United States
Environmental Protection
Agency

Region II Office
26 Federal Plaza
New York, N.Y. 10007

EPA-902/4-78-006
June 1979

Air

EPA

Air Quality Maintenance Analysis For New Jersey — New York and Mid-Hudson AQMA

GCA-TR-79-19-G

AIR QUALITY MAINTENANCE ANALYSIS FOR NEW JERSEY - NEW YORK AND MID-HUDSON AQMA

Final Report

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June 1979

Contract No. 68-02-2866

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region II
New York, New York

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ABSTRACT

An air quality maintenance analysis of SO_2 and TSP concentration was conducted for the New Jersey - New York and mid-Hudson AQMA's. The year 1975 was used as the base and projections were made to 1980, 1985, and 2000. An emissions inventory created under a previous contract was reviewed and updated using best available data. Improvements were made in the point source inventory, county level area source inventories, and subcounty allocation procedures.

An improved version of the AQDM model was validated and then used to predict annual regional air quality levels for each year. The results indicated that annual primary SO_2 and TSP standards could be exceeded in the South Bronx by 2000. TSP levels throughout much of northeastern New Jersey and New York City exceed the secondary TSP annual guidelines.

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SECTION 1

INTRODUCTION

National primary and secondary Ambient Air Quality Standards (NAAQS) for sulfur oxides (SO_2) and total suspended particulates (TSP) were promulgated by the U.S. Environmental Protection Agency (EPA) on April 30, 1971. The primary standards are intended to protect the public health, while secondary standards are intended to protect the public welfare from any known or anticipated adverse effects. The States of New Jersey and New York have adopted air quality standards which are at least as stringent as the NAAQS. The target date for attainment of the national primary standards is now 1982 with all states required to submit a State Implementation Plan (SIP) to achieve this goal.

On May 31, 1972, the Administrator of EPA published his initial approvals and disapprovals of state implementation plans submitted pursuant to Section 110 of the Clean Air Act as amended in 1970. Challenges to these approvals included contention that approved plans were inadequate to insure maintenance of the air quality standards (Natural Resource Defense Council versus EPA, 475 F 2nd 968, January 31, 1973). A subsequent measure, taken by the Administrator on June 18, 1973, involved promulgation of regulations requiring states to conduct a comprehensive growth analysis of those areas which have the potential of exceeding any national ambient air quality standards over the next 10 years.

Key elements in the development of an air quality maintenance plan are emission inventories for each analysis year since these provide a practical basis for designing limitation, reduction and redistribution plans. The Tri-State Regional Planning Commission (TSRPC), located in New York City, developed a gridded emissions inventory for the 22-county area encompassing the New York - New Jersey and the mid-Hudson AQMA's for the base year (1974) and three projection years (1980, 1985, and 2000). This work was performed under EPA Contract No. 68-02-2096.

GCA was retained by EPA to verify the data developed by Tri-State; to update and improve the inventories using current data where necessary; and to apply these data in a regional modeling analysis to determine the extent to which air quality will be maintained.

This effort was carried out first by contacting each county planning organization in order to compare Tri-State grid level data with planning agency expertise and land use projections. A number of improvements, including separation of Tri-State's "nonresidential" land use category into the components "commercial/institutional" and "industrial", were made. This work is described

in Section 2. A detailed review of the TSRPC methodology for calculation of county activity and subcounty allocation and projection was also made. From this review, improvements in some assumptions were made and a new inventory generated. This new inventory benefitted from a significant amount of new data including a recently produced inventory of New York City spaceheating provided by New York City DAR; an improved New York State point source inventory; and a 1975 New York State Fuel Balance. Creation of this inventory is described in Section 3.

The eastern half of Ulster County, New York is included in the mid-Hudson AQMA but not in the TSRPC study area. An emissions inventory was created for this area using State-calculated county fuel use and a gridded land use file. Section 4 presents this effort.

The inventory was then validated using the AQDM model and 1975 monitor data for SO_2 and TSP. The model validated quite well in New York City for SO_2; other areas and pollutants were not as successful although statistically significant correlation coefficients were derived. The calibrated model was then used to predict air pollutant levels throughout the study area for each of the study years. The results indicated that the only area where maintenance of annual SO_2 standards could be a problem would be in the South Bronx. Many areas of the region, particularly New York City and northeastern New Jersey, were predicted to exceed the secondary standard guideline for TSP. Certain limited areas were predicted to exceed the primary TSP standard. The validation and regional analyses are described in Sections 5 and 6, respectively.

Review of the modeling results for TSP coupled with state-of-the-art knowledge of particulate sources and impact mechanisms suggests that this analysis is not adequate for development of TSP control strategies. Current thought indicates that source impacts should be calculated through the use of microinventories. It is recommended that this technique be applied at nonattainment monitors in the AQMA.

Throughout this report, the work of TSRPC is referenced. In general, when Tri-State methodologies and/or data were accepted for the present study, the methodology has been described only by reference. The basic Tri-State document for referral is entitled "Methods Used To Estimate Air Pollutant Emissions - 1974, 1980, 1985, and 2000" dated June 1977 (EPA-902/4-77-006). Also, review of data representing Fairfield County, Connecticut was generally not a part of the present contract. These data were accepted as provided by Tri-State.

SECTION 2

REVIEW OF TRI-STATE RPC LAND USE DATA

A primary objective under this contract was to review and update all data used by the Tri-State Regional Planning Commission (TSRPC) in performance of Contract No. 68-02-2096. This section describes the techniques and conclusions of a review of the TSRPC basic land use and demographic files. Section 3 of this report describes the conclusions concerning the application of these and other data to creation of an emissions inventory.

DATA BASE

The TSRPC data were available for each square kilometer in the 21 counties of the 22-county study area (Ulster County, New York being the exception). The information included, for the years 1974, 1980, 1985, and 2000, grid coordinates, population, employment, and dwelling units plus land area and floor space devoted to residential, nonresidential and other land use. The goals of this review included:

- Verification of trends by subcounty area;
- Verification of county totals;
- Separation of Commercial and Industrial Land Use; and
- Review of development trends and projection assumptions for undeveloped land.

The review and correction of the Tri-State data base were accomplished through a series of detailed comparisons between the Tri-State data and information from county and regional planning boards. Each county planning board was visited by a GCA staff planner. This provided an opportunity for the county staff planners to review in detail Tri-State data and provide an in-depth analysis of present conditions and future trends on county and subcounty levels. In addition to presenting the county planners with specific figures for comparison, a series of computer maps were generated from Tri-State data to represent land use, both existing and future. The computer maps were as follows:

Map type	Year			
	1974	1980	1985	2000
Dominant Land Use and Development Intensity	X			
Nonresidential (NR) acreage	X			
Change in Dwelling Units and NR Land Use		X	X	X

These maps served as focal points in the discussions with staff planners and allowed them to crystalize county level thinking on probable growth areas for population, housing, and industry. There was considerable variation from county-to-county in the availability and sophistication of formal planning and future land use mapping but in all cases the computer maps were useful in determining major areas where discrepancies occurred. The following sections present the conclusions of this review.

GENERAL CONCLUSIONS

Subcounty Allocations

The basic Tri-State model for land use and growth allocation is a gravity model using accessibility and attractiveness of land as key parameters. This type of model is highly dependent on the regional transportation network and can be insensitive to local zoning for nonresidential land use in the vicinity of residential development. A large number of global assumptions are necessary concerning such factors as urban redevelopment, zoning changes, family size, and migration rates. Consequently, the Tri-State data base, while appropriate on the large regional scale is not always sensitive to local trends and conditions especially in areas of rapid economic, social and political changes.

Every 2 years the Tri-State data base is reviewed by regional and local planners and updated to reflect inasmuch as possible local, current trends. The procedure in which Tri-State and the counties work together towards a mutually acceptable set of plans and projections of data is called "cross acceptance". However, not all counties participate in this review and update process and, also, there is not full agreement between some counties and Tri-State planners. As a result there are some significant discrepancies between the Tri-State model and the counties.

Discussions with county planners proved extremely valuable due to their intimate familiarity with subcounty growth trends, particularly in reference to the population and housing trends up to 1985. Most projections to 2000 were considered highly speculative, especially given the recent downward trend in birth rates. Also in areas such as New York City there is significant in-migration of large numbers of people (e.g., illegal aliens) that are not reflected in official census and population projections.

The county planners examined the computer generated maps, overlaying these on county zoning maps and land use plans. This allowed for easy identification of any significant differences between the local and the regional (Tri-State) assumptions of growth. Generally, the fit was good, although in a few of the counties there were some important differences. These are discussed in Appendix A.

The Tri-State land use model combined commercial and industrial land use as nonresidential. Using county land use maps and the knowledge of county planners, this nonresidential category was split into commercial and industrial. This posed some difficulty due to variations in local definitions of commercial/industrial split was based on standard industrial codes (SIC's).

The total county acreages by land use type were not corrected using the above mapping process, but rather were included in the county level fuel allocations and assigned to grids using appropriate adjusted allocation factors as described in Section 3. Appendix A of this report presents a summary of comments made by county planners concerning the land use data and methods used in implementing this information in the emissions inventory.

County-Level Factors

Verification of county totals of population, housing, and employment was accomplished basically by comparing Tri-State figures with the 208 Water Quality Management when available. According to U.S. EPA, air quality planning figures should be consistent with water quality planning figures. Consequently, the basic policy was that the Tri-State figures were adopted whenever they were within 5 percent of the official 208 figures. In New York State 208 population projections were available in every county including the five nondesignated mid-Hudson counties of Rockland, Dutchess, Orange, Putnam, and Ulster, Westchester County, New York City, and the two Long Island Counties of Nassau and Suffolk. In New Jersey, Middlesex, was the only county with completed 208 figures. In the other counties, except Monmouth, which is discussed below, population and demographic projections were available from the Northeast New Jersey Water Quality Management Study that was prepared for Section 303(e) of PL 92-500. In keeping with the EPA policy of consistency between water quality and air quality data base figures, Tri-State data was accepted unless it varied more than 5 percent from 303 data in which case the 303 figures were accepted. For Monmouth County the 208 study was not completed at the time the inventory was done. Pending the issuance of official state figures, the Tri-State figures were used.

The housing and employment projections did not have the advantage of a common comprehensive water quality study with which to compare the Tri-State figures. However, to overcome this limitation a methodology was adopted that utilized county data and water quality population estimates. When available county projections on family size or persons per dwelling unit were divided into the best population estimate and the result compared to Tri-State projections. In a few counties housing estimates were available. These are discussed in Appendix A.

A similar situation existed for the employment data. In fact there was less data available on employment than for any other data investigated. When there was no formal state or county employment projection with which to compare Tri-State data, the county planner or economist was consulted to obtain his judgment as to the probable accuracy of the Tri-State figures. Employment is highly variable even more so than population and housing, and, consequently, the long range estimates must be viewed with caution. In New York City, for example, the planners were extremely reluctant to comment on Tri-State data given the sizable economic, political, and social variables affecting the employment situation.

Table 2-1 presents a summary of the recommendations and data used to create the emissions inventories. As will be described in Section 4, Ulster County is not within the Tri-State planning area. This required the development of an original emissions inventory.

TABLE 2-1. INITIAL RECOMMENDATIONS: POPULATION, HOUSING, EMPLOYMENT, LAND USE - NEW YORK, NEW JERSEY AND MID-HUDSON AREA EMISSIONS INVENTORY*

County	Population					Housing	Employment	Land use				
	Recommendation	Projections				Recommendation	Recommendation	Recommendation	1974	1980	1985	2000
		1974	1980	1985	2000							
New Jersey												
Bergen	Accept Tri-State	914,088	941,046	996,338	1,095,176	Accept Tri-State	Adopt County estimates	Accept Tri-State with minor modifications	Yes	Yes	Yes	Yes
Essex	Accept '303' estimates	939,948	960,000	972,500	1,010,000	Adopt higher GCA estimates	Adopt higher '303' estimates	Use Tri-State Distribution with higher figures	Yes	No	No	No
Hudson	Adopt '303' estimates	616,511	615,000	622,500	630,000	Adopt county estimates	Adopt county estimates	Accept Tri-State with minor modifications	Yes	Yes	Yes	Yes
Middlesex	Adopt new '208' single figure estimates	621,364	672,213	727,501	817,465	Adopt '208' based GCA estimates	Accept Tri-State	Accept Tri-State with modifications of southern areas	Yes	No	No	No
Monmouth	Accept Tri-State provisionally	476,934	541,161	589,000	696,000	Accept Tri-State provisionally	Accept Tri-State	Accept Tri-State except 1980 distribution	Yes	No	Yes	Yes
Morris	Accept Tri-State	406,540	441,732	484,311	551,954	Accept Tri-State	Accept Tri-State	Accept Tri-State with modifications	Yes	No	No	No
Passaic	Adopt New Jersey Series II	472,760	485,245	496,840	537,625	Accept Tri-State	Accept Tri-State	Accept Tri-State	Yes	Yes	Yes	Yes
Somerset	Accept Tri-State	216,074	215,778	241,950	288,117	Accept Tri-State	Accept Tri-State	Accept Tri-State	Yes	Yes	Yes	Yes
Union	Accept Tri-State	560,409	539,410	536,370	541,718	Accept Tri-State	Accept Tri-State	Accept Tri-State	Yes	Yes	Yes	Yes
New York												
New York City:	Accept Tri-State					Accept Tri-State	Accept Tri-State	Accept Tri-State	Yes	Yes	Yes	Yes
Bronx	Accept Tri-State	1,294,581	1,327,012	1,326,206	1,333,976							
Brooklyn	Accept Tri-State	2,510,641	461,283	2,448,510	2,413,738							
Manhatten	Accept Tri-State	1,506,969	1,504,589	1,515,451	1,515,097							
Queens	Accept Tri-State	1,980,766	1,882,939	1,899,370	1,929,096							
Staten Island	Year 2000 estimates questionable	323,035	402,615	446,063	501,431							
Nassau	Adopt '208' estimates	1,455,947	1,467,789	1,475,694	1,492,000	Accept Tri-State	Accept Tri-State	Accept Tri-State	Yes	Yes	Yes	Yes
Suffolk	Accept Tri-State	1,283,401	1,405,938	1,578,732	1,747,657	Accept Tri-State	Accept Tri-State except 2000 estimates	Accept Tri-State	Yes	Yes	Yes	Yes
Rockland	Adopt '208' estimates	252,700	279,200	308,900	380,200	Adopt '208' based GCA estimates	Accept Tri-State	Accept Tri-tate, 1980 needs some modifications	Yes	No	Yes	Yes
Putnam	Adopt '208' estimates	68,765	79,200	92,000	130,200	Adopt '208' based GCA estimates	Accept Tri-State	Accept Tri-State	Yes	Yes	Yes	Yes
Westchester	Adopt '208' estimates	880,000	880,000	880,000	900,000	Adopt Westchester County estimates	Adopt Westchester County estimates	Accept Tri-State	Yes	Yes	Yes	Yes
Dutchess	Adopt '208'	233,100	247,900	268,800	328,400	Accept Tri-State	Accept Tri-State	Accept Tri-State	Yes	Yes	Yes	Yes
Orange	Adopt '208'	242,000	267,000	300,000	422,000	Adopt county estimates	Accept Tri-State	Accept Tri-State	Yes	Yes	Yes	Yes
Ulster	Adopt '208'	156,400	171,100	185,900	222,600	LUMR data		LUMR data	Yes	-	-	-

* See Appendix A for further discussion.

SECTION 3

EMISSIONS INVENTORY REVIEW AND DEVELOPMENT

Development of a base year emissions inventory and projection of these emissions to 1980, 1985, and 2000 was accomplished using a significant amount of new data provided by the States which was not available at the time Tri-State developed their inventory. Review of the Tri-State methodology, however, indicated that portions of their data represented the best available information for the region and these were used in the inventories created as part of the present contract.

A major source of emissions in the region is stationary source combustion and correct allocation of fuel to the county level is extremely important. These data were developed directly from MIS,[1] state, and city records. County level mobile source and incineration emissions were developed using state records and Tri-State data, while allocations of all emissions to grid squares was achieved using the Tri-State grid data after modification and improvement through the present contract. This section of the report presents a summary of county level activity, followed by the conclusions of the review of Tri-State's data, and then by the methodology used in allocation to grids and projection to 1980, 1985, and 2000.

COUNTY LEVEL ACTIVITY

Stationary Source Fuel Combustion

Stationary source activity is primarily related to the fuel burned by residential, commercial/institutional, and industrial buildings to provide heat and hot water and by generating facilities to provide steam and electricity. Due to different levels of detail in the available data, separate methodologies were employed in New Jersey, New York City, and New York State. The basic methodology in each case was to develop county level estimates of total fuel use and then to separate the data into point source and area source fuel use. A point source cutoff of 25 ton/yr of emissions of either sulfur dioxide or particulates was used throughout the study area. A description of the methods used to review point sources is described later in this section.

New York State--

New York State county level fuel use was provided by the State via the 1975 New York State Fuel Balance.[2] These data were developed through a dealer survey and rectified using MIS State Fuel totals. These data were specified by the State as the totals to use in developing the inventory. Slight modifications were made, however, as is described below.

New York State point source data were provided by the State in NEDS format after conversion from New York's AIR-100 system. This conversion caused some problems due to basic incompatibilities between systems; many sources received an SCC code of "39999999" which designates an undefined process. This problem, however, typically did not affect fuel combustion sources. The point source inventory was summarized into categories of fuel type and use for subsequent development of the area source activity.

Using the 1975 New York State Fuel Balance and point source inventory, area source fuel use was calculated for the seven counties in New York which are not a part of New York City. Redistribution of fuel among the various categories was required because many fuel use classes were "overdrawn" when point source fuel was subtracted from "total" fuel use. It was discovered that fuel use for West Point Military Academy was not included in the fuel balance figures since a federal facility does not necessarily purchase fuel through normal channels.

In rectifying fuel use totals, a procedure was developed which attempted to minimize modifying "known" totals. The steps performed in redistributing fuel were as follows:

- Residential point source fuel (primarily apartments) was separated from commercial point source totals;
- The 50/50 split of No. 4 and 5 fuel between distillate and residual oil was modified to better cover point source totals;
- Fuel was transferred from commercial use to industrial use and vice versa; and
- Fuel was transferred between counties.

The final correction, transfer among counties, was necessary in only one case: 1.3 million gal of industrial residual oil were transferred from West Chester to Rockland County in order to cover deficits in the latter county. Based on knowledge of the NEDS point source system and the description of techniques used in creating the fuel balance, these modifications appeared appropriate for rectifying fuel data. A potential problem with this procedure was identified by New York State DEC. As will be described more fully later in this section, overestimation of point source fuel use may have occurred in certain New York counties, resulting in underestimation of the area source component. Total fuel use by county, except for the transfer noted above, remained consistent with the New York State Fuel Balance.

Table 3-1 presents the results of this procedure and also compares the data with comparable data supplied by Tri-State under Contract No. 68-02-2096. The residual oil totals are within 5 percent, but the present distillate oil totals show a 34 percent reduction.

TABLE 3-1. AREA SOURCE FUEL USE TOTALS FOR NEW YORK STATE AND COMPARISON WITH 1974 TRI-STATE INVENTORY

County	Class	Distillate (10^3 gal)		Residual (10^3 gal)		Natural gas (10^6 ft^3)	
		GCA	Tri-State	GCA	Tri-State	GCA	Tri-State
Dutchess							
	Residential	56,863	85,690	0	0	1,330	1,230
	Comm/Inst	11,424	2,040	0	9,200	990	1,240
	Industrial	819	3,400	0	4,410	541	0
Nassau							
	Residential	285,395	355,260	2,403	26,120	14,232	13,190
	Comm/Inst	15,039	90,640	4,489	13,010	5,589	2,960
	Industrial	29,265	5,030	0	5,240	521	60
Orange							
	Residential	41,713	70,770	0	0	4,235	4,150
	Comm/Inst	1,780	4,100	0	4,710	1,927	2,210
	Industrial	0	2,150	0	2,100	737	100
Putnam							
	Residential	18,840	28,290	0	310	0	0
	Comm/Inst	3,216	3,380	0	620	0	0
	Industrial	0	460	0	0	0	0
Rockland							
	Residential	6,063	14,610	0	1,430	9,998	9,800
	Comm/Inst	0	13,100	0	1,500	3,724	3,960
	Industrial	0	140	0	1,720	1,553	0
Suffolk							
	Residential	218,214	362,000	0	0	12,616	12,040
	Comm/Inst	9,348	61,150	24,704	8,630	0	2,230
	Industrial	10,330	3,760	0	2,100	243	10
Westchester							
	Residential	115,521	188,320	63,912	14,390	14,600	13,040
	Comm/Inst	49,675	42,640	10,620	17,100	4,219	6,490
	Industrial	9,683	3,090	4,679	3,590	0	0
Total		882,188	1,340,060	110,807	116,180	77,055	72,710

New York City--

The City of New York Department of Air Resources maintains a file of point and area source fuel use[3] for the five boroughs. These data were recommended by the New York State Department of Environmental Conservation for use under this contract. This file was accepted for use after a study of the Tri-State dwelling unit distribution within Manhattan performed by NYS DEC indicated major discrepancies from Census Bureau figures. This problem was attributed to Tri-State's grid rotation procedure. It was also learned that Tri-State used a constant distribution of dwelling units per building throughout the city. The NYC DAR inventory, which incorporates all boilers in the city, was thus determined to be the best available data.

New Jersey--

County fuel use totals for New Jersey were developed using the techniques specified in Volume 7 of the AQMA Guidelines.[4] Appendix B of this report represents a summary of the input data and results of the county fuel allocations. Note that not all data presented in that Appendix were utilized. Exceptions will be described below.

Residential fuel use was calculated using an improved Level 3 analysis. The equation presented in the AQMA Guidelines is based on pre-1974 single family dwelling fuel use; use of this factor will overestimate the residential component. To improve this methodology, a building size correction factor was developed using data provided in Volume 13 of the AQMA Guidelines.[5] In this analysis, residual oil was assumed to be used only in buildings with more than 19 dwelling units.

State commercial, and industrial fuel use was allocated to the county level based on employment in the respective sectors. Point source fuel use subtracted at the county level. It was necessary, however, to rectify the area source totals since some counties had negative area source fuel use. This was found to occur due to the existence of a very large point source in the county. To rectify totals, the fuel use and estimated employment of major point sources was subtracted at the state level and allocation performed using the remaining totals. This corresponds to a modified Level 2 analysis. Table 3-2 presents area source fuel use by stationary sources in the New Jersey counties.

All other area source data were developed using the Tri-State activity and allocation methodology.

POINT SOURCE REVIEW

Point source data for New Jersey and New York State were provided in NEDS format for the base year, 1975. The New York City inventory was provided in CDM format and no editing was required under the contract. The data were divided on a county basis and entered into a computer for editing. Software was developed to process the NEDS files, report discrepancies in parameters and convert to model (AQDM) format.

TABLE 3-2. NEW JERSEY AREA SOURCE FUEL USAGE

County	Type*	Distillate oil (10^3 gal)		Residual oil (10^3 gal)		Natural gas (10^6 ft^3)	
		Tri-State	GCA	Tri-State	GCA	Tri-State	GCA
Bergen	R	84,400	122,200	18,620	5,500	20,830	21,650
	C/I	170,060	63,300	8,200	41,650	7,200	7,440
	Ind.	3,410	13,840	13,990	15,500	202,630	5,520
Essex	R	65,100	116,030	34,050	15,050	13,610	12,580
	C/I	190,150	69,000	9,160	45,420	8,060	8,110
	Ind.	1,940	9,460	9,440	24,910	50	5,000
Hudson	R	36,560	63,420	28,060	7,060	6,530	8,170
	C/I	105,790	37,150	5,100	24,450	4,430	4,370
	Ind.	590	9,390	9,100	18,200	2,050	4,980
Middlesex	R	50,260	76,850	9,270	2,630	13,200	11,960
	C/I	108,470	33,920	5,230	22,320	4,540	3,990
	Ind.	14,400	1,350	18,450	10,450	48,530	4,380
Monmouth	R	40,320	61,550	6,770	2,010	11,420	10,580
	C/I	76,300	22,870	3,680	15,050	3,180	2,690
	Ind.	3,160	3,410	3,340	7,390	670	1,710
Morris	R	38,010	74,220	6,520	2,630	10,760	6,450
	C/I	61,600	31,680	2,970	24,140	2,610	4,310
	Ind.	580	3,230	5,180	9,160	280	2,970
Passaic	R	41,980	51,600	9,700	2,430	8,820	10,040
	C/I	83,020	28,440	4,000	18,720	3,460	3,340
	Ind.	1,370	3,460	21,670	26,440	28,420	4,260
Somerset	R	20,830	32,120	2,480	560	5,540	4,710
	C/I	34,820	11,340	1,680	7,460	1,480	1,330
	Ind.	660	3,920	22,600	14,480	1,690	1,790
Union	R	47,880	92,250	12,010	4,930	11,010	9,740
	C/I	125,870	39,670	6,070	26,100	5,280	4,660
	Ind.	650	4,850	41,780	5,220	4,960	1,810
Totals	R	425,340	690,240	127,480	42,800	101,720	95,880
	C/I	956,110	344,980	46,090	225,310	40,240	40,240
	Ind.	27,860	46,570	145,550	116,080	289,280	32,420
Grand Total		1,049,300	1,081,790	319,210	384,190	431,240	168,540

*R = Residential; C/I Commercial/Institutional; Ind. - Industrial.

The computer program checked the following data:

- Stack height, stack diameter, exit gas velocity and exit gas temperature were flagged if not within predetermined range;
- Annual fuel usage was compared with boiler capacity;
- Emission rates were calculated for each external combustion boiler and compared with the reported emission rates; and
- The reported coordinates of the source were listed.

The coordinates of each source was compared with county boundaries to determine proper specification at that level. Location of major sources was also compared with the coordinates of the town listed in the NEDS identification field as a further check of correct location. All source and location discrepancies were reported to the appropriate agency personnel and corrections were incorporated into the AQDM files.

The computer program, in addition to checking parameters, totals fuel use by fuel type and use and separates sources into point sources (those with emissions greater than 25 tons) and small point sources (all others). The small point sources are separated at this stage and their emissions are later added to the area source grid in which the small point source is located. This technique allows the resolution provided in the point source inventory to be maintained as opposed to an alternative methodology of adding small point source fuel to area source fuel and spreading the total throughout the county based on the area source allocation procedure. This technique was not entirely successful in New York State, and particularly Nassau County, where over 1,000 small point sources could not be practically reviewed for errors in annual fuel use. It was known, however, that numerous errors occurred in coding these data during initial reporting to the State and the fuel use was often orders of magnitude too great. This problem is most likely the cause for area source fuel use in New York State (Table 3-1) to be so small. It was decided, however, to continue with adding the small point sources to their specified grid.

REVIEW OF TRI-STATE INVENTORY TECHNIQUES AND APPLICATION DESCRIPTION UNDER THE PRESENT CONTRACT

Since stationary source fuel use was developed from new data for this contract, review of the Tri-State techniques for development of these data generally was not made. Tables 3-1 and 3-2 present a comparison of area source fuel usages determined by Tri-State to those made under the present contract. The review of the Tri-State data primarily focused upon differences in the land use files and population estimates used for allocation and projection as was described in Section 2, upon estimates of county incineration and mobile source fuel use and subcounty allocation procedures, and upon the methods and assumptions used to allocate stationary source data, in

particular residential fuel, to counties in New Jersey and to grids in all counties. This section describes this review and the assumptions made for the present study.

County Residential Fuel Use - New Jersey

County level residential fuel allocations were reviewed for the New Jersey counties since a fuel balance was not provided by the state. Tri-State utilized the results of a survey of the entire nine counties. This survey indicated the following distribution of fuels by building size.

	Fuel type		
DU/Bldg	Oil	Gas	Other
1	0.355	0.619	0.026
2-4	0.608	0.379	0.013
5-19	0.576	0.308	0.116
20+	0.941	0.0	0.059

In addition, all buildings containing five or more dwelling units and which use oil were assumed to use residual oil. This distribution was assumed to hold in all of the New Jersey counties.

Comparison of this distribution with the 1970 Census data indicates that only in Bergen County is the fit acceptable. Natural gas usage is overpredicted in the urban counties and underpredicted in the suburbs. In addition, the assumption that all buildings with more than four units burn residual oil is apparently unreasonable based on boiler size requirements.

It was recommended that the county level distribution of fuel use specified in the 1970 Census data, modified to reflect conversions from coal, be used in place of the Tri-State technique. This allowed for a better distribution of fuel at the county level. In addition, residual oil use should be assumed only for buildings with more than 19 units. This latter assumption was supported by survey data taken in New York City and was discussed with and accepted by each of the regulatory agencies.

Residential Allocations to Grids

Tri-State's county level distribution of dwelling units per building, however, was acceptable as was information for selected MCD's throughout the study area. In performing the allocation of county fuels to grids, the following procedure was used. This technique employed the Tri-State grid level building size distribution in conjunction with Census Bureau data on distribution of fuel use in major urban areas. Major urban areas were identified within each county and the corresponding fuel use distribution was applied to

these areas. The remaining areas of each county were assigned a "nonurban" distribution. This was computed by subtracting from the total housing units in the county using each fuel type, the respective units allocated as urban. The remainder was used to calculate the nonurban distribution for each county. Fuel efficiency factors were used based on the distribution of building size within each grid as recommended in Volume 13 of the AQMA Guideline.

Industrial and Commercial/Institutional Allocation

The Tri-State inventory of commercial/institutional and industrial fuels was developed and allocated utilizing a nonresidential category which covered all of these fuel uses. The present contract utilized the data developed through visits to county planners to create separate categories of land use for the allocation. Hence, fuel from each category was allocated to a grid based upon the portion of the total land use which was contained within that grid.

Mobile Source and Incineration Activity

Review of the Tri-State county totals and allocation and projection routines indicated that no further improvement of the aircraft, locomotive, and motor vehicle data was necessary. Incineration data were also accepted with the exception that New York City totals were normalized to emissions estimates provided by NYS DEC. The following emissions were used:

Pollutant	Year			
	1975	1980	1985	2000
Sulfur dioxide (ton/yr)	240	200	191	191
Particulates (ton/yr)	5,580	1,000	736	736

The distribution of emissions within grids was identical to that used by Tri-State.

Implicit to the light-duty vehicle emissions estimates are both conversion of the vehicle population from leaded to unleaded gasoline and the improvement in fuel economy required by federal regulations. Average fuel economy and emission rate by projection year was as follows:

Year	Fuel consumption (mpg)	Particulate emission rate (g/mi)
1975	13.5	0.54
1980	16.7	0.38
1985	20.0	0.28
2000	27.5	0.28

Fugitive Emissions

Tri-State computed fugitive dust emissions from apartment house construction using housing projections for buildings with five or more dwelling units. This methodology and the resulting figures were felt to be adequate for inclusion in the inventory and subsequent modeling effort. Tri-State's methodology involved identification of grids in which apartment house construction would be expected in each study year, the assumption that 20 dwelling units per acre would be the average density and that a project would last for 3 months. Emissions in this category will be somewhat overestimated because the study area has a much greater precipitation index than is implicit in published emission factors based on national averages.[6]

A review of several other sources of fugitive dust was made to determine whether adequate emissions estimates could be prepared. These included paved and unpaved roads, land tilling, and storage piles. It was felt that the probelms with estimation of emission rates and the suspendability of the material made any attempts at inventorying and modeling futile. These emissions can best be handled using the site-specific microinventory process.

PROJECTION METHODOLOGY

The target years for air quality maintenance planning under this contract were 1980, 1985, and 2000. Projections of fuel use and emissions was made using both the '208' population figures discussed in Section 2 and Tri-State's projection of growth for specific industries within the region.

Discussions were held with state and local agency personnel as to the best assumptions to make about future emissions. The States provided estimates of generating station emissions by year and New York State supplied their "special limitation" implementation schedule. This program allows certain sources to burn higher sulfur oil (these sources are listed in Table 3-3); based on data supplied by New York State and the Tri-State inventory, all incinerators were assumed either to be closed or in compliance by 1984. Fuel consumption by automobiles was estimated assuming full implementation of Federal fuel economy regulations.

TABLE 3-3. NEW YORK STATE SPECIAL LIMITATIONS ON FUEL SULFUR CONTENT

Facility	Fuel sulfur content (%)		
	1975	1980	1985
Port Jefferson	2.8	2.8	2.8
Northport	2.8	2.8	2.8
Glenwood	0.37	1.0	1.0
E.F. Barrett	0.37	2.2	2.2

Projection of point source emissions other than those from power plants was performed using the Tri-State growth factors by SIC code for industrial sources and by county growth factors for commercial/institutional. Tables 3-4 and 3-5 present, respectively, these growth factors. Projection of power plant emissions was supplied by the states. Major changes in these facilities included addition of Astoria No. 6 in Queens, and changes at the Arthurkill and Northport stations.

Area source emissions were projected using the recommended population totals (see Section 2) for the residential component and change in total floor space for commercial/institutional and for industrial. Allocation of emissions to grids was accomplished using the corrected Tri-State land use file described in Section 2.

County activity projection and subcounty allocation of mobile source, incineration and fugitive emissions were made using the Tri-State data.

