296	22,038	
06	Petro. & Related Industries	8,341	8,108	7,865	8,615	8,913	
07	Other Industrial Processes	12,601	12,749	12,882	13,357	13,625	
08	Solvent Utilization	1	1	1	1	1	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	205	199	189	180	176	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	2,195	2,319	2,368	2,418	2,488	
14	Miscellaneous	59	59	59	59	59	
	<b>Total</b>	<b>180,006</b>	<b>210,195</b>	<b>210,506</b>	<b>246,524</b>	<b>295,336</b>	

**Table IV-24**  
**Missouri Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	815	865	870	852	867	
02	Fuel Combustion - Industrial	1,860	1,961	2,145	2,181	2,127	
03	Fuel Combustion - Other	17,163	16,575	15,834	15,341	15,026	
04	Chemical and Allied Prod. Mfg	85,674	90,954	97,326	95,668	92,678	
05	Metals Processing	292	292	275	255	238	
06	Petro. & Related Industries	384	408	390	403	394	
07	Other Industrial Processes	3,135	3,165	3,088	3,021	2,944	
08	Solvent Utilization	143,306	149,263	150,697	149,930	147,109	
09	Storage and Transport	38,694	39,728	37,853	38,183	37,827	
10	Waste Disposal & Recycling	12,568	12,305	11,905	11,458	11,097	
11	Highway Vehicles	184,040	176,067	166,544	159,293	154,877	
12	Off-Highway	51,591	50,682	49,442	47,139	45,434	
14	Miscellaneous	1,132	1,132	1,132	1,132	1,132	
	Total	540,660	543,403	537,508	524,862	511,757	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	246,165	267,808	280,638	269,123	270,343	
02	Fuel Combustion - Industrial	24,251	24,469	24,915	23,966	23,162	
03	Fuel Combustion - Other	14,886	15,694	15,208	15,232	15,328	
04	Chemical and Allied Prod. Mfg	19,274	20,315	22,207	21,676	21,108	
05	Metals Processing	1,540	1,546	1,451	1,452	1,360	
06	Petro. & Related Industries	5	5	5	5	5	
07	Other Industrial Processes	16,231	16,038	15,419	15,595	14,618	
08	Solvent Utilization	21	21	22	20	20	
09	Storage and Transport	9	10	11	10	10	
10	Waste Disposal & Recycling	1,872	1,827	1,769	1,709	1,671	
11	Highway Vehicles	200,588	206,829	196,248	198,829	195,709	
12	Off-Highway	55,725	56,922	57,703	54,679	51,816	
14	Miscellaneous	149	149	149	149	149	
	Total	580,723	611,639	615,752	602,452	595,305	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	6,981	7,415	7,480	7,363	7,586	
02	Fuel Combustion - Industrial	3,545	3,593	3,690	3,537	3,437	
03	Fuel Combustion - Other	236,280	228,743	219,844	211,805	206,806	
04	Chemical and Allied Prod. Mfg	82,558	87,608	94,276	92,487	89,641	
05	Metals Processing	40,379	40,542	38,051	38,178	35,765	
06	Petro. & Related Industries	10	10	10	10	10	
07	Other Industrial Processes	2,036	2,011	1,931	1,954	1,831	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	282	296	327	318	310	
10	Waste Disposal & Recycling	60,861	59,029	56,678	54,426	52,925	
11	Highway Vehicles	1,618,368	1,552,737	1,516,552	1,492,159	1,465,625	
12	Off-Highway	487,863	483,053	474,210	453,645	434,322	
14	Miscellaneous	6,318	6,318	6,318	6,318	6,318	
	Total	2,545,486	2,471,359	2,419,373	2,362,204	2,304,582	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	863,428	830,894	858,865	784,231	773,955	
02	Fuel Combustion - Industrial	64,469	65,053	62,709	61,446	58,517	
03	Fuel Combustion - Other	12,603	12,248	12,059	13,666	14,928	
04	Chemical and Allied Prod. Mfg	2,467	2,590	2,857	2,780	2,715	
05	Metals Processing	67,822	68,095	63,913	64,126	60,074	
06	Petro. & Related Industries	55	59	56	58	57	
07	Other Industrial Processes	33,014	32,608	31,319	31,690	29,693	
08	Solvent Utilization	1	1	1	1	1	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	463	458	453	442	436	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	1,658	1,746	1,777	1,796	1,871	
14	Miscellaneous	0	0	0	0	0	
	Total	1,045,985	1,013,758	1,034,015	960,242	942,253	

**Table IV-25**  
**Montana Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	264	361	358	330	359	
02	Fuel Combustion - Industrial	787	754	759	741	738	
03	Fuel Combustion - Other	3,966	3,799	3,764	3,534	3,413	
04	Chemical and Allied Prod. Mfg	30	30	31	30	31	
05	Metals Processing	78	80	92	88	81	
06	Petro. & Related Industries	6,635	6,586	6,713	6,636	6,758	
07	Other Industrial Processes	630	593	580	564	580	
08	Solvent Utilization	19,481	15,911	19,959	18,075	21,891	
09	Storage and Transport	11,081	11,059	10,509	10,600	10,703	
10	Waste Disposal & Recycling	2,175	2,086	2,001	1,908	1,824	
11	Highway Vehicles	30,274	30,551	28,527	27,171	27,120	
12	Off-Highway	9,076	8,813	8,685	8,436	8,316	
14	Miscellaneous	58,866	58,866	58,866	58,866	58,866	
	Total	143,348	139,494	140,850	136,985	140,685	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	48,844	65,840	65,241	60,351	65,531	
02	Fuel Combustion - Industrial	13,122	13,144	13,500	13,152	13,443	
03	Fuel Combustion - Other	2,413	2,433	2,790	2,444	2,390	
04	Chemical and Allied Prod. Mfg	1	1	1	1	1	
05	Metals Processing	180	184	214	204	187	
06	Petro. & Related Industries	455	444	421	410	423	
07	Other Industrial Processes	2,940	2,754	2,845	2,942	2,856	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	356	340	326	311	298	
11	Highway Vehicles	38,755	39,139	37,607	37,379	36,405	
12	Off-Highway	24,833	25,706	26,381	26,642	28,076	
14	Miscellaneous	15,132	15,132	15,132	15,132	15,132	
	Total	147,035	165,122	164,463	158,973	164,747	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	2,274	3,104	3,073	2,835	3,078	
02	Fuel Combustion - Industrial	6,485	6,423	6,386	6,172	6,296	
03	Fuel Combustion - Other	52,983	50,764	49,814	46,932	45,211	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	16,174	16,536	19,198	18,308	16,795	
06	Petro. & Related Industries	798	779	739	719	741	
07	Other Industrial Processes	11,957	11,222	11,061	10,759	11,093	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	11,142	10,667	10,214	9,724	9,293	
11	Highway Vehicles	289,563	292,700	276,757	270,815	267,455	
12	Off-Highway	61,728	59,472	58,776	57,333	55,904	
14	Miscellaneous	450,768	450,768	450,768	450,768	450,768	
	Total	903,877	902,440	886,791	874,369	866,639	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	18,472	19,870	20,158	17,921	18,944	
02	Fuel Combustion - Industrial	18,958	18,594	17,751	17,210	17,687	
03	Fuel Combustion - Other	972	691	1,205	883	805	
04	Chemical and Allied Prod. Mfg	3,244	3,282	3,299	3,206	3,306	
05	Metals Processing	24,183	24,725	28,705	27,374	25,111	
06	Petro. & Related Industries	6,281	6,131	5,817	5,662	5,838	
07	Other Industrial Processes	757	717	704	698	705	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	59	56	55	52	51	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	1,433	1,512	1,538	1,569	1,655	
14	Miscellaneous	566	566	566	566	566	
	Total	74,929	76,149	79,803	75,146	74,672	

**Table IV-26**  
**Nebraska Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	228	275	260	284	301	
02	Fuel Combustion - Industrial	126	133	132	155	177	
03	Fuel Combustion - Other	936	988	872	841	812	
04	Chemical and Allied Prod. Mfg	318	311	311	301	306	
06	Petro. & Related Industries	139	162	139	138	147	
07	Other Industrial Processes	605	629	629	604	607	
08	Solvent Utilization	45,932	50,686	46,703	47,439	47,637	
09	Storage and Transport	16,977	18,016	17,555	18,048	17,928	
10	Waste Disposal & Recycling	4,071	3,949	3,784	3,629	3,502	
11	Highway Vehicles	47,530	48,782	45,345	43,578	43,034	
12	Off-Highway	17,019	16,850	16,329	15,864	15,460	
14	Miscellaneous	710	710	710	710	710	
	Total	134,597	141,496	132,774	131,596	130,627	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	59,230	75,453	73,802	78,289	82,302	
02	Fuel Combustion - Industrial	7,448	7,666	7,284	7,692	8,089	
03	Fuel Combustion - Other	4,418	5,005	4,882	4,687	4,647	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	982	961	983	1,048	1,024	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	635	614	589	559	538	
11	Highway Vehicles	56,692	59,356	57,650	57,789	56,880	
12	Off-Highway	37,985	40,016	40,219	40,848	41,967	
14	Miscellaneous	121	121	121	121	121	
	Total	167,513	189,195	185,533	191,035	195,571	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	1,987	2,385	2,265	2,489	2,638	
02	Fuel Combustion - Industrial	1,278	1,326	1,269	1,308	1,355	
03	Fuel Combustion - Other	12,593	13,037	11,832	11,404	11,028	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	1	1	1	1	1	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	20,223	19,541	18,707	17,877	17,214	
11	Highway Vehicles	422,227	437,172	415,302	407,495	404,985	
12	Off-Highway	96,662	96,840	94,420	92,324	90,157	
14	Miscellaneous	4,568	4,568	4,568	4,568	4,568	
	Total	559,544	574,875	548,368	537,470	531,950	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	41,672	49,909	47,036	50,625	53,478	
02	Fuel Combustion - Industrial	3,371	4,018	4,043	5,278	6,476	
03	Fuel Combustion - Other	524	657	485	426	392	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	3,883	3,801	3,887	4,142	4,047	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	107	102	97	94	92	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	2,028	2,138	2,175	2,215	2,334	
14	Miscellaneous	0	0	0	0	0	
	Total	51,588	60,628	57,726	62,782	66,822	

**Table IV-27**  
**Nevada Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
VOC							
01	Fuel Comb. - Electric Utilities	257	320	298	287	305	
02	Fuel Combustion - Industrial	48	67	84	92	108	
03	Fuel Combustion - Other	1,384	1,396	1,408	1,447	1,447	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	293	290	285	291	288	
07	Other Industrial Processes	49	48	49	51	50	
08	Solvent Utilization	14,477	15,490	16,156	17,273	17,880	
09	Storage and Transport	6,492	6,975	6,851	7,098	7,389	
10	Waste Disposal & Recycling	7,724	8,184	8,364	8,749	8,646	
11	Highway Vehicles	33,897	34,868	34,321	34,599	35,038	
12	Off-Highway	11,905	12,140	12,615	12,771	12,764	
14	Miscellaneous	817	828	857	850	858	
	Total	77,348	80,610	81,293	83,512	84,778	
NOx							
01	Fuel Comb. - Electric Utilities	55,415	66,894	64,601	63,064	67,190	
02	Fuel Combustion - Industrial	1,701	2,117	2,652	2,804	3,224	
03	Fuel Combustion - Other	2,320	2,302	2,354	2,564	2,720	
05	Metals Processing	128	130	134	125	121	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	861	1,012	1,074	1,095	1,058	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	386	468	497	503	487	
10	Waste Disposal & Recycling	121	122	124	127	127	
11	Highway Vehicles	34,963	37,828	38,314	40,142	41,339	
12	Off-Highway	19,055	20,511	21,908	22,205	22,211	
14	Miscellaneous	201	202	207	206	207	
	Total	115,155	131,590	131,870	132,839	138,688	
CO							
01	Fuel Comb. - Electric Utilities	2,220	2,732	2,734	2,683	2,817	
02	Fuel Combustion - Industrial	350	441	540	579	667	
03	Fuel Combustion - Other	18,446	18,646	18,842	19,348	19,358	
05	Metals Processing	61,280	62,126	64,185	59,521	57,571	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	80	77	80	87	83	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	46	56	60	61	59	
10	Waste Disposal & Recycling	6,161	6,234	6,299	6,457	6,450	
11	Highway Vehicles	344,029	348,981	347,865	346,641	350,230	
12	Off-Highway	85,255	88,353	90,969	93,676	92,763	
14	Miscellaneous	6,071	6,151	6,365	6,309	6,370	
	Total	523,945	533,802	537,944	535,366	536,373	
SO2							
01	Fuel Comb. - Electric Utilities	54,309	61,834	55,049	55,779	62,425	
02	Fuel Combustion - Industrial	1,229	1,671	2,201	2,331	2,713	
03	Fuel Combustion - Other	1,195	864	740	884	897	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	696	781	827	853	823	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	875	1,059	1,125	1,139	1,102	
10	Waste Disposal & Recycling	23	23	24	24	24	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	890	930	947	963	1,015	
14	Miscellaneous	6	6	6	6	6	
	Total	59,227	67,172	60,923	61,982	69,009	

**Table IV-28**  
**New Hampshire Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	140	166	171	149	122	
02	Fuel Combustion - Industrial	660	659	655	640	639	
03	Fuel Combustion - Other	4,032	3,982	3,911	3,774	3,788	
04	Chemical and Allied Prod. Mfg	969	1,078	1,184	1,309	1,278	
06	Petro. & Related Industries	1	1	1	1	1	
07	Other Industrial Processes	747	764	750	690	672	
08	Solvent Utilization	23,802	24,888	24,841	24,394	24,358	
09	Storage and Transport	7,184	7,459	6,944	7,119	7,238	
10	Waste Disposal & Recycling	2,224	2,209	2,163	2,079	2,072	
11	Highway Vehicles	32,995	16,333	14,288	29,772	29,923	
12	Off-Highway	5,297	5,261	5,111	4,840	4,724	
14	Miscellaneous	166	166	166	166	166	
	<b>Total</b>	<b>78,222</b>	<b>62,972</b>	<b>60,190</b>	<b>74,939</b>	<b>74,986</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	23,202	25,671	25,176	23,747	24,263	
02	Fuel Combustion - Industrial	3,912	4,134	4,430	5,387	6,426	
03	Fuel Combustion - Other	4,175	3,897	4,211	4,613	4,961	
04	Chemical and Allied Prod. Mfg	13	14	16	17	17	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	176	171	167	159	155	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	471	473	467	451	450	
11	Highway Vehicles	34,236	17,258	16,872	36,239	36,821	
12	Off-Highway	2,216	2,280	2,075	1,833	1,604	
14	Miscellaneous	20	20	20	20	20	
	<b>Total</b>	<b>68,426</b>	<b>53,923</b>	<b>53,438</b>	<b>72,472</b>	<b>74,721</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	727	870	883	775	654	
02	Fuel Combustion - Industrial	7,475	7,479	7,431	7,265	7,254	
03	Fuel Combustion - Other	55,486	55,053	54,142	52,472	52,410	
04	Chemical and Allied Prod. Mfg	178	198	218	241	235	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	4,490	4,473	4,414	4,217	4,118	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	9,727	9,646	9,429	9,042	9,042	
11	Highway Vehicles	309,908	154,796	143,839	300,607	303,723	
12	Off-Highway	23,122	23,152	22,478	21,374	20,890	
14	Miscellaneous	904	904	904	904	904	
	<b>Total</b>	<b>412,022</b>	<b>256,576</b>	<b>243,742</b>	<b>396,900</b>	<b>399,235</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	70,370	81,569	79,139	68,509	63,011	
02	Fuel Combustion - Industrial	5,577	5,482	5,453	5,291	5,141	
03	Fuel Combustion - Other	5,060	4,631	5,068	5,663	6,112	
04	Chemical and Allied Prod. Mfg	7	8	8	9	9	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	130	108	101	95	89	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	101	104	105	103	103	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	30	30	30	29	29	
14	Miscellaneous	0	0	0	0	0	
	<b>Total</b>	<b>81,277</b>	<b>91,934</b>	<b>89,908</b>	<b>79,702</b>	<b>74,497</b>	

**Table IV-29**  
**New Jersey Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	596	677	698	525	507	
02	Fuel Combustion - Industrial	617	537	534	519	507	
03	Fuel Combustion - Other	11,190	10,878	10,390	9,952	9,716	
04	Chemical and Allied Prod. Mfg	45,168	48,908	48,761	50,145	49,265	
05	Metals Processing	4,939	5,336	5,322	5,477	5,389	
06	Petro. & Related Industries	15,705	14,905	16,499	13,284	15,556	
07	Other Industrial Processes	7,421	7,372	7,125	6,773	6,593	
08	Solvent Utilization	155,346	160,608	158,928	155,560	155,012	
09	Storage and Transport	66,862	68,473	66,192	66,151	65,631	
10	Waste Disposal & Recycling	70,275	71,724	69,238	66,475	63,829	
11	Highway Vehicles	206,530	196,308	168,533	161,411	156,357	
12	Off-Highway	52,066	51,843	49,973	47,846	46,115	
14	Miscellaneous	1,986	1,986	1,986	1,986	1,986	
	<b>Total</b>	<b>638,708</b>	<b>639,560</b>	<b>604,184</b>	<b>586,109</b>	<b>576,468</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	78,669	78,939	84,975	69,895	64,547	
02	Fuel Combustion - Industrial	25,051	24,748	25,340	25,454	25,459	
03	Fuel Combustion - Other	30,667	32,241	31,843	32,982	34,071	
04	Chemical and Allied Prod. Mfg	12,979	14,105	14,040	14,405	14,154	
05	Metals Processing	2,008	2,030	1,933	1,832	1,691	
06	Petro. & Related Industries	223	215	218	225	221	
07	Other Industrial Processes	3,928	3,901	3,731	3,459	3,281	
08	Solvent Utilization	4	4	4	4	4	
09	Storage and Transport	60	63	63	66	65	
10	Waste Disposal & Recycling	3,645	3,877	3,962	4,063	4,072	
11	Highway Vehicles	186,602	184,523	182,483	184,638	182,943	
12	Off-Highway	59,803	63,187	62,167	59,605	56,732	
14	Miscellaneous	308	308	308	308	308	
	<b>Total</b>	<b>403,952</b>	<b>408,147</b>	<b>411,073</b>	<b>396,941</b>	<b>387,553</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	4,061	4,043	4,270	3,470	3,457	
02	Fuel Combustion - Industrial	3,981	3,632	3,708	3,660	3,626	
03	Fuel Combustion - Other	144,891	140,681	135,024	129,256	126,282	
04	Chemical and Allied Prod. Mfg	2,104	2,408	2,395	2,416	2,365	
05	Metals Processing	354	358	341	323	298	
06	Petro. & Related Industries	269	260	263	271	267	
07	Other Industrial Processes	152	149	142	135	131	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	14	13	13	14	13	
10	Waste Disposal & Recycling	28,445	28,418	27,902	27,358	26,942	
11	Highway Vehicles	1,544,854	1,524,551	1,428,783	1,434,753	1,431,475	
12	Off-Highway	389,550	390,265	376,167	359,688	345,602	
14	Miscellaneous	11,704	11,704	11,704	11,704	11,704	
	<b>Total</b>	<b>2,130,385</b>	<b>2,106,489</b>	<b>1,990,717</b>	<b>1,973,054</b>	<b>1,952,167</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	115,702	113,085	116,774	104,018	92,559	
02	Fuel Combustion - Industrial	14,884	15,305	15,265	15,309	15,138	
03	Fuel Combustion - Other	21,782	22,439	19,543	19,838	19,621	
04	Chemical and Allied Prod. Mfg	5,363	5,832	5,818	5,968	5,870	
05	Metals Processing	317	281	273	266	254	
06	Petro. & Related Industries	5,319	5,140	5,197	5,357	5,273	
07	Other Industrial Processes	1,901	1,887	1,794	1,682	1,584	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	4	4	4	4	4	
10	Waste Disposal & Recycling	2,211	2,391	2,462	2,548	2,563	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	13,273	14,073	14,411	14,761	15,143	
14	Miscellaneous	4	4	4	4	4	
	<b>Total</b>	<b>180,763</b>	<b>180,446</b>	<b>181,550</b>	<b>169,760</b>	<b>158,017</b>	