EMISSION FACTORS

Emissions calculations were performed using the factors presented in the U.S. EPA's AP-42 document.[6] An exception to this was use of higher external combustion particulate emissions than those presented in AP-42 in order to account for the age of the boiler population in the region. This conclusion was reached after a series of stack tests were studied by New York State DEC. The factors used were as follows:

Oil type	User class	Emission factor ($lb/10^3$ gal)
No. 6	Non-power plant	23
No. 6	Power plant	15 (or stack test)
No. 4	All	23
No. 2	Commercial/Institutional	15
No. 2	Residential	10

TABLE 3-4. INDUSTRIAL OUTPUT GROWTH FACTORS FOR TRI-STATE REGION

Industrial sectors	1974	1980	1985	2000
Chemical Mfg	1.000	1.297	1.519	2.513
Food/Agriculture	1.000	1.002	1.004	1.165
Primary Metals	1.000	0.840	0.840	0.862
Secondary Metals	1.000	0.840	0.840	0.862
Mineral Products	1.000	1.151	1.288	1.868
Petroleum	1.000	1.107	1.188	1.531
Wood Products	1.000	1.003	1.094	1.493
Total Manufacturing	1.000	1.113	1.224	1.704
Metal Fabrication	1.000	1.100	1.205	1.663
Leather	1.000	1.151	1.288	1.868
Textile	1.000	1.020	1.180	1.550
Inprocess Fuel	1.000	1.113	1.224	1.704
Other	1.000	1.151	1.288	1.868

TABLE 3-5. COMMERCIAL/INSTITUTIONAL POINT SOURCE GROWTH FACTORS

County	Growth factors			
	1974	1980	1985	2000
Dutchess	1.000	1.068	1.126	1.330
Nassau	1.000	0.989	0.999	1.092
Orange	1.000	1.148	1.271	1.618
Putnam	1.000	1.007	1.050	1.302
Rockland	1.000	1.057	1.105	1.272
Suffolk	1.000	1.079	1.147	1.286
Westchester	1.000	0.999	1.037	1.162
Bronx	1.000	0.982	1.019	1.166
Kings	1.000	0.984	0.979	1.036
New York	1.000	1.046	1.092	1.109
Queens	1.000	0.998	1.003	1.056
Richmond	1.000	1.213	1.390	1.836
Bergen	1.000	1.038	1.104	1.301
Essex	1.000	1.002	1.005	1.095
Hudson	1.000	0.993	1.040	1.247
Middlesex	1.000	1.096	1.205	1.505
Monmouth	1.000	1.088	1.161	1.403
Morris	1.000	1.057	1.118	1.324
Passaic	1.000	0.996	1.014	1.143
Somerset	1.000	1.020	1.097	1.327
Union	1.000	0.997	0.995	1.024

SECTION 4

ULSTER COUNTY EMISSION INVENTORY

Ulster County is located in the Mid-Hudson Valley and is not included within Tri-State Regional Planning Commission's planning area. The eastern half of the county, however, is included in the Mid-Hudson Air Quality Maintenance Area (AQMA). Hence, it was necessary to generate base and projection year inventories for use in the regional modeling analysis. This section describes the development of this inventory.

DATA BASE

The data used to generate the base year emissions inventory were provided by the New York State Department of Environmental Conservation. Included were the 1975 point source fuel use and emissions inventory; the 1975 county total fuel use; and a file of land use by square kilometer grid (LUNR data).

The following table presents total 1975 stationary source fuel use in Ulster County:

	Fuel Type			
	Coal (10^1 tons)	Distillate Oil (10^4 gal)	Residual Oil* (10^4 gal)	Natural Gas (10^7 ft^3)
Residential	148	3855	281	68
Commercial/Institutional	79	1122	347	36
Industrial	0	20	2513	86
Total	227	4997	3141	190

*No. 4, 5, and 6

The LUNR data includes, for each square kilometer in the AQMA, a summary of 49 categories of land use as well as a key to the minor civil divisions containing the grid square. These data were summarized into a file of population, housing, employment, and transportation land use.

Population and housing estimates by grid square were computed using the following housing density:

Residential Land Use Type	Density (DU/Ha)
High Density	30
Medium Density	10
Low Density	5
Strip Development	1
Rural Hamlet	2

Occupancy was assumed to be 90.2 percent and family size 3.2 persons/DU as derived from U.S. Census Bureau figures. These computed values of population by grid were then normalized on a town-basis to 1970 population figures and projected to 1975 using county estimates. Commercial and Industrial employment was estimated using County Business Pattern data and allocated to grids based on the respective LUNR land classifications.

The 1975 Ulster County NEDS point source inventory was summarized by fuel and user type so that an area source inventory could be created. Sources emitting greater than 25 tons/year of particulate were included in this inventory; smaller point sources were separated and later added to the area source grid within which the source was located.

COUNTY AREA SOURCE ACTIVITY

County activity in categories other than stationary sources was estimated using the techniques specified in the EPA AQMA Guidelines.[4] Highway mobile source activity was allocated from State MIS[1] figures using county vehicle miles travelled (VMT) data while rail and off-highway use was allocated based on population. Civil aircraft operations were estimated using an assumption of 365 LTO's per airstrip per year. Solvent use was estimated at 8 pounds/capita-year and structure fires at 0.004/capita-year. Estimates of activity within the AQMA were made using a ratio of AQMA population-to-total population with the exception that commercial and industrial data were estimated by employment. Table 4-1 presents AQMA area source activity for 1975.

In creating the stationary source inventory, several adjustments were necessary. When the New York State Fuel Balance was performed, most of the distillate oil was allocated as commercial/institutional while most of the residual oil was used by industry. The NEDS point source inventory classification, however, indicated a different mix, resulting in point source fuel use being greater than total fuel use in some categories. To remedy this problem, area source fuel use in the "overdrawn" categories was set to zero and the remaining point source fuel subtracted from the corresponding fuel use total of the other use class.

TABLE 4-1. AREA SOURCE ACTIVITY - AQMA PORTION OF ULSTER COUNTY

	Stationary source fuel use			
	Coal (10^1 tons)	Distillate Oil (10^4 gal)	Residual Oil (10^4 gal)	Natural Gas (10^7 gas)
Residential	148	3,176	0	68
Commercial/Institutional	79	575	65	36
Industrial	0	0	1,427	84

	Mobile source fuel use	
	Gasoline (10^3 gal)	Diesel (10^3 gal)
Light duty vehicle	64,513	-
Heavy duty vehicle	3,832	3,053
Railroad	-	70
Off-highway	2,211	263

Civil Aircraft Operations (LTO's)	39,710
Solvents purchased (tons)	500
Structure fires	500

ALLOCATION TO GRIDS

Total county emissions associated with county activity were computed and allocated to one-kilometer grids based on appropriate land use factors. Review of census data on the distribution of fuel use type within the county indicated that most natural gas was used within Kingston. This propensity for use of different fuel types in the county was accounted for by computing a gas and a nongas-using population figure for each grid. Allocation was achieved using the following factors:

Activity	Allocation Factor
Residential Gas	Gas-using Population
Other Residential	Nongas-using Population
Commercial	Commercial Employment
Industrial	Industrial Employment
Railroad	Railroad Land Use
Airport	Airport Land Use
Highway	Highway and Residential Land Use
Off-highway	"Other" Land Use
Structure Fires	Population

Total county area source emissions allocated to grids are 3,476 tons/year of SO_2 and 6,871 tons/year of particulate.

PROJECTION METHODOLOGY

Projection of emissions to 1980, 1985, and 2000 was performed using '208' population figures and projections of commercial and industrial facilities using OBERS projections for the county. Growth in motor vehicle use was supplied by NYSDOT and was placed at 3.53 percent per year. Gasoline usage and the resulting emissions were calculated as described in Section 3. Point source growth factors were those used for the rest of the study area. (See Section 3.)

Subcounty allocation of residential emissions was made using MCD growth factors provided by NYSDEC. Dwelling units were projected on a grid-by-grid basis based on the MCD containing the grid. The results were then normalized to county totals. All other growth was assumed to be distributed based on present allocations.

SECTION 5

MODEL SELECTION, VALIDATION, AND CALIBRATION

Analysis of the impact of changes in total emissions on ambient air quality, including determination of maintenance of the National Ambient Air Quality Standards (NAAQS), is performed using air quality modeling techniques. The principal tool in this process is a multisource dispersion model which is capable of representing the impact of spatially-distributed sources with a wide range of emission characteristics at specific receptor locations.

The procedure employed in performing an air quality modeling analysis includes:

- Selection of a model;
- Collection of input data;
- Validation of the model;
- Calibration of the model; and
- Analysis of regional air quality.

This section decribes the performance of the first four of these tasks; Section 6 describes the regional modeling analysis.

MODEL SELECTION

The requirements of this program suggested a model which was capable of representing the complex urban terrain of Manhattan as well as the rural sections of the Hudson Valley. Also, a source contribution file was necessary to minimize the cost of evaluating future air quality.

The Air Quality Display Model (AQDM)[7] was selected as the basic model for performing the analysis. Substantial modifications were made to allow for representation of urban sites. The Brigg's plume rise equations were substituted for the earlier Holland equation; a pollutant half-life decay factor and exponential windspeed profile were added to represent these atmospheric phenomena; a source contribution file option was created; and the model was modified to use a user-selected morning mixing height and to allow prediction of concentration at elevated receptors. This modified version of AQDM, along with the modified meteorological files described below, was determined to be an acceptable model for modeling Metropolitan New York.

INPUT DATA

The principal inputs to a model such as AQDM are the emissions data, a meteorological summary representative of the averaging period and region of interest, and the location of prediction receptors. The emissions data used in the validation have been described previously and the location of each ambient monitor and the recorded values were supplied by regulatory personnel.

Development of a representative meteorological summary for use in the model required a review of current knowledge of the meteorology of pollutant dispersion and the local effects at the National Weather Service stations in the New York City area. The inputs to the AQDM include the joint frequency of windspeed, wind direction, and stability class (STAR data); afternoon and morning mixing height; and average temperature. A review of the regional meteorology suggested that the study area should be split, representing New Jersey and Staten Island using Newark data and remaining sections of New York City and State using La Guardia data. Further, it was determined that within the four boroughs of New York City (excluding Staten Island) an "enhanced" stability regime would be used. This stability classification is similar to that used by the Climatological Dispersion Model (CDM) often used to model urban areas. It represents the enhanced mixing characteristics caused by building-induced turbulence by shifting the computed stability for each hour by one class towards unstable. Class A hours (the most unstable) were unchanged. Table 5-1 presents the meteorological characteristics used in the modeling analysis. All data represented 1975 annual observations to be consistent with the emissions and air quality data.

The effective stack height for each individual grid was computed by averaging the mean effective stack height of each of the following emission categories,[8] weighted by its relative emission strength within the grid:

Source category	Mean effective stack height (m)
Residential	15
Commercial/Industrial	47
Industrial	58
Incineration	23
Roadway	4

An attempt was made to compute a separate average stack height for each pollutant within each grid. Preliminary modeling, however, indicated that this procedure provided no substantial improvement in the results. Hence, the weighted average effective stack height computed using source strength of both pollutants by category was used. Half-life factors used in the analysis were 3 hours for SO_2 and infinite for particulates.

TABLE 5-1. METEOROLOGICAL COMBINATIONS USED IN MODEL VALIDATION

Region	Met station	Mixing height		Ambient temperatures (°F)	Stability classification
		Morning (m)	Afternoon (m)		
New Jersey and Staten Island	Newark	500	1,286	54	normal
New York City (excluding S.I.)	Laguardia	839	1,286	54	enhanced*
New York State	Laguardia	500	1,286	54	normal

*See text.

MODEL VALIDATION

Model validation involves comparison of model predictions with actual monitor data so that conclusions can be drawn as to the reliability of the model and the prospect for accurate representation of regional air quality.

To evaluate the validation results, a correlation coefficient "r" was computed between observed and predicted values. The correlation coefficient is a measure of the strength of a linear relationship between two variables, in this case the measured and predicted concentrations. It will have a value close to 0 for a line incapable of prediction and close to 1.0 for a line capable of perfect prediction. Table 5-2 presents these correlation coefficients for each region and pollutant. All values of "r" were statistically significant at the 95 percent level. These values may be interpreted quantitatively by stating that r^2 is equal to the percentage of the variance of the predicted concentrations that can be accounted for by a linear relationship with the measured concentrations. The remaining percentage is referred to as the error variance, due to factors such as:

TABLE 5-2. RESULTS OF MODEL CALIBRATION

Region	Correlation Coefficient	
	TSP	SO_2
New York City	0.62	0.89
New Jersey	0.63	0.69
New York State	0.45	0.37*

*See text for further detail.

- Accuracy of the atmospheric diffusion model;
- Accuracy of the emissions data;
- Accuracy in the meteorological data; and
- Potential bias in the monitoring data used for validation.

Tables 5-3 through 5-6 present the comparison of predicted and observed air quality concentrations at each monitor site. Model predictions have not been adjusted to reflect calibration in these tables.

MODEL CALIBRATION

The purpose of a calibration is to incorporate into the modeling study information concerning the relationship between measured and predicted concentrations illustrated by the model validation. Ideally, model predictions and actual measured data should be related by a line with a slope of unity and an intercept of zero. However, deficiencies in the emissions inventory (e.g., the exclusion of natural and fugitive sources of particulates) and inaccurate

TABLE 5-3. NEW JERSEY TSP MONITORS
TSP ($\mu g/m^3$)

	Observed	Calculated
Fair Lawn	43	23
Upper Saddle River	36	9
Fort Lee	42	46
Hackensack	54	30
East Orange	56	35
Irvington	49	31
Livingston Twp.	32	17
Orange	47	26
West Orange	47	21
Newark	53	45
Bayonne	64	37
Jersey City (579.9 4508.7)	81	53
Jersey City (576.5 4509.3)	71	46
Secaucus	59	40
Hoboken	61	62
Carteret	71	25
Perth Amboy	62	21
Sayreville	57	14
South Amboy	59	19
Woodbridge Twp.	51	21
Sewaren	57	23
S. Brunswick	49	7
Cheesequake	35	13
Metuchen	51	17
Middlesex	51	11
Asbury Park	50	7
Millstone Twp.	33	5
Red Bank	39	9
Brielle	34	6
Dover	36	7
Florham Park	33	11

(continued)

TABLE 5-3 (continued)

	Observed	Calculated
Paterson	39	20
Shillman	37	6
Linden	62	28
Roselle	66	25
Rahway	44	23
Union Twp.	43	31

TABLE 5-4. NEW JERSEY AND STATEN ISLAND SO_2 MONITORS
SO_2 ($\mu g/m^3$)

	Observed	Calculated
Bayonne	47	44
Elizabeth (567.0 4499.0)	44	78
Newark	50	47
Asbury Park	26	6
Elizabeth (566.4 4501.0)	34	56
Hackensack	21	26
Jersey City	42	56
Morristown	24	14
Paterson	21	21
Perth Amboy	31	32
Somerville	24	8
Staten Isl. (578.1 4499.2)	59	47
Staten Isl. (564.1 4484.2)	40	27

TABLE 5-5. NEW YORK STATE SO_2 AND TSP MONITORS

	SO_2 ($\mu g/m^3$)		TSP ($\mu g/m^3$)	
	Observed	Calculated	Observed	Calculated
Glen Cove	24	15	55	16
Freeport	21	22	48	21
Garden City	21	23	44	24
Rockville Ctr.	24	24	53	25
Kings Pt.	16	22	41	27
Hempstead	21	27	54	29
Hempstead	18	19	55	20
Hempstead	31	20	60	21
Hempstead	18	23	49	25
Hempstead	24	22	60	24
N. Hempstead	16	18	46	20
N. Hempstead	21	19	44	24
Oyster Bay	16	17	49	28
Oyster Bay	18	11	42	12
Oyster Bay	16	16	49	17
Roslyn	21	16	-	-
Port Jefferson	-	-	40	8
Port Jefferson	-	-	49	7
Babylon	-	-	5 4	17
Babylon	29	16	-	-
Brookhaven	-	-	40	9
Brookhaven	-	-	40	7
East Hampton	8	1	-	-
Islip	13	11	-	-
Islip	-	-	42	12
Islip	13	-	-	-
Smithtown	-	-	48	13
Southampton	-	-	30	3
Peekskill	-	-	60	9
White Plains	31	12	50	14

(continued)

TABLE 5-5 (continued)

	SO_2 ($\mu g/m^3$)		TSP ($\mu g/m^3$)	
	Observed	Calculated	Observed	Calculated
White Plains	31	10	-	-
Mt. Vernon	42	29	54	32
New Rochelle	-	-	59	24
Ossining	-	-	46	11
Port Chester	31	11	42	13
Yonkers	-	-	60	29
Rye	-	-	59	13
Mamaroneck	35	13	50	16
N. Tarrytown	-	-	47	15
Greenburg	21	10	55	14
Mamaroneck	31	16	52	19
Mt. Plesant	21	9	42	11
Somers	21	4	34	7
W. Haverstraw	16	6	43	9
Nyack	18	8	-	-
Suffern	-	-	48	6
Clarkstown	8	5	44	10
Orangetown	-	-	46	12
Cold Springs	-	-	41	8
Brewster	-	-	41	7
Newburgh	-	-	65	8
Poughkeepsie	-	-	56	9
Rhinebeck	-	-	40	7
Fiskkill	-	-	41	8
La Grange	-	-	34	8
Kingston	-	-	56	14
New Paltz	-	-	48	6

TABLE 5-6. NEW YORK CITY SO_2 AND TSP MONITORS

	SO_2 ($\mu g/m^3$)		TSP ($\mu g/m^3$)	
	Observed	Calculated	Observed	Calculated
Bronx Hi	51	27	57	30
Morrisania	69	54	75	53
CCNY	72	52	70	44
Central Park	53	48	65	45
Gompers	75	58	76	52
Ft. Schuyler	37	16	48	19
Mabel Dean	75	52	71	46
Greenpoint	67	42	73	41
Jct. Blvd.	48	30	63	32
Queens College	51	23	50	30
PS 371	56	28	77	25
Brooklyn Lib	59	36	52	38
51 Astor Pl.	80	51	-	-
121st St. Lab	75	58	-	-
Sheepshead	53	20	62	23
PS 11	53	39	70	44
Van Buren	45	16	59	19
Grover Cleveland	53	33	64	37
Andrew Jackson	45	18	58	21
Roosevelt Island	59	44	-	-

spatial representation of area source emissions (these emissions are "smeared" over an area with a minimum size of 1 square kilometer) as well as unrepresentative meteorological and monitoring data all combine to create an imperfect model. Correction for these imperfections is performed by fitting the data with a least-squares line of best fit. This was performed separately for each pollutant and for the three regions noted in Table 5-1. Further review of these regional breakdowns suggested that Long Island should be separated from the Mid-Hudson Valley. The SO_2 validation results improved significantly after separation of the data; TSP, however, changed very little. Figures 5-1 through 5-6 present the calibration lines. The results of the SO_2 validation for the Mid-Hudson area are not presented as this has not been designated as a maintenance area.

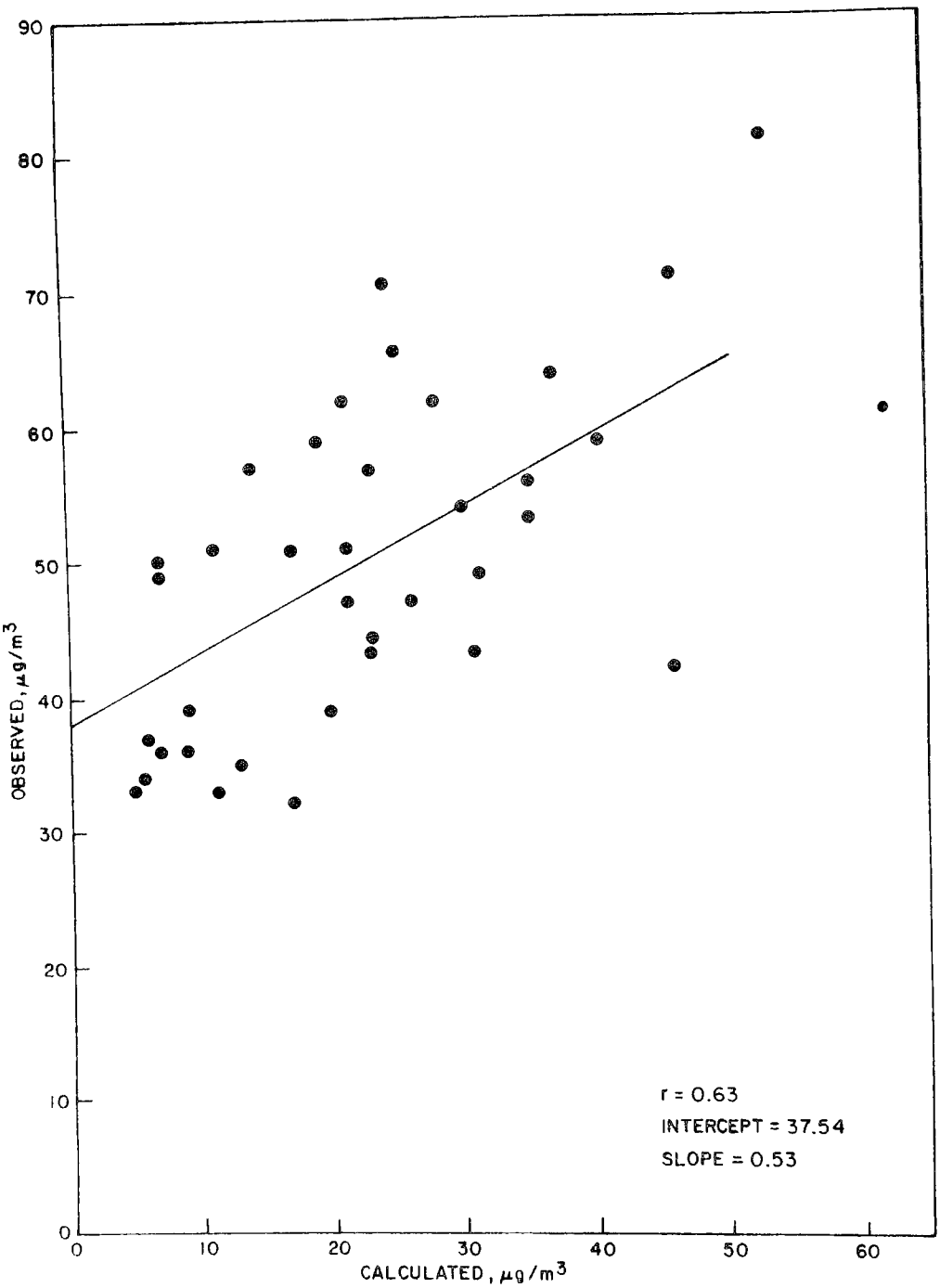

Figure 5-1. Validation of New Jersey TSP sites.

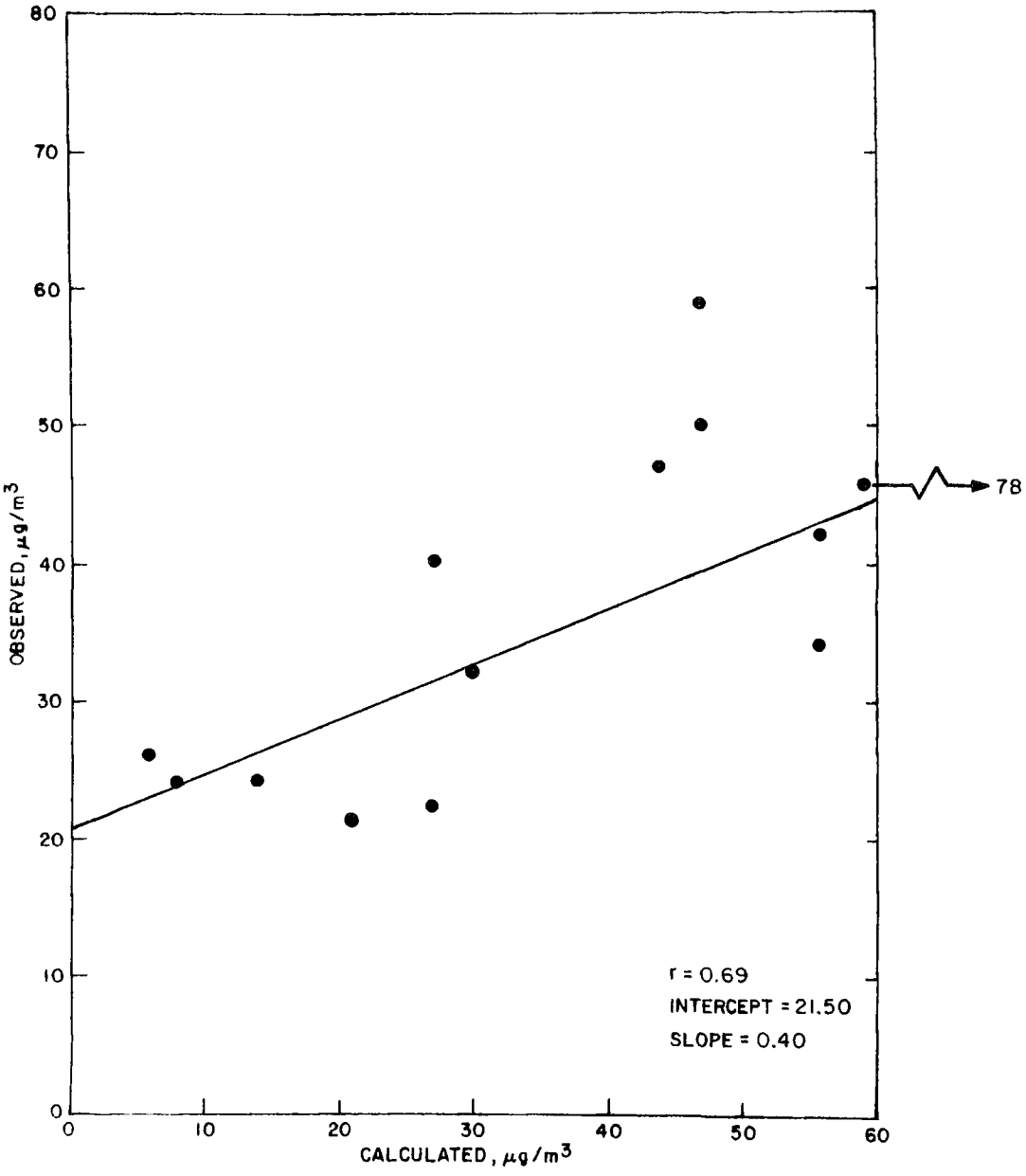

Figure 5-2. Validation of New Jersey and Staten Island SO_2 sites - 1975.

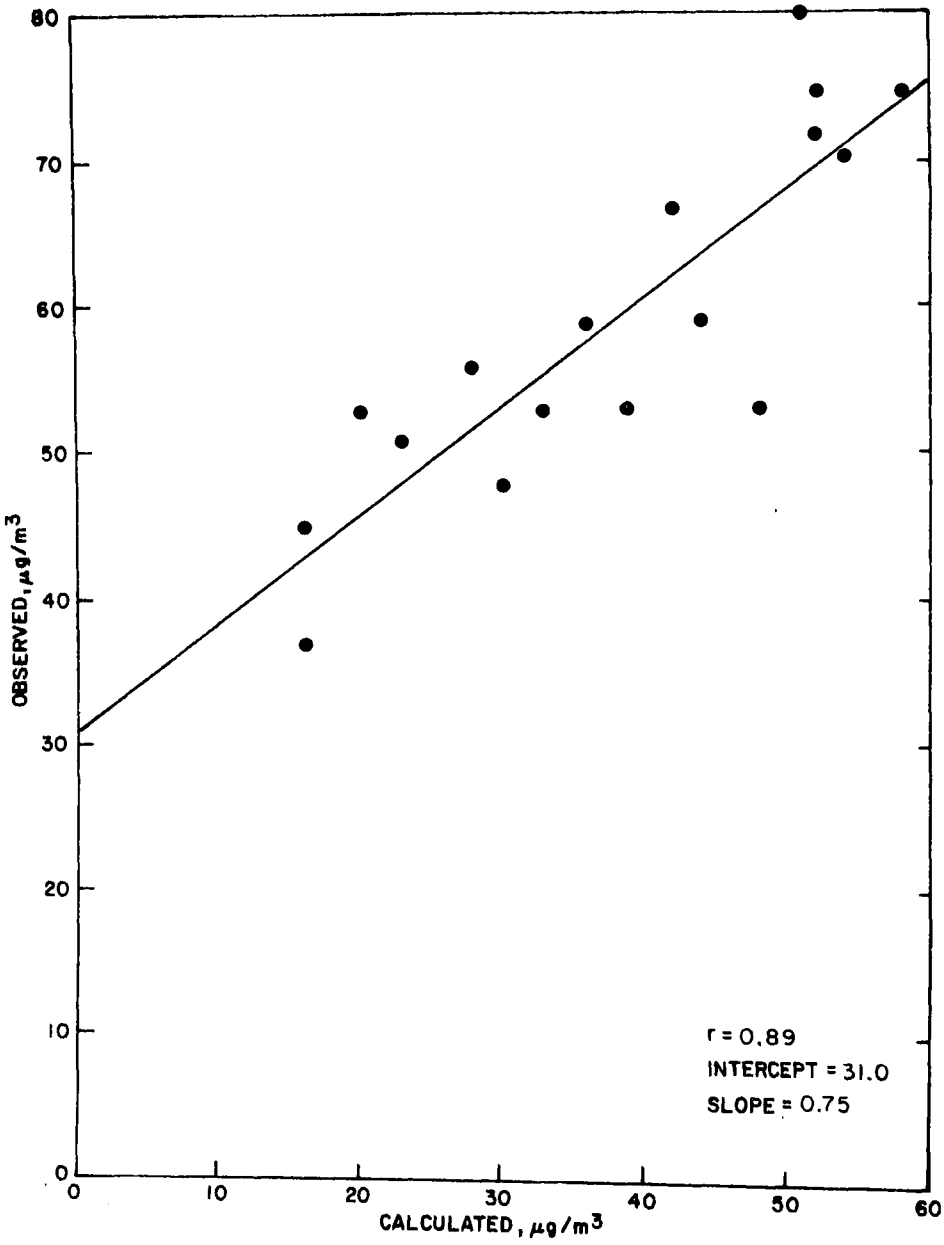

Figure 5-3. Validation of New York City SO_2 sites - 1975.

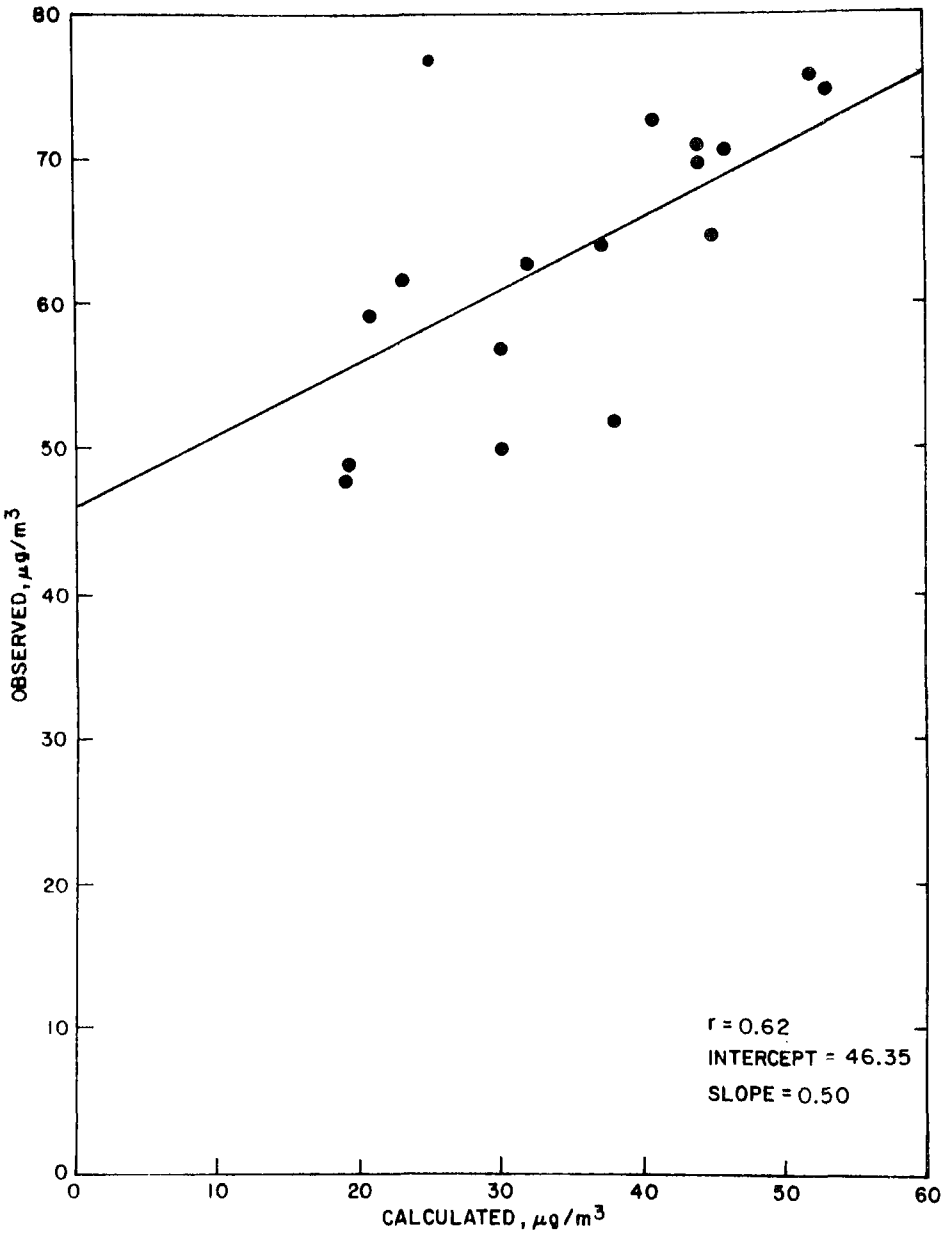

Figure 5-4. Validation of New York City TSP sites - 1975.

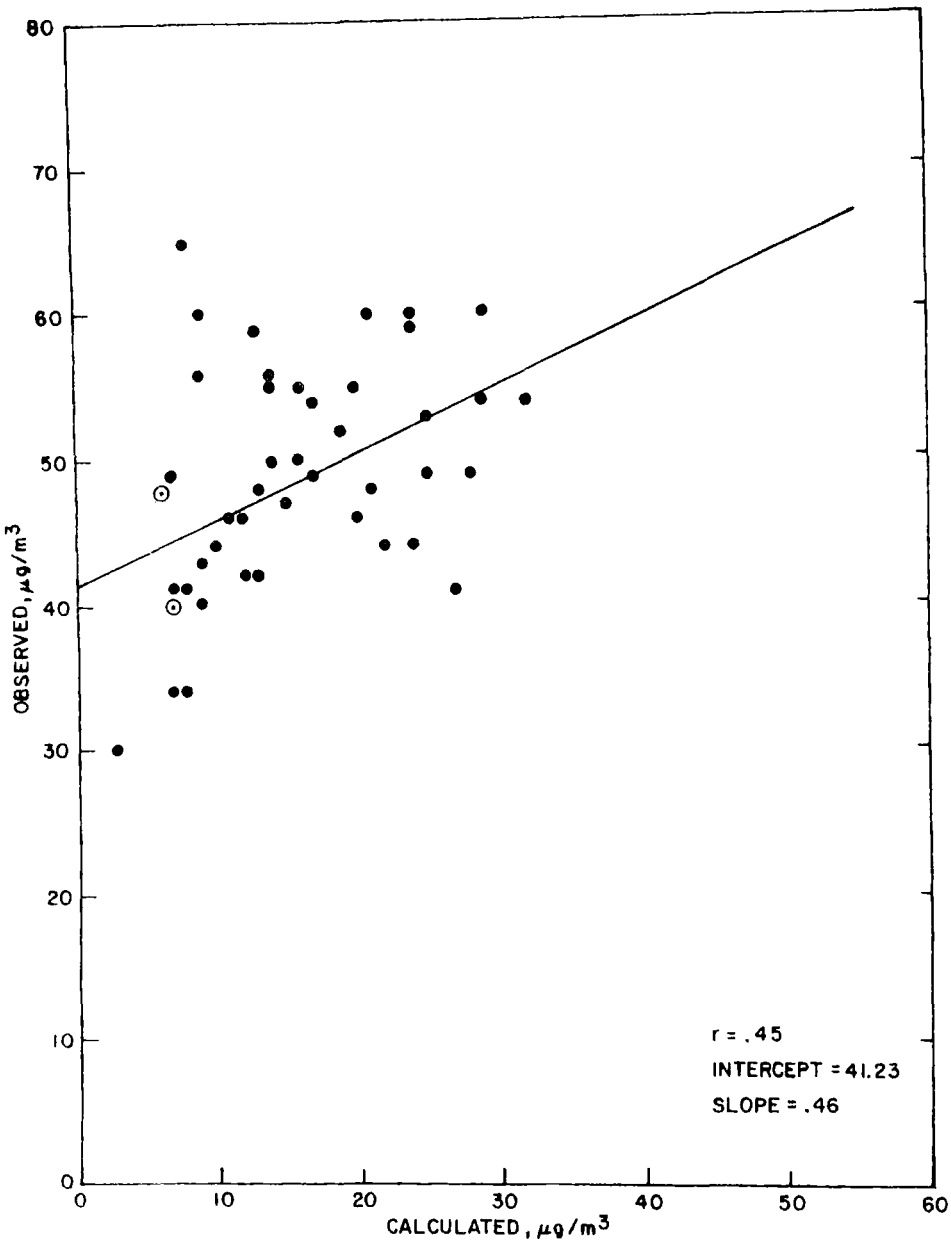

Figure 5-5. New York State TSP validation - 1975.