**Table IV-30**  
**New Mexico Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	521	533	561	555	478	
02	Fuel Combustion - Industrial	4,846	4,620	4,459	4,561	4,477	
03	Fuel Combustion - Other	4,916	4,779	4,608	4,444	4,352	
04	Chemical and Allied Prod. Mfg	9	9	9	10	10	
05	Metals Processing	56	64	68	76	74	
06	Petro. & Related Industries	4,689	4,714	4,779	4,752	4,903	
07	Other Industrial Processes	28	27	26	25	24	
08	Solvent Utilization	21,905	22,788	23,011	23,201	23,880	
09	Storage and Transport	17,690	18,376	17,015	16,873	16,564	
10	Waste Disposal & Recycling	2,624	2,572	2,515	2,447	2,396	
11	Highway Vehicles	73,930	70,843	64,665	62,510	60,644	
12	Off-Highway	16,201	16,220	15,654	15,243	15,006	
14	Miscellaneous	5,071	5,071	5,071	5,071	5,071	
	Total	152,492	150,623	142,445	139,773	137,886	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	98,470	126,190	120,046	115,714	99,684	
02	Fuel Combustion - Industrial	80,176	76,656	76,503	79,530	79,929	
03	Fuel Combustion - Other	4,603	4,971	4,662	5,288	5,679	
04	Chemical and Allied Prod. Mfg	4,347	4,185	4,305	4,040	4,057	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	467	476	473	482	493	
07	Other Industrial Processes	34	33	32	31	30	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	414	408	397	388	383	
11	Highway Vehicles	78,651	80,189	77,718	79,211	77,918	
12	Off-Highway	17,626	17,672	17,271	16,816	16,370	
14	Miscellaneous	1,242	1,242	1,242	1,242	1,242	
	Total	286,035	312,026	302,653	302,747	285,789	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	4,686	4,834	5,135	5,061	4,433	
02	Fuel Combustion - Industrial	15,773	15,025	14,744	15,279	15,208	
03	Fuel Combustion - Other	65,878	64,002	61,732	59,552	58,319	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	300	302	314	281	283	
07	Other Industrial Processes	187	181	175	168	164	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	14,012	13,604	13,270	12,864	12,560	
11	Highway Vehicles	772,945	735,200	671,399	643,505	616,866	
12	Off-Highway	130,101	129,424	126,708	123,526	120,705	
14	Miscellaneous	38,057	38,057	38,057	38,057	38,057	
	Total	1,041,942	1,000,633	931,538	898,297	866,600	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	52,881	44,988	72,038	64,131	54,007	
02	Fuel Combustion - Industrial	11,681	11,707	16,312	12,096	11,613	
03	Fuel Combustion - Other	1,956	1,628	1,470	1,652	1,698	
04	Chemical and Allied Prod. Mfg	11,330	12,864	12,767	13,271	13,183	
05	Metals Processing	105,750	130,424	131,666	132,117	128,088	
06	Petro. & Related Industries	25,848	26,512	25,369	28,456	29,330	
07	Other Industrial Processes	75	73	70	68	66	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	74	73	72	72	72	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	149	161	157	161	168	
14	Miscellaneous	45	45	45	45	45	
	Total	209,793	228,479	259,971	252,072	238,275	

**Table IV-31**  
**New York Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
VOC							
01	Fuel Comb. - Electric Utilities	1,945	2,341	2,452	2,263	1,954	
02	Fuel Combustion - Industrial	11,334	8,271	7,999	7,688	7,363	
03	Fuel Combustion - Other	30,411	29,480	28,143	27,047	26,327	
04	Chemical and Allied Prod. Mfg	33,434	36,093	34,108	35,504	34,027	
05	Metals Processing	262	222	220	214	205	
06	Petro. & Related Industries	590	839	888	822	751	
07	Other Industrial Processes	49,036	57,427	55,712	52,793	50,488	
08	Solvent Utilization	333,156	348,395	344,539	339,146	336,201	
09	Storage and Transport	102,965	102,316	97,282	95,593	92,088	
10	Waste Disposal & Recycling	27,615	27,409	26,413	25,389	24,484	
11	Highway Vehicles	439,280	397,624	346,719	329,392	316,526	
12	Off-Highway	91,288	90,486	87,644	84,367	80,901	
14	Miscellaneous	4,024	4,024	4,024	4,024	4,024	
	Total	1,125,345	1,104,933	1,036,148	1,004,248	975,344	
NOx							
01	Fuel Comb. - Electric Utilities	147,966	167,355	184,164	185,954	170,365	
02	Fuel Combustion - Industrial	57,912	62,232	61,905	59,904	57,875	
03	Fuel Combustion - Other	80,089	81,978	76,376	78,985	80,344	
04	Chemical and Allied Prod. Mfg	20	21	20	21	20	
05	Metals Processing	1,302	1,292	1,317	1,271	1,214	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	2,192	2,416	2,342	2,328	2,230	
08	Solvent Utilization	2	2	2	1	1	
09	Storage and Transport	14	15	14	15	14	
10	Waste Disposal & Recycling	6,631	6,760	6,768	6,731	6,544	
11	Highway Vehicles	435,128	402,371	395,666	389,172	375,520	
12	Off-Highway	89,411	92,596	92,618	89,720	82,555	
14	Miscellaneous	507	507	507	507	507	
	Total	821,180	817,551	821,705	814,615	777,196	
CO							
01	Fuel Comb. - Electric Utilities	11,077	12,154	13,204	13,494	12,015	
02	Fuel Combustion - Industrial	10,564	10,561	10,517	10,341	9,976	
03	Fuel Combustion - Other	382,904	370,702	355,270	339,789	330,173	
04	Chemical and Allied Prod. Mfg	2,043	2,175	2,048	2,155	2,066	
05	Metals Processing	205	151	143	142	136	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	19,368	14,416	13,787	13,621	13,016	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	71,329	69,750	67,237	64,520	62,580	
11	Highway Vehicles	3,847,233	3,545,656	3,292,132	3,193,467	3,090,778	
12	Off-Highway	749,723	749,549	725,271	698,223	668,370	
14	Miscellaneous	21,885	21,885	21,885	21,885	21,885	
	Total	5,116,336	4,797,003	4,501,499	4,357,640	4,210,998	
SO2							
01	Fuel Comb. - Electric Utilities	391,290	386,200	423,637	416,769	394,065	
02	Fuel Combustion - Industrial	135,708	149,353	146,203	141,995	136,293	
03	Fuel Combustion - Other	91,331	91,272	77,817	80,801	81,252	
04	Chemical and Allied Prod. Mfg	702	748	705	741	710	
05	Metals Processing	3,956	3,915	3,990	3,849	3,678	
06	Petro. & Related Industries	27	22	23	23	23	
07	Other Industrial Processes	1,352	1,292	1,270	1,241	1,188	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	1	2	1	2	1	
10	Waste Disposal & Recycling	3,490	3,643	3,720	3,762	3,659	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	1,879	1,981	2,006	2,057	2,127	
14	Miscellaneous	0	0	0	0	0	
	Total	629,740	638,433	659,377	651,245	623,001	

**Table IV-32**  
**North Carolina Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	606	624	685	632	634	
02	Fuel Combustion - Industrial	1,230	1,243	1,231	1,226	1,214	
03	Fuel Combustion - Other	25,579	25,047	24,119	23,353	22,852	
04	Chemical and Allied Prod. Mfg	107,474	115,606	119,276	119,896	118,205	
05	Metals Processing	323	333	338	352	344	
06	Petro. & Related Industries	8	12	11	10	10	
07	Other Industrial Processes	11,207	11,503	11,184	10,884	10,714	
08	Solvent Utilization	247,875	260,976	261,584	262,091	262,884	
09	Storage and Transport	66,295	68,389	64,945	64,934	64,954	
10	Waste Disposal & Recycling	27,079	27,044	26,576	25,807	25,292	
11	Highway Vehicles	246,963	249,623	208,388	211,618	202,972	
12	Off-Highway	63,250	62,968	61,590	59,897	58,251	
14	Miscellaneous	10,005	10,659	11,295	11,471	11,231	
	Total	807,900	834,032	791,230	792,178	779,564	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	155,758	163,822	177,567	161,620	164,961	
02	Fuel Combustion - Industrial	52,592	53,482	54,504	54,290	54,317	
03	Fuel Combustion - Other	14,506	14,991	13,985	14,935	15,276	
04	Chemical and Allied Prod. Mfg	526	583	613	629	621	
05	Metals Processing	28	30	31	32	32	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	10,101	10,267	10,225	10,251	10,092	
08	Solvent Utilization	12	14	13	10	10	
09	Storage and Transport	37	41	44	45	44	
10	Waste Disposal & Recycling	3,412	3,375	3,306	3,225	3,173	
11	Highway Vehicles	244,201	250,053	242,034	248,673	246,977	
12	Off-Highway	60,931	64,737	64,649	64,929	61,432	
14	Miscellaneous	2,053	2,154	2,251	2,278	2,241	
	Total	544,163	563,554	569,227	560,923	559,182	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	5,219	5,368	5,893	5,439	5,457	
02	Fuel Combustion - Industrial	8,880	8,958	9,106	9,065	9,073	
03	Fuel Combustion - Other	338,829	331,330	319,808	309,289	302,653	
04	Chemical and Allied Prod. Mfg	24,967	27,658	29,081	29,861	29,442	
05	Metals Processing	31,009	33,794	34,970	36,399	35,565	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	50,736	51,383	50,647	50,665	49,952	
08	Solvent Utilization	149	160	165	167	165	
09	Storage and Transport	621	688	724	743	733	
10	Waste Disposal & Recycling	54,343	53,220	51,745	50,101	49,067	
11	Highway Vehicles	1,914,775	1,965,942	1,757,919	1,799,459	1,765,366	
12	Off-Highway	444,832	444,604	436,202	425,494	414,613	
14	Miscellaneous	72,645	77,359	81,947	83,216	81,486	
	Total	2,947,012	3,000,470	2,778,213	2,799,904	2,743,575	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	311,365	320,392	351,346	336,455	332,021	
02	Fuel Combustion - Industrial	99,835	103,117	103,378	102,959	102,340	
03	Fuel Combustion - Other	14,743	15,627	13,797	14,750	14,769	
04	Chemical and Allied Prod. Mfg	6,603	7,314	7,691	7,897	7,786	
05	Metals Processing	158	172	178	185	181	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	9,477	9,607	9,501	9,509	9,370	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	206	228	240	247	243	
10	Waste Disposal & Recycling	777	786	786	785	779	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	1,272	1,335	1,351	1,378	1,432	
14	Miscellaneous	47	47	47	47	47	
	Total	444,486	458,630	488,319	474,217	468,972	

**Table IV-33**  
**North Dakota Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	612	759	721	755	776	
02	Fuel Combustion - Industrial	399	424	369	378	384	
03	Fuel Combustion - Other	682	723	747	691	681	
04	Chemical and Allied Prod. Mfg	433	499	349	343	357	
06	Petro. & Related Industries	3,364	3,385	3,355	3,416	3,409	
07	Other Industrial Processes	134	134	127	123	128	
08	Solvent Utilization	35,046	15,709	25,946	30,056	34,066	
09	Storage and Transport	11,597	11,587	11,271	11,218	11,135	
10	Waste Disposal & Recycling	3,290	3,219	3,102	3,006	2,972	
11	Highway Vehicles	25,364	23,483	22,873	22,120	21,486	
12	Off-Highway	6,403	6,115	5,987	5,817	5,737	
14	Miscellaneous	256	256	256	256	256	
	<b>Total</b>	<b>87,583</b>	<b>66,300</b>	<b>75,108</b>	<b>78,185</b>	<b>81,392</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	89,581	114,229	107,050	115,115	117,880	
02	Fuel Combustion - Industrial	20,063	19,900	19,918	20,679	21,232	
03	Fuel Combustion - Other	2,172	2,398	2,496	2,313	2,298	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
06	Petro. & Related Industries	162	169	158	181	178	
07	Other Industrial Processes	384	386	366	354	368	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	400	384	364	346	333	
11	Highway Vehicles	27,938	27,801	26,495	26,022	25,116	
12	Off-Highway	12,549	12,412	12,863	13,219	13,708	
14	Miscellaneous	47	47	47	47	47	
	<b>Total</b>	<b>153,299</b>	<b>177,731</b>	<b>169,763</b>	<b>178,280</b>	<b>181,165</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	5,807	6,753	6,421	6,673	6,847	
02	Fuel Combustion - Industrial	2,739	2,733	2,701	2,804	2,881	
03	Fuel Combustion - Other	5,587	5,754	5,876	5,216	4,989	
04	Chemical and Allied Prod. Mfg	145	168	117	116	121	
06	Petro. & Related Industries	16	17	15	18	18	
07	Other Industrial Processes	85	85	81	78	81	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	10,889	10,388	9,804	9,222	8,815	
11	Highway Vehicles	235,776	219,698	217,255	211,402	205,552	
12	Off-Highway	38,283	37,263	36,779	36,068	35,997	
14	Miscellaneous	1,652	1,652	1,652	1,652	1,652	
	<b>Total</b>	<b>300,984</b>	<b>284,515</b>	<b>280,706</b>	<b>273,254</b>	<b>266,958</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	94,020	100,257	102,892	126,588	129,245	
02	Fuel Combustion - Industrial	58,993	61,408	54,994	55,515	56,902	
03	Fuel Combustion - Other	2,444	2,765	2,925	2,583	2,509	
04	Chemical and Allied Prod. Mfg	8,309	9,259	7,238	7,652	7,770	
06	Petro. & Related Industries	622	652	609	696	686	
07	Other Industrial Processes	787	791	750	724	754	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	80	80	77	74	74	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	653	688	699	712	750	
14	Miscellaneous	1	1	1	1	1	
	<b>Total</b>	<b>165,914</b>	<b>175,905</b>	<b>170,190</b>	<b>194,549</b>	<b>198,695</b>	

**Table IV-34**  
**Ohio Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	1,690	1,754	1,807	1,731	1,606	
02	Fuel Combustion - Industrial	1,717	1,578	1,553	1,539	1,525	
03	Fuel Combustion - Other	24,457	23,663	22,604	21,642	20,954	
04	Chemical and Allied Prod. Mfg	39,729	41,254	41,221	41,746	41,267	
05	Metals Processing	7,056	7,525	7,364	7,185	6,806	
06	Petro. & Related Industries	22,677	21,946	21,656	20,675	20,446	
07	Other Industrial Processes	5,576	5,589	5,424	5,269	5,165	
08	Solvent Utilization	287,799	292,710	291,730	289,817	284,716	
09	Storage and Transport	56,670	57,056	52,853	52,321	52,024	
10	Waste Disposal & Recycling	70,838	71,434	69,888	67,673	65,073	
11	Highway Vehicles	340,521	332,057	252,413	287,436	282,032	
12	Off-Highway	72,872	71,997	70,551	68,462	65,426	
14	Miscellaneous	2,471	2,471	2,471	2,471	2,471	
	<b>Total</b>	<b>934,077</b>	<b>931,039</b>	<b>841,540</b>	<b>867,973</b>	<b>849,516</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	516,155	528,629	546,774	523,145	490,549	
02	Fuel Combustion - Industrial	90,502	96,327	93,535	94,348	93,462	
03	Fuel Combustion - Other	40,277	42,562	42,448	43,055	43,455	
04	Chemical and Allied Prod. Mfg	7,608	7,926	7,923	8,033	7,936	
05	Metals Processing	3,297	3,516	3,440	3,357	3,178	
06	Petro. & Related Industries	1,824	1,688	1,636	1,635	1,615	
07	Other Industrial Processes	8,556	8,198	8,037	7,738	7,320	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	4,749	4,741	4,649	4,571	4,477	
11	Highway Vehicles	344,864	341,991	294,979	338,464	333,046	
12	Off-Highway	83,786	86,961	89,653	90,522	84,806	
14	Miscellaneous	318	318	318	318	318	
	<b>Total</b>	<b>1,101,940</b>	<b>1,122,863</b>	<b>1,093,397</b>	<b>1,115,192</b>	<b>1,070,169</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	14,340	14,881	15,265	14,685	13,645	
02	Fuel Combustion - Industrial	16,576	17,497	17,041	17,073	16,824	
03	Fuel Combustion - Other	325,265	314,820	301,309	288,420	279,492	
04	Chemical and Allied Prod. Mfg	121,609	126,756	126,746	128,580	127,043	
05	Metals Processing	119,517	127,459	124,726	121,706	115,154	
06	Petro. & Related Industries	64,712	59,889	58,035	58,005	57,311	
07	Other Industrial Processes	2,692	2,615	2,560	2,475	2,365	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	116,523	113,338	109,085	104,786	101,498	
11	Highway Vehicles	2,984,845	2,956,691	2,374,335	2,743,040	2,711,436	
12	Off-Highway	563,994	562,653	551,948	535,394	512,864	
14	Miscellaneous	13,590	13,590	13,590	13,590	13,590	
	<b>Total</b>	<b>4,343,670</b>	<b>4,310,193</b>	<b>3,694,644</b>	<b>4,027,759</b>	<b>3,951,228</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	2,230,689	2,272,046	2,360,241	2,241,145	2,136,360	
02	Fuel Combustion - Industrial	258,435	264,005	253,337	255,715	250,069	
03	Fuel Combustion - Other	34,666	35,658	33,883	34,542	34,049	
04	Chemical and Allied Prod. Mfg	3,461	3,576	3,567	3,614	3,570	
05	Metals Processing	16,926	18,052	17,664	17,237	16,311	
06	Petro. & Related Industries	8,940	8,273	8,017	8,013	7,917	
07	Other Industrial Processes	9,509	9,148	8,971	8,651	8,202	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	1,064	1,109	1,109	1,125	1,111	
10	Waste Disposal & Recycling	1,532	1,566	1,559	1,563	1,538	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	6,215	6,581	6,728	6,884	7,118	
14	Miscellaneous	0	0	0	0	0	
	<b>Total</b>	<b>2,571,442</b>	<b>2,620,019</b>	<b>2,695,081</b>	<b>2,578,494</b>	<b>2,466,250</b>	

**Table IV-35**  
**Oklahoma Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	587	638	634	644	667	
02	Fuel Combustion - Industrial	2,670	2,533	2,473	2,604	2,602	
03	Fuel Combustion - Other	7,152	6,840	6,478	6,171	5,889	
04	Chemical and Allied Prod. Mfg	4,545	4,861	4,848	5,023	5,132	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	29,270	28,645	27,652	28,695	28,506	
07	Other Industrial Processes	4,098	4,086	4,046	4,144	4,208	
08	Solvent Utilization	62,334	64,047	63,297	63,950	63,348	
09	Storage and Transport	31,360	31,129	27,632	27,616	27,355	
10	Waste Disposal & Recycling	18,273	18,346	17,920	17,807	17,661	
11	Highway Vehicles	137,691	128,508	124,662	105,742	99,609	
12	Off-Highway	33,839	32,800	31,581	30,566	29,147	
14	Miscellaneous	1,520	1,520	1,520	1,520	1,520	
	Total	333,345	323,958	312,748	294,488	285,649	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	130,427	139,010	141,647	143,583	147,986	
02	Fuel Combustion - Industrial	119,374	111,400	110,622	116,461	118,142	
03	Fuel Combustion - Other	6,947	8,247	7,702	7,588	7,574	
04	Chemical and Allied Prod. Mfg	10,589	11,005	10,608	10,951	11,253	
05	Metals Processing	32	36	37	38	38	
06	Petro. & Related Industries	4,620	4,364	3,674	3,904	3,921	
07	Other Industrial Processes	7,521	7,155	6,761	6,579	6,546	
08	Solvent Utilization	4	3	3	3	3	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	838	796	756	720	687	
11	Highway Vehicles	122,831	133,315	119,543	112,551	107,136	
12	Off-Highway	36,126	37,296	37,898	38,427	36,998	
14	Miscellaneous	348	348	348	348	348	
	Total	439,664	452,981	439,606	441,159	440,638	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	7,272	7,636	7,565	7,532	7,663	
02	Fuel Combustion - Industrial	19,387	18,158	18,014	18,999	19,219	
03	Fuel Combustion - Other	95,031	90,797	86,090	81,938	78,199	
04	Chemical and Allied Prod. Mfg	51,073	53,082	51,162	52,815	54,269	
05	Metals Processing	2,511	2,832	2,890	2,957	2,929	
06	Petro. & Related Industries	487	465	431	460	452	
07	Other Industrial Processes	5,234	4,840	4,888	5,400	5,542	
08	Solvent Utilization	6	5	5	5	5	
09	Storage and Transport	6	5	5	6	5	
10	Waste Disposal & Recycling	18,158	17,252	16,400	15,596	14,873	
11	Highway Vehicles	1,096,963	1,084,082	1,027,794	912,964	862,742	
12	Off-Highway	191,520	188,043	182,648	178,862	172,174	
14	Miscellaneous	10,732	10,732	10,732	10,732	10,732	
	Total	1,498,386	1,477,935	1,408,630	1,288,272	1,228,811	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	86,217	93,907	92,545	101,855	107,122	
02	Fuel Combustion - Industrial	28,669	27,247	26,337	25,099	24,671	
03	Fuel Combustion - Other	658	1,076	756	740	754	
04	Chemical and Allied Prod. Mfg	1,610	1,763	1,763	1,809	1,815	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	10,328	9,681	7,413	7,842	8,057	
07	Other Industrial Processes	5,943	5,594	5,356	5,471	5,514	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	127	122	116	110	106	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	1,179	1,239	1,256	1,278	1,342	
14	Miscellaneous	10	10	10	10	10	
	Total	134,745	140,642	135,556	144,219	149,393	

**Table IV-36**  
**Oregon Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
VOC							
01	Fuel Comb. - Electric Utilities				10	29	64
02	Fuel Combustion - Industrial	1,298	1,324	1,287	1,223	1,203	
03	Fuel Combustion - Other	17,652	17,274	16,820	16,425	15,958	
04	Chemical and Allied Prod. Mfg	30,006	30,964	31,854	33,849	34,807	
05	Metals Processing	105	113	128	126	122	
06	Petro. & Related Industries	21	18	19	17	18	
07	Other Industrial Processes	2,158	2,137	2,091	2,088	2,136	
08	Solvent Utilization	55,274	58,125	58,285	59,870	60,836	
09	Storage and Transport	17,283	17,887	17,121	17,249	17,561	
10	Waste Disposal & Recycling	6,111	6,068	5,943	5,838	5,686	
11	Highway Vehicles	84,895	86,104	79,987	79,198	78,254	
12	Off-Highway	27,321	27,351	27,062	26,881	26,376	
14	Miscellaneous	28,650	29,470	29,600	29,503	28,731	
	Total	270,778	276,841	270,216	272,301	271,756	
NOx							
01	Fuel Comb. - Electric Utilities			2,025	5,737	.12,358	
02	Fuel Combustion - Industrial	14,727	15,220	15,476	15,440	15,867	
03	Fuel Combustion - Other	6,199	6,340	6,287	6,117	6,039	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	0	0	1	1	1	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	2,753	2,774	2,817	2,721	2,763	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	800	785	766	749	728	
11	Highway Vehicles	108,341	112,774	109,648	111,435	110,544	
12	Off-Highway	47,494	50,817	52,537	54,223	55,623	
14	Miscellaneous	7,259	7,385	7,405	7,390	7,271	
	Total	187,576	196,098	196,964	203,816	211,197	
CO							
01	Fuel Comb. - Electric Utilities			92	256	551	
02	Fuel Combustion - Industrial	7,237	7,411	7,279	6,997	6,964	
03	Fuel Combustion - Other	235,211	230,124	224,036	218,769	212,508	
04	Chemical and Allied Prod. Mfg	1,035	1,068	1,099	1,168	1,201	
05	Metals Processing	7,404	8,003	9,052	8,865	8,573	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	9,393	9,213	9,274	8,968	9,201	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	29,978	29,341	28,573	27,910	27,105	
11	Highway Vehicles	711,231	733,996	698,308	709,182	708,345	
12	Off-Highway	185,699	185,871	184,362	183,402	179,326	
14	Miscellaneous	219,377	225,288	226,225	225,527	219,960	
	Total	1,406,569	1,430,318	1,388,304	1,391,049	1,373,739	
SO2							
01	Fuel Comb. - Electric Utilities			1,804	4,936	10,628	
02	Fuel Combustion - Industrial	13,858	14,043	13,649	13,810	13,731	
03	Fuel Combustion - Other	5,913	5,920	5,314	5,218	5,024	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	2,148	2,322	2,626	2,572	2,487	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	4,748	4,709	4,752	4,603	4,710	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	144	141	138	136	132	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	6,580	6,969	7,125	7,288	7,538	
14	Miscellaneous	247	247	247	247	247	
	Total	33,642	34,353	35,659	38,814	44,500	

**Table IV-37**  
**Pennsylvania Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	1,814	1,882	1,890	1,648	1,611	
02	Fuel Combustion - Industrial	1,043	1,025	1,032	1,056	1,066	
03	Fuel Combustion - Other	34,408	33,144	32,021	30,836	30,063	
04	Chemical and Allied Prod. Mfg	24,263	26,108	25,734	26,474	26,236	
05	Metals Processing	4,668	4,883	4,939	4,791	4,551	
06	Petro. & Related Industries	24,332	24,223	24,188	24,717	24,768	
07	Other Industrial Processes	15,225	15,348	15,199	14,690	14,384	
08	Solvent Utilization	283,117	292,908	294,308	292,370	291,190	
09	Storage and Transport	56,793	58,346	54,386	54,774	54,330	
10	Waste Disposal & Recycling	101,626	103,342	101,170	97,858	94,586	
11	Highway Vehicles	332,100	325,239	286,749	277,688	269,712	
12	Off-Highway	86,265	85,128	82,820	80,051	76,634	
14	Miscellaneous	2,648	2,648	2,648	2,648	2,648	
	Total	968,308	974,229	927,090	909,606	891,784	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	376,245	394,839	395,843	372,264	365,707	
02	Fuel Combustion - Industrial	93,043	93,626	95,186	96,116	95,685	
03	Fuel Combustion - Other	41,965	43,311	44,795	44,672	45,422	
04	Chemical and Allied Prod. Mfg	605	662	658	691	685	
05	Metals Processing	2,677	2,800	2,832	2,750	2,614	
06	Petro. & Related Industries	1,905	1,781	1,732	1,862	1,844	
07	Other Industrial Processes	19,989	20,215	19,880	18,885	17,986	
08	Solvent Utilization	1,798	1,877	1,825	1,738	1,650	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	4,490	4,390	4,248	4,125	3,995	
11	Highway Vehicles	319,589	330,611	318,094	322,341	318,723	
12	Off-Highway	81,303	85,075	87,108	86,748	80,188	
14	Miscellaneous	334	334	334	334	334	
	Total	943,947	979,526	972,540	952,531	934,840	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	13,701	14,321	14,352	13,182	12,901	
02	Fuel Combustion - Industrial	15,876	15,910	16,173	16,348	16,298	
03	Fuel Combustion - Other	442,529	426,619	410,829	394,905	384,358	
04	Chemical and Allied Prod. Mfg	5,006	5,323	5,282	5,415	5,335	
05	Metals Processing	209,582	219,243	221,749	215,135	204,325	
06	Petro. & Related Industries	5,126	4,789	4,656	5,005	4,959	
07	Other Industrial Processes	5,934	6,015	5,896	5,793	5,684	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	72,167	70,252	67,683	65,233	63,119	
11	Highway Vehicles	2,812,109	2,820,286	2,630,872	2,618,255	2,585,041	
12	Off-Highway	640,542	637,198	621,046	600,730	576,807	
14	Miscellaneous	14,401	14,401	14,401	14,401	14,401	
	Total	4,236,978	4,234,361	4,012,943	3,954,409	3,873,233	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	1,263,147	1,263,010	1,227,705	1,213,459	1,187,180	
02	Fuel Combustion - Industrial	87,039	87,577	86,271	86,555	84,884	
03	Fuel Combustion - Other	46,358	45,195	47,127	47,435	48,274	
04	Chemical and Allied Prod. Mfg	800	767	755	765	745	
05	Metals Processing	29,992	31,377	31,738	30,792	29,245	
06	Petro. & Related Industries	6,784	6,337	6,163	6,624	6,563	
07	Other Industrial Processes	30,053	30,392	29,895	28,402	27,027	
08	Solvent Utilization	682	712	693	665	635	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	1,318	1,316	1,294	1,286	1,245	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	3,792	4,006	4,082	4,181	4,319	
14	Miscellaneous	0	0	0	0	0	
	Total	1,469,970	1,470,694	1,435,728	1,420,169	1,390,121	

**Table IV-38**  
**Rhode Island Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	27	43	23	14	4	
02	Fuel Combustion - Industrial	33	35	24	28	33	
03	Fuel Combustion - Other	1,347	1,319	1,261	1,218	1,195	
04	Chemical and Allied Prod. Mfg	4,661	4,743	4,551	4,419	4,376	
07	Other Industrial Processes	264	261	250	233	229	
08	Solvent Utilization	27,909	28,908	28,934	27,763	27,470	
09	Storage and Transport	4,031	4,124	3,720	3,673	3,559	
10	Waste Disposal & Recycling	1,368	1,348	1,306	1,248	1,202	
11	Highway Vehicles	26,697	26,815	21,788	21,503	20,886	
12	Off-Highway	10,391	10,219	9,843	9,401	9,032	
14	Miscellaneous	212	212	212	212	212	
	<b>Total</b>	<b>76,945</b>	<b>78,034</b>	<b>71,916</b>	<b>69,717</b>	<b>68,202</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	2,487	2,078	1,560	1,965	602	
02	Fuel Combustion - Industrial	1,512	5,145	1,595	2,830	4,315	
03	Fuel Combustion - Other	3,668	3,823	3,716	3,969	4,090	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
07	Other Industrial Processes	314	235	244	233	213	
08	Solvent Utilization	3	3	4	4	4	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	159	156	150	145	142	
11	Highway Vehicles	23,786	23,972	22,556	22,989	22,581	
12	Off-Highway	3,578	3,861	3,766	3,577	2,991	
14	Miscellaneous	26	26	26	26	26	
	<b>Total</b>	<b>35,539</b>	<b>39,303</b>	<b>33,620</b>	<b>35,741</b>	<b>34,968</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	183	155	115	143	44	
02	Fuel Combustion - Industrial	236	692	250	411	606	
03	Fuel Combustion - Other	17,042	16,577	15,912	15,296	14,986	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
07	Other Industrial Processes	7	5	5	5	4	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	6,972	6,772	6,510	6,225	6,078	
11	Highway Vehicles	227,724	230,483	204,516	206,180	202,742	
12	Off-Highway	54,991	54,475	52,754	50,188	47,705	
14	Miscellaneous	1,156	1,156	1,156	1,156	1,156	
	<b>Total</b>	<b>308,314</b>	<b>310,318</b>	<b>281,221</b>	<b>279,608</b>	<b>273,325</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	2,454	4,712	2,391	1,091	362	
02	Fuel Combustion - Industrial	1,703	1,406	986	949	866	
03	Fuel Combustion - Other	3,522	3,768	3,520	3,773	3,829	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
07	Other Industrial Processes	322	240	250	239	218	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	33	33	32	31	31	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	37	39	39	40	42	
14	Miscellaneous	0	0	0	0	0	
	<b>Total</b>	<b>8,074</b>	<b>10,201</b>	<b>7,222</b>	<b>6,125</b>	<b>5,352</b>	

**Table IV-39**  
**South Carolina Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	323	329	341	329	335	
02	Fuel Combustion - Industrial	1,159	1,195	1,196	1,179	1,167	
03	Fuel Combustion - Other	5,900	5,748	5,397	5,232	5,101	
04	Chemical and Allied Prod. Mfg	54,403	54,889	53,690	51,493	50,964	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	23	25	24	25	24	
07	Other Industrial Processes	1,281	1,335	1,273	1,239	1,217	
08	Solvent Utilization	84,654	88,602	89,666	89,702	90,894	
09	Storage and Transport	22,470	22,353	22,704	22,388	22,339	
10	Waste Disposal & Recycling	365,494	377,282	381,215	376,609	370,964	
11	Highway Vehicles	131,954	125,536	121,146	114,218	108,507	
12	Off-Highway	32,015	31,834	31,231	30,678	29,772	
14	Miscellaneous	14,207	14,207	14,207	14,207	14,207	
	Total	713,888	723,339	722,096	707,305	695,498	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	79,414	80,782	83,948	82,009	81,968	
02	Fuel Combustion - Industrial	36,130	37,843	39,972	39,671	39,634	
03	Fuel Combustion - Other	4,997	4,998	4,708	4,970	5,098	
04	Chemical and Allied Prod. Mfg	386	423	476	474	469	
05	Metals Processing	1	1	1	1	1	
06	Petro. & Related Industries	24	23	22	24	23	
07	Other Industrial Processes	6,535	6,378	6,245	5,936	5,820	
08	Solvent Utilization	12	12	11	11	11	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	1,522	1,484	1,440	1,395	1,366	
11	Highway Vehicles	126,946	120,609	135,329	129,215	127,906	
12	Off-Highway	30,717	33,239	33,836	35,663	33,574	
14	Miscellaneous	3,844	3,844	3,844	3,844	3,844	
	Total	290,533	289,640	309,838	303,218	299,719	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	2,752	2,820	2,923	2,878	2,972	
02	Fuel Combustion - Industrial	8,804	9,076	9,209	9,101	9,058	
03	Fuel Combustion - Other	77,567	75,566	71,595	69,324	67,662	
04	Chemical and Allied Prod. Mfg	1,210	1,326	1,491	1,484	1,470	
05	Metals Processing	7,080	7,318	7,532	7,738	7,565	
06	Petro. & Related Industries	24	23	22	24	23	
07	Other Industrial Processes	30,790	30,639	31,471	31,254	30,927	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	37,489	36,533	35,453	34,245	33,487	
11	Highway Vehicles	1,014,948	972,227	1,000,602	950,562	926,016	
12	Off-Highway	227,702	227,575	224,276	220,528	214,494	
14	Miscellaneous	109,581	109,581	109,581	109,581	109,581	
	Total	1,517,952	1,472,691	1,494,160	1,436,723	1,403,261	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	175,616	161,977	159,715	167,416	165,694	
02	Fuel Combustion - Industrial	63,092	64,816	67,031	65,628	64,896	
03	Fuel Combustion - Other	4,819	4,922	3,759	3,809	3,702	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	933	962	991	1,015	993	
06	Petro. & Related Industries	55	54	51	55	54	
07	Other Industrial Processes	14,927	14,602	14,385	13,750	13,496	
08	Solvent Utilization	55	54	51	48	48	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	238	231	224	218	214	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	1,334	1,408	1,435	1,468	1,520	
14	Miscellaneous	141	141	141	141	141	
	Total	261,213	249,172	247,788	253,553	250,762	

**Table IV-40**  
**South Dakota Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	30	84	82	82	90	
02	Fuel Combustion - Industrial	116	133	137	141	148	
03	Fuel Combustion - Other	611	594	569	542	526	
04	Chemical and Allied Prod. Mfg	30	13	14	16	16	
06	Petro. & Related Industries	52	49	46	46	46	
07	Other Industrial Processes	250	251	236	229	229	
08	Solvent Utilization	25,070	25,002	26,090	28,057	29,637	
09	Storage and Transport	11,035	11,389	10,927	10,906	11,020	
10	Waste Disposal & Recycling	2,522	2,453	2,353	2,242	2,182	
11	Highway Vehicles	26,661	25,474	25,119	24,110	23,580	
12	Off-Highway	8,248	8,068	7,885	7,703	7,576	
14	Miscellaneous	18,397	18,435	18,435	18,445	18,447	
	<b>Total</b>	<b>93,028</b>	<b>91,951</b>	<b>91,897</b>	<b>92,524</b>	<b>93,503</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	7,682	21,005	20,470	20,463	22,420	
02	Fuel Combustion - Industrial	2,723	2,782	3,254	3,066	3,158	
03	Fuel Combustion - Other	1,830	1,959	1,965	1,921	1,920	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	828	753	907	942	996	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	513	512	499	484	479	
11	Highway Vehicles	31,062	32,096	31,084	30,390	29,516	
12	Off-Highway	4,602	4,549	4,788	5,070	4,987	
14	Miscellaneous	3,838	3,838	3,838	3,838	3,838	
	<b>Total</b>	<b>53,082</b>	<b>67,498</b>	<b>66,810</b>	<b>66,177</b>	<b>67,318</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	261	730	706	707	774	
02	Fuel Combustion - Industrial	811	889	967	952	998	
03	Fuel Combustion - Other	8,068	7,834	7,496	7,124	6,910	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	69	63	76	79	83	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	15,286	15,329	14,961	14,451	14,350	
11	Highway Vehicles	251,503	242,874	243,270	235,244	230,310	
12	Off-Highway	47,270	47,298	46,574	46,177	46,098	
14	Miscellaneous	133,390	133,390	133,390	133,390	133,390	
	<b>Total</b>	<b>456,663</b>	<b>448,410</b>	<b>447,445</b>	<b>438,128</b>	<b>432,916</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	10,280	31,181	29,965	31,189	34,160	
02	Fuel Combustion - Industrial	3,067	2,833	3,412	3,322	3,437	
03	Fuel Combustion - Other	1,086	1,177	1,098	1,170	1,192	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	1,018	927	1,116	1,159	1,225	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	90	90	89	85	86	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	30	30	30	32	33	
14	Miscellaneous	142	142	142	142	142	
	<b>Total</b>	<b>15,715</b>	<b>36,383</b>	<b>35,855</b>	<b>37,101</b>	<b>40,277</b>	

**Table IV-41**  
**Tennessee Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	868	877	801	867	812	
02	Fuel Combustion - Industrial	3,929	4,078	4,041	4,021	3,985	
03	Fuel Combustion - Other	21,752	21,252	20,511	19,694	19,249	
04	Chemical and Allied Prod. Mfg	124,505	124,043	124,783	125,711	124,543	
05	Metals Processing	1,563	1,663	1,673	1,613	1,595	
06	Petro. & Related Industries	2,112	2,076	2,137	2,138	2,111	
07	Other Industrial Processes	26,333	26,786	26,770	26,994	26,728	
08	Solvent Utilization	148,811	155,201	156,438	155,626	156,804	
09	Storage and Transport	28,346	27,634	25,983	25,693	25,660	
10	Waste Disposal & Recycling	14,694	14,535	14,205	13,809	13,537	
11	Highway Vehicles	203,174	187,697	163,116	157,443	148,109	
12	Off-Highway	49,009	48,598	47,317	45,839	44,762	
14	Miscellaneous	4,312	4,312	4,312	4,312	4,312	
	<b>Total</b>	<b>629,413</b>	<b>618,758</b>	<b>592,093</b>	<b>583,766</b>	<b>572,214</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	196,565	199,039	178,443	193,904	181,043	
02	Fuel Combustion - Industrial	61,963	61,847	61,563	62,498	61,958	
03	Fuel Combustion - Other	10,545	10,954	10,897	10,923	11,116	
04	Chemical and Allied Prod. Mfg	12,631	12,676	12,832	13,203	13,081	
05	Metals Processing	19,460	20,573	20,963	19,957	19,679	
06	Petro. & Related Industries	509	559	574	570	565	
07	Other Industrial Processes	7,796	8,022	7,989	7,869	7,786	
08	Solvent Utilization	156	154	155	150	149	
09	Storage and Transport	33	35	35	35	34	
10	Waste Disposal & Recycling	2,728	2,666	2,594	2,549	2,502	
11	Highway Vehicles	194,681	180,964	179,928	179,115	174,400	
12	Off-Highway	67,695	70,884	71,060	69,473	68,814	
14	Miscellaneous	1,062	1,062	1,062	1,062	1,062	
	<b>Total</b>	<b>575,830</b>	<b>569,440</b>	<b>548,102</b>	<b>561,314</b>	<b>542,196</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	7,359	7,433	6,788	7,349	6,876	
02	Fuel Combustion - Industrial	22,193	22,570	22,336	22,297	22,104	
03	Fuel Combustion - Other	288,527	281,310	271,217	260,268	254,125	
04	Chemical and Allied Prod. Mfg	45,726	45,869	46,512	47,918	47,476	
05	Metals Processing	44,575	47,626	47,518	46,577	46,071	
06	Petro. & Related Industries	177	194	199	198	196	
07	Other Industrial Processes	25,130	26,442	27,322	27,329	27,061	
08	Solvent Utilization	2	2	2	1	1	
09	Storage and Transport	183	189	190	191	190	
10	Waste Disposal & Recycling	49,626	48,354	46,593	44,761	43,666	
11	Highway Vehicles	1,612,612	1,492,940	1,382,053	1,353,459	1,299,347	
12	Off-Highway	350,228	348,577	341,327	331,338	323,915	
14	Miscellaneous	31,615	31,615	31,615	31,615	31,615	
	<b>Total</b>	<b>2,477,957</b>	<b>2,353,126</b>	<b>2,223,676</b>	<b>2,173,307</b>	<b>2,102,648</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	821,770	853,089	762,721	797,237	756,547	
02	Fuel Combustion - Industrial	114,472	115,010	115,424	115,946	114,901	
03	Fuel Combustion - Other	6,827	7,842	7,843	7,693	7,904	
04	Chemical and Allied Prod. Mfg	8,817	8,986	9,054	9,165	9,077	
05	Metals Processing	20,394	21,591	21,570	21,354	21,127	
06	Petro. & Related Industries	5,280	5,798	5,953	5,920	5,866	
07	Other Industrial Processes	7,064	7,264	7,220	7,104	7,031	
08	Solvent Utilization	5	6	6	6	6	
09	Storage and Transport	172	184	183	180	178	
10	Waste Disposal & Recycling	847	842	830	817	807	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	2,244	2,368	2,403	2,462	2,581	
14	Miscellaneous	35	35	35	35	35	
	<b>Total</b>	<b>987,933</b>	<b>1,023,020</b>	<b>933,248</b>	<b>967,925</b>	<b>926,064</b>	