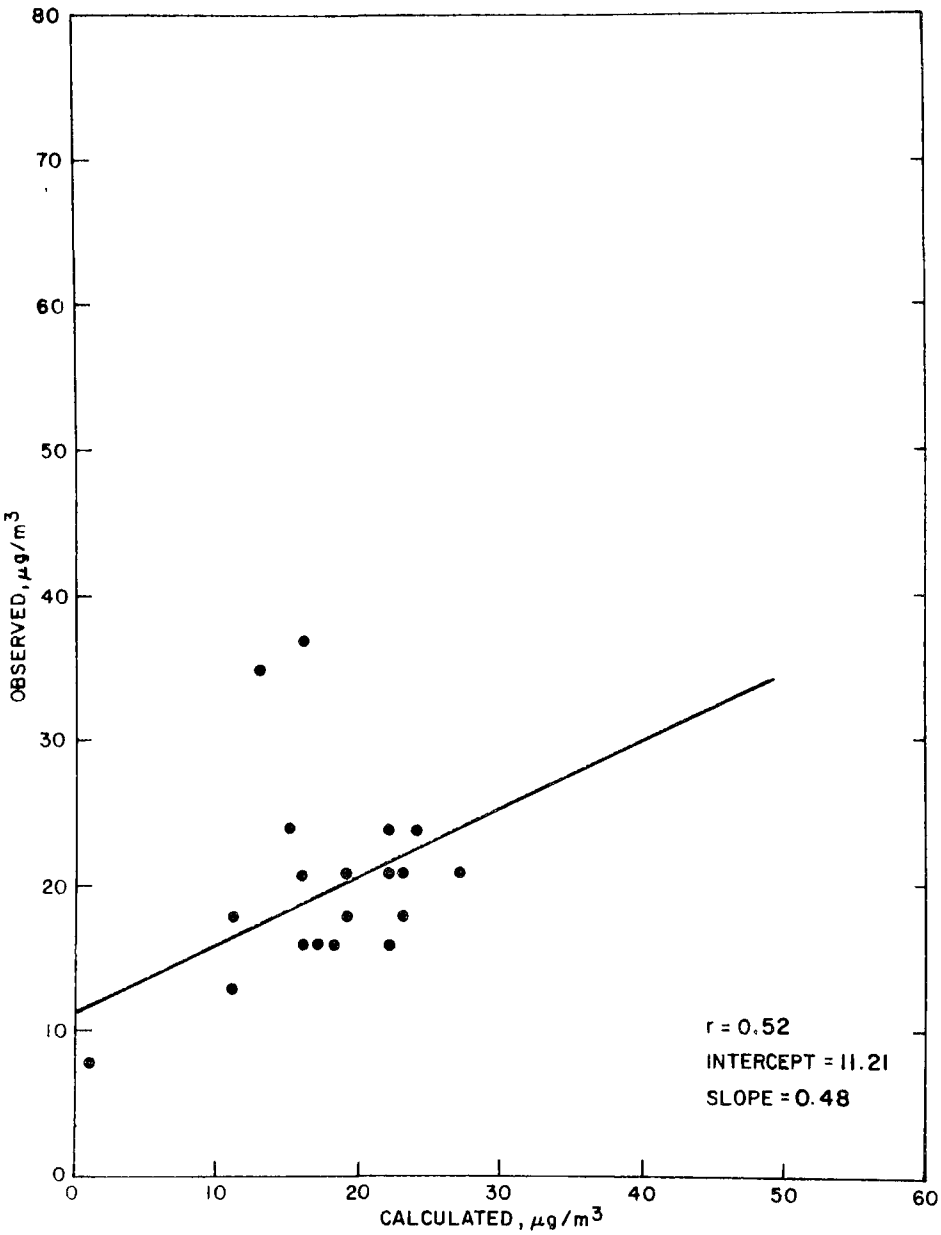

Figure 5-6. Long Island SO_2 validation - 1975.

SECTION 6

REGIONAL MODELING ANALYSIS

A regional analysis of base year (1975) and projected air quality was performed to determine whether NAAQS will be maintained. This task was achieved by using the projected emissions inventory, average regional meteorology, an array of receptor points located throughout the area and the calibrated model to predict annual SO_2 and TSP concentrations.

The generation of the projected emission inventories has been discussed in Section 3 of this report. Average meteorological data were implemented as was described in Table 5-1, however, the base period of record was the 5-year average, 1960 to 1964, rather than the validation year, 1975. The regional array of receptor locations was specified by the States. It was decided that only the monitor locations would be modeled in New York City.

The modeling analysis was performed by executing the AQDM model for the base period and creating a file of source contributions, that is, the relative impact of every source on every receptor. Projected air quality was then calculated by multiplying the projected emission rate by the source contribution and summing over each receptor. Implicit in the use of this technique is the assumption that plant operating characteristics other than emission rates do not change over time. Calibration for all years was applied by multiplying the concentration computed by the model by the slope and adding the intercept.

Figures 6-1 through 6-24 presents the results of the regional modeling analysis in the form of concentration isopleths. The figures are organized to present, for each pollutant and region, predictions of air quality for the four years. Since these are projections including the calibration curve, the values included in these figures represent actual air quality concentrations, within the accuracy of the model.

Review of these data indicate that SO_2 levels in New Jersey and Staten Island are not expected to exceed the 80 $\mu g/m^3$ standard through the year 2000. The secondary guideline for TSP (60 $\mu g/m^3$), is exceeded throughout Hudson County in 1974 and the predicted area of exceedance extends to include southern Bergen and eastern Essex and Passaic Counties by 2000. An isolated TSP "hot-spot" located in southern Passaic County resulted from location of a receptor immediately to the east of a major source.

New York City SO_2 levels are below the annual standard until 2000 when the Compers site is predicted to equal 80 $\mu g/m^3$. TSP levels exceed the 60 $\mu g/m^3$ secondary guideline throughout most of the four boroughs; in 2000 the Compers area is also predicted to exceed the primary standard for TSP.

The New York State results indicate that the SO_2 standard will be maintained through the year 2000; areas of southern Westchester County, however, are expected to be above the secondary TSP guideline in all 4 study years.

As a perspective on these base and projection year isopleth maps, several points must be considered. The use of a linear curve to calibrate the model can result in significant under- or overprediction at those points which were poorly represented in the initial validation. As an example, the standard error between observed and calibrated base year SO_2 predictions in New York City was 5.7 $\mu g/m^3$, implying this magnitude of "shift" between observation and prediction. The existence of a "background" in the calibration tends to moderate the impact of growth on air quality projections. The existence of different calibration curves for each region also suggests differences in monitoring techniques or in the degree of representativeness of the meteorology and emissions inventory. Finally, the use of projections, consistent with "208" figures in the Bronx and Kings as recommended by NYS DEC would have resulted in slightly lower projected concentrations.

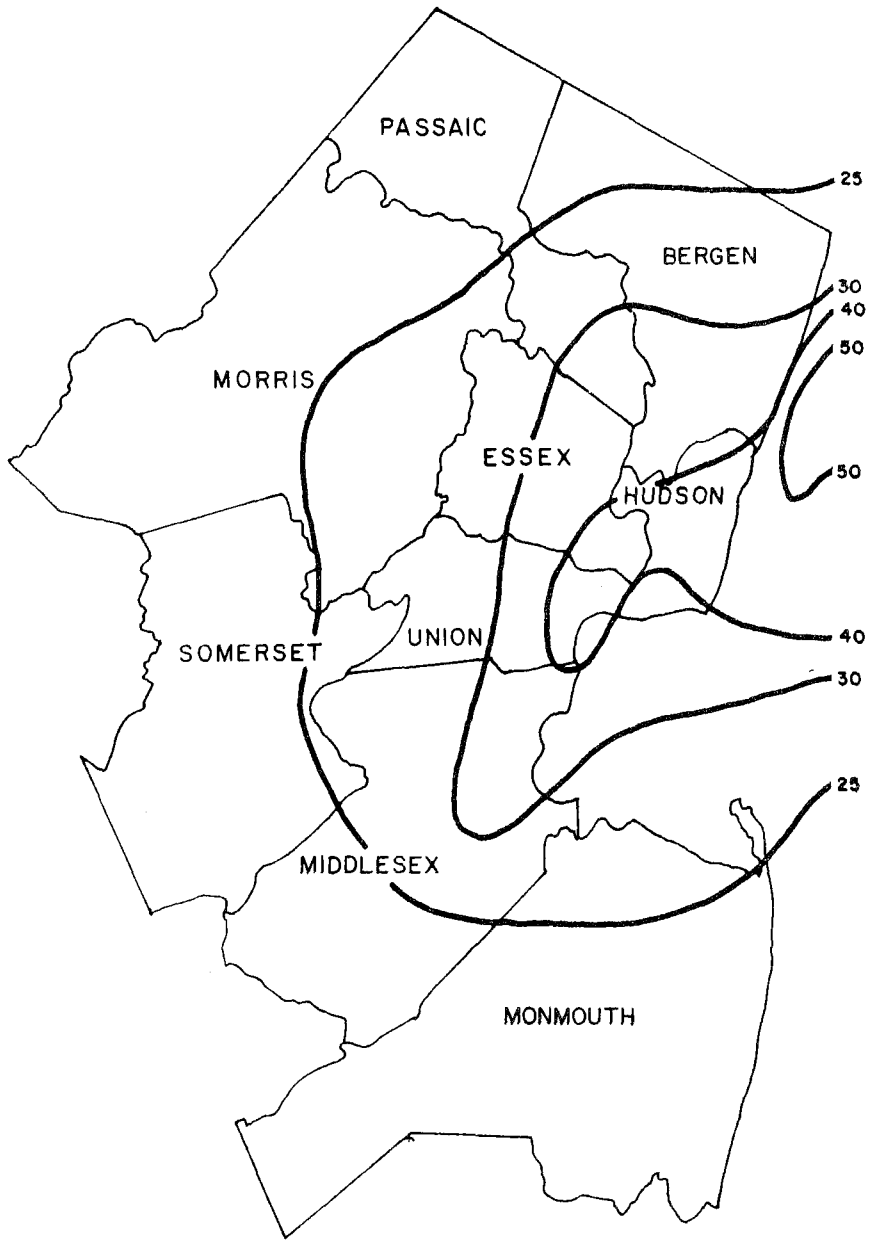

Figure 6-1. New Jersey Regional Modeling Analysis for SO_2 - 1974 ($\mu g/m^3$)

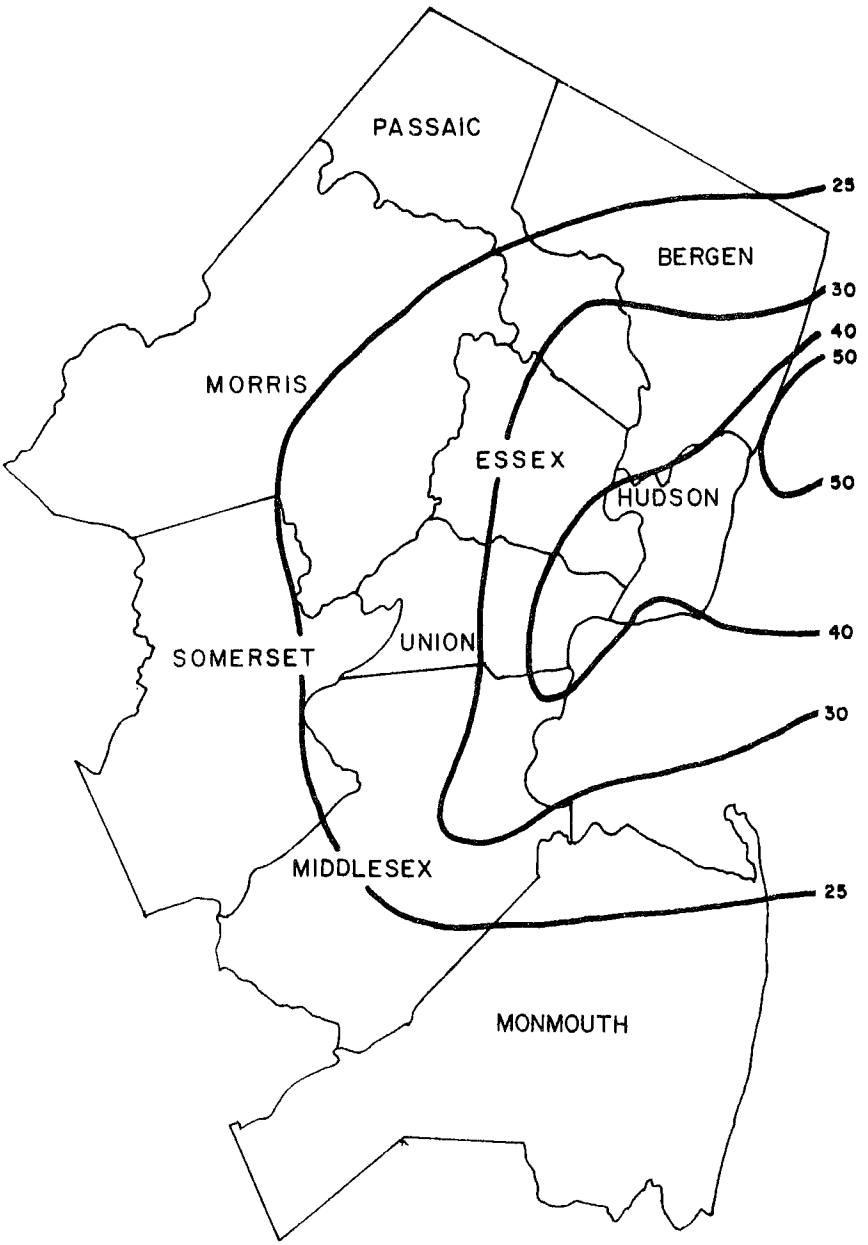

Figure 6-2. New Jersey Regional Modeling Analysis for SO_2 - 1980 ($\mu g/m^3$)

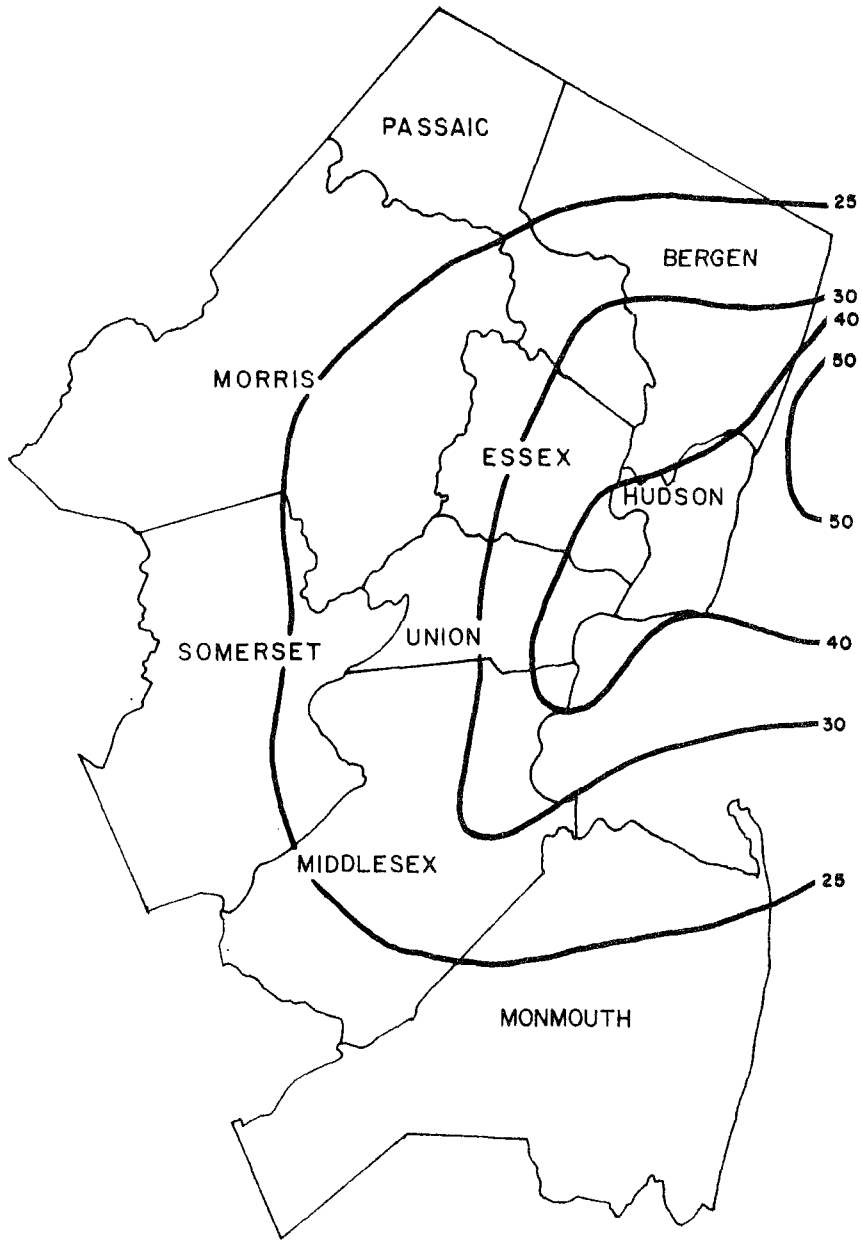

Figure 6-3. New Jersey Regional Modeling Analysis for SO_2 - 1985 ($\mu g/m^3$)

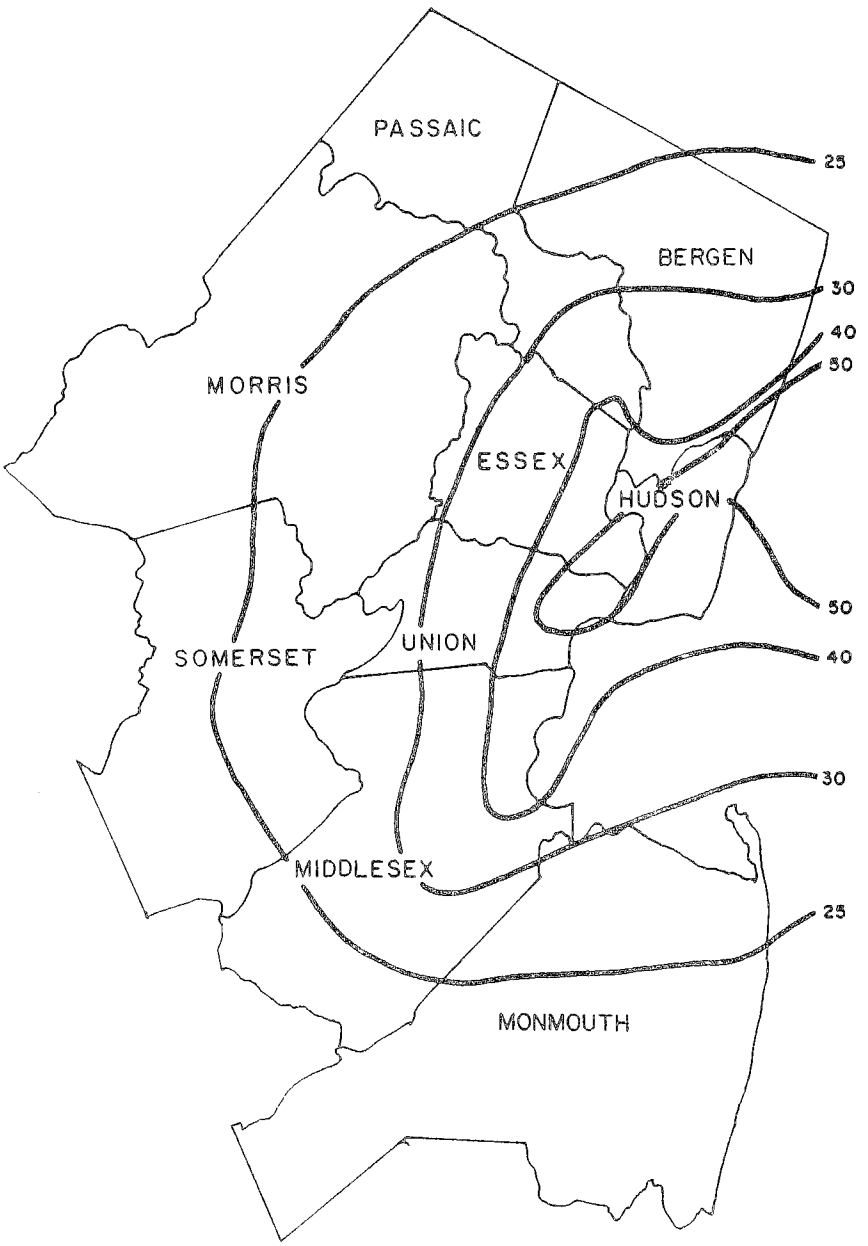

Figure 6-4. New Jersey Regional Modeling Analysis for SO_2 - 2000 ($\mu g/m^3$)

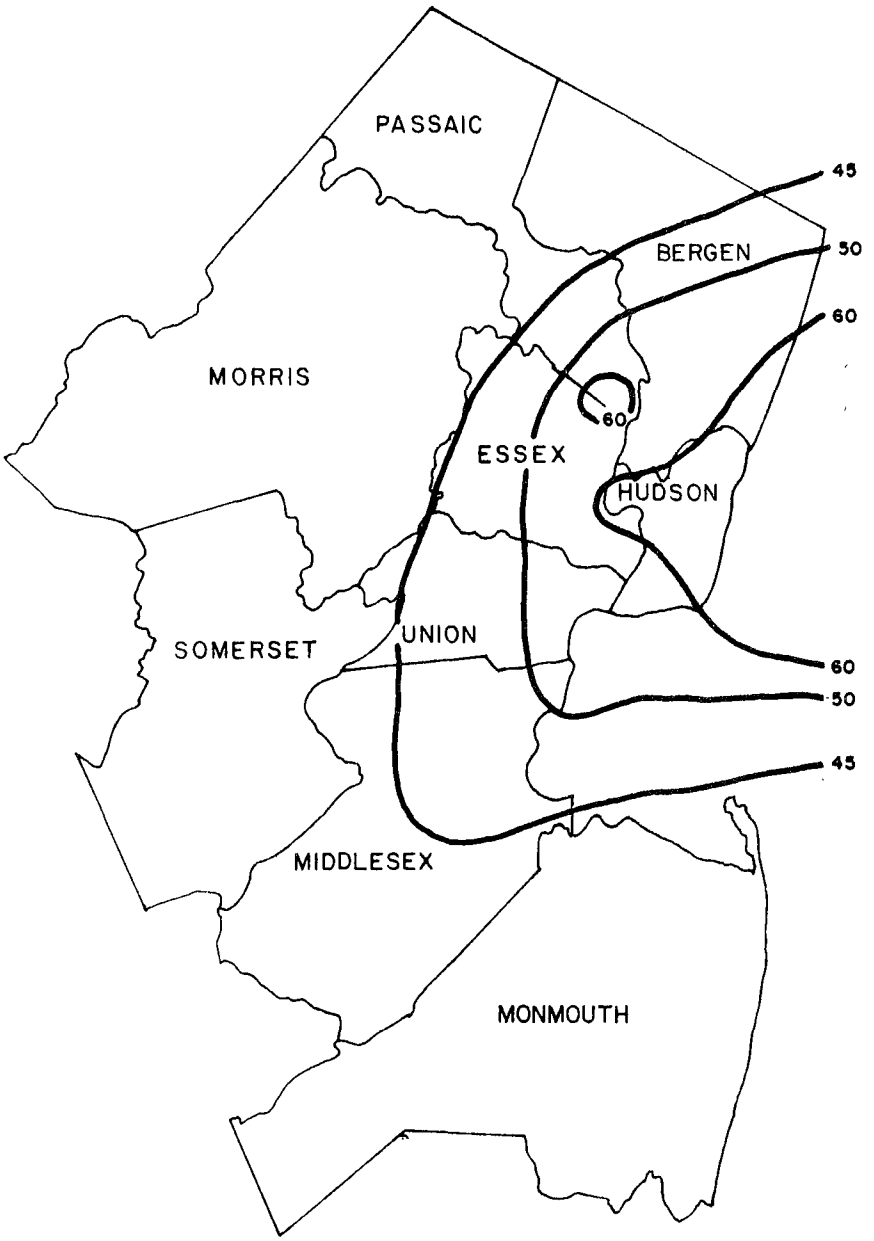

Figure 6-5. New Jersey Regional Modeling Analysis for TSP - 1974 ($\mu g/m^3$)

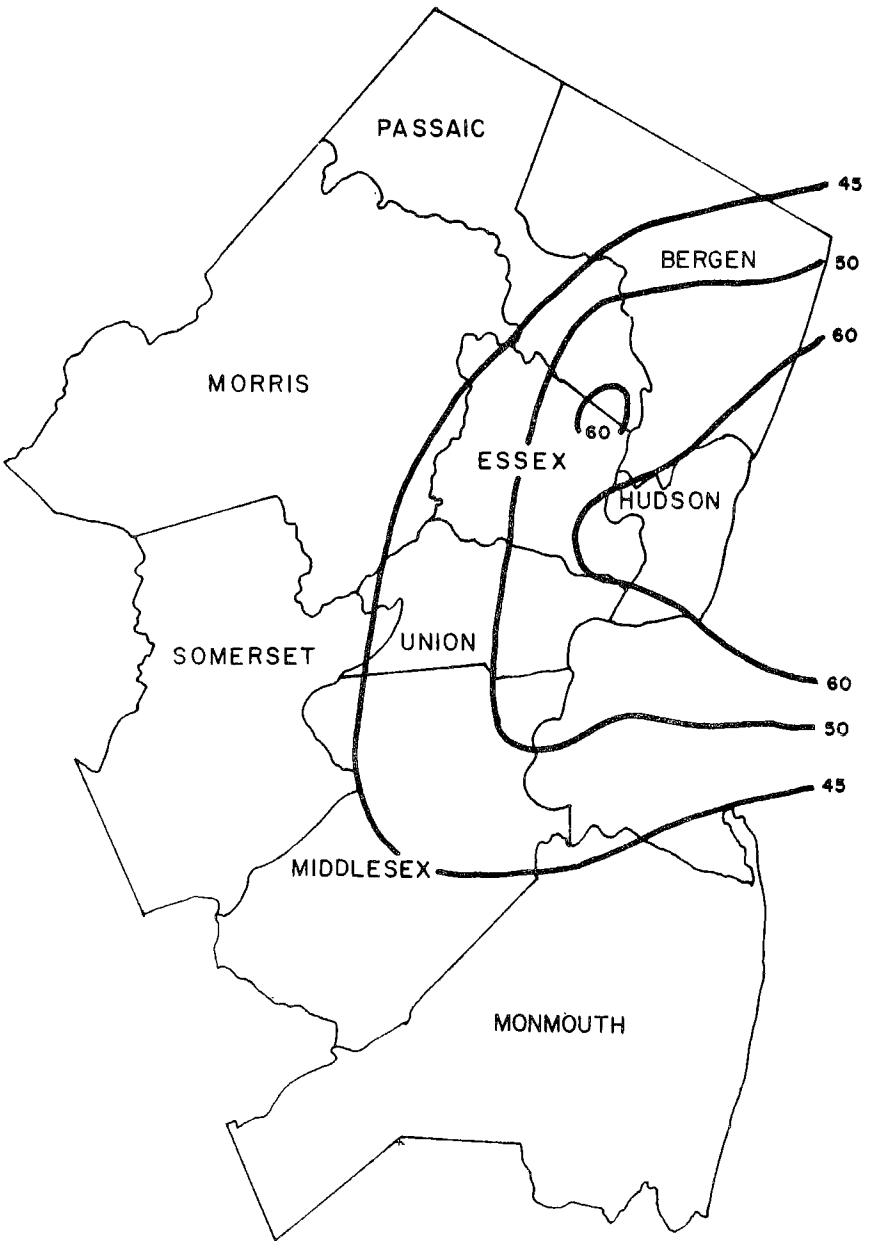

Figure 6-6. New Jersey Regional Modeling Analysis for TSP - 1980 ($\mu g/m^3$)

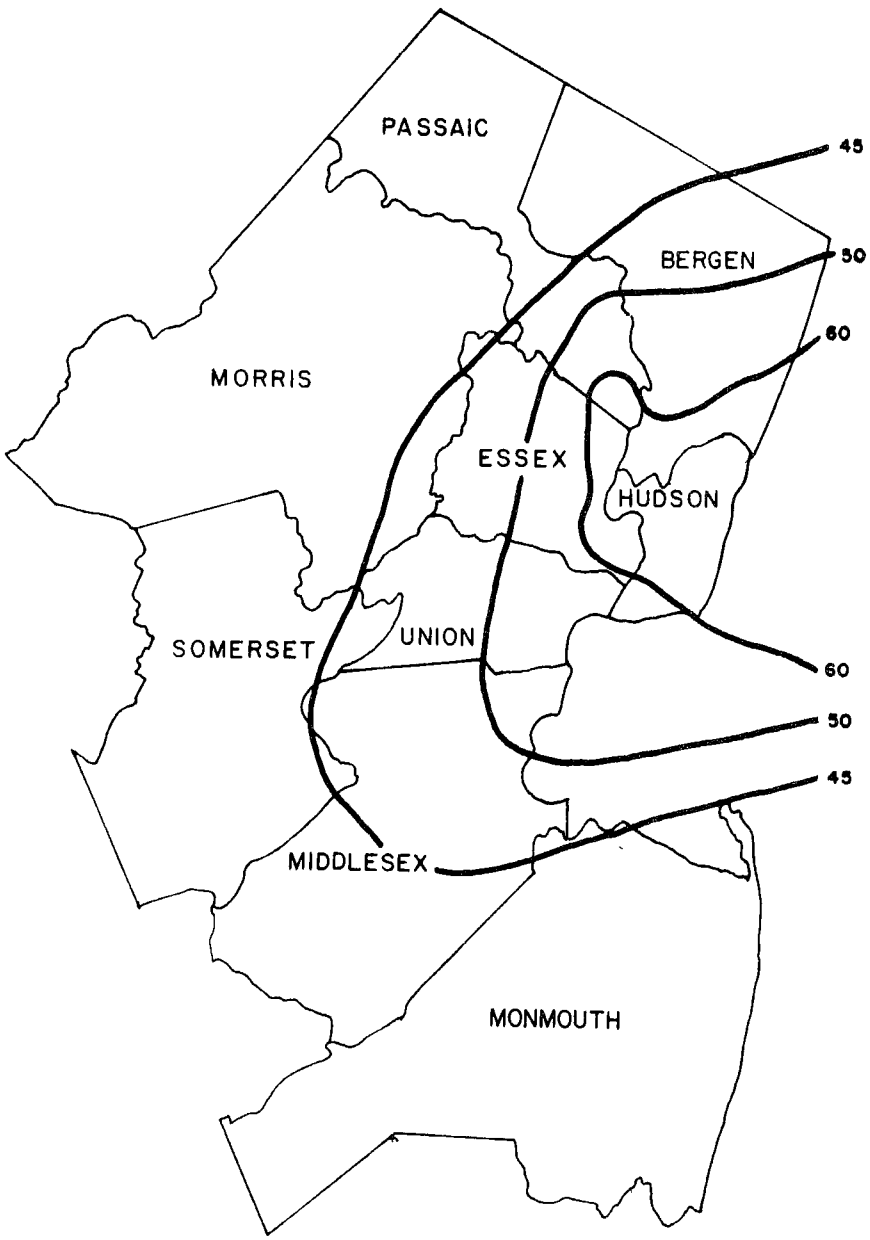

Figure 6-7. New Jersey Regional Modeling Analysis for TSP - 1985 ($\mu g/m^3$)