**Table IV-42**  
**Texas Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	3,664	3,802	3,994	3,872	3,894	
02	Fuel Combustion - Industrial	327,230	197,647	192,441	192,381	198,250	
03	Fuel Combustion - Other	5,982	5,798	5,464	5,290	5,170	
04	Chemical and Allied Prod. Mfg	534,353	609,938	592,367	590,222	608,077	
05	Metals Processing	7,280	8,021	7,935	8,155	8,115	
06	Petro. & Related Industries	231,760	218,849	214,934	220,341	224,673	
07	Other Industrial Processes	27,702	28,333	27,983	27,760	28,136	
08	Solvent Utilization	323,787	334,578	334,399	342,373	350,124	
09	Storage and Transport	383,485	400,840	386,642	387,650	395,670	
10	Waste Disposal & Recycling	509,213	531,476	529,370	533,936	538,627	
11	Highway Vehicles	702,737	678,700	583,766	548,610	524,328	
12	Off-Highway	244,861	241,094	235,186	231,327	226,979	
14	Miscellaneous	5,430	5,430	5,430	5,430	5,430	
	Total	3,307,490	3,264,512	3,119,919	3,097,353	3,117,479	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	658,919	688,902	707,036	698,400	700,753	
02	Fuel Combustion - Industrial	932,397	1,006,535	1,022,840	1,053,344	1,096,815	
03	Fuel Combustion - Other	39,841	37,498	37,030	33,672	33,560	
04	Chemical and Allied Prod. Mfg	106,532	120,499	116,934	117,352	121,132	
05	Metals Processing	5,970	6,619	6,529	6,677	6,680	
06	Petro. & Related Industries	56,759	56,269	54,834	58,028	60,501	
07	Other Industrial Processes	53,445	49,177	47,444	46,553	46,516	
08	Solvent Utilization	32	33	33	33	33	
09	Storage and Transport	1,933	2,165	2,108	2,115	2,175	
10	Waste Disposal & Recycling	5,347	5,594	5,477	5,415	5,420	
11	Highway Vehicles	631,532	635,884	606,507	597,336	576,442	
12	Off-Highway	309,792	313,054	313,053	318,618	324,450	
14	Miscellaneous	1,118	1,118	1,118	1,118	1,118	
	Total	2,803,621	2,923,353	2,920,948	2,938,666	2,975,600	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	45,515	46,502	47,611	46,810	47,022	
02	Fuel Combustion - Industrial	158,690	170,222	171,779	176,574	183,382	
03	Fuel Combustion - Other	72,114	69,903	66,606	64,926	63,520	
04	Chemical and Allied Prod. Mfg	378,429	433,585	420,953	419,357	432,010	
05	Metals Processing	5,996	6,614	6,540	6,714	6,688	
06	Petro. & Related Industries	97,601	88,356	86,719	89,160	91,973	
07	Other Industrial Processes	38,451	39,760	39,442	39,558	40,658	
08	Solvent Utilization	572	640	672	673	677	
09	Storage and Transport	44,304	50,783	49,311	49,118	50,595	
10	Waste Disposal & Recycling	70,780	69,122	66,922	64,959	63,405	
11	Highway Vehicles	5,225,390	5,135,621	4,608,313	4,441,246	4,250,053	
12	Off-Highway	1,745,631	1,738,711	1,703,311	1,685,513	1,665,559	
14	Miscellaneous	36,424	36,424	36,424	36,424	36,424	
	Total	7,919,903	7,886,249	7,304,610	7,121,040	6,931,973	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	426,804	428,367	461,770	468,280	484,340	
02	Fuel Combustion - Industrial	383,639	372,715	361,959	361,838	363,388	
03	Fuel Combustion - Other	49,480	38,604	31,924	13,181	8,383	
04	Chemical and Allied Prod. Mfg	78,531	83,672	81,332	83,138	86,096	
05	Metals Processing	32,291	35,572	35,196	36,174	35,989	
06	Petro. & Related Industries	132,812	129,773	128,079	133,294	137,824	
07	Other Industrial Processes	60,489	56,532	54,390	53,523	53,868	
08	Solvent Utilization	51	51	46	46	46	
09	Storage and Transport	8,324	9,513	9,237	9,204	9,482	
10	Waste Disposal & Recycling	8,758	9,491	9,208	9,216	9,483	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	33,167	35,116	35,918	36,748	37,835	
14	Miscellaneous	29	29	29	29	29	
	Total	1,214,381	1,199,440	1,209,093	1,204,677	1,226,769	

**Table IV-43**  
**Utah Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	381	439	453	476	450	
02	Fuel Combustion - Industrial	644	677	682	694	693	
03	Fuel Combustion - Other	2,840	2,943	2,937	2,771	2,783	
05	Metals Processing	272	480	517	520	519	
06	Petro. & Related Industries	5,511	5,484	5,514	5,553	5,554	
07	Other Industrial Processes	9	8	8	8	8	
08	Solvent Utilization	30,548	31,726	31,733	32,646	33,172	
09	Storage and Transport	14,582	15,006	14,339	14,683	14,750	
10	Waste Disposal & Recycling	3,591	3,661	3,637	3,625	3,584	
11	Highway Vehicles	63,334	61,933	52,518	52,244	50,533	
12	Off-Highway	16,083	16,042	15,785	15,610	15,631	
14	Miscellaneous	6,039	6,039	6,039	6,039	6,039	
	Total	143,839	144,443	134,167	134,875	133,722	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	81,314	93,835	93,943	99,839	94,433	
02	Fuel Combustion - Industrial	22,386	28,939	30,834	30,144	30,447	
03	Fuel Combustion - Other	5,874	5,731	5,655	6,067	8,518	
05	Metals Processing	3,802	6,713	7,232	7,282	7,256	
06	Petro. & Related Industries	772	786	775	803	797	
07	Other Industrial Processes	2,590	2,212	2,264	2,259	2,251	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	388	383	378	375	372	
11	Highway Vehicles	54,254	54,725	52,890	54,902	54,479	
12	Off-Highway	22,402	23,144	23,487	24,005	25,553	
14	Miscellaneous	1,605	1,605	1,605	1,605	1,605	
	Total	195,392	218,077	219,068	227,285	225,716	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	3,276	3,773	3,892	4,084	3,863	
02	Fuel Combustion - Industrial	3,203	4,166	4,422	4,340	4,390	
03	Fuel Combustion - Other	37,135	37,820	37,520	35,474	34,899	
05	Metals Processing	16,667	29,305	31,555	31,786	31,670	
06	Petro. & Related Industries	7,182	6,711	7,177	7,221	7,266	
07	Other Industrial Processes	177	152	155	155	155	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	12,955	12,590	12,177	11,798	11,512	
11	Highway Vehicles	677,123	662,826	569,422	560,973	536,702	
12	Off-Highway	125,788	127,016	125,998	125,577	125,281	
14	Miscellaneous	46,376	46,376	46,376	46,376	46,376	
	Total	929,887	930,740	838,699	827,789	802,118	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	24,088	26,246	30,471	32,050	30,978	
02	Fuel Combustion - Industrial	19,577	20,313	23,624	21,813	21,929	
03	Fuel Combustion - Other	5,963	4,075	3,592	5,390	15,203	
05	Metals Processing	5,728	10,113	10,895	10,970	10,931	
06	Petro. & Related Industries	560	565	562	580	577	
07	Other Industrial Processes	449	384	393	392	391	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	42	40	39	37	37	
10	Waste Disposal & Recycling	78	78	78	79	80	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	771	813	826	842	889	
14	Miscellaneous	58	58	58	58	58	
	Total	57,320	62,689	70,541	72,215	81,078	

**Table IV-44**  
**Vermont Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)			
			1987	1988	1989	1990
<b>VOC</b>						
01	Fuel Comb. - Electric Utilities	0	0	0	0	0
02	Fuel Combustion - Industrial	60	63	60	58	57
03	Fuel Combustion - Other	3,067	3,009	2,928	2,818	2,766
04	Chemical and Allied Prod. Mfg	4	4	4	4	4
07	Other Industrial Processes	136	142	145	150	147
08	Solvent Utilization	11,882	12,729	12,835	12,852	12,933
09	Storage and Transport	4,334	4,546	4,302	4,437	4,470
10	Waste Disposal & Recycling	1,818	1,784	1,734	1,671	1,639
11	Highway Vehicles	19,980	20,672	17,516	18,134	18,211
12	Off-Highway	2,337	2,316	2,259	2,190	2,161
14	Miscellaneous	103	103	103	103	102
	<b>Total</b>	<b>43,725</b>	<b>45,374</b>	<b>41,891</b>	<b>42,424</b>	<b>42,497</b>
<b>NOx</b>						
01	Fuel Comb. - Electric Utilities	34	6	37	189	301
02	Fuel Combustion - Industrial	589	643	668	628	627
03	Fuel Combustion - Other	2,163	2,226	2,348	2,331	2,392
04	Chemical and Allied Prod. Mfg	0	0	0	0	0
07	Other Industrial Processes	2	2	2	2	2
08	Solvent Utilization	0	0	0	0	0
09	Storage and Transport	0	0	0	0	0
10	Waste Disposal & Recycling	346	343	335	325	319
11	Highway Vehicles	21,629	22,354	21,139	22,351	22,575
12	Off-Highway	1,267	1,332	1,338	1,284	1,238
14	Miscellaneous	13	13	13	13	13
	<b>Total</b>	<b>26,047</b>	<b>26,922</b>	<b>25,883</b>	<b>27,126</b>	<b>27,471</b>
<b>CO</b>						
01	Fuel Comb. - Electric Utilities	2	0	2	13	21
02	Fuel Combustion - Industrial	306	319	313	297	294
03	Fuel Combustion - Other	40,416	39,629	38,491	37,077	36,381
04	Chemical and Allied Prod. Mfg	0	0	0	0	0
07	Other Industrial Processes	2	2	2	2	2
08	Solvent Utilization	0	0	0	0	0
09	Storage and Transport	0	0	0	0	0
10	Waste Disposal & Recycling	7,484	7,343	7,136	6,877	6,748
11	Highway Vehicles	192,035	199,275	179,542	187,762	189,291
12	Off-Highway	10,814	10,781	10,578	10,241	10,145
14	Miscellaneous	570	570	571	570	566
	<b>Total</b>	<b>251,633</b>	<b>257,923</b>	<b>236,640</b>	<b>242,843</b>	<b>243,452</b>
<b>SO2</b>						
01	Fuel Comb. - Electric Utilities	24	4	13	0	0
02	Fuel Combustion - Industrial	1,263	1,312	1,397	1,315	1,299
03	Fuel Combustion - Other	2,687	2,741	2,872	2,817	2,856
04	Chemical and Allied Prod. Mfg	0	0	0	0	0
07	Other Industrial Processes	0	0	0	0	0
08	Solvent Utilization	0	0	0	0	0
09	Storage and Transport	0	0	0	0	0
10	Waste Disposal & Recycling	67	68	68	67	66
11	Highway Vehicles	0	0	0	0	0
12	Off-Highway	42	45	45	46	49
14	Miscellaneous	0	0	0	0	0
	<b>Total</b>	<b>4,086</b>	<b>4,171</b>	<b>4,397</b>	<b>4,248</b>	<b>4,271</b>

**Table IV-45**  
**Virginia Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	422	419	524	332	386	
02	Fuel Combustion - Industrial	1,242	1,240	1,264	1,257	1,237	
03	Fuel Combustion - Other	21,722	21,266	20,432	19,870	19,586	
04	Chemical and Allied Prod. Mfg	60,336	57,392	56,453	52,537	51,448	
05	Metals Processing	691	707	713	712	685	
06	Petro. & Related Industries	3,638	3,787	3,866	3,971	3,978	
07	Other Industrial Processes	12,087	12,100	11,701	11,640	11,376	
08	Solvent Utilization	238,425	245,390	241,576	238,520	236,759	
09	Storage and Transport	49,770	50,884	48,983	49,291	49,762	
10	Waste Disposal & Recycling	12,058	11,902	11,590	11,261	11,065	
11	Highway Vehicles	204,152	201,835	169,908	163,615	161,031	
12	Off-Highway	47,390	47,505	46,639	44,891	43,586	
14	Miscellaneous	2,023	2,023	2,023	2,023	2,023	
	<b>Total</b>	<b>653,962</b>	<b>656,456</b>	<b>615,675</b>	<b>599,926</b>	<b>592,929</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	73,229	74,841	86,254	71,008	74,823	
02	Fuel Combustion - Industrial	57,024	57,120	56,764	56,307	55,954	
03	Fuel Combustion - Other	16,710	16,476	15,783	16,699	17,230	
04	Chemical and Allied Prod. Mfg	12,694	12,985	12,265	11,717	11,477	
05	Metals Processing	77	84	89	88	84	
06	Petro. & Related Industries	359	382	375	418	409	
07	Other Industrial Processes	6,810	6,650	6,553	6,404	6,202	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	2,253	2,237	2,188	2,123	2,097	
11	Highway Vehicles	202,434	204,359	199,784	206,270	206,611	
12	Off-Highway	76,865	81,794	82,945	78,594	75,589	
14	Miscellaneous	419	419	419	419	419	
	<b>Total</b>	<b>448,877</b>	<b>457,351</b>	<b>463,423</b>	<b>450,051</b>	<b>450,901</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	3,015	3,011	3,619	2,672	2,909	
02	Fuel Combustion - Industrial	9,869	9,802	9,944	9,914	9,829	
03	Fuel Combustion - Other	286,195	280,408	270,324	262,276	258,437	
04	Chemical and Allied Prod. Mfg	1,971	2,016	1,904	1,819	1,781	
05	Metals Processing	19,515	21,474	22,481	22,245	21,424	
06	Petro. & Related Industries	1,043	1,110	1,089	1,213	1,188	
07	Other Industrial Processes	13,579	13,454	13,892	13,812	13,514	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	33,292	32,715	31,772	30,753	30,310	
11	Highway Vehicles	1,694,750	1,703,573	1,529,075	1,506,289	1,499,755	
12	Off-Highway	358,914	358,773	351,951	338,796	328,993	
14	Miscellaneous	13,603	13,603	13,603	13,603	13,603	
	<b>Total</b>	<b>2,435,751</b>	<b>2,439,944</b>	<b>2,249,661</b>	<b>2,203,398</b>	<b>2,181,749</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	153,795	162,806	188,660	158,648	171,054	
02	Fuel Combustion - Industrial	118,940	119,129	117,445	116,129	114,391	
03	Fuel Combustion - Other	24,338	21,367	18,452	19,657	19,930	
04	Chemical and Allied Prod. Mfg	4,368	4,572	4,417	4,637	4,542	
05	Metals Processing	5,678	6,249	6,542	6,473	6,234	
06	Petro. & Related Industries	2,497	2,657	2,608	2,903	2,843	
07	Other Industrial Processes	15,264	15,010	15,135	15,018	14,624	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	13	14	13	12	12	
10	Waste Disposal & Recycling	539	542	541	528	525	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	5,665	5,994	6,120	6,258	6,482	
14	Miscellaneous	10	10	10	10	10	
	<b>Total</b>	<b>331,112</b>	<b>338,354</b>	<b>359,947</b>	<b>330,278</b>	<b>340,653</b>	

**Table IV-46**  
**Washington Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	191	194	197	171	181	
02	Fuel Combustion - Industrial	2,317	2,259	2,319	2,305	2,196	
03	Fuel Combustion - Other	24,224	24,328	24,003	23,689	23,255	
04	Chemical and Allied Prod. Mfg	9,938	11,123	10,538	11,142	10,141	
05	Metals Processing	63	70	74	76	74	
06	Petro. & Related Industries	20,792	20,865	22,117	23,149	23,021	
07	Other Industrial Processes	5,248	5,229	5,511	5,511	5,031	
08	Solvent Utilization	82,830	87,457	90,342	93,650	94,934	
09	Storage and Transport	33,215	33,696	33,752	34,977	35,440	
10	Waste Disposal & Recycling	10,696	10,806	10,842	10,845	10,538	
11	Highway Vehicles	151,022	145,118	141,357	143,858	145,472	
12	Off-Highway	45,888	46,154	45,920	45,782	45,210	
14	Miscellaneous	65,661	65,661	66,023	65,948	66,021	
	Total	452,091	452,965	453,002	461,109	461,521	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	41,018	41,713	41,575	36,743	38,808	
02	Fuel Combustion - Industrial	28,851	28,941	30,139	30,830	30,020	
03	Fuel Combustion - Other	11,779	12,745	12,523	12,343	12,297	
04	Chemical and Allied Prod. Mfg	22,334	25,018	23,691	25,074	22,786	
05	Metals Processing	572	628	659	683	664	
06	Petro. & Related Industries	1,493	1,495	1,519	1,702	1,549	
07	Other Industrial Processes	6,852	7,272	7,409	7,720	7,355	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	94	95	96	108	98	
10	Waste Disposal & Recycling	1,216	1,211	1,192	1,182	1,163	
11	Highway Vehicles	165,038	162,310	168,814	174,590	177,728	
12	Off-Highway	50,801	53,982	56,100	57,451	58,740	
14	Miscellaneous	17,478	17,478	17,534	17,523	17,534	
	Total	347,531	352,893	361,258	365,954	368,748	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	1,641	1,669	1,672	1,468	1,553	
02	Fuel Combustion - Industrial	17,963	17,931	18,573	18,304	17,292	
03	Fuel Combustion - Other	293,421	292,510	287,167	282,707	277,033	
04	Chemical and Allied Prod. Mfg	216	240	237	249	233	
05	Metals Processing	296,962	326,326	342,330	354,386	344,386	
06	Petro. & Related Industries	2,083	2,084	2,118	2,374	2,157	
07	Other Industrial Processes	40,873	40,353	42,723	42,260	38,452	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	2	2	2	2	2	
10	Waste Disposal & Recycling	48,800	48,303	47,304	46,626	45,677	
11	Highway Vehicles	1,337,239	1,314,384	1,310,169	1,334,642	1,364,621	
12	Off-Highway	302,531	304,584	305,735	306,329	300,068	
14	Miscellaneous	507,289	507,291	509,901	509,363	509,890	
	Total	2,849,027	2,855,682	2,867,935	2,898,714	2,901,369	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	63,549	62,054	63,123	58,740	62,299	
02	Fuel Combustion - Industrial	27,488	27,039	28,298	30,079	28,433	
03	Fuel Combustion - Other	8,784	9,704	8,405	8,118	7,818	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	23,324	25,630	26,888	27,835	27,049	
06	Petro. & Related Industries	4,231	4,236	4,307	4,823	4,391	
07	Other Industrial Processes	8,477	8,709	9,012	9,188	8,568	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	217	218	221	248	225	
10	Waste Disposal & Recycling	276	280	278	279	277	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	9,140	9,692	9,921	10,156	10,445	
14	Miscellaneous	639	639	639	639	639	
	Total	146,130	148,206	151,097	150,109	150,149	

**Table IV-47**  
**West Virginia Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	1,070	1,112	1,137	1,051	969	
02	Fuel Combustion - Industrial	2,312	2,396	2,403	2,348	2,235	
03	Fuel Combustion - Other	8,407	7,944	7,571	7,190	6,896	
04	Chemical and Allied Prod. Mfg	58,953	60,584	58,227	57,886	56,776	
05	Metals Processing	5,869	6,263	6,571	6,164	5,581	
06	Petro. & Related Industries	2,250	2,275	2,295	2,107	2,143	
07	Other Industrial Processes	2,967	2,795	2,666	2,654	2,516	
08	Solvent Utilization	64,803	72,795	76,531	75,289	70,596	
09	Storage and Transport	15,266	15,356	14,051	14,438	14,402	
10	Waste Disposal & Recycling	335,116	344,550	341,448	333,861	313,291	
11	Highway Vehicles	55,985	56,854	47,879	46,034	45,046	
12	Off-Highway	15,217	14,980	14,554	14,332	13,854	
14	Miscellaneous	420	420	420	420	420	
	Total	568,640	588,328	575,760	563,781	534,731	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	312,066	326,453	330,798	307,105	283,100	
02	Fuel Combustion - Industrial	53,746	54,934	55,085	54,730	52,985	
03	Fuel Combustion - Other	4,757	5,128	5,092	5,091	5,182	
04	Chemical and Allied Prod. Mfg	875	894	863	859	838	
05	Metals Processing	3,325	3,547	3,721	3,491	3,161	
06	Petro. & Related Industries	231	223	152	181	177	
07	Other Industrial Processes	5,109	4,705	4,535	4,557	4,222	
08	Solvent Utilization	1	1	1	1	1	
09	Storage and Transport	54	56	54	53	52	
10	Waste Disposal & Recycling	1,060	1,005	951	897	854	
11	Highway Vehicles	65,226	65,818	63,941	64,399	63,315	
12	Off-Highway	25,669	26,736	27,017	28,380	28,359	
14	Miscellaneous	53	53	53	53	53	
	Total	472,178	489,558	492,268	469,803	442,305	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	9,191	9,546	9,764	9,029	8,326	
02	Fuel Combustion - Industrial	5,837	5,919	5,938	5,968	5,865	
03	Fuel Combustion - Other	111,641	105,647	100,391	95,136	91,046	
04	Chemical and Allied Prod. Mfg	251,779	258,760	248,686	247,229	242,583	
05	Metals Processing	68,118	72,682	76,264	71,543	64,781	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	584	591	576	504	481	
08	Solvent Utilization	36	45	50	50	45	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	18,388	17,439	16,473	15,540	14,794	
11	Highway Vehicles	467,633	484,514	432,667	425,817	420,996	
12	Off-Highway	99,837	98,030	95,017	92,727	88,382	
14	Miscellaneous	2,294	2,294	2,294	2,294	2,294	
	Total	1,035,342	1,055,472	988,124	965,842	939,598	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	931,223	953,269	979,963	945,353	909,293	
02	Fuel Combustion - Industrial	67,724	69,941	67,926	67,083	64,668	
03	Fuel Combustion - Other	3,281	3,680	3,647	3,700	3,849	
04	Chemical and Allied Prod. Mfg	1,888	1,938	1,864	1,854	1,816	
05	Metals Processing	27,057	28,870	30,292	28,418	25,732	
06	Petro. & Related Industries	2,621	2,530	1,725	2,051	2,013	
07	Other Industrial Processes	9,878	9,138	8,831	8,984	8,373	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	1,948	2,002	1,924	1,913	1,877	
10	Waste Disposal & Recycling	184	178	168	160	153	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	1,716	1,818	1,859	1,903	1,962	
14	Miscellaneous	0	0	0	0	0	
	Total	1,047,526	1,073,368	1,098,204	1,061,423	1,019,741	

**Table IV-48**  
**Wisconsin Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	621	630	626	639	662	
02	Fuel Combustion - Industrial	1,726	1,744	1,761	1,779	1,764	
03	Fuel Combustion - Other	13,851	13,512	13,003	12,512	12,145	
04	Chemical and Allied Prod. Mfg	3,907	4,098	4,209	4,225	4,205	
05	Metals Processing	342	394	394	384	375	
06	Petro. & Related Industries	1,675	1,734	1,693	1,656	1,655	
07	Other Industrial Processes	2,283	2,367	2,361	2,376	2,355	
08	Solvent Utilization	215,014	223,804	228,303	231,344	231,029	
09	Storage and Transport	30,563	32,017	30,408	30,920	31,036	
10	Waste Disposal & Recycling	14,722	14,666	14,244	13,890	13,568	
11	Highway Vehicles	165,678	164,267	149,559	142,196	140,379	
12	Off-Highway	48,226	47,403	46,891	45,422	43,895	
14	Miscellaneous	990	990	990	990	990	
	Total	499,605	507,632	494,450	488,340	484,064	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	153,201	158,841	155,516	157,305	164,627	
02	Fuel Combustion - Industrial	43,535	44,578	44,691	45,222	45,387	
03	Fuel Combustion - Other	15,524	17,489	17,715	17,061	17,022	
04	Chemical and Allied Prod. Mfg	2	2	2	2	2	
05	Metals Processing	365	410	410	403	393	
06	Petro. & Related Industries	228	245	223	210	209	
07	Other Industrial Processes	2,352	2,292	2,268	2,321	2,276	
08	Solvent Utilization	4	4	4	4	4	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	2,496	2,496	2,469	2,447	2,433	
11	Highway Vehicles	163,455	184,274	165,480	165,983	163,968	
12	Off-Highway	41,529	42,050	45,789	45,391	43,767	
14	Miscellaneous	125	125	125	125	125	
	Total	422,821	452,812	434,697	436,479	440,218	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	5,354	5,435	5,395	5,512	5,705	
02	Fuel Combustion - Industrial	10,808	11,066	11,077	11,213	11,235	
03	Fuel Combustion - Other	183,841	179,173	172,692	166,183	161,400	
04	Chemical and Allied Prod. Mfg	392	404	398	403	401	
05	Metals Processing	11,353	13,097	13,113	12,765	12,452	
06	Petro. & Related Industries	35,318	38,065	34,651	32,586	32,434	
07	Other Industrial Processes	8,563	8,593	8,508	8,630	8,577	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	55,827	54,589	52,829	51,122	49,837	
11	Highway Vehicles	1,456,514	1,485,381	1,404,503	1,379,312	1,366,742	
12	Off-Highway	281,965	281,980	279,253	272,724	264,975	
14	Miscellaneous	5,387	5,387	5,387	5,387	5,387	
	Total	2,055,326	2,083,175	1,987,812	1,945,841	1,919,149	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	297,033	298,430	285,997	284,854	306,275	
02	Fuel Combustion - Industrial	106,059	107,119	106,380	107,748	107,345	
03	Fuel Combustion - Other	9,257	10,531	10,630	9,858	9,281	
04	Chemical and Allied Prod. Mfg	940	980	1,001	1,002	997	
05	Metals Processing	418	484	485	472	460	
06	Petro. & Related Industries	1,911	2,059	1,874	1,763	1,755	
07	Other Industrial Processes	5,641	5,613	5,543	5,634	5,586	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	837	857	868	884	897	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	1,189	1,255	1,277	1,305	1,368	
14	Miscellaneous	0	0	0	0	0	
	Total	423,288	427,331	414,060	413,524	433,967	

**Table IV-49**  
**Wyoming Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	782	826	762	827	813	
02	Fuel Combustion - Industrial	1,025	1,009	1,012	1,043	1,055	
03	Fuel Combustion - Other	1,673	1,677	1,575	1,522	1,478	
04	Chemical and Allied Prod. Mfg	6	6	5	6	7	
05	Metals Processing	35	33	35	36	37	
06	Petro. & Related Industries	15,027	14,443	15,282	15,734	16,155	
07	Other Industrial Processes	35	34	32	32	32	
08	Solvent Utilization	7,832	8,327	7,899	8,131	9,344	
09	Storage and Transport	7,856	7,954	7,881	7,846	7,812	
10	Waste Disposal & Recycling	1,029	981	935	900	861	
11	Highway Vehicles	21,042	20,725	20,035	18,730	18,375	
12	Off-Highway	5,167	5,041	4,885	4,830	4,815	
14	Miscellaneous	2,104	2,104	2,104	2,104	2,104	
	<b>Total</b>	<b>63,620</b>	<b>63,166</b>	<b>62,450</b>	<b>61,749</b>	<b>62,895</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	153,539	161,748	150,228	161,905	159,047	
02	Fuel Combustion - Industrial	66,455	65,959	66,059	68,354	69,843	
03	Fuel Combustion - Other	1,951	2,521	1,868	1,789	1,765	
04	Chemical and Allied Prod. Mfg	3,028	3,704	4,139	6,018	6,183	
05	Metals Processing	538	509	547	563	579	
06	Petro. & Related Industries	2,076	1,968	2,111	2,177	2,236	
07	Other Industrial Processes	4,193	4,123	3,983	3,987	4,079	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	5	4	5	5	5	
10	Waste Disposal & Recycling	177	169	164	158	151	
11	Highway Vehicles	26,578	37,051	26,801	25,836	25,052	
12	Off-Highway	20,684	21,544	21,738	22,220	23,505	
14	Miscellaneous	491	491	491	491	491	
	<b>Total</b>	<b>279,719</b>	<b>299,796</b>	<b>278,138</b>	<b>293,507</b>	<b>292,941</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	6,713	7,086	6,542	7,099	6,980	
02	Fuel Combustion - Industrial	12,066	11,857	11,992	12,470	12,709	
03	Fuel Combustion - Other	21,453	21,057	19,930	19,109	18,405	
04	Chemical and Allied Prod. Mfg	70	72	66	78	80	
05	Metals Processing	172	162	174	180	185	
06	Petro. & Related Industries	44,216	41,888	44,979	46,338	47,607	
07	Other Industrial Processes	146	141	135	134	135	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	1	0	1	1	1	
10	Waste Disposal & Recycling	4,973	4,671	4,421	4,163	3,920	
11	Highway Vehicles	191,646	195,274	188,730	180,539	176,769	
12	Off-Highway	39,141	38,226	37,227	37,422	37,226	
14	Miscellaneous	15,632	15,632	15,632	15,632	15,632	
	<b>Total</b>	<b>336,235</b>	<b>336,072</b>	<b>329,835</b>	<b>323,170</b>	<b>319,654</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	94,853	100,172	94,280	84,596	82,010	
02	Fuel Combustion - Industrial	33,598	32,270	32,805	33,099	33,525	
03	Fuel Combustion - Other	2,572	4,581	2,175	2,285	2,408	
04	Chemical and Allied Prod. Mfg	7,456	7,665	7,156	8,654	8,893	
05	Metals Processing	1,590	1,506	1,618	1,666	1,712	
06	Petro. & Related Industries	4,643	4,638	4,413	5,060	5,200	
07	Other Industrial Processes	2,466	2,157	1,830	1,811	1,852	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	49	48	48	48	48	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	1,262	1,332	1,355	1,382	1,457	
14	Miscellaneous	17	17	17	17	17	
	<b>Total</b>	<b>148,511</b>	<b>154,391</b>	<b>145,703</b>	<b>138,623</b>	<b>137,126</b>	



**SECTION V  
OZONE NONATTAINMENT AREA SUMMARY TABLES,  
1987-1991**



**Table V-1**  
**Atlanta Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	157	130	124	142	109	
02	Fuel Combustion - Industrial	62	61	59	60	62	
03	Fuel Combustion - Other	908	890	856	829	818	
04	Chemical and Allied Prod. Mfg	13,613	13,634	13,622	13,894	13,898	
05	Metals Processing	2	2	2	2	2	
06	Petro. & Related Industries	299	259	241	240	220	
07	Other Industrial Processes	1,469	1,471	1,421	1,371	1,353	
08	Solvent Utilization	55,701	56,740	55,447	55,649	55,969	
09	Storage and Transport	21,981	23,183	22,009	22,128	22,511	
10	Waste Disposal & Recycling	3,114	3,092	3,005	2,929	2,886	
11	Highway Vehicles	106,207	109,906	89,915	94,612	91,302	
12	Off-Highway	26,784	26,625	25,737	25,410	24,921	
14	Miscellaneous	594	601	614	598	601	
	<b>Total</b>	<b>230,889</b>	<b>236,593</b>	<b>213,052</b>	<b>217,862</b>	<b>214,652</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	33,654	27,818	26,467	30,448	23,398	
02	Fuel Combustion - Industrial	4,098	4,255	4,276	4,377	4,467	
03	Fuel Combustion - Other	4,995	5,211	4,759	5,111	5,307	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	4	4	4	4	4	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	2,174	2,119	2,006	1,900	1,827	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	342	338	329	319	315	
11	Highway Vehicles	95,777	99,109	97,273	100,613	101,070	
12	Off-Highway	32,344	33,074	31,939	32,245	30,540	
14	Miscellaneous	103	104	106	103	104	
	<b>Total</b>	<b>173,490</b>	<b>172,031</b>	<b>167,158</b>	<b>175,120</b>	<b>167,031</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	1,351	1,116	1,062	1,225	941	
02	Fuel Combustion - Industrial	566	595	601	617	634	
03	Fuel Combustion - Other	12,314	12,135	11,732	11,442	11,339	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	7	7	7	7	7	
06	Petro. & Related Industries	48	40	37	37	37	
07	Other Industrial Processes	54	53	50	48	46	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	7,392	7,274	7,066	6,847	6,756	
11	Highway Vehicles	819,235	848,679	755,533	804,519	790,654	
12	Off-Highway	187,372	186,060	180,120	176,929	173,304	
14	Miscellaneous	3,758	3,814	3,901	3,786	3,808	
	<b>Total</b>	<b>1,032,097</b>	<b>1,059,773</b>	<b>960,111</b>	<b>1,005,456</b>	<b>987,525</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	191,384	166,537	154,323	160,842	123,673	
02	Fuel Combustion - Industrial	3,023	2,936	2,844	2,808	2,764	
03	Fuel Combustion - Other	2,293	1,989	743	495	415	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	963	944	920	918	882	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	1,549	1,509	1,429	1,353	1,301	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	53	53	52	51	51	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	790	830	830	862	903	
14	Miscellaneous	2	2	2	2	2	
	<b>Total</b>	<b>200,056</b>	<b>174,800</b>	<b>161,142</b>	<b>167,330</b>	<b>129,991</b>	

**Table V-2**  
**Baltimore Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	161	181	278	231	206	
02	Fuel Combustion - Industrial	104	111	114	116	116	
03	Fuel Combustion - Other	709	747	512	548	529	
04	Chemical and Allied Prod. Mfg	1,740	1,830	1,804	1,905	1,844	
05	Metals Processing	610	641	663	656	610	
06	Petro. & Related Industries	53	67	67	64	61	
07	Other Industrial Processes	994	990	981	995	964	
08	Solvent Utilization	50,674	52,622	52,467	52,965	52,266	
09	Storage and Transport	12,322	12,750	11,903	11,686	11,713	
10	Waste Disposal & Recycling	1,054	1,079	1,075	1,074	1,025	
11	Highway Vehicles	70,181	67,793	57,927	53,884	51,983	
12	Off-Highway	19,669	19,741	19,386	18,991	18,336	
14	Miscellaneous	315	315	315	315	315	
	<b>Total</b>	<b>158,585</b>	<b>158,866</b>	<b>147,491</b>	<b>143,429</b>	<b>139,968</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	35,238	39,831	45,933	43,739	40,837	
02	Fuel Combustion - Industrial	10,902	11,108	11,488	11,787	11,647	
03	Fuel Combustion - Other	8,679	7,787	7,405	7,207	7,139	
04	Chemical and Allied Prod. Mfg	698	734	724	764	739	
05	Metals Processing	3,879	3,528	3,769	3,793	3,527	
06	Petro. & Related Industries	17	21	21	20	19	
07	Other Industrial Processes	2,270	2,718	2,728	2,662	2,478	
08	Solvent Utilization	33	33	33	33	32	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	1,602	1,691	1,758	1,815	1,828	
11	Highway Vehicles	64,013	64,604	63,330	63,625	62,924	
12	Off-Highway	20,634	22,241	22,617	22,520	20,495	
14	Miscellaneous	46	46	46	46	46	
	<b>Total</b>	<b>148,008</b>	<b>154,341</b>	<b>159,850</b>	<b>158,010</b>	<b>151,710</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	1,106	1,256	1,679	1,492	1,435	
02	Fuel Combustion - Industrial	1,715	1,802	1,827	1,896	1,908	
03	Fuel Combustion - Other	5,907	6,403	4,418	4,727	4,563	
04	Chemical and Allied Prod. Mfg	6,946	7,301	7,199	7,603	7,357	
05	Metals Processing	2,123	1,931	2,063	2,077	1,931	
06	Petro. & Related Industries	1,042	1,001	982	999	967	
07	Other Industrial Processes	822	978	981	958	893	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	4,130	4,358	4,445	4,514	4,455	
11	Highway Vehicles	565,682	558,302	507,479	492,804	482,435	
12	Off-Highway	132,199	132,877	130,747	128,380	123,476	
14	Miscellaneous	1,854	1,854	1,854	1,854	1,854	
	<b>Total</b>	<b>723,525</b>	<b>718,065</b>	<b>663,674</b>	<b>647,304</b>	<b>631,273</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	65,165	71,389	79,171	77,983	69,325	
02	Fuel Combustion - Industrial	4,746	4,860	4,777	4,801	4,539	
03	Fuel Combustion - Other	15,947	13,280	11,776	11,123	10,701	
04	Chemical and Allied Prod. Mfg	5,716	6,008	5,924	6,256	6,054	
05	Metals Processing	5,137	4,673	4,992	5,024	4,671	
06	Petro. & Related Industries	61	68	68	67	63	
07	Other Industrial Processes	196	231	232	226	212	
08	Solvent Utilization	2	2	2	2	2	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	1,370	1,447	1,503	1,549	1,558	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	5,094	5,401	5,530	5,665	5,806	
14	Miscellaneous	1	1	1	1	1	
	<b>Total</b>	<b>103,434</b>	<b>107,358</b>	<b>113,974</b>	<b>112,696</b>	<b>102,931</b>	

**Table V-3**  
**Baton Rouge Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	177	216	204	217	211	
02	Fuel Combustion - Industrial	1,762	1,807	1,853	1,903	1,932	
03	Fuel Combustion - Other	244	226	224	196	185	
04	Chemical and Allied Prod. Mfg	55,736	58,805	60,879	62,289	62,914	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	16,220	16,057	15,690	16,062	16,119	
07	Other Industrial Processes	1,704	1,695	1,654	1,622	1,614	
08	Solvent Utilization	8,524	8,913	8,665	8,662	8,676	
09	Storage and Transport	7,170	6,966	6,537	6,636	6,654	
10	Waste Disposal & Recycling	95,151	98,212	99,004	101,763	103,525	
11	Highway Vehicles	27,157	28,568	21,904	20,547	19,261	
12	Off-Highway	10,215	10,139	9,771	9,548	9,341	
14	Miscellaneous	3,491	5,394	4,410	4,548	3,598	
	<b>Total</b>	<b>227,549</b>	<b>236,999</b>	<b>230,795</b>	<b>233,993</b>	<b>234,030</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	34,390	41,167	45,091	41,473	40,402	
02	Fuel Combustion - Industrial	75,345	75,633	77,498	79,316	80,475	
03	Fuel Combustion - Other	1,477	1,253	1,495	949	848	
04	Chemical and Allied Prod. Mfg	17,939	18,822	19,441	19,900	20,107	
05	Metals Processing	40	42	43	44	44	
06	Petro. & Related Industries	18	18	17	17	18	
07	Other Industrial Processes	1,247	1,267	1,250	1,246	1,254	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	295	311	323	330	333	
10	Waste Disposal & Recycling	1,211	1,264	1,297	1,316	1,323	
11	Highway Vehicles	25,701	25,832	24,364	23,780	22,670	
12	Off-Highway	16,614	17,787	17,570	18,062	18,359	
14	Miscellaneous	612	905	753	775	629	
	<b>Total</b>	<b>174,889</b>	<b>184,300</b>	<b>189,141</b>	<b>187,208</b>	<b>186,461</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	2,016	2,330	2,122	2,490	2,370	
02	Fuel Combustion - Industrial	23,032	23,271	23,421	23,656	23,973	
03	Fuel Combustion - Other	3,091	2,922	2,796	2,597	2,481	
04	Chemical and Allied Prod. Mfg	58,601	61,893	64,124	65,595	66,279	
05	Metals Processing	101	109	100	104	89	
06	Petro. & Related Industries	653	604	583	604	610	
07	Other Industrial Processes	12,531	12,794	12,667	12,672	12,804	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	40,971	43,291	44,876	45,917	46,398	
10	Waste Disposal & Recycling	3,135	2,986	2,835	2,678	2,567	
11	Highway Vehicles	197,335	203,604	171,710	163,473	155,630	
12	Off-Highway	60,006	59,598	57,619	56,650	55,618	
14	Miscellaneous	25,377	39,096	31,999	32,998	26,149	
	<b>Total</b>	<b>426,849</b>	<b>452,498</b>	<b>414,852</b>	<b>409,435</b>	<b>394,968</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	34,032	42,537	42,729	41,949	41,383	
02	Fuel Combustion - Industrial	36,638	38,300	35,307	37,347	37,960	
03	Fuel Combustion - Other	3,276	2,107	3,958	623	131	
04	Chemical and Allied Prod. Mfg	29,207	29,072	29,235	30,065	30,380	
05	Metals Processing	820	879	804	834	858	
06	Petro. & Related Industries	773	716	691	715	723	
07	Other Industrial Processes	2,363	2,382	2,363	2,367	2,398	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	921	974	1,009	1,033	1,043	
10	Waste Disposal & Recycling	75	76	76	76	75	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	4,640	4,923	5,044	5,166	5,299	
14	Miscellaneous	7	7	7	7	7	
	<b>Total</b>	<b>112,752</b>	<b>121,971</b>	<b>121,221</b>	<b>120,182</b>	<b>120,257</b>	

**Table V-4**  
**Beaumont-Port Arthur Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
VOC							
	01	Fuel Comb. - Electric Utilities	76	71	84	73	79
	02	Fuel Combustion - Industrial	133,859	96,300	93,503	93,217	96,034
	03	Fuel Combustion - Other	114	109	105	100	96
	04	Chemical and Allied Prod. Mfg	74,690	85,541	83,052	82,741	85,234
	06	Petro. & Related Industries	60,574	56,013	55,128	56,179	57,189
	07	Other Industrial Processes	3,180	3,286	3,289	3,293	3,346
	08	Solvent Utilization	6,047	6,186	6,228	6,346	6,458
	09	Storage and Transport	41,833	41,710	40,980	41,438	42,491
	10	Waste Disposal & Recycling	7,130	7,418	7,382	7,437	7,493
	11	Highway Vehicles	17,940	17,423	15,050	14,149	13,610
	12	Off-Highway	5,511	5,462	5,358	5,299	5,242
	14	Miscellaneous	204	204	204	204	204
		Total	351,159	319,724	310,361	310,477	317,478
NOx							
	01	Fuel Comb. - Electric Utilities	15,449	14,209	17,860	14,795	15,970
	02	Fuel Combustion - Industrial	59,387	59,853	58,850	59,725	61,673
	03	Fuel Combustion - Other	942	931	949	894	893
	04	Chemical and Allied Prod. Mfg	17,030	19,481	18,933	18,858	19,428
	06	Petro. & Related Industries	3,939	3,604	3,537	3,615	3,724
	07	Other Industrial Processes	707	718	713	712	726
	08	Solvent Utilization	0	0	0	0	0
	09	Storage and Transport	47	53	52	52	53
	10	Waste Disposal & Recycling	499	557	542	538	551
	11	Highway Vehicles	15,199	15,324	14,634	14,431	13,958
	12	Off-Highway	9,415	9,660	9,739	9,939	10,155
	14	Miscellaneous	45	45	45	45	45
		Total	122,658	124,434	125,853	123,604	127,176
CO							
	01	Fuel Comb. - Electric Utilities	1,682	1,599	1,953	1,710	1,846
	02	Fuel Combustion - Industrial	8,695	8,581	8,488	8,636	8,914
	03	Fuel Combustion - Other	1,517	1,464	1,417	1,369	1,334
	04	Chemical and Allied Prod. Mfg	39,862	45,707	44,375	44,203	45,536
	06	Petro. & Related Industries	322	294	288	295	304
	07	Other Industrial Processes	9,838	10,093	10,093	10,162	10,467
	08	Solvent Utilization	0	0	0	0	0
	09	Storage and Transport	0	0	0	0	0
	10	Waste Disposal & Recycling	2,047	1,982	1,915	1,856	1,806
	11	Highway Vehicles	134,480	133,351	120,369	116,498	112,365
	12	Off-Highway	37,295	37,178	36,449	36,091	35,738
	14	Miscellaneous	1,410	1,410	1,410	1,410	1,410
		Total	237,148	241,658	226,756	222,229	219,719
SO2							
	01	Fuel Comb. - Electric Utilities	100	56	39	28	28
	02	Fuel Combustion - Industrial	34,277	30,683	29,972	30,494	31,262
	03	Fuel Combustion - Other	801	606	515	201	116
	04	Chemical and Allied Prod. Mfg	4,322	4,515	4,402	4,429	4,563
	06	Petro. & Related Industries	12,051	10,823	10,632	10,898	11,229
	07	Other Industrial Processes	2,367	2,427	2,426	2,442	2,513
	08	Solvent Utilization	0	0	0	0	0
	09	Storage and Transport	657	748	726	724	745
	10	Waste Disposal & Recycling	1,855	2,124	2,063	2,055	2,116
	11	Highway Vehicles	0	0	0	0	0
	12	Off-Highway	5,307	5,631	5,771	5,911	6,058
	14	Miscellaneous	1	1	1	1	1
		Total	61,738	57,614	56,545	57,182	58,633