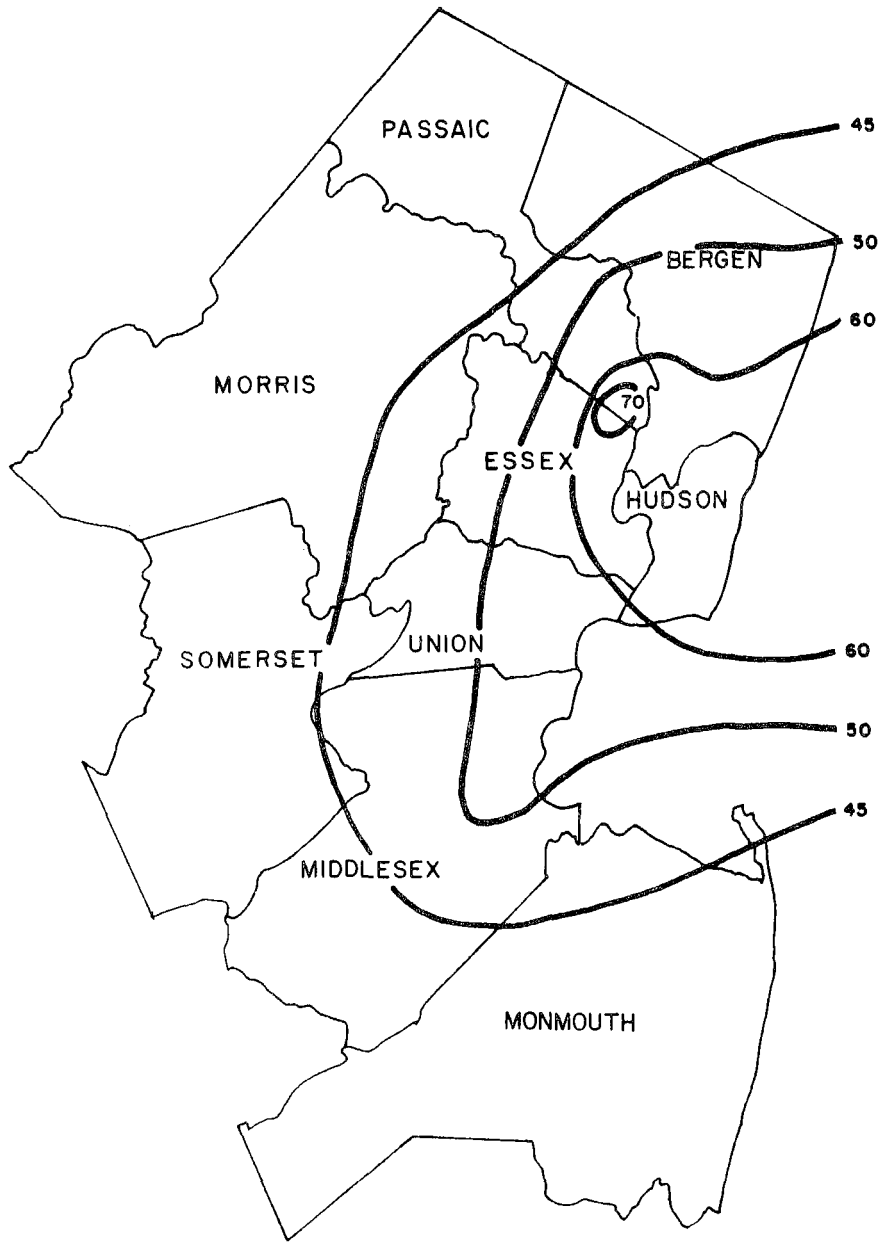

Figure 6-8. New Jersey Regional Modeling Analysis for TSP - 2000 ($\mu g/m^3$)

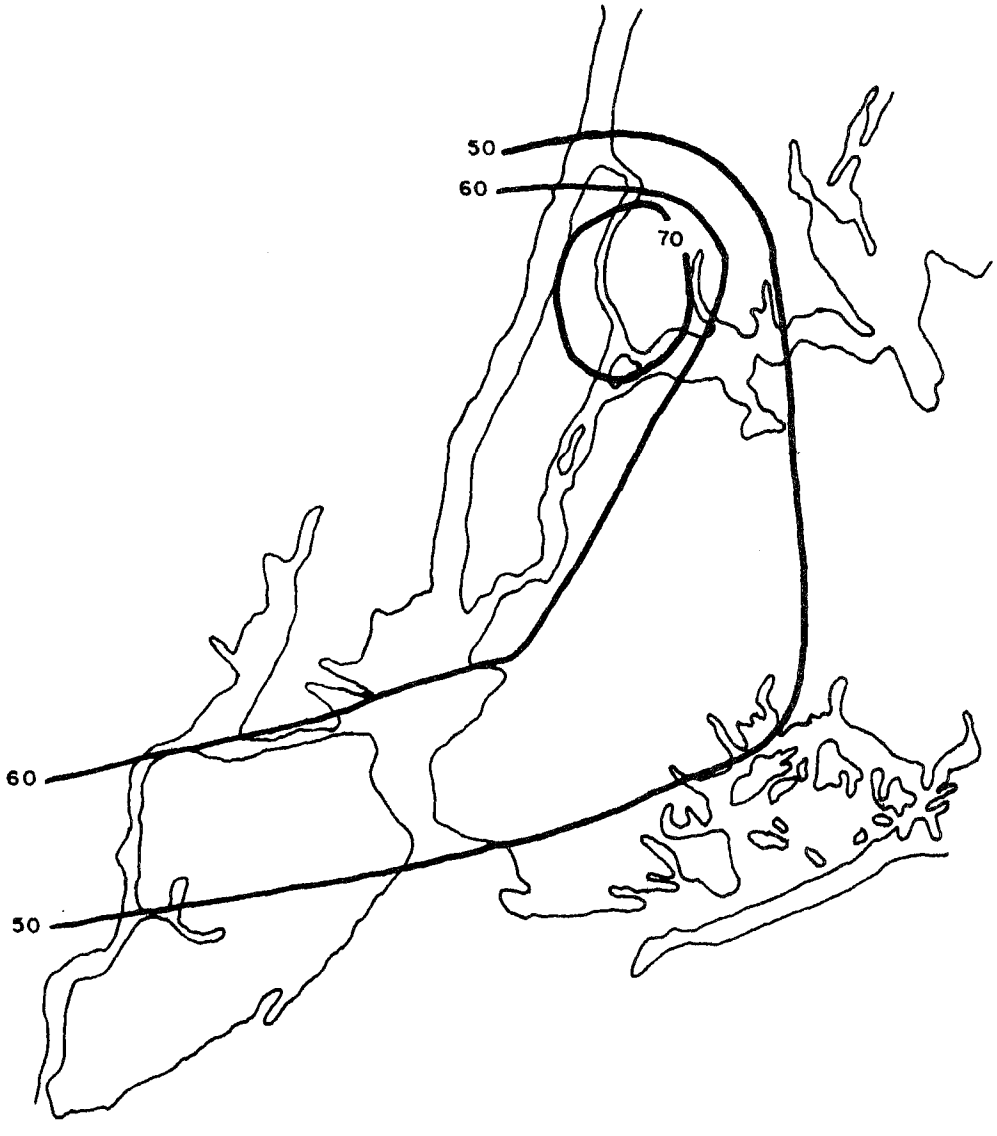

Figure 6-9. New York City Regional Modeling Analysis for SO_2 - 1974 ($\mu g/m^3$)

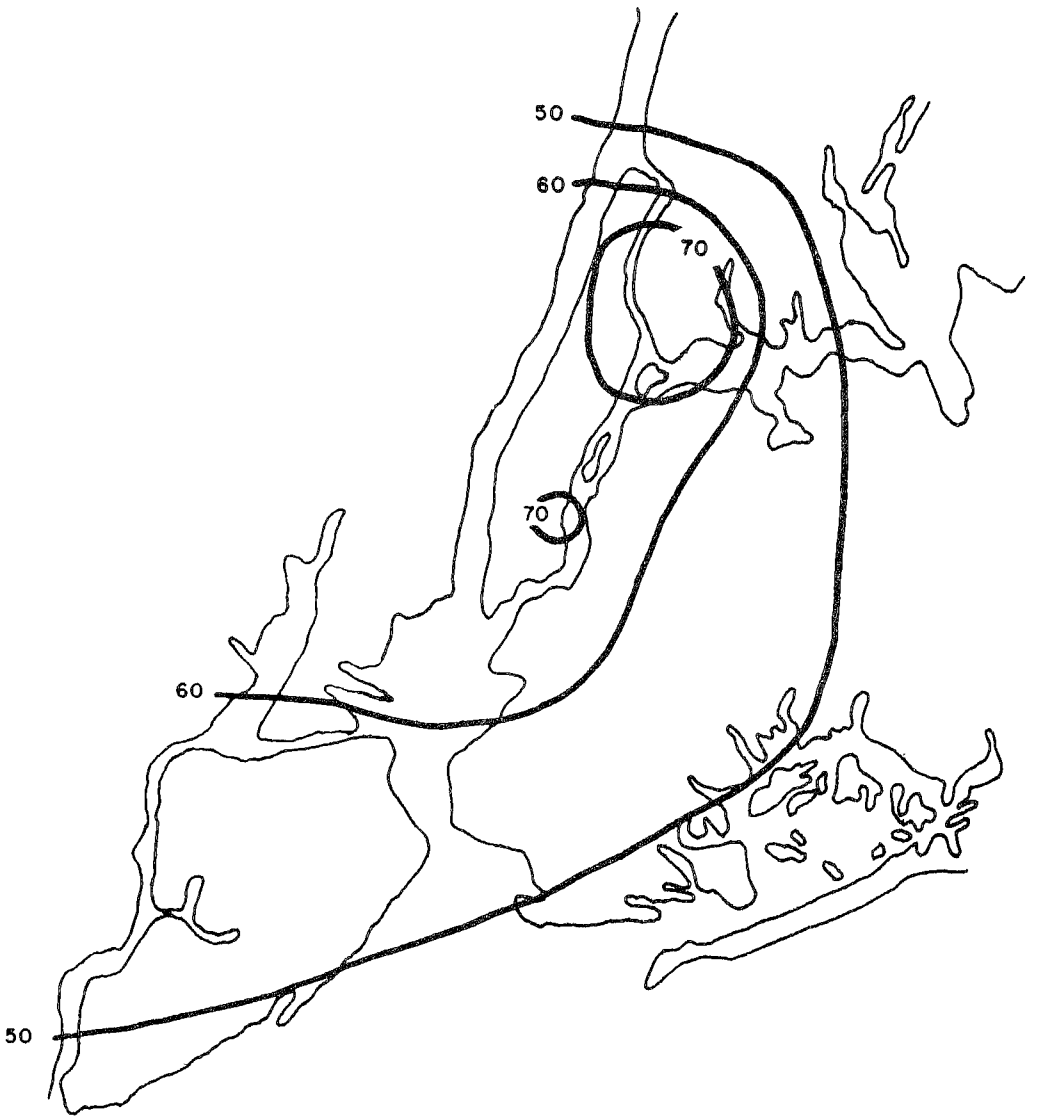

Figure 6-10. New York City Regional Modeling Analysis for SO_2 - 1980 ($\mu g/m^3$)

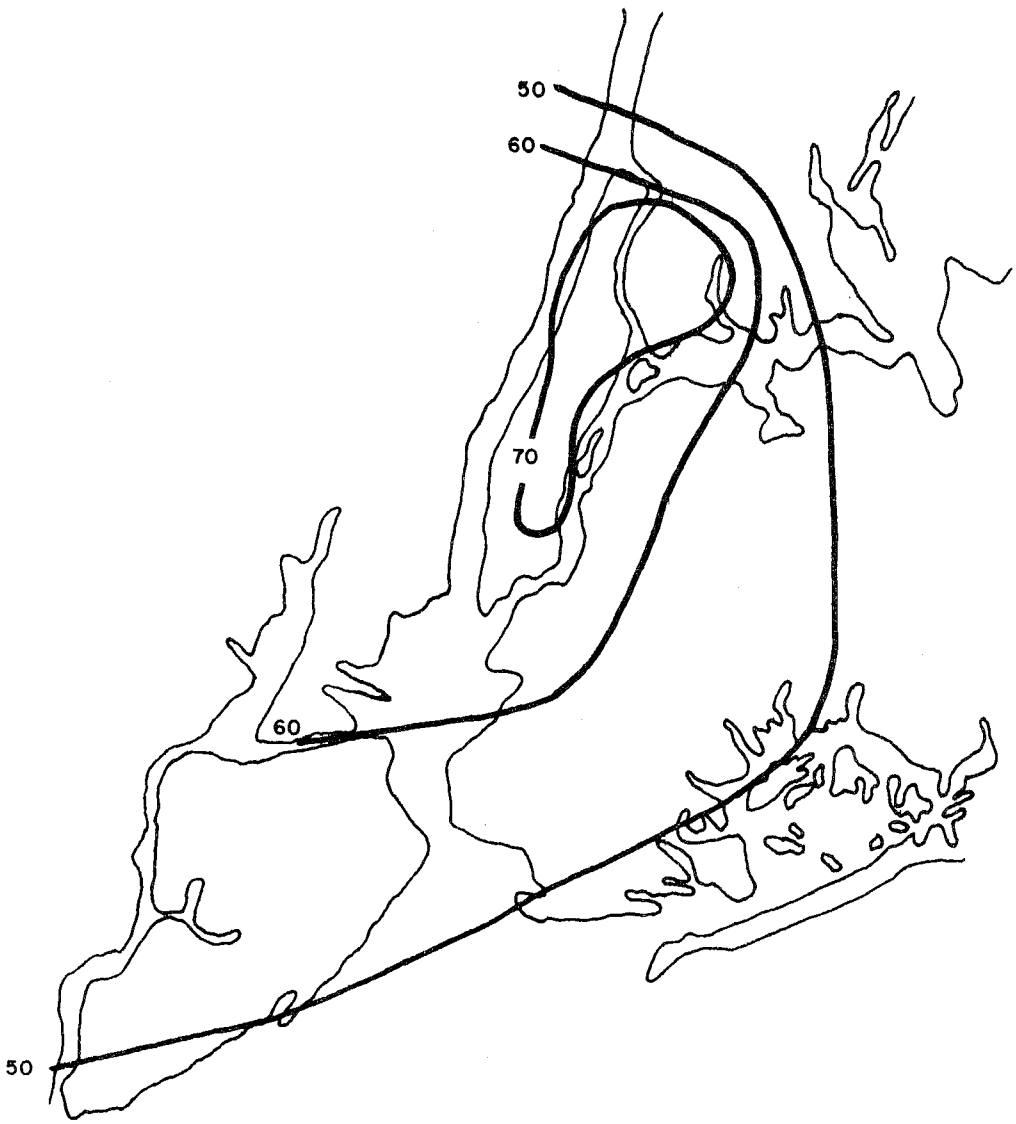

Figure 6-11. New York City Regional Modeling Analysis for SO_2 - 1985 ($\mu g/m^3$)

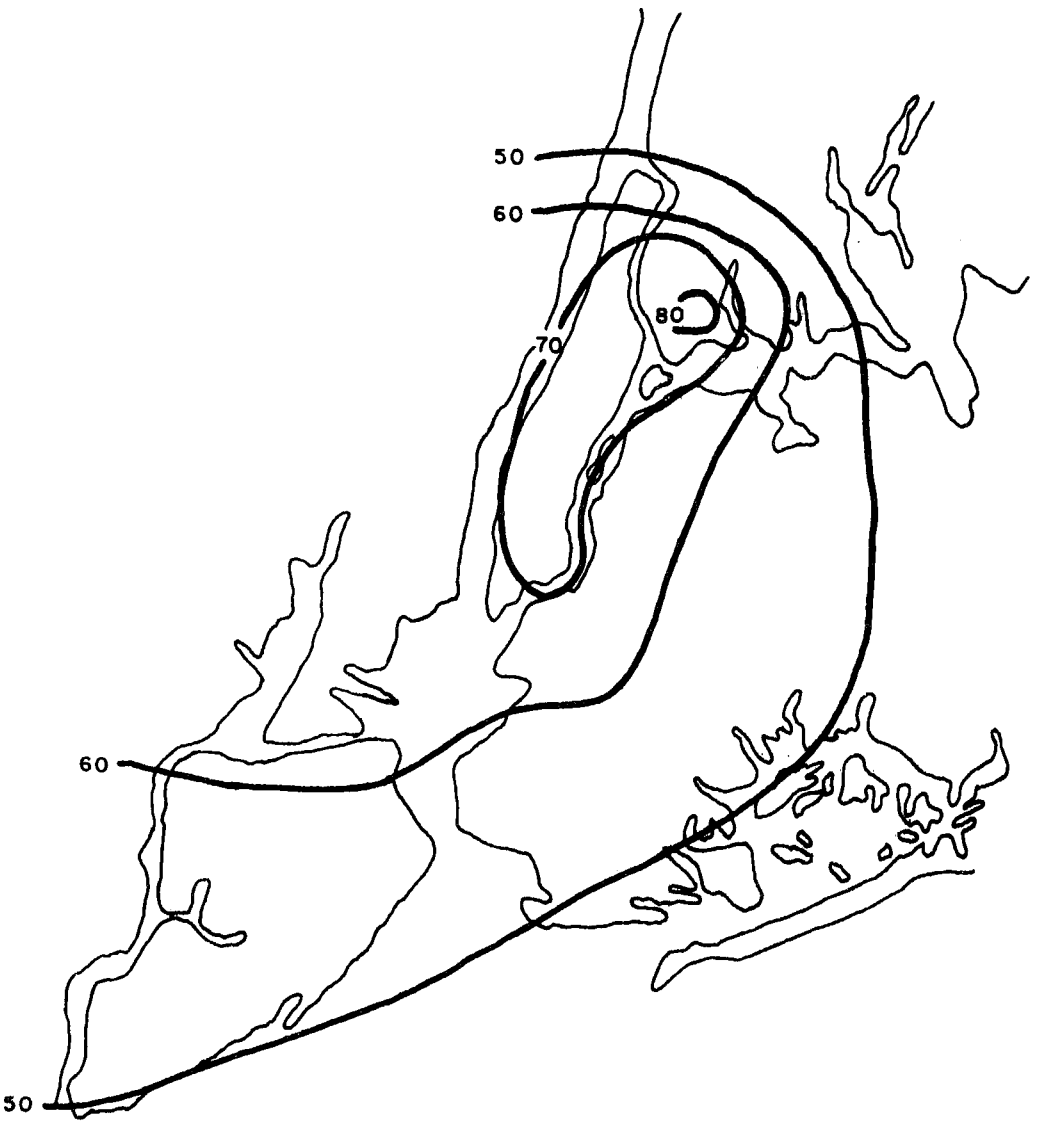

Figure 6-12. New York City Regional Modeling Analysis for SO_2 - 2000 ($\mu g/m^3$).

Figure 6-13. New York City Regional Modeling Analysis for TSP - 1974 ($\mu g/m^3$).

Figure 6-14. New York City Regional Modeling Analysis for TSP - 1980 ($\mu g/m^3$)

Figure 6-15. New York City Regional Modeling Analysis for TSP - 1985 ($\mu g/m^3$)

Figure 6-16. New York City Regional Modeling Analysis for TSP - 2000 ($\mu g/m^3$)

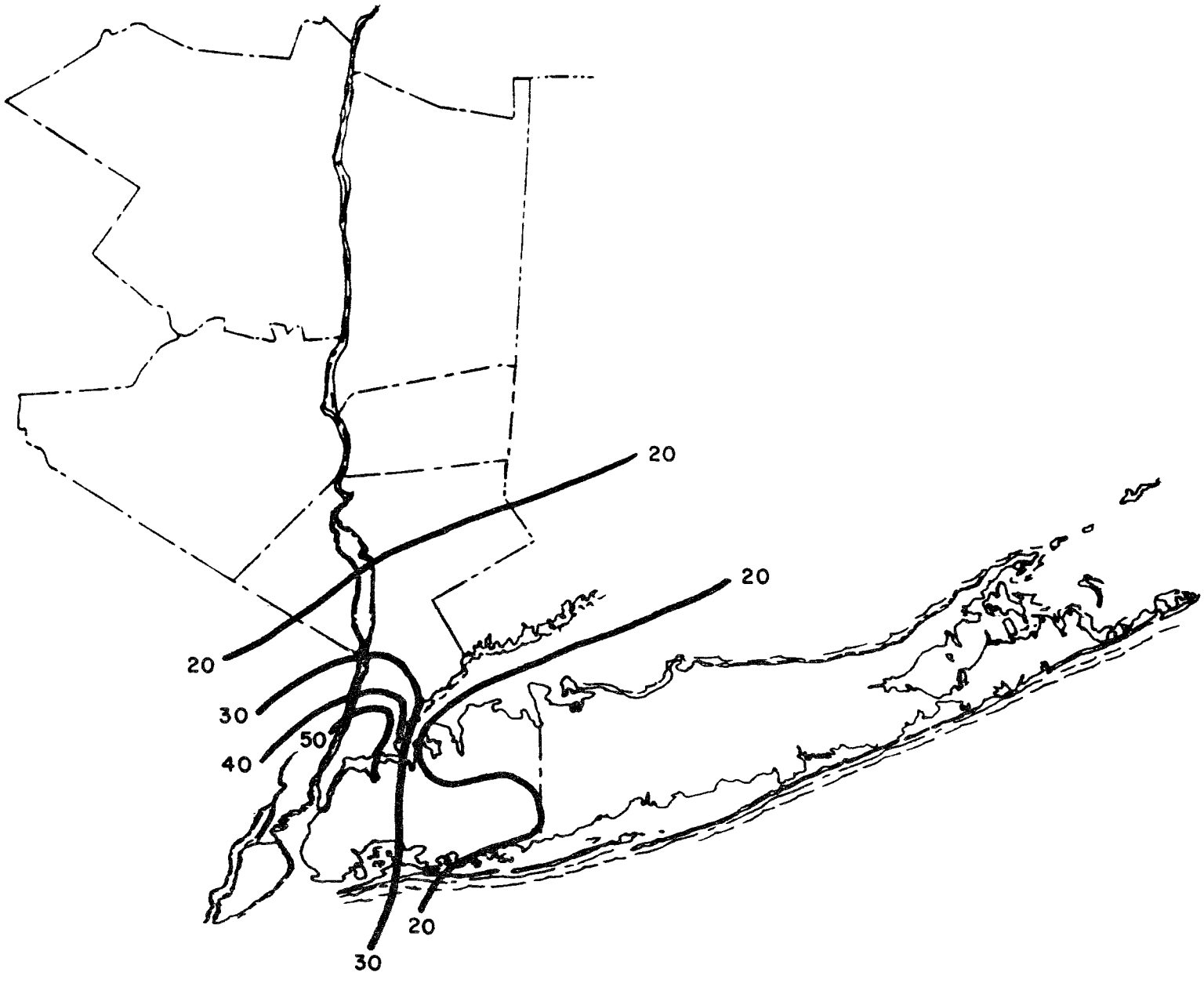

Figure 6-17. New York State Regional Modeling Analysis for SO_2 - 1974 ($\mu g/m^3$).

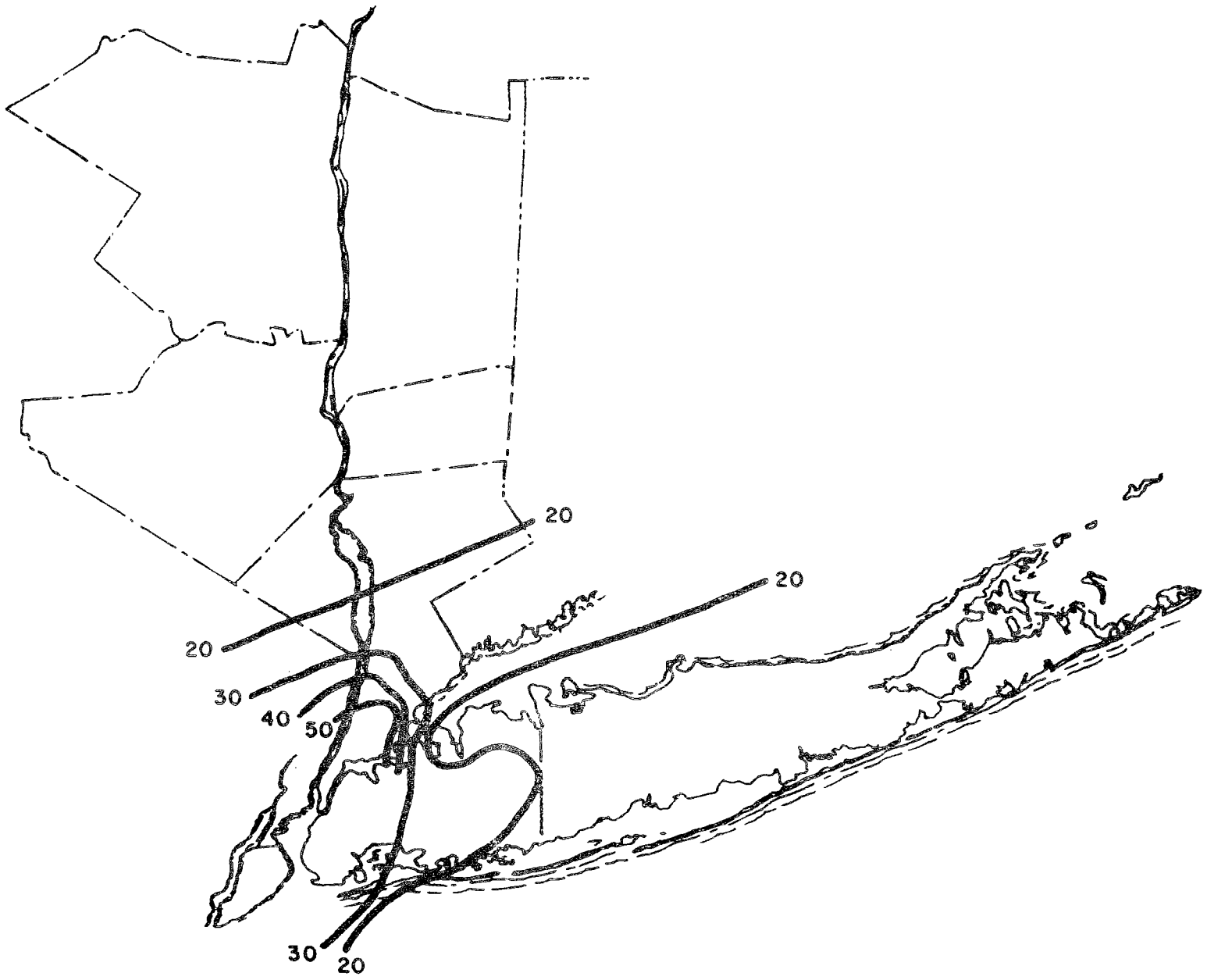

Figure 6-18. New York State Regional Modeling Analysis for SO_2 - 1980 ($\mu g/m^3$).

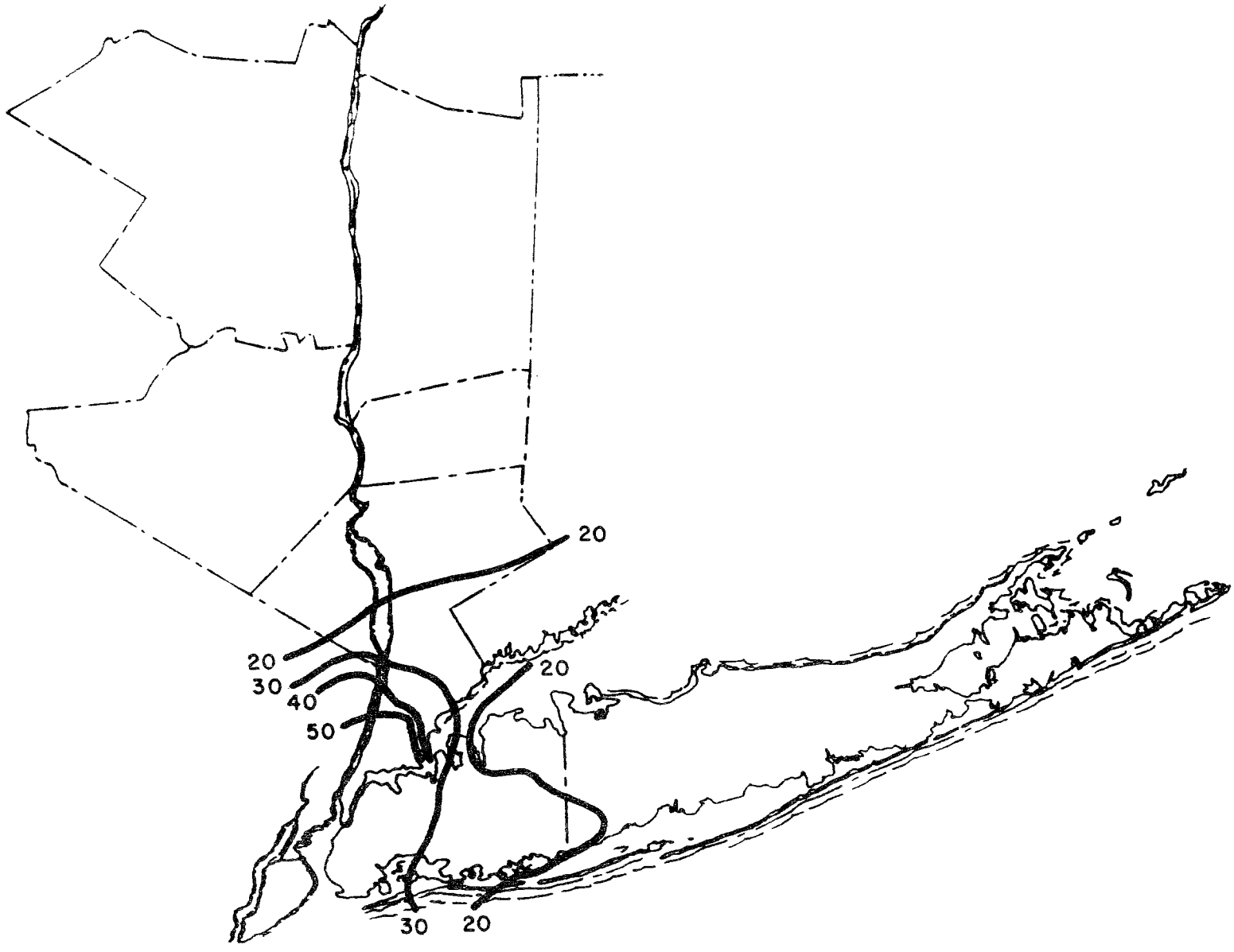

Figure 6-19. New York State Regional Modeling Analysis for SO_2 - 1985 ($\mu g/m^3$).

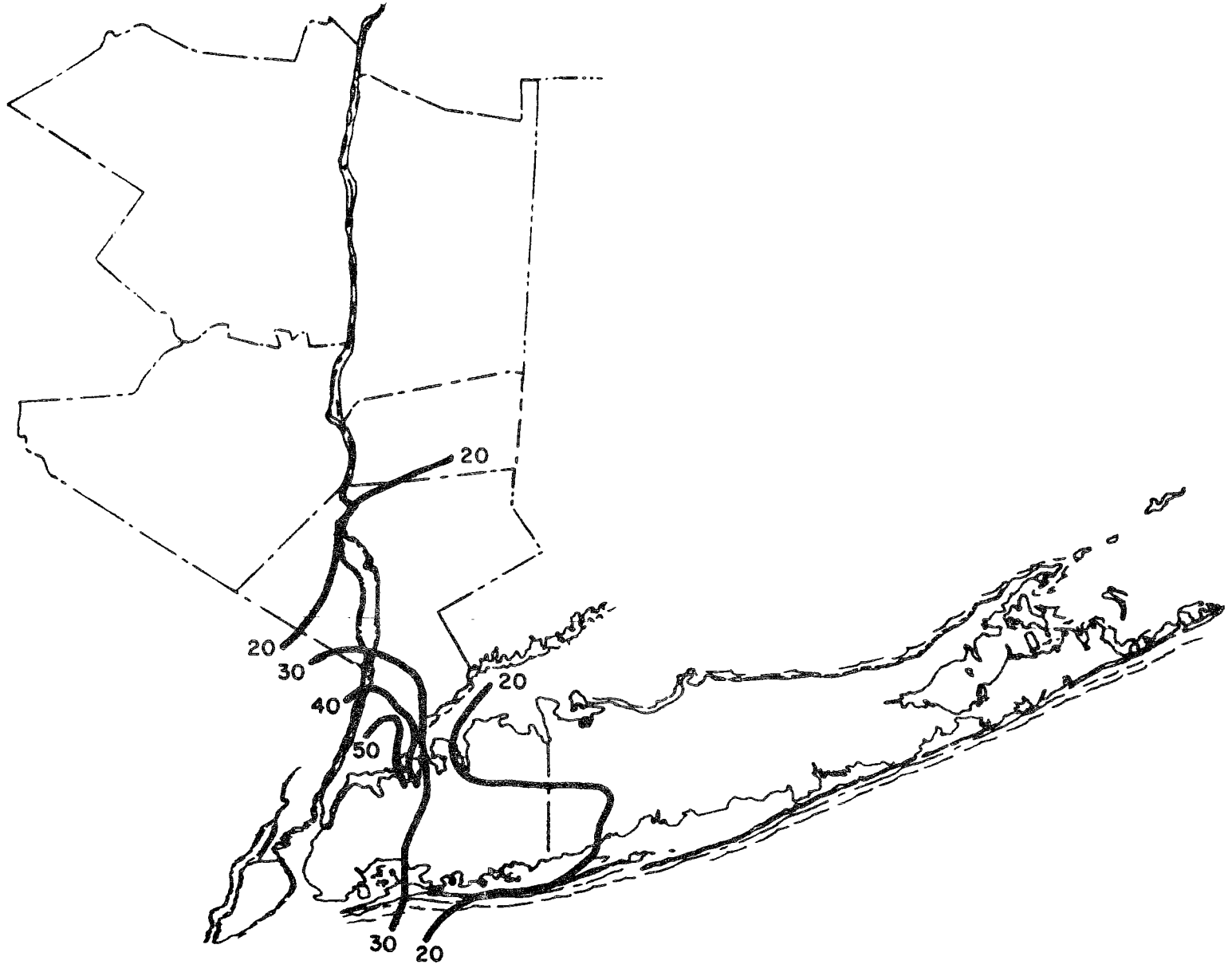

Figure 6-20. New York State Regional Modeling Analysis for SO_2 - 2000 ($\mu g/m^3$).