**Table V-5**  
**Boston-Lawrence-Worcester-E.MA Tier 1 Emission Totals\***

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	1,004	1,079	1,075	894	901	
02	Fuel Combustion - Industrial	190	183	182	182	179	
03	Fuel Combustion - Other	5,741	5,597	5,410	5,175	5,066	
04	Chemical and Allied Prod. Mfg	3,242	3,306	3,348	3,197	3,074	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	721	760	720	629	605	
07	Other Industrial Processes	2,346	2,398	2,284	2,255	2,170	
08	Solvent Utilization	138,414	144,274	141,452	138,649	136,829	
09	Storage and Transport	25,492	26,407	24,577	23,694	23,113	
10	Waste Disposal & Recycling	4,188	4,211	4,094	3,926	3,793	
11	Highway Vehicles	134,325	136,450	114,017	112,276	109,655	
12	Off-Highway	48,474	48,046	46,058	43,612	42,031	
14	Miscellaneous	973	973	973	973	973	
	<b>Total</b>	<b>365,109</b>	<b>373,683</b>	<b>344,190</b>	<b>335,463</b>	<b>328,387</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	73,353	74,197	80,715	71,580	70,093	
02	Fuel Combustion - Industrial	12,010	11,168	10,837	10,704	10,389	
03	Fuel Combustion - Other	15,053	15,928	16,086	16,359	16,906	
04	Chemical and Allied Prod. Mfg	19	19	20	19	18	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	35	38	34	31	29	
07	Other Industrial Processes	446	480	459	431	413	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	1,826	2,001	2,059	2,083	2,026	
11	Highway Vehicles	126,624	129,026	124,286	126,182	124,936	
12	Off-Highway	45,509	48,179	45,534	41,634	38,199	
14	Miscellaneous	123	123	123	123	123	
	<b>Total</b>	<b>274,998</b>	<b>281,158</b>	<b>280,152</b>	<b>269,145</b>	<b>263,132</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	4,710	4,675	5,191	4,595	4,335	
02	Fuel Combustion - Industrial	1,712	1,619	1,617	1,608	1,585	
03	Fuel Combustion - Other	73,527	71,475	68,962	65,856	64,304	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	127	127	121	114	108	
06	Petro. & Related Industries	49	52	48	43	41	
07	Other Industrial Processes	140	150	145	138	132	
08	Solvent Utilization	31	32	35	33	31	
09	Storage and Transport	29	31	32	30	28	
10	Waste Disposal & Recycling	30,810	30,797	30,121	29,173	28,393	
11	Highway Vehicles	1,199,106	1,222,759	1,103,706	1,115,399	1,100,244	
12	Off-Highway	296,805	295,962	284,023	268,430	257,758	
14	Miscellaneous	5,295	5,295	5,295	5,295	5,295	
	<b>Total</b>	<b>1,612,341</b>	<b>1,632,974</b>	<b>1,499,297</b>	<b>1,490,712</b>	<b>1,462,253</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	233,355	247,222	253,983	220,451	226,806	
02	Fuel Combustion - Industrial	21,423	19,424	17,754	17,177	16,184	
03	Fuel Combustion - Other	17,086	18,732	17,832	18,021	18,593	
04	Chemical and Allied Prod. Mfg	283	297	319	305	293	
05	Metals Processing	1	1	1	1	1	
06	Petro. & Related Industries	78	85	76	68	65	
07	Other Industrial Processes	800	831	777	723	691	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	2,035	2,253	2,332	2,372	2,306	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	1,113	1,174	1,193	1,221	1,277	
14	Miscellaneous	0	0	0	0	0	
	<b>Total</b>	<b>276,173</b>	<b>290,019</b>	<b>294,266</b>	<b>260,338</b>	<b>266,216</b>	

\* Nonattainment area contains counties in more than one state.  
Emission totals are for all counties in nonattainment area.

**Table V-6**  
**Chicago-Gary-Lake County Tier 1 Emission Totals\***

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	446	364	308	333	394	
02	Fuel Combustion - Industrial	1,297	1,326	1,305	1,301	1,274	
03	Fuel Combustion - Other	892	898	834	810	792	
04	Chemical and Allied Prod. Mfg	19,575	20,412	20,428	21,101	20,928	
05	Metals Processing	8,763	9,203	9,402	9,075	8,688	
06	Petro. & Related Industries	28,486	28,932	29,488	29,540	29,666	
07	Other Industrial Processes	5,658	5,699	5,479	5,585	5,497	
08	Solvent Utilization	208,852	215,008	212,845	213,948	212,653	
09	Storage and Transport	39,980	41,413	38,089	37,920	37,933	
10	Waste Disposal & Recycling	13,434	13,658	13,363	13,105	12,665	
11	Highway Vehicles	202,960	199,518	177,338	164,329	160,364	
12	Off-Highway	43,955	43,826	42,995	41,970	40,607	
14	Miscellaneous	1,715	1,715	1,715	1,715	1,715	
	<b>Total</b>	<b>576,012</b>	<b>581,970</b>	<b>553,588</b>	<b>540,733</b>	<b>533,177</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	99,663	89,132	74,798	81,500	88,962	
02	Fuel Combustion - Industrial	82,116	84,822	86,057	84,297	82,496	
03	Fuel Combustion - Other	23,289	25,751	25,967	25,561	25,915	
04	Chemical and Allied Prod. Mfg	1,876	1,932	1,855	1,926	1,910	
05	Metals Processing	13,055	13,702	14,034	13,549	12,982	
06	Petro. & Related Industries	3,087	3,067	3,157	3,014	3,011	
07	Other Industrial Processes	3,314	3,071	3,002	2,971	2,841	
08	Solvent Utilization	215	220	214	219	216	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	1,332	1,325	1,295	1,296	1,261	
11	Highway Vehicles	178,981	185,925	181,482	181,631	179,347	
12	Off-Highway	70,470	73,591	75,568	75,969	74,974	
14	Miscellaneous	216	216	216	216	216	
	<b>Total</b>	<b>477,614</b>	<b>482,755</b>	<b>467,645</b>	<b>472,150</b>	<b>474,131</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	3,270	2,792	2,394	2,613	3,048	
02	Fuel Combustion - Industrial	13,404	13,870	14,239	13,880	13,575	
03	Fuel Combustion - Other	13,262	13,615	13,289	12,912	12,780	
04	Chemical and Allied Prod. Mfg	24,689	26,088	26,143	27,118	26,916	
05	Metals Processing	526,162	550,590	567,393	548,184	525,844	
06	Petro. & Related Industries	3,721	3,646	4,114	3,653	3,675	
07	Other Industrial Processes	9,062	8,258	8,249	8,253	7,920	
08	Solvent Utilization	205	215	211	208	207	
09	Storage and Transport	4,864	5,078	5,252	5,079	4,874	
10	Waste Disposal & Recycling	38,951	37,560	36,039	34,508	33,362	
11	Highway Vehicles	1,740,535	1,709,700	1,565,441	1,502,143	1,470,809	
12	Off-Highway	325,445	329,205	323,121	316,190	304,964	
14	Miscellaneous	9,329	9,329	9,329	9,329	9,329	
	<b>Total</b>	<b>2,712,899</b>	<b>2,709,945</b>	<b>2,575,212</b>	<b>2,484,069</b>	<b>2,417,303</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	132,635	130,444	107,122	116,278	92,663	
02	Fuel Combustion - Industrial	98,539	101,945	102,264	101,621	100,454	
03	Fuel Combustion - Other	6,948	6,481	4,939	4,659	4,522	
04	Chemical and Allied Prod. Mfg	19,770	19,879	19,051	19,381	19,277	
05	Metals Processing	35,099	36,749	37,847	36,496	35,004	
06	Petro. & Related Industries	43,333	43,539	41,364	42,105	41,822	
07	Other Industrial Processes	4,645	4,218	4,012	3,970	3,779	
08	Solvent Utilization	19	19	18	18	18	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	683	687	677	695	678	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	2,711	2,863	2,912	2,977	3,133	
14	Miscellaneous	0	0	0	0	0	
	<b>Total</b>	<b>344,380</b>	<b>346,823</b>	<b>320,205</b>	<b>328,200</b>	<b>301,349</b>	

\* Nonattainment area contains counties in more than one state.  
Emission totals are for all counties in nonattainment area.

**Table V-7**  
**El Paso Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
VOC							
01	Fuel Comb. - Electric Utilities	7	7	9	8	6	
02	Fuel Combustion - Industrial	173	183	187	195	203	
03	Fuel Combustion - Other	29	25	23	21	20	
04	Chemical and Allied Prod. Mfg	22	25	24	24	25	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	2,909	2,662	2,619	2,674	2,732	
07	Other Industrial Processes	101	101	99	98	101	
08	Solvent Utilization	9,559	9,804	9,859	10,028	10,205	
09	Storage and Transport	2,890	2,828	2,622	2,617	2,644	
10	Waste Disposal & Recycling	542	531	515	502	492	
11	Highway Vehicles	17,558	16,812	14,363	13,508	12,862	
12	Off-Highway	4,321	4,295	4,210	4,167	4,112	
14	Miscellaneous	81	81	81	81	81	
	Total	38,190	37,353	34,610	33,923	33,482	
NOx							
01	Fuel Comb. - Electric Utilities	2,146	2,314	2,747	2,458	1,987	
02	Fuel Combustion - Industrial	13,820	14,704	15,155	15,747	16,492	
03	Fuel Combustion - Other	983	913	924	854	852	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	45	50	49	51	50	
06	Petro. & Related Industries	818	734	721	739	761	
07	Other Industrial Processes	1	1	1	1	1	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	93	90	88	86	85	
11	Highway Vehicles	13,638	13,712	13,071	12,879	12,445	
12	Off-Highway	7,732	7,886	7,910	8,052	8,260	
14	Miscellaneous	10	10	10	10	10	
	Total	39,285	40,413	40,677	40,876	40,944	
CO							
01	Fuel Comb. - Electric Utilities	155	167	199	178	143	
02	Fuel Combustion - Industrial	1,980	2,091	2,147	2,235	2,342	
03	Fuel Combustion - Other	365	344	339	327	323	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	31	34	34	35	35	
06	Petro. & Related Industries	817	733	720	738	761	
07	Other Industrial Processes	1	1	1	1	1	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	2,115	2,048	1,978	1,917	1,865	
11	Highway Vehicles	130,086	125,635	111,609	106,685	101,678	
12	Off-Highway	37,515	37,679	37,056	36,839	36,558	
14	Miscellaneous	439	439	439	439	439	
	Total	173,504	169,170	154,521	149,392	144,145	
SO2							
01	Fuel Comb. - Electric Utilities	2	3	9	3	2	
02	Fuel Combustion - Industrial	5,597	4,654	4,379	4,198	4,048	
03	Fuel Combustion - Other	1,091	808	680	287	178	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	18,688	20,586	20,370	20,935	20,828	
06	Petro. & Related Industries	3,556	3,191	3,134	3,211	3,308	
07	Other Industrial Processes	2	2	2	2	2	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	31	30	30	30	30	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	265	279	283	289	303	
14	Miscellaneous	0	0	0	0	0	
	Total	29,233	29,552	28,886	28,954	28,699	

**Table V-8**  
**Greater Connecticut Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	307	397	414	301	267	
02	Fuel Combustion - Industrial	253	222	196	194	200	
03	Fuel Combustion - Other	7,161	6,980	6,743	6,483	6,355	
04	Chemical and Allied Prod. Mfg	4,278	4,166	4,199	4,411	4,479	
06	Petro. & Related Industries	6	9	9	8	7	
07	Other Industrial Processes	1,336	1,317	1,267	1,238	1,245	
08	Solvent Utilization	46,267	48,000	47,533	47,191	47,562	
09	Storage and Transport	10,714	11,095	10,166	9,922	9,863	
10	Waste Disposal & Recycling	7,355	7,247	6,991	6,774	6,565	
11	Highway Vehicles	61,417	61,178	50,555	49,346	47,996	
12	Off-Highway	21,184	20,924	20,070	19,111	18,478	
14	Miscellaneous	534	534	534	534	534	
	<b>Total</b>	<b>160,813</b>	<b>162,068</b>	<b>148,677</b>	<b>145,512</b>	<b>143,551</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	10,966	13,907	14,580	11,061	9,457	
02	Fuel Combustion - Industrial	4,869	4,965	4,691	4,911	4,971	
03	Fuel Combustion - Other	10,336	10,814	11,294	11,625	12,020	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	107	108	102	93	91	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	578	563	548	531	517	
11	Highway Vehicles	61,972	62,216	60,081	60,650	59,812	
12	Off-Highway	17,351	18,669	17,623	15,700	14,024	
14	Miscellaneous	67	67	67	67	67	
	<b>Total</b>	<b>106,246</b>	<b>111,309</b>	<b>108,986</b>	<b>104,639</b>	<b>100,959</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	1,199	1,412	1,502	1,141	1,009	
02	Fuel Combustion - Industrial	725	721	693	731	747	
03	Fuel Combustion - Other	91,754	89,099	85,714	82,001	80,099	
04	Chemical and Allied Prod. Mfg	4	4	4	4	4	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	53	53	50	46	45	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	16,313	15,862	15,284	14,635	14,269	
11	Highway Vehicles	521,133	525,286	474,325	473,949	467,150	
12	Off-Highway	126,234	125,097	120,202	114,839	110,851	
14	Miscellaneous	2,907	2,907	2,907	2,907	2,907	
	<b>Total</b>	<b>760,323</b>	<b>760,441</b>	<b>700,681</b>	<b>690,253</b>	<b>677,080</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	26,625	35,968	38,382	28,875	24,799	
02	Fuel Combustion - Industrial	8,074	7,861	7,814	8,111	8,166	
03	Fuel Combustion - Other	9,986	10,662	11,370	11,831	12,364	
04	Chemical and Allied Prod. Mfg	1	1	1	1	1	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	71	72	67	56	54	
08	Solvent Utilization	1	1	1	1	1	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	146	145	144	142	138	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	88	92	92	95	100	
14	Miscellaneous	0	0	0	0	0	
	<b>Total</b>	<b>44,991</b>	<b>54,801</b>	<b>57,870</b>	<b>49,111</b>	<b>45,623</b>	

**Table V-9**  
**Houston-Galveston-Brazoria Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	508	513	547	545	533	
02	Fuel Combustion - Industrial	97,161	63,216	61,527	61,469	63,387	
03	Fuel Combustion - Other	494	463	435	406	394	
04	Chemical and Allied Prod. Mfg	345,844	394,176	382,855	381,474	393,020	
05	Metals Processing	190	209	206	212	211	
06	Petro. & Related Industries	111,549	104,748	102,906	105,305	107,369	
07	Other Industrial Processes	11,261	11,240	11,033	10,870	10,985	
08	Solvent Utilization	60,234	61,792	62,260	63,615	64,793	
09	Storage and Transport	75,235	79,687	76,315	76,237	77,889	
10	Waste Disposal & Recycling	432,762	452,449	450,913	455,175	459,510	
11	Highway Vehicles	152,580	146,543	125,487	117,947	112,601	
12	Off-Highway	51,999	51,206	49,998	49,285	48,566	
14	Miscellaneous	646	646	646	646	646	
	Total	1,340,463	1,366,887	1,325,127	1,323,187	1,339,904	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	118,123	114,803	119,401	120,424	118,231	
02	Fuel Combustion - Industrial	306,549	333,237	338,434	346,825	360,309	
03	Fuel Combustion - Other	7,482	6,969	6,857	6,105	6,035	
04	Chemical and Allied Prod. Mfg	13,304	15,170	14,733	14,685	15,127	
05	Metals Processing	92	102	101	103	103	
06	Petro. & Related Industries	14,221	13,716	13,327	14,052	14,647	
07	Other Industrial Processes	1,835	1,819	1,753	1,734	1,771	
08	Solvent Utilization	2	2	2	2	2	
09	Storage and Transport	387	415	408	413	420	
10	Waste Disposal & Recycling	1,747	1,900	1,847	1,832	1,862	
11	Highway Vehicles	129,977	130,695	124,546	122,638	118,473	
12	Off-Highway	71,555	72,524	72,666	74,067	75,560	
14	Miscellaneous	104	104	104	104	104	
	Total	665,379	691,455	694,180	702,984	712,644	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	8,833	8,995	9,201	9,414	9,161	
02	Fuel Combustion - Industrial	49,441	53,811	54,115	55,300	57,463	
03	Fuel Combustion - Other	5,939	5,702	5,468	5,292	5,187	
04	Chemical and Allied Prod. Mfg	148,429	169,882	164,944	164,336	169,294	
05	Metals Processing	7	8	8	8	8	
06	Petro. & Related Industries	25,043	22,589	22,175	22,773	23,483	
07	Other Industrial Processes	974	1,000	996	998	1,023	
08	Solvent Utilization	10	10	10	10	10	
09	Storage and Transport	31	35	34	34	35	
10	Waste Disposal & Recycling	14,678	14,535	14,050	13,668	13,417	
11	Highway Vehicles	1,126,100	1,095,509	976,821	936,954	896,339	
12	Off-Highway	377,544	375,981	368,352	364,594	360,822	
14	Miscellaneous	3,879	3,879	3,879	3,879	3,879	
	Total	1,760,909	1,751,936	1,620,053	1,577,260	1,540,119	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	48,404	46,877	56,297	55,021	55,328	
02	Fuel Combustion - Industrial	66,153	64,553	61,684	60,735	61,275	
03	Fuel Combustion - Other	10,882	8,304	7,042	2,713	1,559	
04	Chemical and Allied Prod. Mfg	40,611	45,679	44,384	44,303	45,639	
05	Metals Processing	1,036	1,141	1,129	1,160	1,154	
06	Petro. & Related Industries	27,813	24,988	24,548	25,147	25,905	
07	Other Industrial Processes	7,252	7,026	6,376	6,234	6,501	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	1,268	1,453	1,411	1,406	1,448	
10	Waste Disposal & Recycling	4,757	5,346	5,197	5,187	5,339	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	15,570	16,510	16,910	17,319	17,786	
14	Miscellaneous	2	2	2	2	2	
	Total	223,747	221,878	224,980	219,226	221,936	