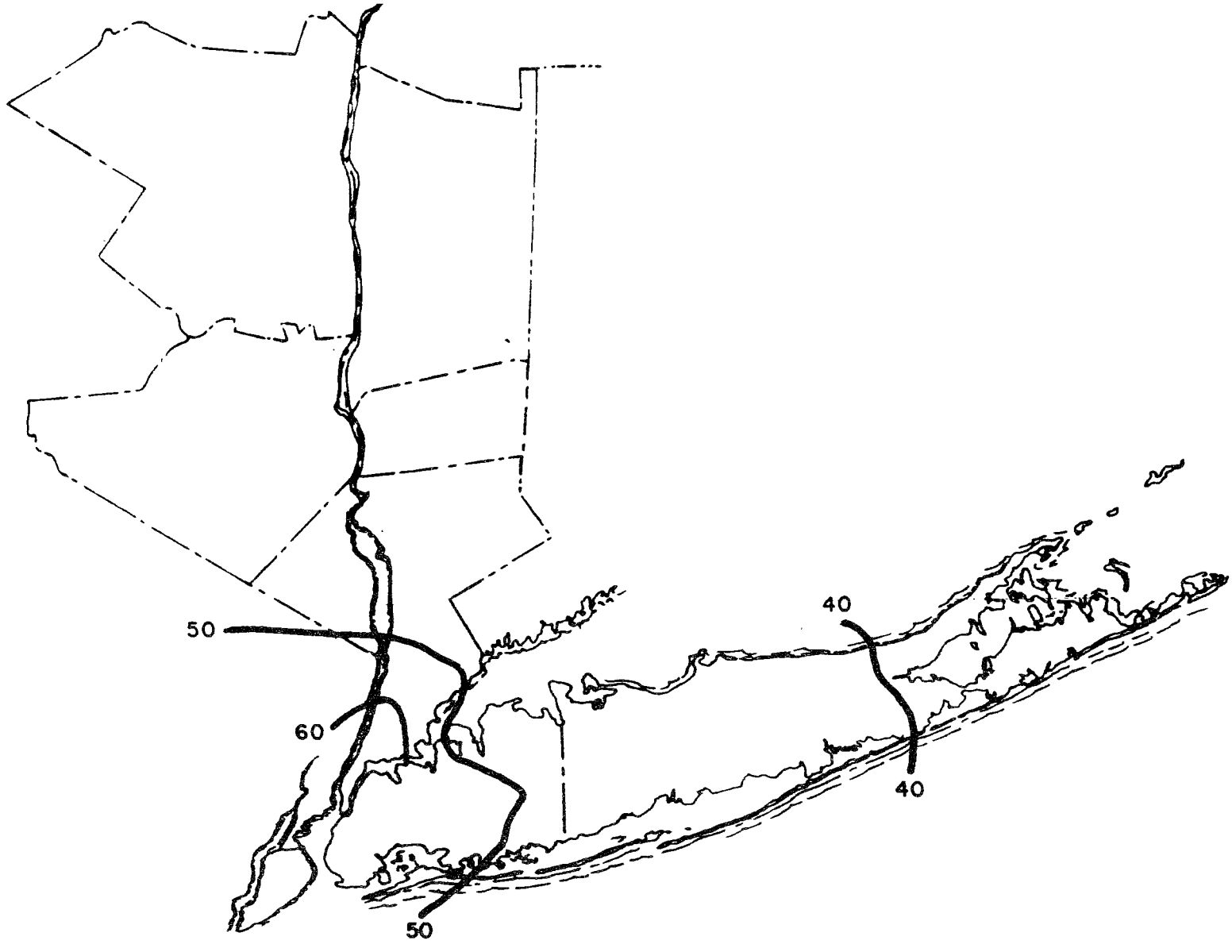

Figure 6-21. New York State Regional Modeling Analysis for TSP - 1974 ($\mu g/m^3$).

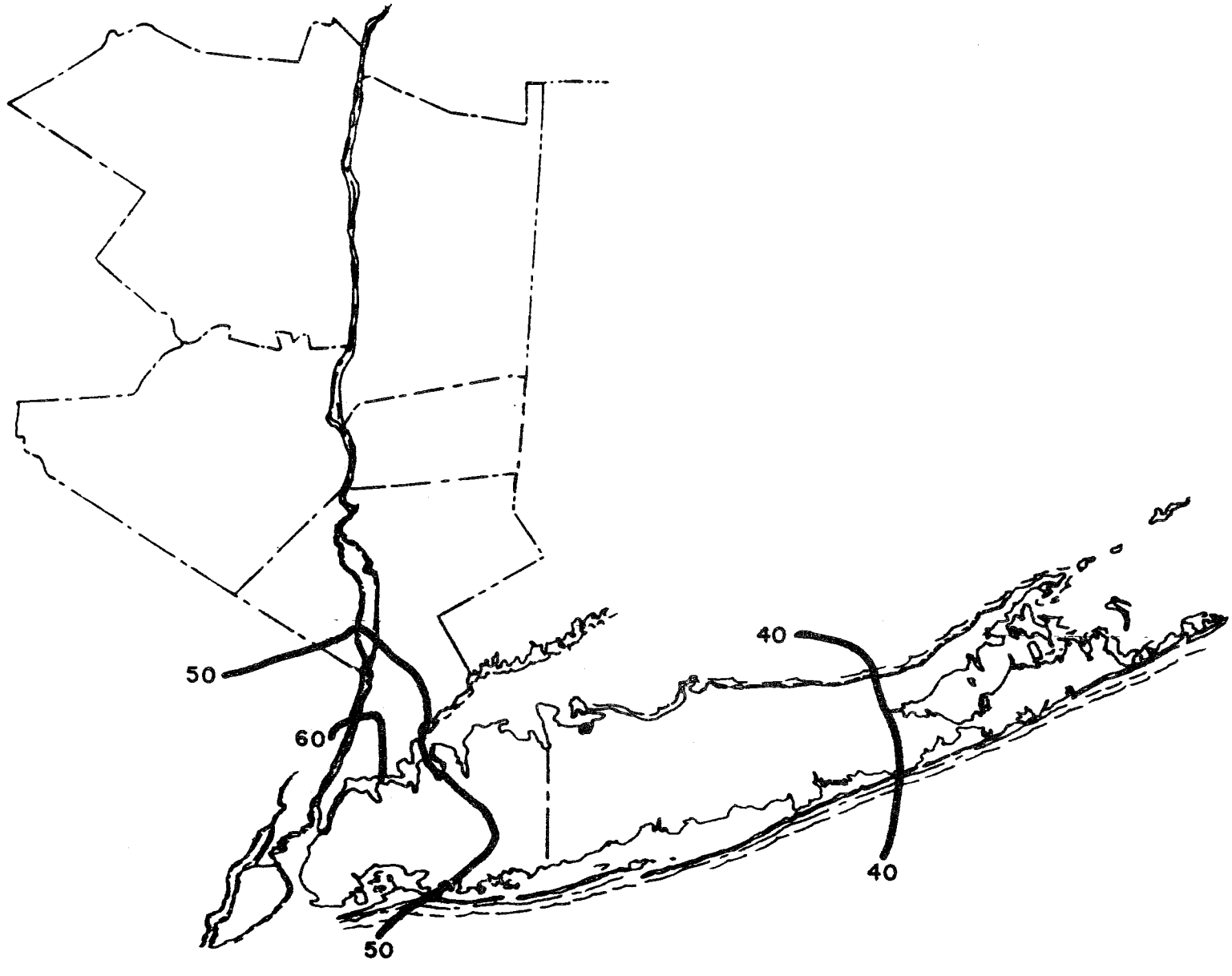

Figure 6-22. New York State Regional Modeling Analysis for TSP - 1980 ($\mu g/m^3$).

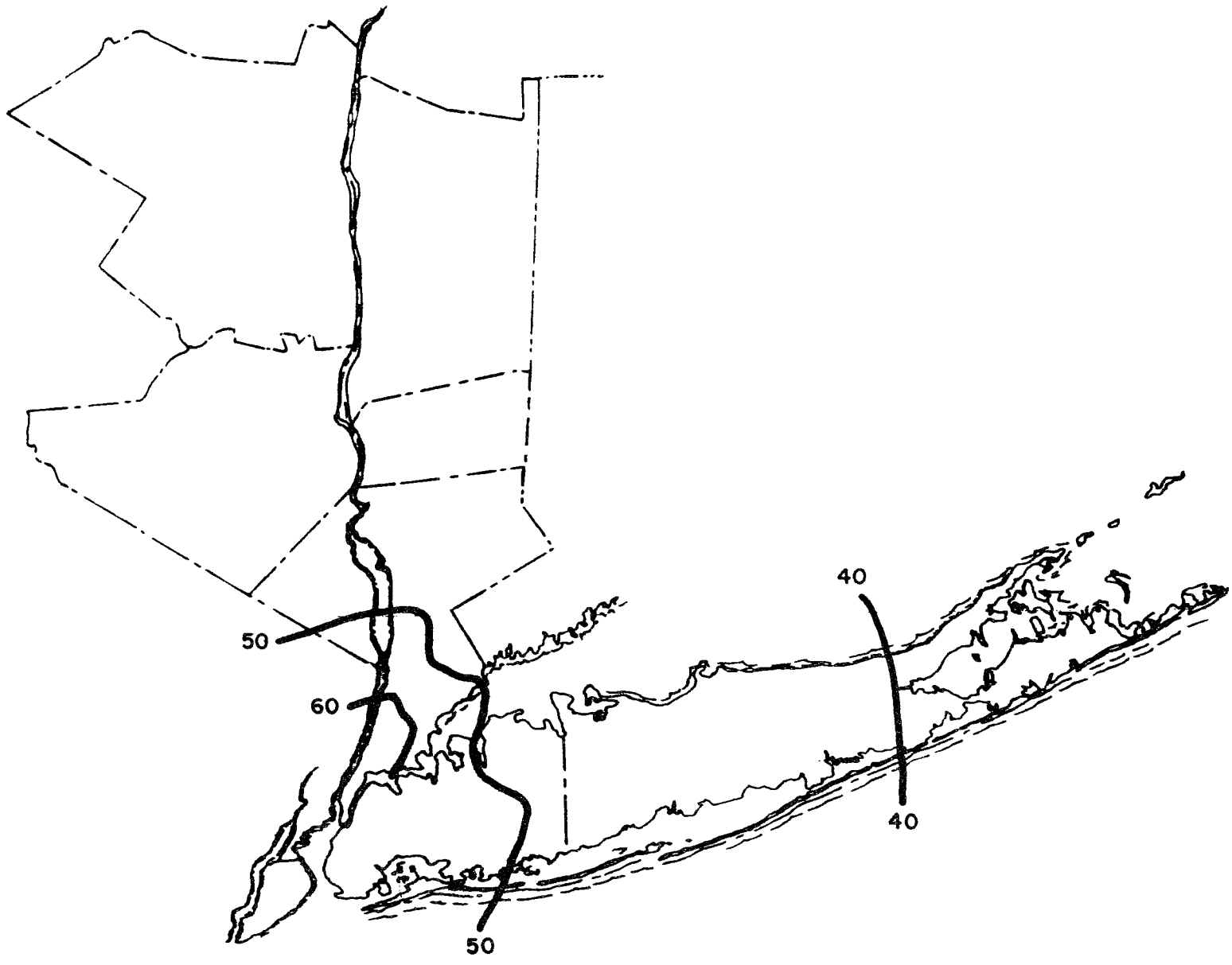

Figure 6-23. New York State Regional Modeling Analysis for TSP - 1985 ($\mu g/m^3$).

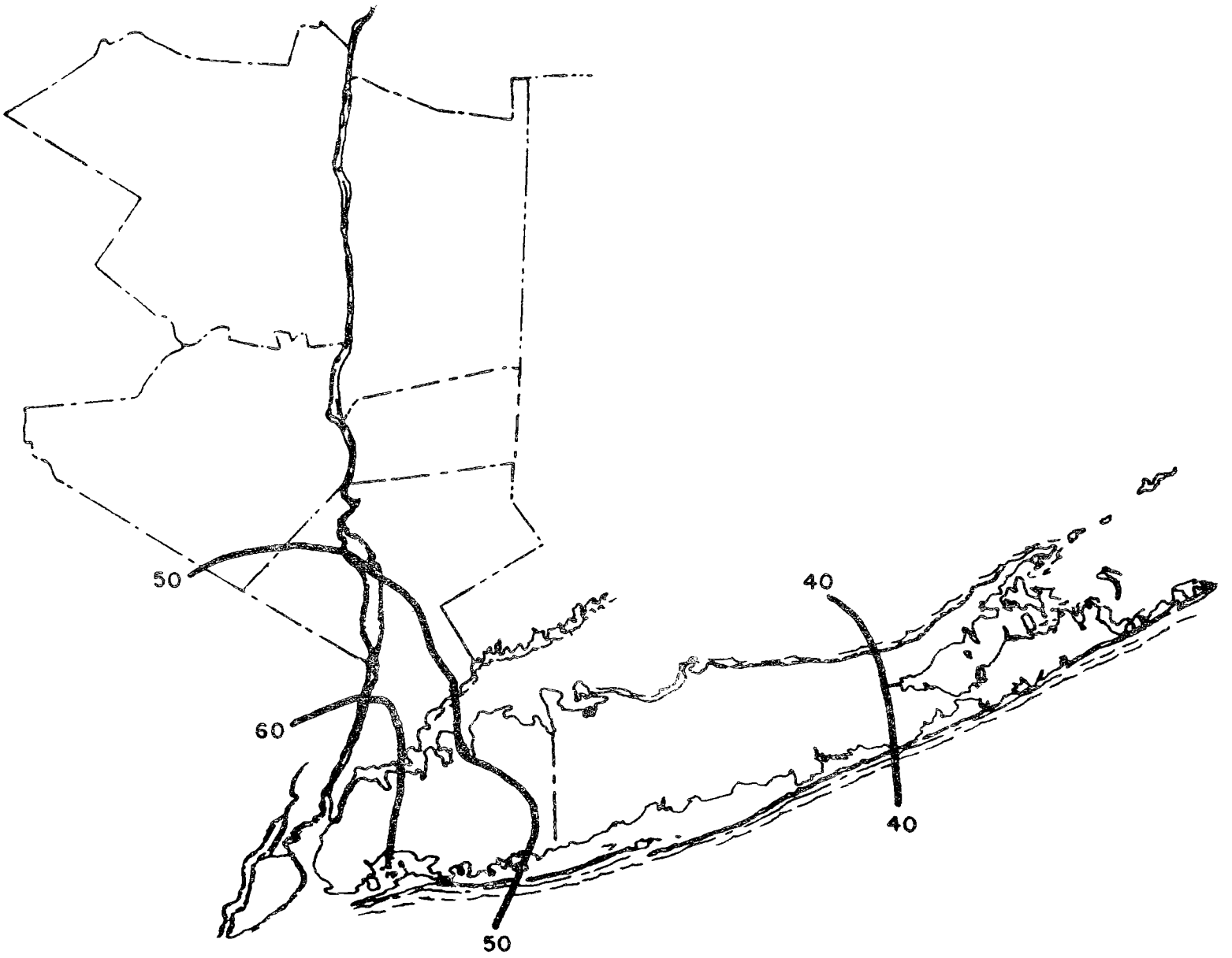

Figure 6-24. New York State Regional Modeling Analysis for TSP - 2000 ($\mu g/m^3$).

SECTION 7

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APPENDIX A

SUMMARIES OF COMPARISON OF TRI-STATE AND COUNTY PLANNING BOARD DATA

NEW JERSEY	PAGE
BERGEN COUNTY	A-3
ESSEX COUNTY	A-5
HUDSON COUNTY	A-7
MIDDLESEX COUNTY	A-9
MONMOUTH COUNTY	A-12
MORRIS COUNTY	A-14
PASSAIC COUNTY	A-16
SOMERSET COUNTY	A-18
UNION COUNTY	A-20
NEW YORK	
DUTCHESS COUNTY	A-23
NASSAU COUNTY	A-25
NEW YORK CITY - FIVE BOROUGHS	A-27
ORANGE COUNTY	A-30
PUTNAM COUNTY	A-32
ROCKLAND COUNTY	A-34
SUFFOLK COUNTY	A-36
WESTCHESTER COUNTY	A-38

N E W J E R S E Y

BERGEN COUNTY - NEW JERSEY

1. Population

Recommendation: Accept Tri-State population projections.

Discussion: Following is a comparison of various agencies' population projections:

	1974	1980	1985	2000
Tri-State	914,088	941,046	996,338	1,095,176
N.J. State Series II	910,485	927,760	941,980	1,090,000*
Difference between Tri-State and N.J.-State	3,603	13,286	54,358	5,176
Percent difference	.4%	1.4%	5.5%	.5%
"303" Figures		970,000		1,105,000

*This figure was "cross-accepted" between Tri-State and Bergen County.

According to county planners, the N.J. State Department of Labor and Industry figures are the best estimates for the short run (1980 and 1985) while they accepted Tri-State's earlier figure of 1,090,000 for 2000 (which has apparently been changed slightly to the 1,095,176 figure provided to GCA).

2. Housing

Recommendation: Accept Tri-State projections.

Discussion: Following is a comparison of Tri-State and county projections of dwelling units:

	1974	1980	1985	2000
Tri-State	298,253	321,000	348,040	393,356
County	296,850	214,077	322,066	-
Difference	1,403	6,923	25,974	
Percent Difference	.5%	2.1%	7.5%	

3. Employment

Recommendation: Accept county estimates of employment

Discussion: The following table compares various agencies' employment projections:

	1974	1980	1985	2000
Tri-State	388,167	392,914	412,272	467,604
County	315,908	319,553	322,711	
"303"	331,000	421,900		497,500

County planners are comfortable with local county employment projections but feel that other agencies' estimates are unnacceptable.

4. Land Use

Recommendation: Accept existing land use both dwelling units and non-residential. Accept 1980, 1985, and 2000 projections of dwelling units and nonresidential floor area subject to certain modifications.

Discussion: Generally, the distribution pattern for the 1974 existing land use, 1980, 1985, and 2000 projection years is reasonably accurate for all years with the exception of the Hackensack Meadow area and smaller specific areas. Hackensack is controlled by the Hackensack Meadowlands Commission which has been delegated the power to zone by the State of New Jersey. Other specific areas due to local zoning policies will have more or less growth as noted on the Tri-State maps or county zoning maps.

ESSEX COUNTY - NEW JERSEY

1. Population

Recommendations: Adopt New Jersey "303" figures.

Discussion: Following is a comparison of various agencies' projections:

	1974	1980	1985	2000
County Planning Board	941,130	955,220	972,230	
Tri-State	938,767	864,896	863,951	907,841
N.J. State "303"		960,000		1,010,000
N.J. State Series II		938,670	941,025	948,090
Difference between Tri-State and "303" projections		95,104		40,249
Percent difference		11%		4%

County planners indicate that the decline in population projected by Tri-State is incorrect. Overall population in the county is stable because while some areas have declined this has been offset by growth in other areas.

2. Housing

Recommendation: Adopt estimates made by using average household size and "303" population.

Discussion: The following table compares Tri-State housing projections and GCA estimates:

	1974	1980	1985	2000
Tri-State	312,980	307,135	313,684	335,210
"303" estimates	314,759	340,426	-	372,694
Household size	2.99	2.82	2.75	2.71
Difference between Tri-State and estimate	1,779	33,291		37,484
Percent difference	< 1%	11%		11%

3. Employment

Recommendation: Use "303" employment projections.

Discussion: Following is a comparison of Tri-State and "303" employment projections:

	1974	1980	2000
Tri-State	413,416	401,227	423,272
"303"		440,200	452,000
Difference		38,973	28,728
Percent difference		9.7%	6.8%

According to county planners the 5-year period 1975 through 1980 in contrast to the preceding 5 years will not see the decline in jobs as envisioned by Tri-State. Many companies have left the area but are rapidly being replaced by other companies.

4. Land Use

Recommendation: Accept the 1974 distribution of dwelling units and nonresidential land use. The 1980 distribution is questionable. The 1985 and 2000 requires some modification.

Discussion:

The 1980 distribution of dwelling units and nonresidential, according to Essex County planners appears to be wrong. Tri-State data indicates a decrease throughout the county in dwelling units and nonresidential floor area. Planners stated that, except for Newark and East Orange, rehabilitation housing programs and new housing in many towns indicate Tri-State data require modification. Also, vacated plants, and consequently, the nonresidential decreases are probably overstated. The 1985 and 2000 patterns may require modification depending on how changes in total housing affects relative distribution of housing.

HUDSON COUNTY - NEW JERSEY

1. Population

Recommendations: Adopt "303" population estimates.

Discussion: The following figure compares various agencies' population projections:

	1974	1980	1985	1990	2000
County		624,550		665,825	681,300
Tri-State	616,511	584,553	585,048		578,899
N.J. State "303"		615,000		630,000	630,000
N.J. State Series II		615,175	618,170	621,165	627,155
Difference between "303" and Tri-State		30,447			51,101
Percent difference		5.2%			8.8%

"303" population projections appear most reasonable in light of county planners knowledge of recent trends in housing and redevelopment in key areas. Apparently, Tri-State agreed in 1977 to raise its projections in view of these considerations.

2. Housing

Recommendation: Adopt county housing projections.

Discussion: The following figures compare Tri-State and county housing projections:

	1970	1974	1980	1985	1990	2000
County	207,499		224,396		253,190	270,855
Tri-State		212,344	211,661	216,585		225,675
Difference			12,375			45,180
Percent difference			6%			20%

The Tri-State Regional Planning Commission, according to the County has agreed to adjust its housing figures, which being based on the same empirical methodology is more reflective of actual local trends, although it is subject to vagaries of local political and economic forces in addition to overall regional trends.

3. Employment

Recommendation: Use county employment projections.

Discussion: The following figures compare the County, Tri-State and New Jersey "303" employment projections:

	1970	1974	1980	1985	1990	2000
County	259,200		264,100		281,500	288,000
Tri-State		281,365	276,080	287,293		322,737
N.J. State "303"			254,800		260,800	261,000
Difference between County and Tri-State			11,980			34,737
Percent difference			4.5%			12%

County employment estimates are more reflective of local trends. Tri-State has agreed to lower its figures.

4. Land Use

Recommendations: Existing 1974 dwelling units and nonresidential land use correct. The 1980, 1985, and 2000 configuration of dwelling units acceptable but with modification of Hackensack Meadowlands development. Nonresidential acceptable.

Discussion: Recent and projected development in the Hackensack Meadowlands and North Hudson area will require modification of Tri-State data. Nonresidential changes appear exaggerated.

MIDDLESEX COUNTY - NEW JERSEY

1. Population

Recommendation: Accept "208" Water Quality Planning population projections.

Discussion: Following is a comparison of various agencies' population projections:

	1974	1980	1985	2000
Tri-State	625,904	670,976	756,475	890,420
"208"	621,364	672,213	727,501	817,465
N.J. State Series II		639,970	667,125	748,590
Difference between Tri-State and "208"	4,540	1,637	28,974	72,955
Percent difference	< 1%	< 1%	4%	9%

According to Middlesex County planners, the most recent Tri-State projections released in May 1977 the 2000 year population is 820,000 which is very close to the "208" projection of 817,465. The 1974, 1980, and 1985 Tri-State projections above are within acceptable limits. County planners feel that the 890,420 figure would never be attained; it is unrealistically high. The Middlesex County "208" figure is a single estimate between the Plan and Trend projections.

2. Housing

Recommendation: Adopt "208" derived housing estimates discussed below.

Discussion: The following table compares Tri-State projections with GCA projections made using"208" population figures and county estimates of average persons per dwelling unit:

	1974	1980	1985	2000
Tri-State	188,205	214,926	249,329	309,494
"208" derived estimates	176,524	192,061	208,453	217,613
Difference between Tri-State and "208" estimates	11,681	22,865	40,876	91,881
Percent difference	6.6%	11.9%	19.6%	42.2%

The significant difference between Tri-State and "208" housing estimates is a function of two factors: Tri-State's higher population projections, and Tri-State's housing distribution. Tri-State shows growth in areas that the county feels will not develop except at very low density. (See land use discussion.)

3. Employment

Recommendation: Accept Tri-State figures as given.

Discussion: Following is a comparison of Tri-State and Middlesex "208" projections:

	1974	1980	1985	2000
Tri-State	269,474	284,267	309,263	363,350
"208"	257,597	283,731	309,860	358,898
Difference between Tri-State and "208"	11,877	536	597	4,452
Percent	4.6%	1%	1%	1.2%

Given the small discrepancies between the Middlesex "208" and Tri-State numbers, there is no anticipated gain in modifying the Tri-State numbers.

4. Land Use

Recommendations: Accept 1974 existing pattern of dwelling units and nonresidential. The 1980, 1985, and 2000 patterns of dwelling units and nonresidential not acceptable without extensive modification.

Discussion: In the Southern Raritan River Basin area in Southern Middlesex County, zoning and environmental constraints, county and state policy make it unlikely to see the extensive growth of dwelling units shown in Tri-State distribution. Nonresidential land is too widely spread throughout the county and is unreflective of zoning realities. Middlesex County planners indicate that more recent Tri-State data may reflect these considerations brought to attention of Tri-State by the county.

MONMOUTH COUNTY - NEW JERSEY

1. Population

Recommendation: Accept Tri-State pending resolution of difference among County, Tri-State, and New Jersey State officials.

Discussion: Following is a comparison of various agencies' population projections:

	1974	1980	1985	2000
County	505,350		675,000	890,000
Tri-State	476,350	541,161	589,000	681,090
N.J. State Series II			522,880	581,485
Difference between Tri-State and County	29,000	503,345	85,399	208,910
Percent	5.7%		12.6%	23.5%

Monmouth County planners feel that Tri-State figures are unrealistically low in view of rapid growth in recent times in the county. However, state water quality planning indicates the county cannot maintain as high growth as projected.

2. Housing

Recommendation: Accept Tri-State if population accepted. Otherwise, use appropriate average of people per dwelling unit and estimate housing accordingly.

Discussion: Tri-State housing projections are as follows:

	1974	1980	1985	2000
Total dwelling units	165,441	182,244	202,584	243,340
Persons/DU	2.88	2.97	2.91	2.80

The county planning staff feels that Tri-State estimates of housing are unacceptably low.

3. Employment

Recommendation: Accept Tri-State employment estimates.

Discussion: County planners expressed general acceptance of Tri-State figures as shown below. The county has no figures with which to compare Tri-State projections.

	1974	1980	1985	2000
Total employment Monmouth County	156,120	167,416	176,710	207,171

4. Land Use

Recommendations: Accept Tri-State existing 1974 land use pattern for dwelling units and nonresidential floor area. Projections of 1980, 1985, and 2000 dwelling units and nonresidential floor area not acceptable.

Discussion: A thorough comparison of Tri-State's projections for 1980, 1985, and 2000 with existing county data and the County Planner's knowledge of the area indicates serious discrepancies. In terms of the distribution of dwelling units in 1980 in particular, Tri-State has focused development in older areas whereas in reality development is occurring now in the less-developed, vacant, or newly developing suburban areas with good access to major arterials such as the Route 9 and Garden State Parkway. The 1985 and 2000 distribution shows this presently emerging pattern more clearly.

The industrial/commercial development (nonresidential) generally seemed much too spread out whereas, in reality, it is concentrating along major highway corridors. Certain areas shown as developing, particularly in the southwest corner of the county will not develop until the 2000 time frame due to certain natural constraints and sewage problems.

MORRIS COUNTY - NEW JERSEY

1. Population:

Recommendations: Accept Tri-State projections.

Discussion: Following is a comparison of various agencies' population projections:

	1974	1980	1985	2000
Tri-State	406,540	441,732	484,311	551,954
State "303"		449,000		600,000
N.J. State Series II		430,580	453,235	521,200
Difference between "303" and Tri-State		7,268		48,046
Percent difference		1.6%		8.7%

County planners estimate 2000 population to reach a level of at least 550,000. New Jersey Department of Labor and Industry Series II projections are considered too low for Morris County. The most recent Tri-State figure for year 2000 is 520,000.

2. Housing

Recommendation: Accept Tri-State projections.

Discussion: The Tri-State projections are within 5 percent of housing estimates made by dividing appropriate county estimates of family size into Tri-State population figures.

Tri-State housing figures are as follows:

1974	1980	1985	2000
127,783	143,301	160,549	192,375

3. Employment

Recommendations: Accept Tri-State employment projections.

Discussion: Following is a comparison of Tri-State and New Jersey "303" figures:

	1974	1970	1985	2000
Tri-State	143,824	149,325	158,034	180,949
"303"		183,700		281,100

In keeping with population and housing, the "303" figures are seen as being too high.

4. Land Use

Recommendations: Accept existing land use pattern of dwelling units and nonresidential floor areas as shown for 1974. The 1980, 1985, and 2000 pattern of dwelling units not acceptable. Nonresidential pattern with small modifications is acceptable.

Discussion: Growth in western and northern areas of county is not reflected on Tri-State data maps for 1980, 1985, and 2000. County planners feel that newer Tri-State data may reflect these growth areas.

PASSAIC COUNTY - NEW JERSEY

1. Population

Recommendation: Adopt New Jersey State Series II projections.

Discussion: Following is a comparison of various agencies' population projections:

	1974	1980	1985	2000
Tri-State	461,399	457,637	467,556	498,013
New Jersey State Series II	472,760	485,245	496,840	537,625
"303"	503,000			575,000
Percent difference between Tri-State and State Series II	2.4%	5.7%	5.9%	7.4%

County planning staff feels that Tri-State figures are low and the New Jersey State Department of Labor and Industry Series II projections are more realistic.

2. Housing

Recommendation: Accept Tri-State housing projections.

Discussion: Although there are no official county housing projections, estimates may be derived by dividing New Jersey State Series II population by the average household size of 3.02 as follows:

	1974*	1980	1985	2000
Tri-State	150,513	160,767	167,622	181,430
Derived estimates	157,927	160,677	164,516	178,022
Percent difference	4.7%	< 1%	1.9%	1.9%

*The 1974 is a comparison of actual county dwelling units with Tri-State estimates.

3. Employment

Recommendation: Accept Tri-State employment projections.

Discussion: There are no county or other projections of employment with which the Tri-State figures shown below may be compared.

	1974	1980	1985	2000
Total employment	191,133	190,902	194,855	207,896

4. Land Use

Recommendations: Accept existing land use pattern. Projection of dwelling units is acceptable for 1980, 1985, and 2000.

Distribution of nonresidential land use questionable.

Discussion: There is a significant problem in the nonresidential category as the Tri-State figures and distribution show a significant decline in non-residential throughout the County. County planners indicate that while current trends to show a decline in industries in especially older industrial areas, this is not true for the whole county. Also, the growth of nonresidential occurs in areas zoned only for residential. (This seems to be a problem in other counties as well.)

SOMERSET COUNTY - NEW JERSEY

1. Population

Recommendation: Accept Tri-State population projections.

Discussion: The following table compares various agencies' population projections:

	1974	1980	1985	2000
Tri-State	216,074	215,778	241,950	288,117
County		228,000		320,000
"303"		231,000		310,000
New Jersey Series II		215,385	223,525	247,945
Difference between Tri-State and "303" figures		12,222		21,883
Percent difference		5.6%		7.6%

The Tri-State population projections are a reasonable comprise among the various agencies' projections.

2. Housing

Recommendations: Accept Tri-State housing projections.

Discussion: Following are Tri-State total dwelling units:

	1974	1980	1989	2000
Total dwelling units	66,031	69,306	79,788	99,687

The county itself has not made its own housing projections to compare with Tri-State's.

3. Employment

Recommendation: Accept Tri-State employment projections.

Discussion: Following is a comparison of various agencies' projections of employment:

	1974	1980	1985	2000
Tri-State	88,865	90,035	96,901	111,933
County	79,500	87,300	99,200	118,500
"303"		80,850		121,800
Difference between Tri-State and County	9,365	2,735	2,299	6,567
Percent difference	11.8%	3%	2.4%	5.9%

4. Land Use

Recommendation: Accept Tri-State existing land use and projections to 1980, 1985, and 2000 except for nonresidential.

Discussion: The overall configuration of growth in dwelling units and nonresidential floor area conforms to existing and projected trends. However, there are certain specific areas that are currently growing not shown on Tri-State maps that require some corrections. As is usually the case there are many areas of nonresidential growth which occur in a very spreadout pattern and in areas zoned only for residential use.

1. Population

Recommendation: Accept Tri-State projections of population.

Discussion: Population is seen by the county as stable to declining to the year 2000. Following is a table which compares various agencies' population and projections to the year 2000:

	1974	1980	1985	1990	2000
County	536,250	531,600		531,100	530,900
Tri-State	560,409	539,410	536,370		541,718
"303"		545,000		550,000	560,000
State Series II		560,145	568,080	576,015	591,885

2. Housing

Recommendation: Accept Tri-State housing projections.

Discussion: Following is a comparison of Tri-State and county housing projections:

		1980	2000
County:	High	187,500	224,000
	Low	178,500	186,000
Tri-State		178,712	194,153

3. Employment

Recommendation: Accept Tri-State employment projections.

Discussion: Following is a comparison of Tri-State and New Jersey State "303" projections:

	1972	1974	1980	1985	1990	2000
"303"	251,600		289,200		296,900	316,900
Tri-State		306,813	300,370	296,822		292,748

4. Land Use

Recommendations: Accept Tri-State 1974 existing land use and 1980, 1985, and 2000 projections of dwelling units. Nonresidential in question.

Discussion: Projections of increase in dwelling units appear basically sound in its areal distribution and quantity, especially given that the housing figures of the county and Tri-State correspond closely. Also, the county has very little developable land remaining.

Nonresidential projections appear reasonable in some cases, but in many areas such as in Elizabeth and Linden the decreases shown in 1980 and 1985 appear to county planners as unreflective of recent trends towards stabilization and reoccupancy of abandoned or empty establishments.

N E W Y O R K

DUTCHESS COUNTY - NEW YORK

1. Population

Recommendation: Adopt '208' projections

Discussion: Following is a comparison of Tri-State and 208 Figures:

	1974	1980	1985	2000
Tri-State	233,503	270,940	292,172	330,387
'208'	233,100	247,900	268,800	328,400
Difference	403	23,040	23,372	1,987
<1%	1%	9.3%	8.6%	<1%

2. Housing

Recommendation: Accept Tri-State

Discussion: The following table compares Tri-State figures with estimates derived by using '208' population and county estimates of household size:

	1974	1980	1985	2000
Tri-State	76,282	86,305	95,383	115,079
County	75,649	83,108	92,958	115,000
Household size	3.08	2.96	2.84	2.80
Difference between Tri-State and county	633	2,927	2,425	79
%	<1%	3.5%	2.6%	<1%

3. Employment

Recommendation: Accept Tri-State data

Discussion: The only county data available for 1985 and 1990 suggests that Tri-State projections are reasonable given the historical trends in population growth and generally close relationship between population and employment, other factors being equal.

	1974	1980	1985	2000
Tri-State	95,915	103,049	106,713	120,126

4. Land Use

Recommendation: Accept Tri-State distribution for 1974 (existing) and projections for 1980, 1985 and 2000.

Discussions: Except for minor modifications in Poughkeepsie are for 1985 and 2000, the Tri-State projections of housing and nonresidential land use are in accordance with zoning and planner's knowledge of expected growth in the county.

NASSAU COUNTY - NEW YORK

1. Population

Recommendation: Accept "208" projections.

Discussion: Below is a table which illustrates the various agencies population projections:

	1974	1980	1985	1995	2000
County*	1,431,900	1,441,700	1,460,900		
Tri-State	1,398,045	1,350,640	1,356,153		1,405,750
"208"	1,455,947	1,467,789	1,475,694	1,486,565	
Difference between "208" and Tri-State	57,902	117,149	119,541		
Percent difference	4%	8.7%	8.8%		

County planners have stated that the above Tri-State figures exaggerate the population losses. The overall pattern is one of stability or gain in population.

2. Housing

Recommendation: Accept Tri-State dwelling unit projections subject to qualifications listed below.

Discussion: Nassau County itself has not made projections of housing Nassau/Suffolk Regional Planning Board in a recent Coastal Zone Management study has made joint Nassau/Suffolk estimates which are discussed in Suffolk section. Tri-State has a different set of assumptions regarding family size: they project a larger decrease in family size than the county does. Consequently, if family size remains large, the Tri-State numbers would be inflated; conversely, if family size declines as Tri-State predicts, then Tri-State figures may be the better estimate.

Tri-State estimates of total dwelling units	1974	1980	1985	2000
	409,327	425,845	439,659	483,133

3. Employment

Recommendation: Accept Tri-State estimates except reservation regarding year 2000 discussed below.

Discussion: Given no separate Nassau County employment estimates as is the case in housing it is difficult to evaluate Nassau County alone. (See discussion in Suffolk County.) Joint Nassau/Suffolk County estimates compare favorably with Tri-State figures except for a 36 percent difference in the 2000 estimates.

4. Land Use

Recommendation: Accept Tri-State existing land use and projections for 1980, 1985, and 2000.

Discussion: The general pattern of dwelling units is a reasonably accurate picture of Nassau County. However, the distribution of nonresidential violates existing local zoning patterns and proposed coastal zone management policies. As has been seen in many counties, the nonresidential land use has been allocated over too large areas.

NEW YORK CITY - FIVE BOROUGHS

1. Population

Recommendations: Accept Tri-State population projections except Staten Island as discussed below.*

Discussion: Following is a comparison of Tri-State and "208" population projections by borough:

a. Bronx:	1974	1980	1985	2000
Tri-State	1,294,581	1,327,012	1,326,206	1,333,976
"208"	1,385,300	1,345,500	1,333,000	1,340,000
Difference	90,719	18,488	6,794	6,024
Percent difference	7%	1.4%	< 1%	< 1%

b. Kings	1974	1980	1985	2000
Tri-State	2,510,641	2,461,283	2,443,510	2,413,738
"208"	2,480,000	2,463,900	2,472,000	2,460,000
Difference	90,719	18,488	6,794	46,262
Percent difference	7%	1.4%	< 1%	1.9%

c. Manhattan:	1974	1980	1985	2000
Tri-State	1,506,969	1,504,589	1,515,451	1,515,097
"208"	1,454,400	1,461,500	1,475,000	1,486,000
Difference	52,569	43,089	40,451	29,097
Percent difference	3.6%	2.9%	2.7%	1.9%

d. Queens:	1974	1980	1985	2000
Tri-State	1,980,766	1,882,939	1,899,370	1,929,096
"208"	1,966,600	1,971,800	1,978,000	2,022,000
Difference	14,166	88,861	18,630	92,904
Percent difference	< 1%	4.7%	4.6%	4.8%

e. Staten Island:				
Tri-State	323,035	402,615	446,063	501,431
"208"	328,200	370,000	430,000	596,000
Difference	5,165	32,615	16,063	94,569
Percent difference	1.5%	8.8%	3.7%	18.8%

*NYS DEC recommended the use of 208 figures for the Counties of Bronx and Kings.

The only significant differences are in the Staten Island projections for the year 1980 and 2000. New York City planners commented that Staten Island is expected to grow rapidly and consequently, this figure should be modified to meet these expectations.

2. Housing

Recommendations: Accept Tri-State housing projections.

Discussion: The following figure compares 1974 (208-1975) estimates of total housing units by borough:

	Tri-State	"208"	Difference	percent
Bronx	463,638	506,946	43,308	9.3%
Brooklyn	917,901	892,756	25,145	2.8%
Manhattan	734,966	709,838	29,128	3.5%
Queens	724,684	722,117	14,846	.2%
Staten Island	103,408	103,953	545	< 1%
Totals	2,944,597	2,935,610	8,987	< < 1%

Housing projections have not been made for the "208" project nor by the New York City Planning Office. The housing situation is very uncertain because it is highly influenced by national, state, regional, and local political and economic policies and decision that directly and indirectly affects housing both in terms of new units and rehabilitation programs.

3. Employment

Recommendation: Accept the Tri-State projections.

Discussion: There are no official New York City employment projections done by the City which looks at the year 2000. Following is a partial comparison of various agencies' estimates:

	1974	1980	1985	2000
Tri-State	3,734,277	3,858,750	3,885,339	3,974,806
New York City Office of Management and Budget	3,203,000 (1976)	3,029,000		
New York State Department of Labor and Industry	3,458,400		3,169,200	

In view of the high complex and variable situation, Tri-State projections are acceptable unless more recent Tri-State estimates can be obtained that incorporates more recent set of assumptions concerning the many factors which influence the employment situation.

4. Land Use

Recommendations: Accept Tri-State data subject to reservations discussed below.

Discussion: The Tri-State land use inventory is a reasonably accurate representation of the existing land use. In terms of projections for 1980, 1985, and 2000 City Planners felt that on the whole the Tri-State data represented a reasonable interpretation of current trends, given the variability in the economic and housing situation. However, the 1980 projection, in particular, seemed to have mistakes in that it did not indicate areas which are currently being rehabilitated such as in Manhattan. The Tri-State Regional Planning Commission, as mentioned above, should be consulted for the possibility of a more recent allocation of dwelling units and nonresidential floor area. The City Planners felt that it was impossible to evaluate the accuracy of the nonresidential projections.

ORANGE COUNTY - NEW YORK

1. Population

Recommendation: Adopt "208" projections

Discussion: The following table compares Tri-State and "208" projections:

	1974	1980	1985	2000
Tri-State	246,244	291,117	334,468	421,156
"208"	242,000	267,000	300,000	422,000
County			308,000	404,000
Difference between Tri-State and "208"	4,244	24,117	34,468	844
%	1.7%	9%	11%	1%

In view of the discrepancies in the 1980 and 1985 projections, the "208" figures are recommended.

2. Housing

Recommendation: Adopt county estimtes using "208" population and county estimates of average persons per dwelling unit.

Discussion: Following is a comparison of Tri-State and county estimates:

	1974	1980	1985	2000
Tri-State	85,180	99,935	116,282	151,602
County estimates	73,636	89,333	100,000	138,333
Average persons per dwelling unit	3.3	3.0	3.0	3.0
Difference between Tri-State and County	11,544	10,602	16,282	13,269
%	16%	12%	16%	10%

The "208" population was divided by county estimates of average persons per dwelling unit to arrive at estimates of total dwellings which are considered better than Tri-State figures shown above.

3. Employment

Recommendation: Accept Tri-State

Discussion: Given no county data or other sources of information with which to verify Tri-State's estimates, the Tri-State figures shown below will be utilized.

	1974	1980	1985	2000
Tri-State	85,776	99,338	102,880	125,956

4. Land Use

Recommendation: Accept existing (1974) and projected land use (1980, 1985 and 2000) for dwelling units and nonresidential land use.

Discussion: Orange County has worked closely with Tri-State and the distribution of land use reflects their close agreement.

PUTNAM COUNTY - NEW YORK

1. Population

Recommendation: Adopt "208" population projections for 1974, 1980, and 1985 - estimate 130,000 for 2000 - see discussion below.

Discussion: The following table shows various agencies' population projections for Putnam County:

	1974	1980	1989	1999	2000
Tri-State	65,302	72,441	76,521		84,988
"208"	68,765	79,200	92,000		130,200
Putnam County Planning Board	68,765		89,546	119,499	
Difference between Tri-State and "208"	3,463	6,759	15,429		45,212
Percent	5.3%	9.3%	20.2%		53%

According to the County Planner the Tri-State population projections are definitely too low. It was suggested that these low figures reflect Tri-State's view of Putnam County as basically "park land." The County planning staff "stands by" its own population figures and seriously questions if the "208" population of 130,200 will be attained. In view of these factors, it is recommended that 122,000 be used as a compromise projection estimate for the year 2000.

2. Housing

Recommendation: Adopt recommended figures shown in table below.

Discussion: The following table compares Tri-State and Putnam County estimates of housing units:

	1974	1980	1985	1995	2000
Tri-State	24,108	25,961	27,822		31,955
Putnam County	20,139		26,650	35,850	
Persons/unit	3.41		3.37	3.31	
Difference between Tri-State and County	3,969		1,172		
Percent difference	20%		4.4%		
Recommended estimates	20,165	23,225	27,299		36,858

In view of the differences in population among the various agencies discussed above and in view of the difference in average persons per dwelling unit between Tri-State and the County (county figures are presumably more accurate), it is recommended that the above figures be adopted. These estimates are derived by dividing the best population estimates by the county persons per dwelling unit for the appropriate projection year.

3. Employment

Recommendation: Accept Tri-State estimates of total employment.

Discussion: County planners accept the Tri-State estimates shown below. Putnam County does not have its own projections against which Tri-State projections may be verified.

	1974	1980	1989	2000
Total employment	13,156	14,220	15,117	18,673

4. Land Use

Recommendations: Accept Tri-State's land use inventory for 1974 and projections of dwelling units for 1980, 1985, and 2000. Nonresidential distribution for projection years is questionable.

Discussion: The Tri-State inventory of existing land use is a reasonable match of county land use as shown in county land use maps and according to county planners knowledge of areas. The 1980, 1985, and 2000 projections of dwelling units appear to be reasonable distribution according to zoning maps and county planners knowledge of existing and potential growth areas. The nonresidential areas are not sensitive to local zoning and seems to occur in areas which are wholly residential.

ROCKLAND COUNTY - NEW YORK

1. Population

Recommendation: Adopt "208" population projections.

Discussion: The following table compares various agencies' population projections:

	1974	1980	1985	2000
Tri-State	250,613	259,738	281,980	314,483
"208"	252,800	279,200	308,900	380,200
Rockland County Planning Board	260,000		315,000	375,000
Difference between Tri-State and 208	2,187	19,462	26,920	65,717
Percent difference	< 1%	7.5%	9.5%	21%

The Planning Board feels that the above Tri-State figures are too low. In view of the closeness of "208" and Rockland County Planning Board projections it is recommended that the "208" figures be adopted.

2. Housing

Recommendation: Adopt recommended housing figures as shown in discussion.

Discussion: The following table compares Tri-State projections of total dwelling units with recommended projections based on the "208" population divided by an average persons per dwelling unit as shown below:

	1974	1980	1985	2000
Tri-State	68,331	76,541	85,902	102,646
Recommended	74,352	83,343	93,606	115,212
Persons/dwelling unit	3.4	3.35	3.3	3.3
Difference between Tri-State and recommended	6,021	6,802	7,704	12,566
Percent	8.8%	8.9%	9%	12.2%

3. Employment

Recommendation: Accept Tri-State projections for employment.

Discussion: Following are the Tri-State projections for total employment in Rockland County.

	1974	1980	1985	2000
Total employment	78,469	82,738	86,364	96,393

The Rockland County Planning Board has not made projections of employment with which the Tri-State projections may be compared.

4. Land Use

Recommendations: Accept Tri-State existing land use inventory (1974). Distribution of 1980 dwelling units requires some modifications. The 1985 and 2000 dwelling unit distribution is all right. Nonresidential land use distribution has problems.

Discussion: The 1980 distribution of dwelling units requires modification because certain areas of the county now growing not shown on Tri-State maps. A 10 to 15 percent modification required. The Tri-State maps show nonresidential uses occurring in areas zoned solely for residential. This is a widespread phenomenon in this county as is the case in many counties and seems to result from the methodology which Tri-State uses to allocate nonresidential.

SUFFOLK COUNTY - NEW YORK

1. Population

Recommendation: Accept Tri-State projections.

Discussion: Following is a comparison of Tri-State and "208" population projections:

	1974	1980	1985	2000
Tri-State	1,283,401	1,465,938	1,578,732	1,747,657
"208"	1,279,690	1,411,737	1,542,123	1,828,750*
Difference	3,711	54,201	36,609	81,093
Percent	< 1%	3.8%	2.4%	4.6%

*Estimate arrived at using Coastal Zone Management Study for Nassau/Suffolk Counties.

Tri-State and "208" projections are sufficiently close to allow acceptance of either figure. They represent totally different methodologies.

2. Housing

Recommendation: Accept Tri-State dwelling unit projections.

Discussion: Suffolk County Planning Board does not have separate projections of housing. An examination of Coastal Zone Management projections for Nassau/Suffolk Counties combined gives the following comparison:

	1974	1980	1985	2000
Tri-State: Nassau	409,327	425,845	439,659	483,133
Suffolk	377,987	453,225	501,480	591,816
Tri-State - Combined N/S	787,314	879,100	941,139	1,074,949
Nassau/Suffolk RPB			842,533	952,262
Difference			98,606	122,687
Percent difference			11.7%	12.9%

This discrepancy derives largely from different assumptions regarding change in family size. Tri-State assumes more of a decrease in family size - actually average persons per dwelling unit than does Nassau/Suffolk Regional Planning Board.

3. Employment

Recommendations: Accept Tri-State employment projections except for 2000 estimate.

Discussion: Following is a comparison of employment projections:

	1974	1980	1985	2000
Tri-State Nassau	539,797	529,224	535,983	568,792
Suffolk		424,480	431,411	479,761
Combined		953,704	973,394	1,048,553
Nassau/Suffolk RPB		934,400	1,055,900	1,420,400
Difference		19,304	82,506	371,847
Percent difference		2%	8.5%	36%

Employment projections are more variable than population projections. The Nassau/Suffolk projection indicates a much higher rate of economic growth than does the Tri-State projection.

4. Land Use

Recommendation: Accept Tri-State existing land use (1974) and projections to 1980, 1985, and 2000.

Discussion: The pattern or distribution of dwelling units for 1974, 1980, 1985 and 2000 is considered reasonably accurate. However, the nonresidential pattern violates zoning and Coastal Zone Management policies. As stated in other discussions, this nonresidential uses are too widely spread and insensitive to zoning.

WESTCHESTER COUNTY - NEW YORK

1. Population

Recommendation: Adopt "208" projections.

Discussion: Following is a table which compares various agencies' population projections:

	1974	1980	1985	2000
County	890,000	890,000	890,000	900,000
Tri-State	901,690	846,010	866,568	897,427
"208"	880,000	880,000	880,000	
New York State		880,630	880,925	
Difference between Tri-State and "208"	21,690	33,990	13,432	
Percent difference	2.4%	4%	1.6%	

Tri-State predicts a decline in population while Westchester County and the Westchester "208" reports indicate the county as a whole is stable and will continue to show overall stability. On a regional basis shifts in population will occur with population declining in the older southern areas and growing in the northern towns.

2. Housing:

Recommendation: Adopt Westchester County estimates.

Discussion: The following table compares county, "208," and Tri-State housing projections:

	1974	1980	1985	2000
Tri-State	296,417	293,960	306,967	321,342
County	300,000	306,400	316,000	320,000
"208"	286,294			304,887 (1995)

According to county planners, there is an estimated loss of 1500 housing units per year, but they expect the increase in new housing units to more than

offset the loss. With a declining family size (average persons per dwelling unit), an overall continued increase in dwelling units is predicted. Consequently, the "208" estimates appear to be low. The Tri-State figures indicate a decline from 1974 to 1980, which is not true for the county as a whole, according to county planners.

3. Employment

Recommendation: Adopt Westchester County estimates of employment

Discussion: The following table compares Tri-State and county estimates of employment:

	1974	1980	1985	2000
Tri-State	356,310	351,045	366,299	397,449
"208"	297,147			344,836
New York State Department of Labor and Industry	367,900			
Difference between Tri-State and 208	59,163			52,613
Percent difference	19%			15%

County planners feel that local estimates of employment are more reliable than Tri-State because the county is much more aware of local trends and policies.

4. Land Use

Recommendation: Accept Tri-State pattern for existing land use and projections to 1980, 1985, and 2000.

Discussion: County planners are very comfortable with the pattern of land use projected by Tri-State. The only problem with the projections concern the relatively indiscriminate way in which the nonresidential land use is allocated into areas zoned residential or generally into areas where commercial or industrial uses are unlikely to occur.

Recommendation: Accept Tri-State 1974, 1980, 1985 and 2000 year projections of residential and nonresidential land uses.

Discussion: The distribution of dwelling units conforms with Westchester County Planning Board's view of the future. The only major reservation expressed by the County concerned the spread of nonresidential land use into areas zoned for residential uses only. This seems largely a function of the nature of Tri-State model which allocates a certain amount of nonresidential along with residential.

GCA/TECHNOLOGY DIVISION

To : File (Tri-State)

Date: 7 March 1978

From : D.B. Ramsay

Subject : Visit to Ulster County Planning Board, Kingston, New York
23 February - Meetings with Dennis Doyle, Environmental Planner

1. Population - The New York State Economic Development Board as of January 1978 has issued new population projections which supersedes the 1976 figures. These projections are to be used as the official 208 numbers. Following is a chart which compares the 1976 and the most recent ones:

	1975	1980	1985	2000
1976 208*	156,400	171,100	185,900	222,600
1978 EDB	153,165	165,236	177,234	205,479
Difference	3,225	5,864	8,666	17,121
% Difference	2%	3.5%	4.8%	8%

2. Industrial/Commercial Development - The areas which are expected or could possibly develop industry were indicated on map 1" - 7000 feet. In some cases industry is already in the process of moving in and these areas are noted. In all cases the areas shown are taken from a report used by the Ulster County Planning Board to show potential developers and industries where the best sites are located with water and sewer already or potentially available.

Ulster County has many good advantages for industrial development. These are: tax advantages; available labor; stable economy; location - midway between NYC and Albany along Interstate 87 (New York Thruway). In view of these advantages and the expansion of the Stewart Airport just to the south of Orange County, industrial growth is likely to occur.

Commerical development, especially new shopping centers, however, is not likely to develop much in the next 25 years. There is now 25,000 square feet of commercial space vacant and there has been enough shopping center growth to accomodate existing and projected growth for some time.

The growth level or increase in business activity indicated by the OBERS projections appears high to county planners. One major potential industry, the "steamtown Railroad and Museum" complex which is seriously considering relocation from New Hampshire to Ulster County, New York, would provide an indirect benefit of 19 million dollars a year, 450,000 patrons during a 220 day season.

* The 1976 data were used in the analysis for consistency with the rest of the study.

3. Land Use - Zoning Maps - There are no county land use or zoning maps available to check out the preliminary maps GCA produced. However, using the county base maps and looking at smaller maps the GCA maps appear to represent well the available data. It is furthermore justifiable to assure that growth in housing will primarily be adjacent to existing development in the towns indicated by the 208 reports.

APPENDIX B

NEW JERSEY COUNTY LEVEL FUEL ALLOCATIONS

This Appendix presents the results of the county fuel allocation procedure as specified in Volume 7 of the AQMA Guidelines. These results were used to allocate stationary source fuel use from state totals to the county level. As was noted in Section 3, the mobile source fuel use was derived from Tri-State estimates, so the data presented in this section were not used.

All units are those used in EPA's NEDS area source format. The distribution of dwelling units per building represents, respectively, the portion of buildings with 1, 2-4, 5-19, and greater than 20 dwelling units in the county. Area source fuel in some county categories was computed as less than zero. Rectification of these data was performed as described in Section 3. Use of bituminous coal and residual and distillate oil is reported only as "retail sales" and, hence, includes both residential and commercial/institutional use. These totals are noted on page B-2 by positioning them between the component columns.

AREA EMISSION INVENTORY FOR NEW JERSEY

TOTAL POPULATION = 7332965.

TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT = 1314888.

TOTAL INDUSTRIAL EMPLOYMENT = 744100.

AUTOMOBILE REGISTRATION 3735985.

TRUCK REGISTRATION 388000.

THERE WERE 4800. DEGREE DAYS IN 1975

THE AVERAGE HOUSING UNIT HAD 5.2 ROOMS

THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS,

COAL	5239.
OIL	1667762.
NATURAL GAS	1010797.
WOOD	553.

	RESIDENTIAL	COMMER/INST	INDUSTRIAL
ANTHRACITE COAL	12911.		
BITUMINOUS COAL		0.	4.
DISTILLATE OIL		188223.	10307.
RESIDUAL OIL		41551.	73049.
NATURAL GAS	1294.	5215.	5236.

RAILROADS 4662.

VESSELS 6098. DISTILLATE 12844. RESIDUAL

GASOLINE ON HIGHWAY	3209825. (1000 GAL)	OFF HIGHWAY	32091. (1000 GAL)
DIESEL ON HIGHWAY	230370. (1000 GAL)	OFF HIGHWAY	1575. (1000 GAL)

LIGHT VEHICLES	2730709. (1000 GAL)
HEAVY VEHICLES	546434. (1000 GAL)
TOTAL STATE GAS VMT	41727712. (1000 MI)

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS: 0.540 0.265 0.109 0.084

RESIDENTIAL AREA FUEL

ANTH COAL	2716. (10 TONS)
BITUM COAL	302. (10 TONS)
DISTILLATE OIL	143531. (10000 GAL)
RESIDUAL OIL	6950. (10000 GAL)
NATURAL GAS	12677. (10 MILLION CU FT)
WOOD	46. (100 TONS)

AREA EMISSION INVENTORY FOR BERGEN

TOTAL POPULATION = 879845.

TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT = 186227.

TOTAL INDUSTRIAL EMPLOYMENT 102477.

AUTOMOBILE REGISTRATION 466020.

TRUCK REGISTRATION 1000.

THERE WERE 4900. DEGREE DAYS IN 195

THE AVERAGE HOUSING UNIT HAD 5.5 ROOMS

THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS,

COAL	239.
OIL	129119.
NATURAL GAS	157115.
WOOD	9.

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS: 0.619 0.234 0.067 0.080

COMMERCIAL/INSTITUTIONAL POINT SOURCE FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	0. (10000 GAL)
RESIDUAL OIL	0. (10000 GAL)
NATURAL GAS	0. (10 MILLION CU FT)
WOOD	0. (100 TONS)

INDUSTRIAL POINT SOURCE FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	35. (10000 GAL)
RESIDUAL OIL	8238. (10000 GAL)
NATURAL GAS	159. (10 MILLION CU FT)
WOOD	0. (100 TONS)

AREA EMISSION INVENTORY FOR BERGEN

RESIDENTIAL AREA FUELS

ANTH COAL	136. (10 TONS)
BITUM COAL	15. (10 TONS)
DISTILLATE OIL	12220. (10000 GAL)
RESIDUAL OIL	550. (10000 GAL)
NATURAL GAS	2165. (10 MILLION CU FT)
WOOD	1. (100 TONS)

COMMERCIAL/INSTITUTIONAL AREA FUELS

ANTH COAL	1401. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	6330. (10000 GAL)
RESIDUAL OIL	4900. (10000 GAL)
NATURAL GAS	739. (10 MILLION CU FT)
WOOD	0. (100 TONS)

INDUSTRIAL AREA FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	1. (10 TONS)
DISTILLATE OIL	1384. (10000 GAL)
RESIDUAL OIL	1823. (10000 GAL)
NATURAL GAS	562. (10 MILLION CU FT)
WOOD	0. (100 TONS)

RAILROAD DIESEL FUEL IS 559. (10000 GAL)

GASOLINE

LIGHT VEH 340624. (1000 GAL) HEAVY VEH 1408. (1000 GAL) OFF HIGH 3850. (1000 GAL)

DIESEL

ON HIGH 594. (1000 GAL) OFF HIGH 189. (1000 GAL)

TOTAL VMT 4607337. (1000 MI)

SOLVENT PURCHASED 7919. (TONS)

AREA EMISSION INVENTORY FOR ESSEX

TOTAL POPULATION = 882487.

TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT = 203010.

TOTAL INDUSTRIAL EMPLOYMENT = 90080.

AUTOMOBILE REGISTRATION 474660.

TRUCK REGISTRATION 1000.

THERE WERE 4653. DEGREE DAYS IN 195

THE AVERAGE HOUSING UNIT HAD 4.8 ROOMS

THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS,

COAL	1015.
OIL	175617.
NATURAL GAS	121974.
WOOD	0.

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS: 0.315 0.336 0.157 0.192

COMMERCIAL/INSTITUTIONAL POINT SOURCE FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	0. (10000 GAL)
RESIDUAL OIL	0. (10000 GAL)
NATURAL GAS	0. (10 MILLION CU FT)
WOOD	0. (100 TONS)

INDUSTRIAL POINT SOURCE FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	302. (10000 GAL)
RESIDUAL OIL	5912. (10000 GAL)
NATURAL GAS	125. (10 MILLION CU FT)
WOOD	0. (100 TONS)

AREA EMISSION INVENTORY FOR ESSEX

RESIDENTIAL AREA FUELS

ANTH COAL	437.	(10 TONS)
BITUM COAL	49.	(10 TONS)
DISTILLATE OIL	11603.	(10000 GAL)
RESIDUAL OIL	1505.	(10000 GAL)
NATURAL GAS	1258.	(10 MILLION CU FT)
WOOD	0.	(100 TONS)

COMMERCIAL/INSTITUTIONAL AREA FUELS

ANTH COAL	1527.	(10 TONS)
BITUM COAL	0.	(10 TONS)
DISTILLATE OIL	6900.	(10000 GAL)
RESIDUAL OIL	5342.	(10000 GAL)
NATURAL GAS	805.	(10 MILLION CU FT)
WOOD	0.	(100 TONS)

INDUSTRIAL AREA FUELS

ANTH COAL	0.	(10 TONS)
BITUM COAL	0.	(10 TONS)
DISTILLATE OIL	946.	(10000 GAL)
RESIDUAL OIL	2931.	(10000 GAL)
NATURAL GAS	509.	(10 MILLION CU FT)
WOOD	0.	(100 TONS)

RAILROAD DIESEL FUEL IS 561. (10000 GAL)

GASOLINE

LIGHT VEH	346939. (1000 GAL)	HEAVY VEH	1408. (1000 GAL)	OFF HIGH	3862. (1000 GAL)

DIESEL

ON HIGH	594. (1000 GAL)	OFF HIGH	190. (1000 GAL)

TOTAL VMT 4733222. (1000 MI)

SOLVENT PURCHASED 7942. (TONS)

AREA EMISSION INVENTORY FOR HUDSON

TOTAL POPULATION = 577519.

TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT = 109311.

TOTAL INDUSTRIAL EMPLOYMENT = 74001.

AUTOMOBILE REGISTRATION 254010.

TRUCK REGISTRATION 1000.

THERE WERE 4581. DEGREE DAYS IN 195

THE AVERAGE HOUSING UNIT HAD 4.3 ROOMS

THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS.

COAL	479.
OIL	111870.
NATURAL GAS	94430.
WOOD	71.

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS: 0.131 0.429 0.278 0.162

COMMERCIAL/INSTITUTIONAL POINT SOURCE FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	0. (10000 GAL)
RESIDUAL OIL	0. (10000 GAL)
NATURAL GAS	0. (10 MILLION CU FT)
WOOD	0. (100 TONS)

INDUSTRIAL POINT SOURCE FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	86. (10000 GAL)
RESIDUAL OIL	5124. (10000 GAL)
NATURAL GAS	26. (10 MILLION CU FT)
WOOD	0. (100 TONS)

AREA EMISSION INVENTORY FOR HUDSON

RESIDENTIAL AREA FUELS

ANTH COAL	174. (10 TONS)
BITUM COAL	19. (10 TONS)
DISTILLATE OIL	6342. (10000 GAL)
RESIDUAL OIL	706. (10000 GAL)
NATURAL GAS	817. (10 MILLION CU FT)
WOOD	5. (100 TONS)

COMMERCIAL/INSTITUTIONAL AREA FUELS

ANTH COAL	822. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	3715. (10000 GAL)
RESIDUAL OIL	2876. (10000 GAL)
NATURAL GAS	434. (10 MILLION CU FT)
WOOD	0. (100 TONS)

INDUSTRIAL AREA FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	939. (10000 GAL)
RESIDUAL OIL	2141. (10000 GAL)
NATURAL GAS	495. (10 MILLION CU FT)
WOOD	0. (100 TONS)

RAILROAD DIESEL FUEL IS 367. (10000 GAL)

GASOLINE

LIGHT VEH	185661. (1000 GAL)	HEAVY VEH	1408. (1000 GAL)	OFF HIGH	2527. (1000 GAL)

DIESEL

ON HIGH	594. (1000 GAL)	OFF HIGH	124. (1000 GAL)

TOTAL VMT 2539849. (1000 MI)

SOLVENT PURCHASED 5198. (TONS)

AREA EMISSION INVENTORY FOR MIDDLESEX

TOTAL POPULATION = 318374.

TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT = 99798.

TOTAL INDUSTRIAL EMPLOYMENT 79000.

AUTOMOBILE REGISTRATION 230710.

TRUCK REGISTRATION 1000.

THERE WERE 5000. DEGREE DAYS IN 1975

THE AVERAGE HOUSING UNIT HAD 5.4 ROOMS

THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS,

COAL	234.
OIL	80619.
NATURAL GAS	87090.
WOOD	16.

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS: 0.667 0.183 0.087 0.062

COMMERCIAL/INSTITUTIONAL POINT SOURCE-FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	0. (10000 GAL)
RESIDUAL OIL	0. (10000 GAL)
NATURAL GAS	0. (10 MILLION CU FT)
WOOD	0. (100 TONS)

INDUSTRIAL POINT SOURCE FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	960. (10000 GAL)
RESIDUAL OIL	11010. (10000 GAL)
NATURAL GAS	112. (10 MILLION CU FT)
WOOD	0. (100 TONS)

AREA EMISSION INVENTORY FOR MIDDLESEX

RESIDENTIAL AREA FUELS

ANTH COAL	132.	(10 TONS)
BITUM COAL	15.	(10 TONS)
DISTILLATE OIL	7685.	(10000 GAL)
RESIDUAL OIL	263.	(10000 GAL)
NATURAL GAS	1196.	(10 MILLION CU FT)
WOOD	1.	(100 TONS)

COMMERCIAL/INSTITUTIONAL AREA FUELS

ANTH COAL	751.	(10 TONS)
BITUM COAL	0.	(10 TONS)
DISTILLATE OIL	3392.	(10000 GAL)
RESIDUAL OIL	2626.	(10000 GAL)
NATURAL GAS	396.	(10 MILLION CU FT)
WOOD	0.	(100 TONS)

INDUSTRIAL AREA FUELS

ANTH COAL	0.	(10 TONS)
BITUM COAL	0.	(10 TONS)
DISTILLATE OIL	135.	(10000 GAL)
RESIDUAL OIL	-3255.	(10000 GAL)
NATURAL GAS	444.	(10 MILLION CU FT)
WOOD	0.	(100 TONS)

RAILROAD DIESEL FUEL IS 202. (10000 GAL)

GASOLINE

LIGHT VEH 168631. (1000 GAL) HEAVY VEH 1408. (1000 GAL) OFF HIGH 1393. (1000 GAL)

DIESEL

ON HIGH 594. (1000 GAL) OFF HIGH 68. (1000 GAL)

TOTAL VMT 2308235. (1000 MI)

SOLVENT PURCHASED 1273. (TONS)

AREA EMISSION INVENTORY FOR MONMOUTH

TOTAL POPULATION = 492030.

TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT = 67298.

TOTAL INDUSTRIAL EMPLOYMENT = 24632.

AUTOMOBILE REGISTRATION 199500.

TRUCK REGISTRATION 1900.

THERE WERE 5100. DEGREE DAYS IN 1975

THE AVERAGE HOUSING UNIT HAD 5.6 ROOMS

THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS,

COAL	138.
OIL	60703.
NATURAL GAS	72548.
WOOD	42.

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS: 0.754 0.108 0.077 0.060

COMMERCIAL/INSTITUTIONAL POINT SOURCE FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	0. (10000 GAL)
RESIDUAL OIL	0. (10000 GAL)
NATURAL GAS	0. (10 MILLION CU FT)
WOOD	0. (100 TONS)

INDUSTRIAL POINT SOURCE FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	0. (10000 GAL)
RESIDUAL OIL	1548. (10000 GAL)
NATURAL GAS	0. (10 MILLION CU FT)
WOOD	0. (100 TONS)

AREA EMISSION INVENTORY FOR MONMOUTH

RESIDENTIAL AREA FUELS

ANTH COAL	83. (10 TONS)
BITUM COAL	9. (10 TONS)
DISTILLATE OIL	6155. (10000 GAL)
RESIDUAL OIL	201. (10000 GAL)
NATURAL GAS	1058. (10 MILLION CU FT)
WOOD	4. (100 TONS)

COMMERCIAL/INSTITUTIONAL AREA FUELS

ANTH COAL	506. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	2287. (10000 GAL)
RESIDUAL OIL	1771. (10000 GAL)
NATURAL GAS	267. (10 MILLION CU FT)
WOOD	0. (100 TONS)

INDUSTRIAL AREA FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	341. (10000 GAL)
RESIDUAL OIL	870. (10000 GAL)
NATURAL GAS	173. (10 MILLION CU FT)
WOOD	0. (100 TONS)

RAILROAD DIESEL FUEL IS 313. (10000 GAL)

GASOLINE

LIGHT VEH	145819. (1000 GAL)	HEAVY VEH	1408. (1000 GAL)	OFF HIGH	2153. (1000 GAL)

DIESEL

ON HIGH	594. (1000 GAL)	OFF HIGH	106. (1000 GAL)

TOTAL VMT 1997991. (1000 MI)

SOLVENT PURCHASED 1968. (TONS)

AREA EMISSION INVENTORY FOR MORRIS

TOTAL POPULATION = 393624.

TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT = 107924.

TOTAL INDUSTRIAL EMPLOYMENT = 45589.

AUTOMOBILE REGISTRATION 159180.

TRUCK REGISTRATION 1000.

THERE WERE 5585. DEGREE DAYS IN 1975

THE AVERAGE HOUSING UNIT HAD 5.9 ROOMS

THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS,

COAL	206.
OIL	66702.
NATURAL GAS	40140.
WOOD	16.