**Table V-10**  
**Los Angeles-South Coast Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	272	285	354	222	166	
02	Fuel Combustion - Industrial	2,115	2,220	2,197	2,208	2,213	
03	Fuel Combustion - Other	1,403	1,439	1,463	1,494	1,519	
04	Chemical and Allied Prod. Mfg	4,073	4,689	4,623	4,581	4,564	
05	Metals Processing	100	102	99	99	94	
06	Petro. & Related Industries	41,489	41,315	40,459	39,368	39,581	
07	Other Industrial Processes	7,590	7,609	7,623	7,651	7,584	
08	Solvent Utilization	220,314	230,381	234,980	237,915	239,971	
09	Storage and Transport	27,757	28,965	28,188	28,618	28,787	
10	Waste Disposal & Recycling	14,353	14,389	14,216	13,975	13,725	
11	Highway Vehicles	274,232	278,823	266,690	266,302	265,174	
12	Off-Highway	75,776	76,189	75,570	74,247	72,422	
14	Miscellaneous	3,388	3,703	3,689	3,660	3,635	
	Total	672,863	690,108	680,155	680,339	679,435	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	48,831	38,281	41,495	31,137	32,810	
02	Fuel Combustion - Industrial	54,792	53,454	55,173	57,041	58,584	
03	Fuel Combustion - Other	19,689	20,419	20,990	21,784	22,449	
04	Chemical and Allied Prod. Mfg	733	842	830	821	819	
05	Metals Processing	183	194	192	178	169	
06	Petro. & Related Industries	3,335	3,462	3,386	3,348	3,336	
07	Other Industrial Processes	3,765	3,892	3,977	3,885	3,698	
08	Solvent Utilization	11	11	11	11	10	
09	Storage and Transport	59	68	67	67	66	
10	Waste Disposal & Recycling	1,396	1,392	1,371	1,356	1,343	
11	Highway Vehicles	306,187	315,476	316,931	325,271	327,456	
12	Off-Highway	100,039	104,847	106,823	106,079	101,193	
14	Miscellaneous	473	473	473	473	473	
	Total	539,494	542,812	551,719	551,450	552,405	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	5,236	4,298	4,613	3,648	3,642	
02	Fuel Combustion - Industrial	12,281	12,110	12,411	12,799	12,997	
03	Fuel Combustion - Other	15,636	15,887	16,008	16,053	16,113	
04	Chemical and Allied Prod. Mfg	199	229	225	223	222	
05	Metals Processing	1,006	1,069	1,056	978	929	
06	Petro. & Related Industries	890	924	904	894	890	
07	Other Industrial Processes	92	92	91	89	87	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	38	43	43	42	42	
10	Waste Disposal & Recycling	90,015	88,896	87,270	85,265	84,461	
11	Highway Vehicles	2,214,289	2,264,104	2,232,946	2,272,186	2,302,390	
12	Off-Highway	678,038	682,843	677,716	665,796	647,562	
14	Miscellaneous	18,514	18,514	18,516	18,513	18,508	
	Total	3,036,234	3,089,008	3,051,799	3,076,485	3,087,843	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	1,137	2,551	3,896	1,349	107	
02	Fuel Combustion - Industrial	6,928	7,360	7,827	7,918	8,248	
03	Fuel Combustion - Other	3,792	3,565	3,130	3,918	4,151	
04	Chemical and Allied Prod. Mfg	2,018	2,201	2,161	2,139	2,131	
05	Metals Processing	7	8	7	7	7	
06	Petro. & Related Industries	8,871	9,254	9,034	8,950	8,911	
07	Other Industrial Processes	945	979	1,001	978	930	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	1	1	1	1	1	
10	Waste Disposal & Recycling	553	559	553	558	552	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	30,631	32,477	33,267	34,073	34,958	
14	Miscellaneous	9	9	9	9	9	
	Total	54,892	58,963	60,886	59,897	60,002	

**Table V-11**  
**Milwaukee-Racine Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	250	256	261	244	252	
02	Fuel Combustion - Industrial	489	488	519	523	513	
03	Fuel Combustion - Other	321	327	315	301	292	
04	Chemical and Allied Prod. Mfg	2,743	2,860	2,923	2,924	2,910	
05	Metals Processing	28	31	31	30	30	
06	Petro. & Related Industries	3	4	4	4	4	
07	Other Industrial Processes	1,229	1,280	1,292	1,304	1,296	
08	Solvent Utilization	49,049	51,228	51,881	52,467	52,816	
09	Storage and Transport	6,795	7,129	6,534	6,540	6,602	
10	Waste Disposal & Recycling	6,693	6,671	6,489	6,335	6,196	
11	Highway Vehicles	48,124	55,411	42,560	39,278	38,623	
12	Off-Highway	13,507	13,309	13,157	12,774	12,376	
14	Miscellaneous	380	380	380	380	380	
	Total	129,611	139,374	126,345	123,103	122,289	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	55,098	56,746	56,328	52,739	54,872	
02	Fuel Combustion - Industrial	3,688	3,946	4,103	4,146	4,256	
03	Fuel Combustion - Other	4,883	5,627	5,798	5,573	5,593	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	162	176	176	174	170	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	708	690	695	713	699	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	1,326	1,340	1,342	1,346	1,351	
11	Highway Vehicles	52,925	54,160	53,454	53,428	52,699	
12	Off-Highway	13,472	13,734	14,821	14,769	14,376	
14	Miscellaneous	48	48	48	48	48	
	Total	132,309	136,467	136,764	132,936	134,065	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	2,150	2,197	2,242	2,101	2,169	
02	Fuel Combustion - Industrial	762	816	848	857	880	
03	Fuel Combustion - Other	4,271	4,332	4,239	4,084	4,005	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	994	1,109	1,106	1,081	1,055	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	127	131	142	145	143	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	28,923	28,325	27,468	26,638	26,018	
11	Highway Vehicles	402,999	471,730	383,389	375,310	371,932	
12	Off-Highway	81,629	81,733	80,853	79,073	76,905	
14	Miscellaneous	2,067	2,067	2,067	2,067	2,067	
	Total	523,923	592,440	502,354	491,356	485,173	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	108,585	105,258	107,174	102,379	110,736	
02	Fuel Combustion - Industrial	217	230	227	228	228	
03	Fuel Combustion - Other	2,398	2,782	2,872	2,570	2,360	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	32	36	36	36	35	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	275	262	256	263	257	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	532	550	563	578	591	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	538	569	580	594	619	
14	Miscellaneous	0	0	0	0	0	
	Total	112,577	109,686	111,708	106,648	114,825	

**Table V-12**  
**New York-N New Jersey-Long Is Tier 1 Emission Totals\***

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	2,147	2,469	2,615	2,247	2,000	
02	Fuel Combustion - Industrial	3,638	2,703	2,605	2,469	2,375	
03	Fuel Combustion - Other	11,374	11,098	10,528	10,243	10,067	
04	Chemical and Allied Prod. Mfg	32,108	34,560	34,216	35,272	34,599	
05	Metals Processing	13	14	13	12	11	
06	Petro. & Related Industries	7,580	7,593	8,273	6,924	7,769	
07	Other Industrial Processes	16,830	16,588	15,929	15,300	14,782	
08	Solvent Utilization	316,585	326,375	323,259	318,764	317,669	
09	Storage and Transport	103,723	105,319	100,450	98,698	95,821	
10	Waste Disposal & Recycling	38,460	38,687	37,321	35,828	34,523	
11	Highway Vehicles	379,444	351,338	302,702	288,538	278,017	
12	Off-Highway	89,709	89,214	86,017	82,568	79,426	
14	Miscellaneous	4,061	4,061	4,061	4,061	4,061	
	Total	1,005,671	990,016	927,989	900,924	881,121	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	128,461	136,134	147,915	143,757	130,148	
02	Fuel Combustion - Industrial	24,310	24,005	24,637	24,521	24,502	
03	Fuel Combustion - Other	74,164	76,254	71,891	74,629	76,486	
04	Chemical and Allied Prod. Mfg	11,176	12,156	12,096	12,403	12,183	
05	Metals Processing	1,854	1,875	1,786	1,693	1,562	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	2,872	2,874	2,781	2,602	2,491	
08	Solvent Utilization	5	5	5	5	5	
09	Storage and Transport	60	64	64	66	66	
10	Waste Disposal & Recycling	6,422	6,618	6,711	6,765	6,646	
11	Highway Vehicles	353,277	336,618	331,382	330,087	322,218	
12	Off-Highway	97,409	102,230	100,633	96,483	90,388	
14	Miscellaneous	527	527	527	527	527	
	Total	700,537	699,359	700,427	693,538	667,223	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	11,626	12,206	13,094	12,793	11,635	
02	Fuel Combustion - Industrial	6,329	6,051	6,077	6,011	5,872	
03	Fuel Combustion - Other	131,089	127,438	122,302	117,790	115,303	
04	Chemical and Allied Prod. Mfg	1,806	2,087	2,074	2,086	2,040	
05	Metals Processing	998	1,020	936	864	812	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	146	143	138	133	129	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	64,656	63,465	61,610	59,522	57,991	
11	Highway Vehicles	3,067,922	2,910,140	2,706,720	2,665,182	2,613,258	
12	Off-Highway	720,038	721,820	696,614	668,722	641,319	
14	Miscellaneous	22,310	22,310	22,310	22,310	22,310	
	Total	4,026,919	3,866,679	3,631,876	3,555,412	3,470,668	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	233,252	205,682	221,841	198,787	182,747	
02	Fuel Combustion - Industrial	14,405	14,864	14,948	14,738	14,583	
03	Fuel Combustion - Other	77,680	77,720	65,691	67,932	68,542	
04	Chemical and Allied Prod. Mfg	4,647	5,078	5,063	5,192	5,105	
05	Metals Processing	190	144	137	125	116	
06	Petro. & Related Industries	295	289	291	300	296	
07	Other Industrial Processes	1,011	995	943	875	819	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	4	4	4	5	5	
10	Waste Disposal & Recycling	3,402	3,580	3,707	3,802	3,742	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	14,075	14,921	15,267	15,642	16,053	
14	Miscellaneous	1	1	1	1	1	
	Total	348,961	323,278	327,893	307,399	292,008	

\* Nonattainment area contains counties in more than one state.  
Emission totals are for all counties in nonattainment area.

**Table V-13**  
**Philadelphia-Wilmington-Trenton Tier 1 Emission Totals\***

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	383	442	465	293	265	
02	Fuel Combustion - Industrial	427	418	425	437	441	
03	Fuel Combustion - Other	7,256	7,055	6,808	6,547	6,404	
04	Chemical and Allied Prod. Mfg	31,224	33,795	33,817	34,885	34,508	
05	Metals Processing	5,246	5,657	5,648	5,793	5,690	
06	Petro. & Related Industries	33,193	32,427	33,319	31,830	33,288	
07	Other Industrial Processes	4,685	4,699	4,636	4,479	4,379	
08	Solvent Utilization	163,774	170,813	170,460	172,986	172,166	
09	Storage and Transport	46,126	47,019	45,293	45,880	45,412	
10	Waste Disposal & Recycling	52,241	53,276	51,556	49,599	47,622	
11	Highway Vehicles	150,425	149,463	126,528	121,601	117,459	
12	Off-Highway	48,873	48,331	46,992	45,263	43,515	
14	Miscellaneous	1,530	1,532	1,532	1,531	1,531	
	Total	545,382	554,925	527,478	521,123	512,680	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	48,769	52,235	56,334	39,887	35,944	
02	Fuel Combustion - Industrial	41,800	41,677	42,193	42,711	42,639	
03	Fuel Combustion - Other	19,210	19,963	20,385	20,780	21,468	
04	Chemical and Allied Prod. Mfg	1,484	1,603	1,599	1,646	1,620	
05	Metals Processing	699	725	724	702	664	
06	Petro. & Related Industries	3,282	3,250	3,177	3,252	3,250	
07	Other Industrial Processes	2,078	2,062	1,972	1,839	1,728	
08	Solvent Utilization	2	2	2	2	2	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	2,978	3,096	3,118	3,168	3,136	
11	Highway Vehicles	139,356	141,053	138,053	139,757	138,254	
12	Off-Highway	44,528	47,037	47,611	46,484	43,212	
14	Miscellaneous	226	226	226	226	226	
	Total	304,412	312,929	315,395	300,452	292,144	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	2,329	2,462	2,664	1,856	1,712	
02	Fuel Combustion - Industrial	5,412	5,330	5,424	5,530	5,541	
03	Fuel Combustion - Other	92,800	90,062	86,761	83,385	81,480	
04	Chemical and Allied Prod. Mfg	10,195	10,742	11,088	11,036	11,175	
05	Metals Processing	3,111	3,254	3,291	3,193	3,032	
06	Petro. & Related Industries	35,057	36,684	35,854	35,103	35,456	
07	Other Industrial Processes	196	197	192	182	174	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	14	14	14	14	14	
10	Waste Disposal & Recycling	27,727	27,634	27,100	26,685	26,003	
11	Highway Vehicles	1,188,800	1,222,030	1,104,019	1,101,315	1,086,213	
12	Off-Highway	344,829	342,858	333,815	321,486	309,529	
14	Miscellaneous	8,848	8,856	8,860	8,855	8,849	
	Total	1,719,318	1,750,120	1,619,083	1,598,640	1,569,177	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	57,472	69,282	67,165	48,043	44,277	
02	Fuel Combustion - Industrial	29,511	29,848	29,399	30,030	29,852	
03	Fuel Combustion - Other	18,537	18,146	18,071	18,618	19,327	
04	Chemical and Allied Prod. Mfg	3,778	3,928	3,997	4,026	4,048	
05	Metals Processing	2,641	2,767	2,797	2,722	2,590	
06	Petro. & Related Industries	32,124	33,027	32,431	32,148	32,313	
07	Other Industrial Processes	1,434	1,442	1,392	1,322	1,255	
08	Solvent Utilization	312	333	324	308	293	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	1,938	2,048	2,072	2,121	2,105	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	2,225	2,351	2,398	2,455	2,532	
14	Miscellaneous	2	2	2	2	2	
	Total	149,974	163,174	160,049	141,796	138,593	

\* Nonattainment area contains counties in more than one state.  
Emission totals are for all counties in nonattainment area.

**Table V-14**  
**Portsmouth-Dover-Rochester Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	106	128	133	115	85	
02	Fuel Combustion - Industrial	10	9	10	13	16	
03	Fuel Combustion - Other	1,007	993	976	941	945	
04	Chemical and Allied Prod. Mfg	2	3	3	3	3	
07	Other Industrial Processes	237	270	264	249	241	
08	Solvent Utilization	7,416	7,674	7,665	7,506	7,481	
09	Storage and Transport	2,751	2,857	2,715	2,796	2,808	
10	Waste Disposal & Recycling	631	627	613	588	586	
11	Highway Vehicles	10,677	3,514	3,079	9,547	9,576	
12	Off-Highway	2,290	2,263	2,199	2,052	1,953	
14	Miscellaneous	47	47	47	47	47	
	Total	25,173	18,383	17,703	23,856	23,742	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	5,086	4,874	4,928	5,316	4,516	
02	Fuel Combustion - Industrial	620	656	733	985	1,247	
03	Fuel Combustion - Other	1,128	1,056	1,150	1,248	1,342	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
07	Other Industrial Processes	22	18	16	15	14	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	118	118	117	113	113	
11	Highway Vehicles	10,692	3,172	3,107	11,311	11,488	
12	Off-Highway	862	880	798	681	561	
14	Miscellaneous	6	6	6	6	6	
	Total	18,534	10,781	10,855	19,676	19,287	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	433	533	555	477	335	
02	Fuel Combustion - Industrial	88	91	100	134	170	
03	Fuel Combustion - Other	13,058	12,909	12,621	12,126	12,149	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
07	Other Industrial Processes	0	0	0	0	0	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	2,785	2,762	2,700	2,589	2,589	
11	Highway Vehicles	99,899	32,279	30,077	95,803	96,606	
12	Off-Highway	8,832	8,819	8,553	8,047	7,712	
14	Miscellaneous	257	257	257	257	257	
	Total	125,352	57,650	54,864	119,433	119,819	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	25,533	30,532	33,158	28,335	19,970	
02	Fuel Combustion - Industrial	683	588	603	620	592	
03	Fuel Combustion - Other	1,512	1,406	1,543	1,695	1,820	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
07	Other Industrial Processes	105	83	77	73	67	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	26	27	27	27	27	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	11	11	11	9	8	
14	Miscellaneous	0	0	0	0	0	
	Total	27,870	32,646	35,419	30,759	22,483	

**Table V-15**  
**Providence Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	27	44	23	15	5	
02	Fuel Combustion - Industrial	33	35	25	29	34	
03	Fuel Combustion - Other	1,347	1,320	1,261	1,218	1,195	
04	Chemical and Allied Prod. Mfg	4,661	4,744	4,551	4,419	4,376	
07	Other Industrial Processes	264	262	251	233	229	
08	Solvent Utilization	27,910	28,909	28,935	27,764	27,470	
09	Storage and Transport	4,031	4,125	3,720	3,674	3,559	
10	Waste Disposal & Recycling	1,368	1,349	1,306	1,248	1,202	
11	Highway Vehicles	26,698	26,815	21,788	21,504	20,886	
12	Off-Highway	10,392	10,220	9,844	9,401	9,033	
14	Miscellaneous	213	213	213	213	213	
	<b>Total</b>	<b>76,945</b>	<b>78,034</b>	<b>71,916</b>	<b>69,717</b>	<b>68,202</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	2,488	2,078	1,560	1,966	602	
02	Fuel Combustion - Industrial	1,513	5,145	1,595	2,830	4,315	
03	Fuel Combustion - Other	3,669	3,824	3,716	3,970	4,090	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
07	Other Industrial Processes	315	236	245	234	214	
08	Solvent Utilization	4	4	4	4	4	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	160	156	151	145	142	
11	Highway Vehicles	23,786	23,973	22,556	22,989	22,582	
12	Off-Highway	3,579	3,862	3,766	3,577	2,991	
14	Miscellaneous	27	27	27	27	27	
	<b>Total</b>	<b>35,539</b>	<b>39,303</b>	<b>33,620</b>	<b>35,741</b>	<b>34,968</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	183	155	115	144	44	
02	Fuel Combustion - Industrial	236	693	250	412	606	
03	Fuel Combustion - Other	17,042	16,577	15,913	15,296	14,987	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
07	Other Industrial Processes	7	6	6	5	5	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	6,973	6,772	6,510	6,225	6,079	
11	Highway Vehicles	227,725	230,484	204,516	206,181	202,743	
12	Off-Highway	54,991	54,475	52,754	50,188	47,706	
14	Miscellaneous	1,156	1,156	1,156	1,156	1,156	
	<b>Total</b>	<b>308,314</b>	<b>310,318</b>	<b>281,221</b>	<b>279,608</b>	<b>273,325</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	2,455	4,712	2,392	1,092	363	
02	Fuel Combustion - Industrial	1,704	1,407	987	949	867	
03	Fuel Combustion - Other	3,523	3,768	3,521	3,773	3,830	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
07	Other Industrial Processes	322	241	250	239	219	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	34	34	33	32	32	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	37	39	39	40	42	
14	Miscellaneous	0	0	0	0	0	
	<b>Total</b>	<b>8,074</b>	<b>10,201</b>	<b>7,222</b>	<b>6,125</b>	<b>5,352</b>	

**Table V-16**  
**Sacramento Metro Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
VOC							
	02	Fuel Combustion - Industrial	78	78	80	78	76
	03	Fuel Combustion - Other	1,363	1,349	1,325	1,295	1,285
	04	Chemical and Allied Prod. Mfg	497	515	521	534	532
	06	Petro. & Related Industries	46	48	47	49	48
	07	Other Industrial Processes	468	470	476	479	472
	08	Solvent Utilization	24,259	25,338	25,703	26,061	26,471
	09	Storage and Transport	4,721	4,884	4,786	4,884	4,910
	10	Waste Disposal & Recycling	1,332	1,329	1,312	1,287	1,266
	11	Highway Vehicles	41,381	42,099	40,298	40,257	40,091
	12	Off-Highway	13,541	13,541	13,504	13,134	12,680
	14	Miscellaneous	5,675	5,672	5,803	5,618	5,332
		Total	93,362	95,324	93,855	93,675	93,164
NOx							
	02	Fuel Combustion - Industrial	2,426	2,346	2,462	2,548	2,614
	03	Fuel Combustion - Other	2,343	2,384	2,450	2,490	2,552
	04	Chemical and Allied Prod. Mfg	6	7	7	7	7
	06	Petro. & Related Industries	755	777	767	795	785
	07	Other Industrial Processes	36	36	37	38	37
	08	Solvent Utilization	0	0	0	0	0
	09	Storage and Transport	0	0	0	0	0
	10	Waste Disposal & Recycling	152	152	151	149	148
	11	Highway Vehicles	51,273	52,829	53,046	54,394	54,699
	12	Off-Highway	21,123	21,624	22,230	21,480	19,913
	14	Miscellaneous	1,088	1,087	1,107	1,079	1,035
		Total	79,203	81,242	82,256	82,979	81,789
CO							
	02	Fuel Combustion - Industrial	2,243	2,296	2,339	2,261	2,187
	03	Fuel Combustion - Other	18,450	18,233	17,921	17,501	17,354
	04	Chemical and Allied Prod. Mfg	1	1	1	1	1
	06	Petro. & Related Industries	96	99	97	101	100
	07	Other Industrial Processes	9	9	9	9	9
	08	Solvent Utilization	0	0	0	0	0
	09	Storage and Transport	0	0	0	0	0
	10	Waste Disposal & Recycling	9,590	9,468	9,300	9,083	8,990
	11	Highway Vehicles	346,485	354,671	349,551	355,453	359,602
	12	Off-Highway	84,541	84,777	84,515	82,660	79,809
	14	Miscellaneous	41,409	41,387	42,328	40,996	38,935
		Total	502,824	510,941	506,060	508,065	506,987
SO2							
	02	Fuel Combustion - Industrial	430	444	466	471	480
	03	Fuel Combustion - Other	370	340	297	373	397
	04	Chemical and Allied Prod. Mfg	0	0	0	0	0
	06	Petro. & Related Industries	0	0	0	0	0
	07	Other Industrial Processes	8	8	8	8	8
	08	Solvent Utilization	0	0	0	0	0
	09	Storage and Transport	0	0	0	0	0
	10	Waste Disposal & Recycling	43	43	43	42	42
	11	Highway Vehicles	0	0	0	0	0
	12	Off-Highway	960	1,013	1,033	1,055	1,088
	14	Miscellaneous	23	23	23	23	23
		Total	1,834	1,870	1,869	1,973	2,038