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS: 0.766 0.102 0.067 0.065

COMMERCIAL/INSTITUTIONAL POINT SOURCE FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	0. (10000 GAL)
RESIDUAL OIL	0. (10000 GAL)
NATURAL GAS	0. (10 MILLION CU FT)
WOOD	0. (100 TONS)

INDUSTRIAL POINT SOURCE FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	809. (10000 GAL)
RESIDUAL OIL	3398. (10000 GAL)
NATURAL GAS	19. (10 MILLION CU FT)
WOOD	0. (100 TONS)

AREA EMISSION INVENTORY FOR MORRIS

RESIDENTIAL AREA FUELS

ANTH COAL	136.	(10 TONS)
BITUM COAL	15.	(10 TONS)
DISTILLATE OIL	7422.	(10000 GAL)
RESIDUAL OIL	263.	(10000 GAL)
NATURAL GAS	645.	(10 MILLION CU FT)
WOOD	2.	(100 TONS)

COMMERCIAL/INSTITUTIONAL AREA FUELS

ANTH COAL	812.	(10 TONS)
BITUM COAL	0.	(10 TONS)
DISTILLATE OIL	3668.	(10000 GAL)
RESIDUAL OIL	2840.	(10000 GAL)
NATURAL GAS	428.	(10 MILLION CU FT)
WOOD	0.	(100 TONS)

INDUSTRIAL AREA FUELS

ANTH COAL	0.	(10 TONS)
BITUM COAL	0.	(10 TONS)
DISTILLATE OIL	-177.	(10000 GAL)
RESIDUAL OIL	1078.	(10000 GAL)
NATURAL GAS	302.	(10 MILLION CU FT)
WOOD	0.	(100 TONS)

RAILROAD DIESEL FUEL IS 250. (10000 GAL)

GASOLINE

LIGHT VEH 116348. (1000 GAL) HEAVY VEH 1408. (1000 GAL) OFF HIGH 1723. (1000 GAL)

DIESEL

ON HIGH 594. (1000 GAL) OFF HIGH 85. (1000 GAL)

TOTAL VMT 1597189. (1000 MI)

SOLVENT PURCHASED 1574. (TONS)

AREA EMISSION INVENTORY FOR PASSIAC

TOTAL POPULATION = 452462.

TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT = 83662.

TOTAL INDUSTRIAL EMPLOYMENT 61605.

AUTOMOBILE REGISTRATION 226190.

TRUCK REGISTRATION 1000.

THERE WERE 5020. DEGREE DAYS IN 1975

THE AVERAGE HOUSING UNIT HAD 4.9 ROOMS

THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS,

COAL	453.
OIL	63426.
NATURAL GAS	84772.
WOOD	13.

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS: 0.422 0.379 0.118 0.081

COMMERCIAL/INSTITUTIONAL POINT SOURCE FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	0. (10000 GAL)
RESIDUAL OIL	0. (10000 GAL)
NATURAL GAS	0. (10 MILLION CU FT)
WOOD	0. (100 TONS)

INDUSTRIAL POINT SOURCE FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	508. (10000 GAL)
RESIDUAL OIL	2937. (10000 GAL)
NATURAL GAS	1. (10 MILLION CU FT)
WOOD	0. (100 TONS)

AREA EMISSION INVENTORY FOR PASSIAC

RESIDENTIAL AREA FUELS

ANTH COAL	222.	(10 TONS)
BITUM COAL	25.	(10 TONS)
DISTILLATE OIL	5160.	(10000 GAL)
RESIDUAL OIL	243.	(10000 GAL)
NATURAL GAS	1004.	(10 MILLION CU FT)
WOOD	1.	(100 TONS)

COMMERCIAL/INSTITUTIONAL AREA FUELS

ANTH COAL	629.	(10 TONS)
BITUM COAL	0.	(10 TONS)
DISTILLATE OIL	2844.	(10000 GAL)
RESIDUAL OIL	2202.	(10000 GAL)
NATURAL GAS	332.	(10 MILLION CU FT)
WOOD	0.	(100 TONS)

INDUSTRIAL AREA FUELS

ANTH COAL	0.	(10 TONS)
BITUM COAL	0.	(10 TONS)
DISTILLATE OIL	346.	(10000 GAL)
RESIDUAL OIL	3111.	(10000 GAL)
NATURAL GAS	432.	(10 MILLION CU FT)
WOOD	0.	(100 TONS)

RAILROAD DIESEL FUEL IS 288. (10000 GAL)

GASOLINE

LIGHT VEH 165327. (1000 GAL) HEAVY VEH 1408. (1000 GAL) OFF HIGH 1980. (1000 GAL)

DIESEL

ON HIGH 594. (1000 GAL) OFF HIGH 97. (1000 GAL)

TOTAL VMT 2263304. (1000 MI)

SOLVENT PURCHASED 1810. (TONS)

AREA EMISSION INVENTORY FOR SOMERSET

TOTAL POPULATION = 202091.

TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT = 33353.

TOTAL INDUSTRIAL EMPLOYMENT 28373.

AUTOMOBILE REGISTRATION 74150.

TRUCK REGISTRATION 1000.

THERE WERE 5511. DEGREE DAYS IN 1975

THE AVERAGE HOUSING UNIT HAD 5.9 ROOMS

THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS,

COAL	106.
OIL	28172.
NATURAL GAS	29103.
WOOD	0.

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS: 0.739 0.170 0.058 0.033

COMMERCIAL/INSTITUTIONAL POINT SOURCE FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	0. (10000 GAL)
RESIDUAL OIL	0. (10000 GAL)
NATURAL GAS	0. (10 MILLION CU FT)
WOOD	0. (100 TONS)

INDUSTRIAL POINT SOURCE FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	1. (10000 GAL)
RESIDUAL OIL	1082. (10000 GAL)
NATURAL GAS	18. (10 MILLION CU FT)
WOOD	0. (100 TONS)

AREA EMISSION INVENTORY FOR SOMERSET

RESIDENTIAL AREA FUELS

ANTH COAL	71. (10 TONS)
BITUM COAL	8. (10 TONS)
DISTILLATE OIL	3212. (10000 GAL)
RESIDUAL OIL	56. (10000 GAL)
NATURAL GAS	471. (10 MILLION CU FT)
WOOD	0. (100 TONS)

COMMERCIAL/INSTITUTIONAL AREA FUELS

ANTH COAL	251. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	1134. (10000 GAL)
RESIDUAL OIL	878. (10000 GAL)
NATURAL GAS	132. (10 MILLION CU FT)
WOOD	0. (100 TONS)

INDUSTRIAL AREA FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	392. (10000 GAL)
RESIDUAL OIL	1704. (10000 GAL)
NATURAL GAS	182. (10 MILLION CU FT)
WOOD	0. (100 TONS)

RAILROAD DIESEL FUEL IS 128. (10000 GAL)

GASOLINE

LIGHT VEH 54198. (1000 GAL) HEAVY VEH 1408. (1000 GAL) OFF HIGH 884. (1000 GAL)

DIESEL

ON HIGH 594. (1000 GAL) OFF HIGH 43. (1000 GAL)

TOTAL VMT 751948. (1000 MI)

SOLVENT PURCHASED 808. (TONS)

AREA EMISSION INVENTORY FOR UNION

TOTAL POPULATION = 520823.

TOTAL COMMERCIAL/INSTITUTIONAL EMPLOYMENT = 116714.

TOTAL INDUSTRIAL EMPLOYMENT = 88167.

AUTOMOBILE REGISTRATION 308260.

TRUCK REGISTRATION 1000.

THERE WERE 4900. DEGREE DAYS IN 1975

THE AVERAGE HOUSING UNIT HAD 5.5 ROOMS

THE NUMBER OF HOUSING UNITS HEATING WITH VARIOUS FUELS IS,

COAL	560.
OIL	99482.
NATURAL GAS	71665.
WOOD	0.

DWELLING UNITS PER BUILDING ARE DISTRIBUTED AS FOLLOWS: 0.572 0.260 0.075 0.093

COMMERCIAL/INSTITUTIONAL POINT SOURCE FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	0. (10000 GAL)
RESIDUAL OIL	0. (10000 GAL)
NATURAL GAS	0. (10 MILLION CU FT)
WOOD	0. (100 TONS)

INDUSTRIAL POINT SOURCE FUELS

ANTH COAL	0. (10 TONS)
BITUM COAL	0. (10 TONS)
DISTILLATE OIL	764. (10000 GAL)
RESIDUAL OIL	~~10218.~~ (10000 GAL) 9559
NATURAL GAS	430. (10 MILLION CU FT)
WOOD	0. (100 TONS)

AREA EMISSION INVENTORY FOR UNION

RESIDENTIAL AREA FUELS

ANTH COAL	314.	(10 TONS)
BITUM COAL	35.	(10 TONS)
DISTILLATE OIL	9225.	(10000 GAL)
RESIDUAL OIL	493.	(10000 GAL)
NATURAL GAS	974.	(10 MILLION CU FT)
WOOD	0.	(100 TONS)

COMMERCIAL/INSTITUTIONAL AREA FUELS

ANTH COAL	878.	(10 TONS)
BITUM COAL	0.	(10 TONS)
DISTILLATE OIL	3967.	(10000 GAL)
RESIDUAL OIL	3071.	(10000 GAL)
NATURAL GAS	463.	(10 MILLION CU FT)
WOOD	0.	(100 TONS)

INDUSTRIAL AREA FUELS

ANTH COAL	0.	(10 TONS)
BITUM COAL	0.	(10 TONS)
DISTILLATE OIL	458.	(10000 GAL)
RESIDUAL OIL	~~1562.~~ 1203.	(10000 GAL)
NATURAL GAS	190.	(10 MILLION CU FT)
WOOD	0.	(100 TONS)

RAILROAD DIESEL FUEL IS 331. (10000 GAL)

GASOLINE

LIGHT VEH 225314. (1000 GAL) HEAVY VEH 1408. (1000 GAL) OFF HIGH 2279. (1000 GAL)

DIESEL

ON HIGH 594. (1000 GAL) OFF HIGH 117. (1000 GAL)

TOTAL VMT 3079122. (1000 MI)

SOLVENT PURCHASED 4687. (TONS)

APPENDIX C

SUPPORT MATERIAL FOR NEW JERSEY AQMA SUBMITTAL

This report documents the techniques and level of detail used in performing the AQMA Analysis. Details on development of the inventory and subsequent modeling efforts are provided in Section 3 of this report or, when Tri-State data and techniques were accepted, in EPA-902/4-77-006.

This Appendix presents the specific data summaries required under Section 51.51, Subpart D of 40 CFR 51. Included are Tables 7.1 and 7.2, Baseline and Projected Emissions for each county and projection year; a map portraying the grid system for each county; and the emissions associated with each grid (equivalent to Table 4-2). The grid maps have been created so that each grid is printed at its proper location and is represented by a digit specifying its side length. Each digit on the map represents 1 square kilometer. Location of a specific grid can be performed by determining its distance from the apparent origin (southwest corner). The UTM coordinates of this origin are printed as XMIN and YMIN in the map heading.

Concentration isopleths have been presented in Section 6 of this report.

COUNTY Bergen
YEAR 1975

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		21	4			
		DISTILLATE OIL		459	1760			
		RESIDUAL OIL		65	31			
		NATURAL GAS		108	6			
		WOOD						
		TOTAL		653	1801			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL		200	824			
		LIGNITE						
		RESIDUAL OIL		3	302			
		DISTILLATE OIL						
		NATURAL GAS		2				
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		205	1126			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	180	370			
			POINT	947	2587			
		DISTILLATE OIL	AREA	92	199			
			POINT	3	5			
		NATURAL GAS	AREA	28	2			
			POINT	1	1			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	250	571			
			POINT	951	2593			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	479	993			
			POINT					
		DISTILLATE OIL	AREA	189	912			
			POINT					
		NATURAL GAS	AREA	37	2			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	705	1907			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1608	4279			
			POINT	1156	3219			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL		1	19			
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL		1	19			
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION			1	19			
TOTAL FUEL COMBUSTION		AREA		1608	4279			
		POINT		1157	3238			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			58	56			
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			58	56			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	2686	672			
			HEAVY DUTY	163	51			
			OFF HIGHWAY	1				
			TOTAL	2850	723			
		DIESEL	HEAVY DUTY	176	308			
			OFF HIGHWAY	274	283			
			RAIL	38	88			
			TOTAL	488	679			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL		8	8			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			79			
		RESIDUAL OIL		4	17			
		GASOLINE			2			
		TOTAL		4	98			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			3350	1508			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	29				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		4987	5787			
	POINT		1215	3794			

Table 7.1
Continued

COUNTY Essex
YEAR 1925

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		27	6			
		DISTILLATE OIL		435	1671			
		RESIDUAL OIL		172	359			
		NATURAL GAS		63	4			
		WOOD						
		TOTAL		697	2040			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		3	2			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		3	2			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	287	594			
			POINT	733	2143			
		DISTILLATE OIL	AREA	27	136			
			POINT	23	107			
		NATURAL GAS	AREA	25	2			
			POINT	6	6			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	339	732			
			POINT	762	2256			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	521	1083			
			POINT					
		DISTILLATE OIL	AREA	207	994			
			POINT					
		NATURAL GAS	AREA	41	2			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	769	2079			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1805	4851			
			POINT	765	2258			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1805	4851			
		POINT		765	2258			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING				1955			
	FOOD/AGRICULTURE							
	PRIMARY METAL			128	97			
	SECONDARY METALS							
	MINERAL PRODUCTS			1914				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			2092	2052			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	2113	529			
			HEAVY DUTY	148	95			
			OFF HIGHWAY					
			TOTAL	2261	579			
		DIESEL	HEAVY DUTY	128	311			
			OFF HIGHWAY	209	215			
			RAIL	29	66			
			TOTAL	416	592			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL		76	120			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			69			
		RESIDUAL OIL		8	36			
		GASOLINE			1			
		TOTAL		8	106			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			2761	1352			

Table 7.1
Continued

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	46				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		4612	6203			
	POINT		2857	4310			

Table 7.1
Continued

COUNTY Hudson
YEAR 1975

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		11	2			
		DISTILLATE OIL		237	913			
		RESIDUAL OIL		80	168			
		NATURAL GAS		41	2			
		WOOD		3				
		TOTAL		372	1085			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL		280	1884			
		LIGNITE						
		RESIDUAL OIL		157	455			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		437	2339			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	211	434			
			POINT	1870	3206			
		DISTILLATE OIL	AREA	27	135			
			POINT	6	6			
		NATURAL GAS	AREA	25	1			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	263	570			
			POINT	1876	3212			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	280	583			
			POINT					
		DISTILLATE OIL	AREA	111	535			
			POINT					
		NATURAL GAS	AREA	22	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	413	1119			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1048	2774			
			POINT	2313	5551			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1098	2774			
		POINT		2313	5551			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			271	153			
	FOOD/AGRICULTURE			80				
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			141	324			
	PETROLEUM INDUSTRY			150	1			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			642	478			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	875	219			
			HEAVY DUTY	94	26			
			OFF HIGHWAY					
			TOTAL	969	245			
		DIESEL	HEAVY DUTY	150	262			
			OFF HIGHWAY	167	172			
			RAIL	35	80			
			TOTAL	352	514			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			186			
		RESIDUAL OIL		15	69			
		GASOLINE			4			
		TOTAL		15	259			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1336	1018			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGI-TATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	96				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2480	3792			
	POINT		2955	6029			

Table 7.1
Continued

COUNTY Middlesex
YEAR 1975

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		9	2			
		DISTILLATE OIL		288	1107			
		RESIDUAL OIL		31	63			
		NATURAL GAS		60	4			
		WOOD		1				
		TOTAL		389	1176			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		121	975			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		121	975			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	119	299			
			POINT	1762	4812			
		DISTILLATE OIL	AREA	3	19			
			POINT	22	136			
		NATURAL GAS	AREA	22	1			
			POINT	6	5			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	149	269			
			POINT	1840	4953			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	303	628			
			POINT					
		DISTILLATE OIL	AREA	102	488			
			POINT					
		NATURAL GAS	AREA	20	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	425	1117			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	958	2562			
			POINT	1961	5928			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL		22	15			
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION			22	15			
TOTAL FUEL COMBUSTION		AREA		958	2562			
		POINT		1983	5943			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			796	7474			
	FOOD/AGRICULTURE							
	PRIMARY METAL			1150	68			
	SECONDARY METALS							
	MINERAL PRODUCTS			66	337			
	PETROLEUM INDUSTRY			1100	5374			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			3112	13253			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	2088	521			
			HEAVY DUTY	113	34			
			OFF HIGHWAY	1	1			
			TOTAL	2202	556			
		DIESEL	HEAVY DUTY	148	260			
			OFF HIGHWAY	117	120			
			RAIL	70	161			
			TOTAL	335	541			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			158			
		RESIDUAL OIL		3	16			
		GASOLINE			1			
		TOTAL		3	175			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			2540	1272			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	13	0			
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3511	3834			
	POINT		5095	19196			

Table 7.1
Continued

COUNTY Monmouth
YEAR 1975

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		5	1			
		DISTILLATE OIL		231	886			
		RESIDUAL OIL		27	48			
		NATURAL GAS		51	3			
		WOOD		2				
		TOTAL		314	938			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	84	176			
			POINT	178	608			
		DISTILLATE OIL	AREA	9	49			
			POINT					
		NATURAL GAS	AREA	9	1			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	102	226			
			POINT	178	608			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	172	359			
			POINT					
		DISTILLATE OIL	AREA	69	329			
			POINT					
		NATURAL GAS	AREA	13	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	254	689			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	670	1843			
			POINT	178	608			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION			AREA	670	1843			
			POINT	178	608			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			362				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			362				
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1518	380			
			HEAVY DUTY	72	25			
			OFF HIGHWAY	2	1			
			TOTAL	1592	406			
		DIESEL	HEAVY DUTY	49	86			
			OFF HIGHWAY	113	114			
			RAIL	35	80			
			TOTAL	197	280			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL		3	3			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			118			
		RESIDUAL OIL		7	34			
		GASOLINE			3			
		TOTAL		7	155			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1799	844			

Table 7.1
Continued

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	16				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2485	2687			
	POINT		540	608			

Table 7.1
Continued

COUNTY Morris
YEAR 1975

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		9	2			
		DISTILLATE OIL		279	1069			
		RESIDUAL OIL		31	63			
		NATURAL GAS		32	2			
		WOOD		1				
		TOTAL		352	1136			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	103	218			
			POINT	391	999			
		DISTILLATE OIL	AREA	9	49			
			POINT	61	57			
		NATURAL GAS	AREA	15	1			
			POINT	1	1			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	127	266			
			POINT	459	1057			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	276	576			
			POINT					
		DISTILLATE OIL	AREA	96	456			
			POINT					
		NATURAL GAS	AREA	22	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	394	1033			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	823	2435			
			POINT	459	1057			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION			AREA	823	2435			
			POINT	459	1057			

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS				660			
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL				660			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1561	392			
			HEAVY DUTY	92	27			
			OFF HIGHWAY	2	1			
			TOTAL	1661	420			
		DIESEL	HEAVY DUTY	125	219			
			OFF HIGHWAY	225	93			
			RAIL	32	23			
			TOTAL	382	389			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL		5	6			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE			2			
		TOTAL			2			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			2048	817			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	19				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2990	3252			
	POINT		459	2176			

Table 7.1
Continued

COUNTY Passaic
YEAR 1925

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		14	3			
		DISTILLATE OIL		192	743			
		RESIDUAL OIL		22	58			
		NATURAL GAS		5	3			
		WOOD		1				
		TOTAL		239	807			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		2	16			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		2	16			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	303	631			
			POINT	338	922			
		DISTILLATE OIL	AREA	9	50			
			POINT	38	108			
		NATURAL GAS	AREA	213	13			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	252	694			
			POINT	376	1030			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	215	446			
			POINT					
		DISTILLATE OIL	AREA	84	410			
			POINT					
		NATURAL GAS	AREA	17	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	316	857			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	807	2358			
			POINT	378	1046			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION			AREA	807	2358			
			POINT	378	1046			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING				36			
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL				36			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1100	275			
			HEAVY DUTY	83	28			
			OFF HIGHWAY	1				
			TOTAL	1184	303			
		DIESEL	HEAVY DUTY	59	103			
			OFF HIGHWAY	77	79			
			RAIL	13	29			
			TOTAL	149	211			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE			2			
		TOTAL			2			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1333	516			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	857	1729			
			POINT					
		DISTILLATE OIL	AREA	33	163			
			POINT					
		NATURAL GAS	AREA	7				
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	897	1942			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1240	2822			
			POINT	125	256			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION			AREA	1240	2822			
			POINT	125	256			

Table 7.1
Continued

COUNTY Somerset
YEAR 1975

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		5	1			
		DISTILLATE OIL		120	463			
		RESIDUAL OIL		8	13			
		NATURAL GAS		24	1			
		WOOD						
		TOTAL		157	478			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	165	345			
			POINT	124	255			
		DISTILLATE OIL	AREA	12	56			
			POINT					
		NATURAL GAS	AREA	9	1			
			POINT	1	1			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	186	402			
			POINT	125	256			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	938	235			
			HEAVY DUTY	54	19			
			OFF HIGHWAY	2	1			
			TOTAL	994	255			
		DIESEL	HEAVY DUTY	28	49			
			OFF HIGHWAY	10	9			
			RAIL	22	51			
			TOTAL	65	109			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL		3	2			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE						
		TOTAL						
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1062	366			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			379				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			379				
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

COUNTY Union
YEAR 1975

Table 7.1
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		20	4			
		DISTILLATE OIL		345	1328			
		RESIDUAL OIL		57	118			
		NATURAL GAS		49	3			
		WOOD						
		TOTAL		471	1453			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		105	947			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		105	947			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	15	66			
			POINT	1175	2904			
		DISTILLATE OIL	AREA	61	129			
			POINT	58	108			
		NATURAL GAS	AREA	9	1			
			POINT	22	21			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	85	191			
			POINT	1255	2533			

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	6				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2308	3188			
	POINT		504	256			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			228	4839			
	FOOD/AGRICULTURE							
	PRIMARY METAL				7			
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY			286	1120			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			517	6011			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	299	622			
			POINT					
		DISTILLATE OIL	AREA	12	57			
			POINT					
		NATURAL GAS	AREA	23	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	334	680			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	890	2324			
			POINT	1360	3480			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		890	2324			
		POINT		1360	3480			

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	11				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2627	3222			
	POINT		1874	9491			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1452	363			
			HEAVY DUTY	87	28			
			OFF HIGHWAY					
			TOTAL	1539	391			
		DIESEL	HEAVY DUTY	80	140			
			OFF HIGHWAY	51	52			
			RAIL	45	102			
			TOTAL	176	294			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL		1	1			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			162			
		RESIDUAL OIL		10	49			
		GASOLINE			1			
		TOTAL		10	212			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1726	898			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	484	1003			
			POINT					
		DISTILLATE OIL	AREA	191	921			
			POINT					
		NATURAL GAS	AREA	37	2			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	712	1926			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1665	4570			
			POINT	1249	3967			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1665	4570			
		POINT		1249	3967			

Table 7.1
Continued

COUNTY Bergen
YEAR 1980

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		21	4			
		DISTILLATE OIL		495	1895			
		RESIDUAL OIL		83	168			
		NATURAL GAS		102				
		WOOD						
		TOTAL		701	2067			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		194	1088			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		194	1088			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	182	324			
			POINT	1051	2872			
		DISTILLATE OIL	AREA	42	201			
			POINT	3	6			
		NATURAL GAS	AREA	28	2			
			POINT	1	1			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	252	577			
			POINT	1055	2879			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	484	1003			
			POINT					
		DISTILLATE OIL	AREA	191	921			
			POINT					
		NATURAL GAS	AREA	37	2			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	712	1926			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1665	4570			
			POINT	1249	3962			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1665	4570			
		POINT		1249	3962			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			75	73			
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			75	73			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	3056	615			
			HEAVY DUTY	196	58			
			OFF HIGHWAY	1				
			TOTAL	3253	673			
		DIESEL	HEAVY DUTY	201	351			
			OFF HIGHWAY	281	259			
			RAIL	43	99			
			TOTAL	525	709			
	AIRCRAFT	MILITARY						
		CIVIL		7	10			
		COMMERCIAL		1	2			
		TOTAL		8	12			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			99			
		RESIDUAL OIL		5	21			
		GASOLINE			2			
		TOTAL		5	122			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			3791	1546			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	434				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		5890	6116			
	POINT		1324	4040			

Table 7.1
Continued

COUNTY Essex
YEAR 1980

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		27	6			
		DISTILLATE OIL		470	1790			
		RESIDUAL OIL		154	376			
		NATURAL GAS		62	4			
		WOOD						
		TOTAL		743	2176			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		2	2			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		2	2			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	310	629			
			POINT	814	2379			
		DISTILLATE OIL	AREA	29	144			
			POINT	25	119			
		NATURAL GAS	AREA	27	3			
			POINT	7	7			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	366	775			
			POINT	846	2505			

Table 7-2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	552	1148			
			POINT					
		DISTILLATE OIL	AREA	219	1054			
			POINT					
		NATURAL GAS	AREA	43	2			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	814	2204			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1923	5155			
			POINT	848	2507			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1923	5155			
		POINT		848	2507			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING				2535			
	FOOD/AGRICULTURE							
	PRIMARY METAL			150	87			
	SECONDARY METALS							
	MINERAL PRODUCTS			2203				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			2353	2616			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	2261	455			
			HEAVY DUTY	163	98			
			OFF HIGHWAY	0				
			TOTAL	2424	503			
		DIESEL	HEAVY DUTY	191	334			
			OFF HIGHWAY	213	220			
			RAIL	33	74			
			TOTAL	437	628			
	AIRCRAFT	MILITARY						
		CIVIL		5	7			
		COMMERCIAL		61	123			
		TOTAL		66	130			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			86			
		RESIDUAL OIL		9	45			
		GASOLINE			1			
		TOTAL		9	132			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			2936	1393			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	763				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		5622	6548			
	POINT		3201	5123			

Table 7.1
Continued

COUNTY Hudson
YEAR 1980

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		11	2			
		DISTILLATE OIL		247	948			
		RESIDUAL OIL		92	205			
		NATURAL GAS		32	2			
		WOOD		3				
		TOTAL		395	1157			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL		285	1787			
		LIGNITE						
		RESIDUAL OIL		221	359			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		506	2146			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	215	493			
			POINT	2076	3559			
		DISTILLATE OIL	AREA	28	138			
			POINT	7	9			
		NATURAL GAS	AREA	26	1			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	269	582			
			POINT	2083	3566			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	286	595			
			POINT					
		DISTILLATE OIL	AREA	113	546			
			POINT					
		NATURAL GAS	AREA	22	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	421	1142			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1085	2881			
			POINT	2589	5712			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION			AREA	1085	2881			
			POINT	2589	5712			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			351	198			
	FOOD/AGRICULTURE			80				
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			162	322			
	PETROLEUM INDUSTRY			166	1			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			759	521			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	955	193			
			HEAVY DUTY	96	29			
			OFF HIGHWAY					
			TOTAL	1051	222			
		DIESEL	HEAVY DUTY	164	287			
			OFF HIGHWAY	171	176			
			RAIL	40	91			
			TOTAL	375	554			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			231			
		RESIDUAL OIL		18	86			
		GASOLINE			3			
		TOTAL		18	320			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1444	1096			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	747				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2276	3977			
	POINT		3348	6283			

Table 7.1
Continued

COUNTY Middlesex
YEAR 1980

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		10	2			
		DISTILLATE OIL		305	1171			
		RESIDUAL OIL		41	84			
		NATURAL GAS		54	4			
		WOOD		1				
		TOTAL		411	1261			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		117	926			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		117	926			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	125	261			
			POINT	1956	5341			
		DISTILLATE OIL	AREA	3	20			
			POINT	80	151			
		NATURAL GAS	AREA	23	1			
			POINT	7	6			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	151	282			
			POINT	2043	5498			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	321	666			
			POINT					
		DISTILLATE OIL	AREA	108	517			
			POINT					
		NATURAL GAS	AREA	21	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	450	1184			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1012	2727			
			POINT	2160	6424			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL		20	15			
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION			20	15			
TOTAL FUEL COMBUSTION			AREA	1012	2727			
			POINT	2180	6439			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			1032	9694			
	FOOD/AGRICULTURE							
	PRIMARY METAL			966	57			
	SECONDARY METALS							
	MINERAL PRODUCTS			76	388			
	PETROLEUM INDUSTRY			1218	5949			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			3292	16088			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	2647	530			
			HEAVY DUTY	143	43			
			OFF HIGHWAY	1	1			
			TOTAL	2791	574			
		DIESEL	HEAVY DUTY	188	329			
			OFF HIGHWAY	120	123			
			RAIL	80	181			
			TOTAL	388	633			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			196			
		RESIDUAL OIL		4	20			
		GASOLINE			1			
		TOTAL		4	217			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			3183	1424			

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	262				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		4457	4151			
	POINT		5422	22527			

Table 7.1
Continued

COUNTY Monmouth
YEAR 1980

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		5	1			
		DISTILLATE OIL		298	1143			
		RESIDUAL OIL		53	68			
		NATURAL GAS		51	3			
		WOOD		2				
		TOTAL		389	1215			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	87	187			
			POINT	198	625			
		DISTILLATE OIL	AREA	9	52			
			POINT					
		NATURAL GAS	AREA	5	1			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	105	240			
			POINT	198	625			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	184	384			
			POINT					
		DISTILLATE OIL	AREA	74	352			
			POINT					
		NATURAL GAS	AREA	14	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	272	737			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	766	2192			
			POINT	198	675			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		766	2192			
		POINT		198	675			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			417				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			417				
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1820	366			
			HEAVY DUTY	100	30			
			OFF HIGHWAY	2	1			
			TOTAL	1922	397			
		DIESEL	HEAVY DUTY	59	102			
			OFF HIGHWAY	115	117			
			RAIL	40	91			
			TOTAL	214	310			
	AIRCRAFT	MILITARY						
		CIVIL		4	5			
		COMMERCIAL						
		TOTAL		4	5			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			146			
		RESIDUAL OIL		9	43			
		GASOLINE			3			
		TOTAL		9	192			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			2149	909			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	191				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3106	3096			
	POINT		615	675			

Table 7.1
Continued

COUNTY Morris
YEAR 1980

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		9	2			
		DISTILLATE OIL		299	861			
		RESIDUAL OIL		27	54			
		NATURAL GAS		31	2			
		WOOD		1				
		TOTAL		367	919			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT	107	225			
		RESIDUAL OIL	AREA	491	1109			
			POINT	9	48			
		DISTILLATE OIL	AREA	68	63			
			POINT	16	1			
		NATURAL GAS	AREA	1	1			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	132	289			
			POINT	525	1158			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	287	593			
			POINT					
		DISTILLATE OIL	AREA	100	470			
			POINT					
		NATURAL GAS	AREA	23	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	410	1064			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	909	2272			
			POINT	525	1158			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		909	2272			
		POINT		525	1158			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS				760			
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL				760			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1820	366			
			HEAVY DUTY	106	32			
			OFF HIGHWAY	2	1			
			TOTAL	1928	359			
		DIESEL	HEAVY DUTY	145	254			
			OFF HIGHWAY	85	85			
			RAIL	36	82			
			TOTAL	266	421			
	AIRCRAFT	MILITARY						
		CIVIL		6	8			
		COMMERCIAL		1				
		TOTAL		7	8			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE			2			
		TOTAL			2			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			2201	830			

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	147				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3257	3102			
	POINT		525	1918			

Table 7.1
Continued

COUNTY Passaic
YEAR 1980

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		14	3			
		DISTILLATE OIL		192	744			
		RESIDUAL OIL		31	64			
		NATURAL GAS		5	3			
		WOOD		1				
		TOTAL		243	814			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		2	16			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		2	16			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	303	631			
			POINT	375	1023			
		DISTILLATE OIL	AREA	9	50			
			POINT	42	120			
		NATURAL GAS	AREA	213	13			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	525	694			
			POINT	417	1143			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	215	446			
			POINT					
		DISTILLATE OIL	AREA	84	410			
			POINT					
		NATURAL GAS	AREA	17	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	316	857			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1084	2365			
			POINT	419	1159			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION			AREA	1084	2365			
			POINT	419	1159			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING				47			
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL				47			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1334	269			
			HEAVY DUTY	116	35			
			OFF HIGHWAY	1				
			TOTAL	1451	304			
		DIESEL	HEAVY DUTY	71	125			
			OFF HIGHWAY	79	81			
			RAIL	14	33			
			TOTAL	164	239			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE		2				
		TOTAL		2				
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1617	543			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	239				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2940	2908			
	POINT		419	1206			

Table 7.1
Continued

COUNTY Somerset
YEAR 1980

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		5	1			
		DISTILLATE OIL		128	496			
		RESIDUAL OIL		10	17			
		NATURAL GAS		23	1			
		WOOD						
		TOTAL		166	515			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	167	348			
			POINT	138	283			
		DISTILLATE OIL	AREA	12	53			
			POINT					
		NATURAL GAS	AREA	9	1			
			POINT	9	1			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	188	406			
			POINT	139	284			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	866	1297			
			POINT					
		DISTILLATE OIL	AREA	33	164			
			POINT					
		NATURAL GAS	AREA	7				
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	906	1961			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1260	2882			
			POINT	139	289			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1260	2882			
		POINT		139	289			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			436				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			436				
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1258	253			
			HEAVY DUTY	86	26			
			OFF HIGHWAY	2	1			
			TOTAL	1346	280			
		DIESEL	HEAVY DUTY	38	66			
			OFF HIGHWAY	10	9			
			RAIL	25	58			
			TOTAL	73	133			
	AIRCRAFT	MILITARY						
		CIVIL		4	3			
		COMMERCIAL						
		TOTAL		4	3			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE						
		TOTAL						
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1423	416			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGI-TATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	57				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2740	3298			
	POINT		525	284			

Table 7.1
Continued

COUNTY Union
YEAR 1980

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		19	3			
		DISTILLATE OIL		364	1400			
		RESIDUAL OIL		63	131			
		NATURAL GAS		45	3			
		WOOD						
		TOTAL		491	1537			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		99	900			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		99	900			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	15	66			
			POINT	1309	2668			
		DISTILLATE OIL	AREA	61	129			
			POINT	64	120			
		NATURAL GAS	AREA	9	1			
			POINT	24	23			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	85	191			
			POINT	1392	2811			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	299	622			
			POINT					
		DISTILLATE OIL	AREA	12	57			
			POINT					
		NATURAL GAS	AREA	23	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	334	680			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	910	2408			
			POINT	1491	3711			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION			AREA	910	2408			
			POINT	1491	3711			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			296	6270			
	FOOD/AGRICULTURE							
	PRIMARY METAL				6			
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY			316	1255			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			612	7571			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1663	335			
			HEAVY DUTY	109	33			
			OFF HIGHWAY					
			TOTAL	1772	368			
		DIESEL	HEAVY DUTY	92	161			
			OFF HIGHWAY	52	54			
			RAIL	51	115			
			TOTAL	195	330			
	AIRCRAFT	MILITARY						
		CIVIL		2	2			
		COMMERCIAL						
		TOTAL		2	2			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			202			
		RESIDUAL OIL		13	61			
		GASOLINE			1			
		TOTAL		13	264			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1982	964			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGI-TATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	266				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3158	3372			
	POINT		2103	11282			