**Table V-17**  
**San Diego Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	47	76	89	63	38	
02	Fuel Combustion - Industrial	97	98	98	101	102	
03	Fuel Combustion - Other	1,071	1,061	1,043	1,022	1,015	
04	Chemical and Allied Prod. Mfg	1,626	1,872	1,846	1,829	1,822	
06	Petro. & Related Industries	24	27	26	27	26	
07	Other Industrial Processes	603	599	597	597	594	
08	Solvent Utilization	37,893	39,563	40,386	41,029	41,503	
09	Storage and Transport	4,345	4,550	4,398	4,468	4,513	
10	Waste Disposal & Recycling	35,876	36,914	36,919	36,411	35,126	
11	Highway Vehicles	59,689	60,598	57,843	57,681	57,400	
12	Off-Highway	26,503	26,461	26,159	25,561	24,994	
14	Miscellaneous	333	333	334	333	330	
	<b>Total</b>	<b>168,108</b>	<b>172,152</b>	<b>169,738</b>	<b>169,121</b>	<b>167,462</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	12,080	10,622	12,890	10,307	10,039	
02	Fuel Combustion - Industrial	2,823	2,640	2,807	2,958	3,078	
03	Fuel Combustion - Other	2,780	2,870	2,950	3,032	3,106	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
06	Petro. & Related Industries	3	3	3	3	3	
07	Other Industrial Processes	24	23	23	22	22	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	190	189	186	182	181	
11	Highway Vehicles	76,050	78,260	78,522	80,489	80,932	
12	Off-Highway	24,115	25,134	25,611	25,225	23,713	
14	Miscellaneous	43	43	43	43	42	
	<b>Total</b>	<b>118,107</b>	<b>119,784</b>	<b>123,034</b>	<b>122,261</b>	<b>121,115</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	936	813	991	799	774	
02	Fuel Combustion - Industrial	948	932	952	991	1,004	
03	Fuel Combustion - Other	14,369	14,209	13,967	13,663	13,559	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
06	Petro. & Related Industries	1	1	1	1	1	
07	Other Industrial Processes	47	46	46	45	44	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	14,381	14,199	13,938	13,614	13,486	
11	Highway Vehicles	478,218	489,056	482,412	490,519	497,143	
12	Off-Highway	182,800	182,853	181,000	177,378	173,089	
14	Miscellaneous	1,861	1,861	1,869	1,857	1,838	
	<b>Total</b>	<b>693,560</b>	<b>703,969</b>	<b>695,175</b>	<b>698,865</b>	<b>700,938</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	390	2,039	2,163	1,499	313	
02	Fuel Combustion - Industrial	439	467	506	516	543	
03	Fuel Combustion - Other	574	532	459	580	610	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
06	Petro. & Related Industries	6	6	6	6	6	
07	Other Industrial Processes	4	4	4	4	4	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	47	47	46	45	45	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	3,776	3,996	4,088	4,181	4,292	
14	Miscellaneous	0	0	0	0	0	
	<b>Total</b>	<b>5,236</b>	<b>7,091</b>	<b>7,272</b>	<b>6,831</b>	<b>5,813</b>	

**Table V-18**  
**San Joaquin Valley Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
02	Fuel Combustion - Industrial	981	1,064	1,046	1,060	1,057	
03	Fuel Combustion - Other	1,505	1,490	1,465	1,432	1,421	
04	Chemical and Allied Prod. Mfg	1,136	1,244	1,241	1,250	1,245	
06	Petro. & Related Industries	8,630	8,786	8,577	8,415	8,421	
07	Other Industrial Processes	8,685	8,687	8,804	8,989	8,946	
08	Solvent Utilization	47,284	50,104	49,619	49,710	51,404	
09	Storage and Transport	11,660	12,056	11,900	12,170	12,181	
10	Waste Disposal & Recycling	9,304	9,512	9,485	9,349	9,059	
11	Highway Vehicles	70,889	72,198	69,201	69,192	68,921	
12	Off-Highway	23,147	23,153	23,110	22,462	21,647	
14	Miscellaneous	7,666	7,663	7,779	7,615	7,361	
	<b>Total</b>	<b>190,885</b>	<b>195,957</b>	<b>192,226</b>	<b>191,643</b>	<b>191,662</b>	
<b>NOx</b>							
02	Fuel Combustion - Industrial	44,175	47,814	46,558	47,739	47,678	
03	Fuel Combustion - Other	4,034	4,093	4,211	4,263	4,353	
04	Chemical and Allied Prod. Mfg	49	57	56	55	55	
06	Petro. & Related Industries	366	380	372	367	366	
07	Other Industrial Processes	7,884	8,161	8,348	8,164	7,767	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	227	225	222	217	215	
11	Highway Vehicles	92,844	95,679	96,054	98,451	98,937	
12	Off-Highway	38,428	39,364	40,509	39,114	36,170	
14	Miscellaneous	1,664	1,663	1,681	1,656	1,617	
	<b>Total</b>	<b>189,671</b>	<b>197,435</b>	<b>198,010</b>	<b>200,026</b>	<b>197,159</b>	
<b>CO</b>							
02	Fuel Combustion - Industrial	7,398	7,918	7,734	7,931	7,925	
03	Fuel Combustion - Other	20,518	20,284	19,952	19,491	19,335	
04	Chemical and Allied Prod. Mfg	13,674	15,750	15,529	15,389	15,330	
06	Petro. & Related Industries	105	108	106	105	105	
07	Other Industrial Processes	1,378	1,426	1,459	1,426	1,356	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	17,220	17,002	16,691	16,301	16,148	
11	Highway Vehicles	611,457	626,533	617,187	627,331	633,697	
12	Off-Highway	143,132	143,571	143,156	139,857	134,908	
14	Miscellaneous	56,823	56,803	57,638	56,457	54,629	
	<b>Total</b>	<b>871,703</b>	<b>889,395</b>	<b>879,452</b>	<b>884,288</b>	<b>883,432</b>	
<b>SO2</b>							
02	Fuel Combustion - Industrial	16,366	18,005	17,503	17,711	17,588	
03	Fuel Combustion - Other	1,006	983	937	1,066	1,101	
04	Chemical and Allied Prod. Mfg	830	956	942	934	930	
06	Petro. & Related Industries	567	589	576	569	567	
07	Other Industrial Processes	2,895	2,998	3,066	2,996	2,848	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	55	55	54	53	53	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	1,895	2,003	2,046	2,091	2,154	
14	Miscellaneous	45	45	45	45	45	
	<b>Total</b>	<b>23,659</b>	<b>25,633</b>	<b>25,170</b>	<b>25,465</b>	<b>25,287</b>	

**Table V-19**  
**Sheyboygan Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	81	76	69	77	84	
02	Fuel Combustion - Industrial	4	5	5	5	5	
03	Fuel Combustion - Other	146	142	137	132	128	
04	Chemical and Allied Prod. Mfg	64	67	68	68	68	
05	Metals Processing	0	0	0	0	0	
07	Other Industrial Processes	101	99	96	93	91	
08	Solvent Utilization	2,901	3,031	3,101	3,122	3,131	
09	Storage and Transport	971	1,015	997	1,010	1,008	
10	Waste Disposal & Recycling	208	203	196	190	185	
11	Highway Vehicles	3,367	3,218	3,066	2,949	2,916	
12	Off-Highway	1,120	1,066	1,103	1,040	969	
14	Miscellaneous	22	22	22	22	22	
	<b>Total</b>	<b>8,985</b>	<b>8,943</b>	<b>8,860</b>	<b>8,707</b>	<b>8,605</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	28,231	27,264	25,712	28,209	31,102	
02	Fuel Combustion - Industrial	466	500	516	519	530	
03	Fuel Combustion - Other	274	314	321	310	311	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	2	2	2	2	2	
07	Other Industrial Processes	1	1	1	1	1	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	121	123	122	121	120	
11	Highway Vehicles	3,063	3,579	3,106	3,122	3,088	
12	Off-Highway	1,263	1,142	1,430	1,296	1,105	
14	Miscellaneous	3	3	3	3	3	
	<b>Total</b>	<b>33,424</b>	<b>32,928</b>	<b>31,213</b>	<b>33,582</b>	<b>36,261</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	693	654	590	656	724	
02	Fuel Combustion - Industrial	93	100	103	104	106	
03	Fuel Combustion - Other	1,939	1,895	1,827	1,758	1,709	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	0	0	0	0	0	
07	Other Industrial Processes	0	0	0	0	0	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	1,751	1,754	1,721	1,691	1,661	
11	Highway Vehicles	30,094	29,896	29,181	28,699	28,439	
12	Off-Highway	5,124	4,946	5,162	4,895	4,573	
14	Miscellaneous	118	118	118	118	118	
	<b>Total</b>	<b>39,812</b>	<b>39,362</b>	<b>38,702</b>	<b>37,921</b>	<b>37,328</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	53,525	50,154	44,400	47,553	52,428	
02	Fuel Combustion - Industrial	79	83	84	84	84	
03	Fuel Combustion - Other	93	112	113	99	89	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	0	0	0	0	0	
07	Other Industrial Processes	4	4	4	3	3	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	70	71	71	71	71	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	20	21	21	22	23	
14	Miscellaneous	0	0	0	0	0	
	<b>Total</b>	<b>53,789</b>	<b>50,445</b>	<b>44,692</b>	<b>47,832</b>	<b>52,697</b>	

**Table V-20**  
**Southeast Dessert Modified Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	27	39	45	32	19	
02	Fuel Combustion - Industrial	298	303	302	312	309	
03	Fuel Combustion - Other	751	745	732	718	713	
04	Chemical and Allied Prod. Mfg	35	41	40	40	40	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	7	8	8	8	8	
07	Other Industrial Processes	1,739	1,786	1,799	1,830	1,820	
08	Solvent Utilization	30,683	31,901	32,552	33,017	33,531	
09	Storage and Transport	4,024	4,192	4,042	4,114	4,171	
10	Waste Disposal & Recycling	4,981	5,079	5,060	4,981	4,833	
11	Highway Vehicles	59,195	60,525	58,210	58,399	58,274	
12	Off-Highway	15,647	15,704	15,558	15,236	14,836	
14	Miscellaneous	1,676	1,676	1,677	1,676	1,675	
	<b>Total</b>	<b>119,064</b>	<b>122,000</b>	<b>120,024</b>	<b>120,361</b>	<b>120,228</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	3,344	3,022	3,331	2,456	2,207	
02	Fuel Combustion - Industrial	17,536	18,134	18,185	18,670	18,656	
03	Fuel Combustion - Other	2,856	2,903	2,979	3,024	3,085	
04	Chemical and Allied Prod. Mfg	843	972	958	949	946	
05	Metals Processing	9	10	9	9	8	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	12,967	13,428	13,700	13,368	12,735	
08	Solvent Utilization	1	1	1	1	1	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	160	159	156	153	151	
11	Highway Vehicles	69,527	71,726	72,088	73,994	74,521	
12	Off-Highway	18,152	18,975	19,309	19,063	17,955	
14	Miscellaneous	330	330	330	330	330	
	<b>Total</b>	<b>125,726</b>	<b>129,659</b>	<b>131,047</b>	<b>132,017</b>	<b>130,595</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	678	625	663	550	521	
02	Fuel Combustion - Industrial	2,299	2,326	2,345	2,407	2,402	
03	Fuel Combustion - Other	10,314	10,206	10,050	9,838	9,769	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	190	202	199	185	175	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	2,261	2,338	2,366	2,301	2,206	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	12,104	11,951	11,732	11,459	11,351	
11	Highway Vehicles	514,151	528,552	521,554	531,443	536,945	
12	Off-Highway	137,163	138,098	137,036	134,523	130,792	
14	Miscellaneous	11,766	11,766	11,769	11,765	11,757	
	<b>Total</b>	<b>690,926</b>	<b>706,063</b>	<b>697,713</b>	<b>704,470</b>	<b>705,920</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	33	394	423	348	14	
02	Fuel Combustion - Industrial	868	946	983	988	1,011	
03	Fuel Combustion - Other	344	317	271	347	368	
04	Chemical and Allied Prod. Mfg	17	20	19	19	19	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	1,318	1,365	1,397	1,364	1,297	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	39	39	38	38	37	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	430	450	455	462	485	
14	Miscellaneous	11	11	11	11	11	
	<b>Total</b>	<b>3,060</b>	<b>3,542</b>	<b>3,597</b>	<b>3,577</b>	<b>3,243</b>	

**Table V-21**  
**Springfield-Western MA Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	101	115	105	99	92	
02	Fuel Combustion - Industrial	1,262	1,266	1,309	1,252	1,204	
03	Fuel Combustion - Other	4,400	4,282	4,158	3,978	3,894	
04	Chemical and Allied Prod. Mfg	111	117	125	120	115	
05	Metals Processing	1	1	1	1	1	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	481	480	460	455	439	
08	Solvent Utilization	24,139	24,767	24,132	23,544	23,184	
09	Storage and Transport	5,798	5,985	5,272	5,154	5,194	
10	Waste Disposal & Recycling	4,797	4,685	4,519	4,317	4,201	
11	Highway Vehicles	21,651	21,988	18,371	18,088	17,658	
12	Off-Highway	10,768	10,677	10,284	9,845	9,632	
14	Miscellaneous	300	300	300	300	300	
	<b>Total</b>	<b>73,810</b>	<b>74,662</b>	<b>69,036</b>	<b>67,153</b>	<b>65,915</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	6,454	6,517	6,145	6,114	5,763	
02	Fuel Combustion - Industrial	4,573	4,056	3,849	3,752	3,630	
03	Fuel Combustion - Other	8,460	8,716	9,093	9,165	9,429	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	5	5	5	5	5	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	1,050	1,053	1,033	1,002	976	
11	Highway Vehicles	19,581	19,963	19,240	19,542	19,353	
12	Off-Highway	10,231	10,817	10,536	10,079	9,922	
14	Miscellaneous	38	38	38	38	38	
	<b>Total</b>	<b>50,391</b>	<b>51,164</b>	<b>49,939</b>	<b>49,697</b>	<b>49,114</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	713	747	728	719	671	
02	Fuel Combustion - Industrial	595	539	533	526	518	
03	Fuel Combustion - Other	55,424	53,824	51,935	49,567	48,363	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	716	716	683	639	607	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	1	1	1	1	1	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	19,345	18,887	18,228	17,428	16,972	
11	Highway Vehicles	194,696	198,309	178,899	180,735	178,192	
12	Off-Highway	52,537	52,336	50,386	47,965	46,676	
14	Miscellaneous	1,633	1,633	1,633	1,633	1,633	
	<b>Total</b>	<b>325,659</b>	<b>326,990</b>	<b>303,024</b>	<b>299,212</b>	<b>293,633</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	15,533	15,806	12,227	12,460	11,876	
02	Fuel Combustion - Industrial	10,391	9,081	8,069	7,744	7,282	
03	Fuel Combustion - Other	9,612	10,028	10,269	10,275	10,566	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	4	4	4	4	4	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	1	1	1	1	1	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	316	333	337	335	326	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	462	488	494	506	529	
14	Miscellaneous	0	0	0	0	0	
	<b>Total</b>	<b>36,319</b>	<b>35,740</b>	<b>31,400</b>	<b>31,323</b>	<b>30,584</b>	

**Table V-22**  
**Ventura Co CA Tier 1 Emission Totals**

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	77	93	97	59	27	
02	Fuel Combustion - Industrial	68	72	71	72	73	
03	Fuel Combustion - Other	105	104	102	101	101	
04	Chemical and Allied Prod. Mfg	66	76	75	75	74	
06	Petro. & Related Industries	184	209	198	202	199	
07	Other Industrial Processes	117	115	113	111	110	
08	Solvent Utilization	11,040	11,530	11,731	11,921	12,100	
09	Storage and Transport	1,520	1,581	1,535	1,567	1,582	
10	Waste Disposal & Recycling	438	434	426	417	413	
11	Highway Vehicles	16,625	17,004	16,354	16,412	16,382	
12	Off-Highway	4,252	4,271	4,234	4,147	4,040	
14	Miscellaneous	85	85	85	85	85	
	<b>Total</b>	<b>34,578</b>	<b>35,573</b>	<b>35,022</b>	<b>35,168</b>	<b>35,185</b>	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	16,723	11,048	10,286	7,149	6,015	
02	Fuel Combustion - Industrial	4,001	4,186	4,141	4,264	4,295	
03	Fuel Combustion - Other	821	837	863	878	901	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	0	0	0	0	0	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	53	53	52	51	50	
11	Highway Vehicles	18,116	18,688	18,784	19,291	19,455	
12	Off-Highway	5,214	5,456	5,555	5,500	5,231	
14	Miscellaneous	11	11	11	11	11	
	<b>Total</b>	<b>44,939</b>	<b>40,277</b>	<b>39,691</b>	<b>37,143</b>	<b>35,957</b>	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	1,624	1,012	953	656	563	
02	Fuel Combustion - Industrial	815	868	851	872	875	
03	Fuel Combustion - Other	1,833	1,811	1,796	1,761	1,738	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	0	0	0	0	0	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	3,995	3,945	3,873	3,782	3,747	
11	Highway Vehicles	142,875	146,876	144,971	147,799	149,436	
12	Off-Highway	36,185	36,433	36,164	35,531	34,544	
14	Miscellaneous	460	460	460	460	460	
	<b>Total</b>	<b>187,789</b>	<b>191,406</b>	<b>189,068</b>	<b>190,862</b>	<b>191,363</b>	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	180	1,260	1,139	621	24	
02	Fuel Combustion - Industrial	116	122	131	133	139	
03	Fuel Combustion - Other	118	108	92	119	127	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	0	0	0	0	0	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	13	13	13	12	12	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	163	171	174	177	184	
14	Miscellaneous	0	0	0	0	0	
	<b>Total</b>	<b>590</b>	<b>1,674</b>	<b>1,548</b>	<b>1,063</b>	<b>487</b>	

**Table V-23**  
**Washington DC Tier 1 Emission Totals\***

Pollutant	Tier	Description	Emissions (Tons)				
			1987	1988	1989	1990	1991
<b>VOC</b>							
01	Fuel Comb. - Electric Utilities	388	429	544	369	373	
02	Fuel Combustion - Industrial	26	27	30	28	27	
03	Fuel Combustion - Other	2,507	2,376	2,277	2,183	2,140	
04	Chemical and Allied Prod. Mfg	32	33	32	34	33	
05	Metals Processing	0	0	0	0	0	
06	Petro. & Related Industries	15	22	22	20	19	
07	Other Industrial Processes	635	617	599	594	571	
08	Solvent Utilization	54,378	56,530	56,774	57,002	57,283	
09	Storage and Transport	16,289	16,801	15,479	15,383	15,616	
10	Waste Disposal & Recycling	660	659	647	635	625	
11	Highway Vehicles	110,614	108,044	90,974	85,227	83,086	
12	Off-Highway	30,116	30,068	29,398	28,471	27,573	
14	Miscellaneous	459	459	459	459	459	
	Total	216,118	216,065	197,235	190,405	187,805	
<b>NOx</b>							
01	Fuel Comb. - Electric Utilities	62,053	63,593	69,468	63,138	59,971	
02	Fuel Combustion - Industrial	1,727	1,760	1,796	1,856	1,867	
03	Fuel Combustion - Other	15,605	13,538	13,404	13,017	13,015	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	20	19	20	20	19	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	756	908	912	890	827	
08	Solvent Utilization	3	3	3	3	3	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	588	618	632	644	641	
11	Highway Vehicles	95,392	96,407	94,127	96,069	95,766	
12	Off-Highway	33,849	36,152	36,613	35,418	33,150	
14	Miscellaneous	66	66	66	66	66	
	Total	210,059	213,062	217,039	211,119	205,323	
<b>CO</b>							
01	Fuel Comb. - Electric Utilities	2,780	2,858	3,469	2,765	2,696	
02	Fuel Combustion - Industrial	393	421	434	430	423	
03	Fuel Combustion - Other	30,377	29,468	28,436	27,393	26,942	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	105	96	102	103	96	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	377	453	455	444	413	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	4,656	4,703	4,689	4,660	4,596	
11	Highway Vehicles	896,366	893,325	803,711	769,178	760,996	
12	Off-Highway	250,082	248,696	242,834	234,964	227,809	
14	Miscellaneous	2,666	2,666	2,666	2,666	2,666	
	Total	1,187,802	1,182,685	1,086,795	1,042,602	1,026,636	
<b>SO2</b>							
01	Fuel Comb. - Electric Utilities	215,456	227,951	249,783	227,810	216,866	
02	Fuel Combustion - Industrial	1,003	1,090	1,047	1,029	1,006	
03	Fuel Combustion - Other	26,548	18,795	18,009	15,801	14,978	
04	Chemical and Allied Prod. Mfg	0	0	0	0	0	
05	Metals Processing	118	107	115	116	108	
06	Petro. & Related Industries	0	0	0	0	0	
07	Other Industrial Processes	504	605	608	593	552	
08	Solvent Utilization	0	0	0	0	0	
09	Storage and Transport	0	0	0	0	0	
10	Waste Disposal & Recycling	371	392	403	412	410	
11	Highway Vehicles	0	0	0	0	0	
12	Off-Highway	1,992	2,104	2,144	2,193	2,269	
14	Miscellaneous	1	1	1	1	1	
	Total	245,993	251,046	272,109	247,955	236,190	

\* Nonattainment area contains counties in more than one state.  
Emission totals are for all counties in nonattainment area.