Table 7.1
Continued

COUNTY Bergen
YEAR 1985

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL		-	-			
		BITUMINOUS COAL		21	4			
		DISTILLATE OIL		576	2203			
		RESIDUAL OIL		100	203			
		NATURAL GAS		101	0			
		WOOD		-	-			
		TOTAL		798	2410			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		96	326			
		DISTILLATE OIL		-				
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		96	326			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	184	377			
			POINT	1155	3157			
		DISTILLATE OIL	AREA	43	203			
			POINT	4	6			
		NATURAL GAS	AREA	29	2			
			POINT	1	1			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	256	582			
			POINT	1160	3164			

Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	489	1013			
			POINT					
		DISTILLATE OIL	AREA	193	930			
			POINT					
		NATURAL GAS	AREA	38	2			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	720	1945			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1774	4937			
			POINT	1256	3490			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION			AREA	1774	4937			
			POINT	1256	3490			

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			88	85			
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			88	85			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	3232	632			
			HEAVY DUTY	208	62			
			OFF HIGHWAY	1	0			
			TOTAL	3441	694			
		DIESEL	HEAVY DUTY	212	371			
			OFF HIGHWAY	286	295			
			RAIL	47	107			
			TOTAL	545	773			
	AIRCRAFT	MILITARY		0	0			
		CIVIL		9	13			
		COMMERCIAL		1	3			
		TOTAL		10	16			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			112			
		RESIDUAL OIL		5	24			
		GASOLINE			2			
		TOTAL		5	138			
	GAS HANDLING EVAPORATION LOSS			---	---			
	TOTAL TRANSPORTATION			4001	1621			

Table 7.1
Continued

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	61				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		5834	6558			
	POINT		1344	3575			

Table 7.1
Continued

COUNTY Hudson
YEAR 1985

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		11	2			
		DISTILLATE OIL		259	995			
		RESIDUAL OIL		102	213			
		NATURAL GAS		37	2			
		WOOD		3	0			
		TOTAL		412	1212			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL		46	3346			
		LIGNITE						
		RESIDUAL OIL		84	279			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		130	3625			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	222	456			
			POINT	2281	3911			
		DISTILLATE OIL	AREA	28	142			
			POINT	7	7			
		NATURAL GAS	AREA	26	1			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	276	599			
			POINT	2288	3918			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	305	630			
			POINT					
		DISTILLATE OIL	AREA	121	578			
			POINT					
		NATURAL GAS	AREA	24	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	450	1209			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1138	3020			
			POINT	2418	7543			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1138	3020			
		POINT		2418	7543			

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			412	232			
	FOOD/AGRICULTURE			80				
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			182	417			
	PETROLEUM INDUSTRY			178	1			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			852	650			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	980	192			
			HEAVY DUTY	98	29			
			OFF HIGHWAY	0	0			
			TOTAL	1078	221			
		DIESEL	HEAVY DUTY	168	294			
			OFF HIGHWAY	124	180			
			RAIL	43	98			
			TOTAL	385	572			
	AIRCRAFT	MILITARY		—	—			
		CIVIL		—				
		COMMERCIAL		—				
		TOTAL		—				
	VESSELS	BITUMINOUS COAL		—				
		DIESEL FUEL		—	262			
		RESIDUAL OIL		20	97			
		GASOLINE		—	3			
		TOTAL		20	362			
	GAS HANDLING EVAPORATION LOSS			—	—			
	TOTAL TRANSPORTATION			1483	1155			

Table 7.1
Continued

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	35				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2656	4175			
	POINT		3270	8193			

Table 7.1
Continued

COUNTY ESSEX
YEAR 1985

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		27	6			
		DISTILLATE OIL		546	2102			
		RESIDUAL OIL		204	420			
		NATURAL GAS		67	4			
		WOOD						
		TOTAL		844	2532			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		1	2			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		1	2			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	307	636			
			POINT	894	2614			
		DISTILLATE OIL	AREA	29	146			
			POINT	28	131			
		NATURAL GAS	AREA	27	2			
			POINT	7	7			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	363	784			
			POINT	929	2752			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	557	1159			
			POINT					
		DISTILLATE OIL	AREA	221	1064			
			POINT					
		NATURAL GAS	AREA	44				
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	822	2223			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	2029	5533			
			POINT	930	2754			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION			AREA	2029	5533			
			POINT	930	2754			

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	2303	450			
			HEAVY DUTY	166	49			
			OFF HIGHWAY	0	0			
			TOTAL	2469	499			
		DIESEL	HEAVY DUTY	194	340			
			OFF HIGHWAY	218	225			
			RAIL	35	80			
			TOTAL	447	645			
	AIRCRAFT	MILITARY		0	0			
		CIVIL		6	9			
		COMMERCIAL		79	159			
		TOTAL		85	168			
	VESSELS	BITUMINOUS COAL		—	—			
		DIESEL FUEL		—	97			
		RESIDUAL OIL		11	51			
		GASOLINE		—	1			
		TOTAL		11	149			
	GAS HANDLING EVAPORATION LOSS			—	—			
	TOTAL TRANSPORTATION			3012	1461			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING				2970			
	FOOD/AGRICULTURE							
	PRIMARY METAL			150	81			
	SECONDARY METALS							
	MINERAL PRODUCTS			2465				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			2615	3051			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	34				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		5075	6994			
	POINT		3545	5805			

Table 7.1
Continued

COUNTY Middlesex
YEAR 1985

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		10	2			
		DISTILLATE OIL		350	1345			
		RESIDUAL OIL		56	117			
		NATURAL GAS		54	4			
		WOOD		1	0			
		TOTAL		471	1468			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		49	395			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		49	395			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	137	286			
			POINT	2150	5871			
		DISTILLATE OIL	AREA	3	22			
			POINT	88	166			
		NATURAL GAS	AREA	25	1			
			POINT	7	6			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	165	309			
			POINT	2245	6043			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	348	722			
			POINT					
		DISTILLATE OIL	AREA	117	561			
			POINT					
		NATURAL GAS	AREA	23	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	488	1284			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1124	3061			
			POINT	2294	6438			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL		20	14			
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION			AREA	1124	3061			
			POINT	2314	6452			

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			1209	11353			
	FOOD/AGRICULTURE							
	PRIMARY METAL			966	57			
	SECONDARY METALS							
	MINERAL PRODUCTS			85	434			
	PETROLEUM INDUSTRY			1307	6384			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			3567	18228			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	3003	584			
			HEAVY DUTY	163	48			
			OFF HIGHWAY	1	1			
			TOTAL	1367	633			
		DIESEL	HEAVY DUTY	214	374			
			OFF HIGHWAY	122	125			
			RAIL	86	196			
			TOTAL	422	695			
	AIRCRAFT	MILITARY		—	—			
		CIVIL		—	—			
		COMMERCIAL		—	—			
		TOTAL		—	—			
	VESSELS	BITUMINOUS COAL		—	—			
		DIESEL FUEL		—	222			
		RESIDUAL OIL		5	22			
		GASOLINE		—	2			
		TOTAL		5	246			
	GAS HANDLING EVAPORATION LOSS			—	—			
	TOTAL TRANSPORTATION			3594	1574			

Table 7.1
Continued

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	90				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		4808	4635			
	POINT		5881	24666			

Table 7.1
Continued

COUNTY Monmouth
YEAR 1985

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		5	1			
		DISTILLATE OIL		360	1380			
		RESIDUAL OIL		40	84			
		NATURAL GAS		52	3			
		WOOD		2	0			
		TOTAL		459	1468			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	95	199			
			POINT	217	742			
		DISTILLATE OIL	AREA	10	55			
			POINT					
		NATURAL GAS	AREA	10	1			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	115	255			
			POINT	217	742			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	194	406			
			POINT					
		DISTILLATE OIL	AREA	78	372			
			POINT					
		NATURAL GAS	AREA	15	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	287	779			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	861	2501			
			POINT	217	742			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION			AREA	861	2501			
			POINT	217	742			

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			466				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			466				
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	2040	398			
			HEAVY DUTY	12	33			
			OFF HIGHWAY	2	1			
			TOTAL	2154	432			
		DIESEL	HEAVY DUTY	66	115			
			OFF HIGHWAY	117	118			
			RAIL	43	98			
			TOTAL	226	331			
	AIRCRAFT	MILITARY		1	1			
		CIVIL		5	6			
		COMMERCIAL						
		TOTAL		6	7			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			165			
		RESIDUAL OIL		10	48			
		GASOLINE			3			
		TOTAL		10	216			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			2396	986			

Table 7.1
Continued

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGI-TATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	31				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3288	3487			
	POINT		683	742			

Table 7.1
Continued

COUNTY Morris
YEAR 1985

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		9	2			
		DISTILLATE OIL		372	1073			
		RESIDUAL OIL		34	69			
		NATURAL GAS		31	2			
		WOOD		1	0			
		TOTAL		447	1146			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	113	240			
			POINT	484	1219			
		DISTILLATE OIL	AREA	10	52			
			POINT	74	70			
		NATURAL GAS	AREA	17	1			
			POINT	1	1			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	140	293			
			POINT	559	1290			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	304	634			
			POINT					
		DISTILLATE OIL	AREA	106	502			
			POINT					
		NATURAL GAS	AREA	24	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	434	1137			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1021	2576			
			POINT	559	1290			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1021	2576			
		POINT		559	1290			

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS				850			
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL				850			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1985	385			
			HEAVY DUTY	116	34			
			OFF HIGHWAY	2	1			
			TOTAL	2103	423			
		DIESEL	HEAVY DUTY	158	277			
			OFF HIGHWAY	66	86			
			RAIL	59	89			
			TOTAL	283	452			
	AIRCRAFT	MILITARY						
		CIVIL		8	10			
		COMMERCIAL		1	1			
		TOTAL		9	11			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE			2			
		TOTAL			2			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			2395	888			

Table 7.1
Continued

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	26				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3442	3464			
	POINT		559	2140			

Table 7.1
Continued

COUNTY Passaic
YEAR 1985

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		14	3			
		DISTILLATE OIL		208	802			
		RESIDUAL OIL		34	69			
		NATURAL GAS		5	2			
		WOOD		1	0			
		TOTAL		262	876			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		2	15			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		2	15			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	309	643			
			POINT	412	1125			
		DISTILLATE OIL	AREA	9	51			
			POINT	46	132			
		NATURAL GAS	AREA	217	13			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	535	707			
			POINT	458	1257			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	219	455			
			POINT					
		DISTILLATE OIL	AREA	86	418			
			POINT					
		NATURAL GAS	AREA	17	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	322	874			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1119	2457			
			POINT	460	1272			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1119	2457			
		POINT		460	1272			

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING				55			
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL				55			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1403	275			
			HEAVY DUTY	121	36			
			OFF HIGHWAY	1				
			TOTAL	1525	311			
		DIESEL	HEAVY DUTY	25	131			
			OFF HIGHWAY	81	83			
			RAIL	16	36			
			TOTAL	122	250			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE			2			
		TOTAL			2			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1697	563			

Table 7.1
Continued

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	16				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2832	3020			
	POINT		460	1327			

Table 7.1
Continued

COUNTY Somerset
YEAR 1985

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		5	1			
		DISTILLATE OIL		212	607			
		RESIDUAL OIL		13	22			
		NATURAL GAS		25	1			
		WOOD		0	0			
		TOTAL		255	631			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	180	376			
			POINT	151	311			
		DISTILLATE OIL	AREA	13	61			
			POINT					
		NATURAL GAS	AREA	10	1			
			POINT	1	1			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	203	438			
			POINT	152	312			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	934	1939			
			POINT					
		DISTILLATE OIL	AREA	36	178			
			POINT					
		NATURAL GAS	AREA	8	0			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	978	2117			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1436	3186			
			POINT	152	312			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION			AREA	1436	3186			
			POINT	152	312			

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			488				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			488	0			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1418	277			
			HEAVY DUTY	97	29			
			OFF HIGHWAY	2	1			
			TOTAL	1517	307			
		DIESEL	HEAVY DUTY	42	24			
			OFF HIGHWAY	10	9			
			RAIL	27	62			
			TOTAL	79	145			
	AIRCRAFT	MILITARY						
		CIVIL		6	5			
		COMMERCIAL						
		TOTAL		6	5			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE						
		TOTAL						
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1602	457			

Table 7.1
Continued

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	14				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3052	3643			
	POINT		640	312			

Table 7.1
Continued

COUNTY Union
YEAR 1985

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		19	3			
		DISTILLATE OIL		347	1340			
		RESIDUAL OIL		63	131			
		NATURAL GAS		50	3			
		WOOD		0	0			
		TOTAL		479	1477			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		132	923			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		132	923			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	15	66			
			POINT	1434	2933			
		DISTILLATE OIL	AREA	61	124			
			POINT	71	132			
		NATURAL GAS	AREA	9	1			
			POINT	27	26			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	85	191			
			POINT	1532	3091			

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	293	616			
			POINT					
		DISTILLATE OIL	AREA	12	56			
			POINT					
		NATURAL GAS	AREA	23	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	328	673			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	892	2341			
			POINT	1664	4014			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION			AREA	892	2341			
			POINT	1664	4014			

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			346	7343			
	FOOD/AGRICULTURE							
	PRIMARY METAL				6			
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY			340	1390			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			686	8739			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1696	331			
			HEAVY DUTY	111	33			
			OFF HIGHWAY					
			TOTAL	1807	363			
		DIESEL	HEAVY DUTY	94	165			
			OFF HIGHWAY	53	55			
			RAIL	55	125			
			TOTAL	202	345			
	AIRCRAFT	MILITARY		-	-			
		CIVIL		3	3			
		COMMERCIAL						
		TOTAL		3	3			
	VESSELS	BITUMINOUS COAL		-	-			
		DIESEL FUEL		-	228			
		RESIDUAL OIL		14	68			
		GASOLINE						
		TOTAL		14	297			
	GAS HANDLING EVAPORATION LOSS			-	-			
	TOTAL TRANSPORTATION			2026	1008			

Table 7.1
Continued

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	14				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2932	3349			
	POINT		2350	12753			

Table 7.1
Continued

COUNTY Bergen
YEAR 2000

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		21	4			
		DISTILLATE OIL		712	2728			
		RESIDUAL OIL		130	262			
		NATURAL GAS		100	0			
		WOOD						
		TOTAL		963	2994			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		156	876			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		156	876			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	216	444			
			POINT	1610	4398			
		DISTILLATE OIL	AREA	50	239			
			POINT	5	9			
		NATURAL GAS	AREA	34	2			
			POINT	2	2			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	300	685			
			POINT	1617	4409			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	525	1192			
			POINT					
		DISTILLATE OIL	AREA	227	1094			
			POINT					
		NATURAL GAS	AREA	44	2			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	846	2288			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	2109	5967			
			POINT	1773	5285			
FUEL COMBUSTION. INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		2109	5967			
		POINT		1773	5285			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			146	141			
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			146	141			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	3391	550			
			HEAVY DUTY	218	65			
			OFF HIGHWAY	1				
			TOTAL	3610	115			
		DIESEL	HEAVY DUTY	223	389			
			OFF HIGHWAY	309	313			
			RAIL	56	128			
			TOTAL	583	830			
	AIRCRAFT	MILITARY						
		CIVIL		11	16			
		COMMERCIAL		2	4			
		TOTAL		13	20			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			155			
		RESIDUAL OIL		7	34			
		GASOLINE			2			
		TOTAL		7	191			
	GAS HANDLING EVAPORATION LOSS			—	—			
	TOTAL TRANSPORTATION			4213	1156			

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	26				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		6348	7123			
	POINT		1919	5426			

Table 7.1
Continued

COUNTY Essex
YEAR 2000

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		27	6			
		DISTILLATE OIL		736	2120			
		RESIDUAL OIL		200	408			
		NATURAL GAS		63	4			
		WOOD						
		TOTAL		1026	2538			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		2	1			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		2	1			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	313	647			
			POINT	1246	3643			
		DISTILLATE OIL	AREA	29	148			
			POINT	39	182			
		NATURAL GAS	AREA	27	2			
			POINT	10	10			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	369	797			
			POINT	1295	3835			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	568	1180			
			POINT					
		DISTILLATE OIL	AREA	226	1083			
			POINT					
		NATURAL GAS	AREA	45	2			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	839	2265			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	2234	5600			
			POINT	1297	3836			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		2234	5600			
		POINT		1297	3836			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING				4913			
	FOOD/AGRICULTURE							
	PRIMARY METAL			153	84			
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY			3575				
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			3728	4997			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	2462	400			
			HEAVY DUTY	177	53			
			OFF HIGHWAY	0	0			
			TOTAL	2639	453			
		DIESEL	HEAVY DUTY	208	363			
			OFF HIGHWAY	231	238			
			RAIL	42	46			
			TOTAL	981	697			
	AIRCRAFT	MILITARY		0	0			
		CIVIL		7	11			
		COMMERCIAL		97	197			
		TOTAL		104	208			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			135			
		RESIDUAL OIL		15	71			
		GASOLINE			1			
		TOTAL		15	207			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			3239	1565			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGI-TATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	24				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		5497	7165			
	POINT		5025	8833			

Table 7.1
Continued

COUNTY Hudson
YEAR 2000

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		11	2			
		DISTILLATE OIL		335	1294			
		RESIDUAL OIL		133	280			
		NATURAL GAS		37	2			
		WOOD		3				
		TOTAL		519	1578			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL		222	1442			
		LIGNITE						
		RESIDUAL OIL		115	302			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		337	1704			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	234	482			
			POINT	3179	5450			
		DISTILLATE OIL	AREA	30	150			
			POINT	10	10			
		NATURAL GAS	AREA	28	1			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	292	633			
			POINT	3189	5460			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	311	647			
			POINT					
		DISTILLATE OIL	AREA	123	594			
			POINT					
		NATURAL GAS	AREA	24	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	458	1242			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1269	3453			
			POINT	3526	7164			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1269	3453			
		POINT		3526	7164			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			681	384			
	FOOD/AGRICULTURE			93				
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			263	605			
	PETROLEUM INDUSTRY			230	2			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			1267	991			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1030	168			
			HEAVY DUTY	103	31			
			OFF HIGHWAY					
			TOTAL	1133	199			
		DIESEL	HEAVY DUTY	177	309			
			OFF HIGHWAY	184	191			
			RAIL	51	117			
			TOTAL	412	617			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			364			
		RESIDUAL OIL		28	136			
		GASOLINE			3			
		TOTAL		28	503			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1573	1319			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	20				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2862	4772			
	POINT		4793	8155			

Table 7.1
Continued

COUNTY Middlesex
YEAR 2000

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		12	3			
		DISTILLATE OIL		394	1517			
		RESIDUAL OIL		72	148			
		NATURAL GAS		50	3			
		WOOD		1				
		TOTAL		529	1671			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		93	746			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		93	746			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	161	336			
			POINT	2995	8180			
		DISTILLATE OIL	AREA	4	26			
			POINT	122	231			
		NATURAL GAS	AREA	30	1			
			POINT	10	9			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	195	363			
			POINT	3127	8420			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	409	848			
			POINT					
		DISTILLATE OIL	AREA	138	659			
			POINT					
		NATURAL GAS	AREA	27	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	574	1508			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1298	3542			
			POINT	3220	9166			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL		17	11			
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1298	3542			
		POINT		3237	9177			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			2000	18782			
	FOOD/AGRICULTURE							
	PRIMARY METAL			991	59			
	SECONDARY METALS							
	MINERAL PRODUCTS			123	630			
	PETROLEUM INDUSTRY			1684	8228			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			4798	27699			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	3210	517			
			HEAVY DUTY	174	52			
			OFF HIGHWAY	1				
			TOTAL	3385	569			
		DIESEL	HEAVY DUTY	228	339			
			OFF HIGHWAY	129	132			
			RAIL	103	234			
			TOTAL	460	765			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			309			
		RESIDUAL OIL		7	31			
		GASOLINE			2			
		TOTAL		7	342			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			3852	1676			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	29				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		5179	5218			
	POINT		8035	36876			

Table 7.1
Continued

COUNTY Monmouth
YEAR 2000

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		5	1			
		DISTILLATE OIL		484	1858			
		RESIDUAL OIL		55	112			
		NATURAL GAS		54	3			
		WOOD		2	0			
		TOTAL		600	1974			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	111	232			
			POINT	303	1033			
		DISTILLATE OIL	AREA	12	65			
			POINT					
		NATURAL GAS	AREA	12	1			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	135	298			
			POINT	303	1033			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	227	474			
			POINT					
		DISTILLATE OIL	AREA	91	434			
			POINT					
		NATURAL GAS	AREA	17	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	335	909			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1070	3181			
			POINT	303	1033			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1070	3181			
		POINT		303	1033			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			676				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			676				
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	2425	394			
			HEAVY DUTY	133	40			
			OFF HIGHWAY	2	1			
			TOTAL	2560	435			
		DIESEL	HEAVY DUTY	23	132			
			OFF HIGHWAY	123	125			
			RAIL	51	117			
			TOTAL	252	379			
	AIRCRAFT	MILITARY		1	1			
		CIVIL		7	8			
		COMMERCIAL						
		TOTAL		8	9			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			230			
		RESIDUAL OIL		14	60			
		GASOLINE			8			
		TOTAL		14	301			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			2824	1124			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGI-TATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	14				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3918	4305			
	POINT		979	1033			

Table 7.1
Continued

COUNTY Morris
YEAR 2000

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION. EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		9	2			
		DISTILLATE OIL		500	1438			
		RESIDUAL OIL		47	97			
		NATURAL GAS		32	2			
		WOOD		1				
		TOTAL		589	1539			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	130	275			
			POINT	675	1698			
		DISTILLATE OIL	AREA	11	59			
			POINT	109	97			
		NATURAL GAS	AREA	19	1			
			POINT	2	2			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	160	335			
			POINT	781	1797			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	348	726			
			POINT					
		DISTILLATE OIL	AREA	121	575			
			POINT					
		NATURAL GAS	AREA	28	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	497	1302			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA		3176			
			POINT					
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION			AREA	1246	3176			
			POINT	781	1797			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS				1233			
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL				1233			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	3347	364			
			HEAVY DUTY	130	39			
			OFF HIGHWAY					
			TOTAL	3477	403			
		DIESEL	HEAVY DUTY	179	313			
			OFF HIGHWAY	90	91			
			RAIL	47	107			
			TOTAL	316	511			
	AIRCRAFT	MILITARY		1				
		CIVIL		10	12			
		COMMERCIAL		1	1			
		TOTAL		12	13			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE			3			
		TOTAL			3			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			3805	930			

Table 7.1
Continued

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	9				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		5060	4106			
	POINT		781	3030			

Table 7.1
Continued

COUNTY Passaic
YEAR 2000

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		14	3			
		DISTILLATE OIL		245	948			
		RESIDUAL OIL		41	85			
		NATURAL GAS		5	3			
		WOOD		1				
		TOTAL		306	1039			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		2	12			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		2	12			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	330	688			
			POINT	525	1567			
		DISTILLATE OIL	AREA	10	55			
			POINT	65	184			
		NATURAL GAS	AREA	232	14			
			POINT					
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	572	757			
			POINT	640	1751			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	234	486			
			POINT					
		DISTILLATE OIL	AREA	92	447			
			POINT					
		NATURAL GAS	AREA	18	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	344	934			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1222	2230			
			POINT					
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1222	2230			
		POINT		642	1763			

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING				90			
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL				90			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1486	242			
			HEAVY DUTY	129	38			
			OFF HIGHWAY	1				
			TOTAL	1616	280			
		DIESEL	HEAVY DUTY	80	139			
			OFF HIGHWAY	85	88			
			RAIL	19	43			
			TOTAL	184	270			
	AIRCRAFT	MILITARY						
		CIVIL						
		COMMERCIAL						
		TOTAL						
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE			2			
		TOTAL			2			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1800	552			

Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	7				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3029	3282			
	POINT		642	1853			

Table 7.1
Continued

COUNTY Somerset
YEAR 2000

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		5	1			
		DISTILLATE OIL		225	868			
		RESIDUAL OIL		20	34			
		NATURAL GAS		26	1			
		WOOD						
		TOTAL		276	904			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL						
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL						
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	208	435			
			POINT	211	434			
		DISTILLATE OIL	AREA	15	31			
			POINT					
		NATURAL GAS	AREA	11	1			
			POINT	2	2			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	234	507			
			POINT	213	436			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	1080	2242			
			POINT					
		DISTILLATE OIL	AREA	42	205			
			POINT					
		NATURAL GAS	AREA	9				
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	1131	2947			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	1641	3858			
			POINT	213	436			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION		AREA		1641	3858			
		POINT		213	436			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING							
	FOOD/AGRICULTURE							
	PRIMARY METAL							
	SECONDARY METALS							
	MINERAL PRODUCTS			708				
	PETROLEUM INDUSTRY							
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			708				
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1410	229			
			HEAVY DUTY	96	29			
			OFF HIGHWAY	1	1			
			TOTAL	1507	259			
		DIESEL	HEAVY DUTY	42	74			
			OFF HIGHWAY	10	9			
			RAIL	33	75			
			TOTAL	85	158			
	AIRCRAFT	MILITARY						
		CIVIL		8	6			
		COMMERCIAL						
		TOTAL		8	6			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL						
		RESIDUAL OIL						
		GASOLINE						
		TOTAL						
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1600	423			

Table 7.1
Continued

Table 7.1
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGI-TATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	5				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		3246	4281			
	POINT		921	436			

Table 7.1
Continued

COUNTY Union
YEAR 2000

Table 7.2
County Base Year Emissions Report

SOURCE				EMISSIONS, TONS PER YEAR				
				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL	RESIDENTIAL FUEL (AREA)	ANTHRACITE COAL						
		BITUMINOUS COAL		19	3			
		DISTILLATE OIL		385	1482			
		RESIDUAL OIL		68	141			
		NATURAL GAS		45	3			
		WOOD						
		TOTAL		517	1629			
	ELECTRIC GENERATION (POINT)	ANTHRACITE COAL						
		BITUMINOUS COAL						
		LIGNITE						
		RESIDUAL OIL		80	724			
		DISTILLATE OIL						
		NATURAL GAS						
		PROCESS GAS						
		COKE						
		SOLID WASTE/COAL						
		TOTAL		80	724			
	INDUSTRIAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	15	66			
			POINT	1998	4087			
		DISTILLATE OIL	AREA	61	124			
			POINT	99	184			
		NATURAL GAS	AREA	9	1			
			POINT	37	36			
		PROCESS GAS	AREA					
			POINT					
		COKE	POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		BAGASSE	POINT					
		OTHER	POINT					
		TOTAL	AREA	85	191			
			POINT	2134	4307			

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
FUEL COMBUSTION: EXTERNAL (CONTINUED)	COMMERCIAL-INSTITUTIONAL FUEL	ANTHRACITE COAL	AREA					
			POINT					
		BITUMINOUS COAL	AREA					
			POINT					
		LIGNITE	POINT					
		RESIDUAL OIL	AREA	259	622			
			POINT					
		DISTILLATE OIL	AREA	12	57			
			POINT					
		NATURAL GAS	AREA	23	1			
			POINT					
		WOOD	AREA					
			POINT					
		LIQUID PETROL GAS	POINT					
		OTHER	POINT					
		TOTAL	AREA	334	660			
			POINT					
	OTHER		POINT					
	TOTAL EXTERNAL COMBUSTION		AREA	936	2500			
			POINT	2214	5031			
FUEL COMBUSTION: INTERNAL	ELECTRIC GENERATION	DISTILLATE OIL						
		NATURAL GAS						
		DIESEL						
		OTHER						
		TOTAL						
	INDUSTRIAL FUEL	DISTILLATE OIL						
		NATURAL GAS						
		GASOLINE						
		DIESEL						
		OTHER						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL FUEL	DIESEL						
		TOTAL						
	ENGINE TESTING	AIRCRAFT						
	TOTAL INTERNAL COMBUSTION							
TOTAL FUEL COMBUSTION			AREA	936	2500			
			POINT	2214	5031			

Table 7.1
Continued

Table 7.1
Continued

SOURCE				PART	SOX	NOX	HC	CO
INDUSTRIAL PROCESS (POINT)	CHEMICAL MANUFACTURING			573	12148			
	FOOD/AGRICULTURE							
	PRIMARY METAL				6			
	SECONDARY METALS							
	MINERAL PRODUCTS							
	PETROLEUM INDUSTRY			438	1791			
	WOOD PRODUCTS							
	PROCESS EVAPORATION							
	METAL FABRICATION							
	LEATHER PRODUCTS							
	TEXTILE MANUFACTURING							
	INPROCESS FUEL							
	OTHER/NOT CLASSIFIED							
	TOTAL			1011	13945			
SOLID WASTE DISPOSAL	GOVERNMENT (POINT)	MUNIC. INCIN.						
		OPEN BURNING						
		OTHER						
		TOTAL						
	RESIDENTIAL (AREA)	ON-SITE INCIN.						
		OPEN BURNING						
		TOTAL						
	COMMERCIAL-INSTITUTIONAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		APARTMENT	POINT					
		OTHER	AREA					
			POINT					
		TOTAL	AREA					
			POINT					
	INDUSTRIAL	ON-SITE INCIN-ERATION	AREA					
			POINT					
		OPEN BURNING	AREA					
			POINT					
		AUTO BODY INCIN.	POINT					
		OTHER	POINT					
		TOTAL	AREA					
			POINT					
	TOTAL SOLID WASTE DISPOSAL		AREA					
			POINT					

Table 7.1
Continued

Table 7.2
Continued

SOURCE				PART	SOX	NOX	HC	CO
TRANSPORTATION (AREA)	LAND VEHICLES	GASOLINE	LIGHT DUTY	1609	259			
			HEAVY DUTY	112	37			
			OFF HIGHWAY					
			TOTAL	1721	296			
		DIESEL	HEAVY DUTY	87	154			
			OFF HIGHWAY	57	58			
			RAIL	65	149			
			TOTAL	209	361			
	AIRCRAFT	MILITARY						
		CIVIL		4	4			
		COMMERCIAL						
		TOTAL		4	4			
	VESSELS	BITUMINOUS COAL						
		DIESEL FUEL			318			
		RESIDUAL OIL		20	95			
		GASOLINE			1			
		TOTAL		20	414			
	GAS HANDLING EVAPORATION LOSS							
	TOTAL TRANSPORTATION			1954	1075			

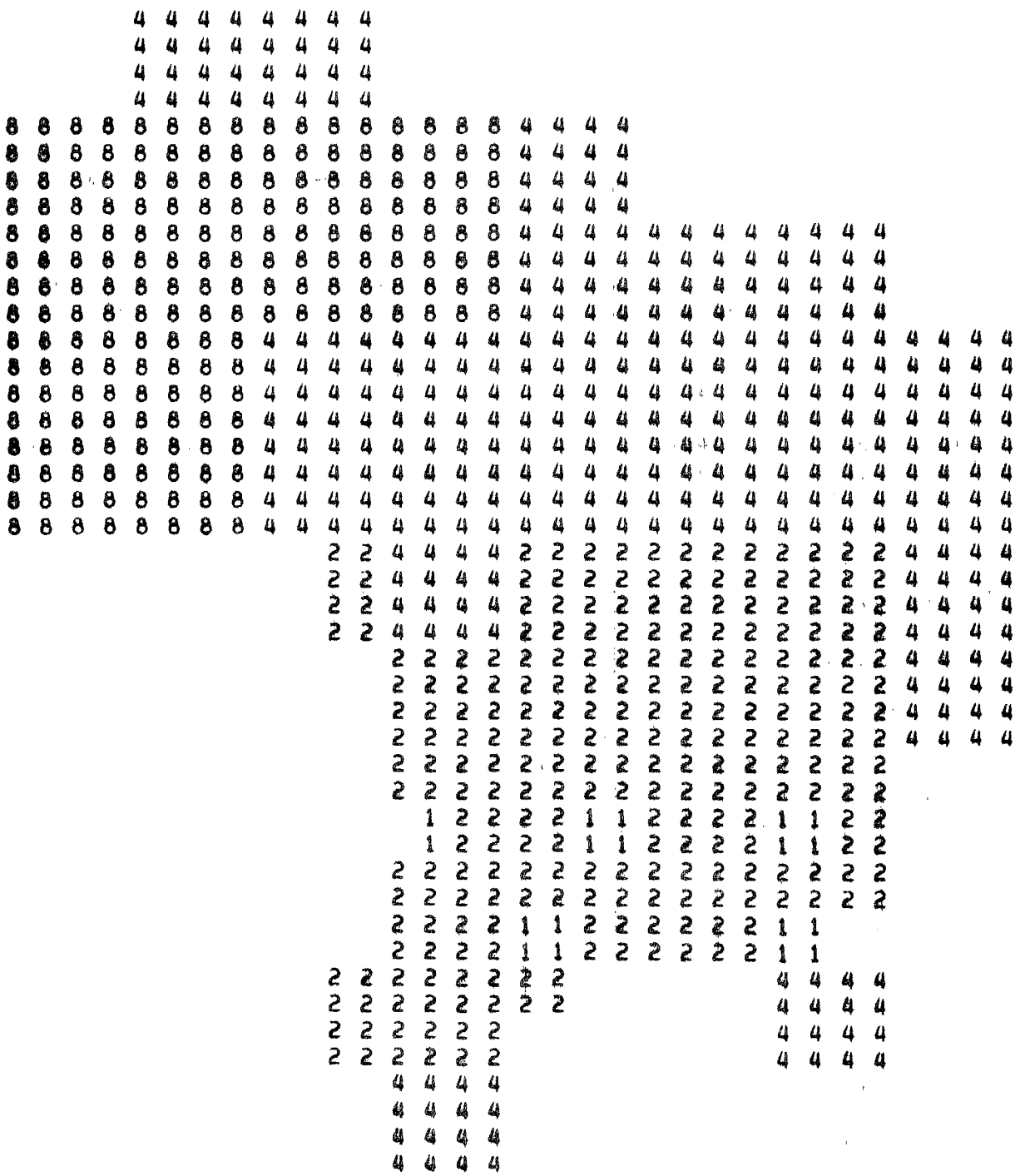
Table 7.1
Continued

Table 7.2
Continued

SOURCE			PART	SOX	NOX	HC	CO
MISCELLANEOUS (AREA)	SOLVENT EVAPORATION	INDUSTRIAL SOURCES (AREA)					
		DRY CLEANING					
	FIRES	STRUCTURAL					
		FROST CONTROL					
		SLASH BURNING					
		WILD FOREST					
		AGRICULTURAL					
	DUST CAUSED BY HUMAN AGITATION OF THE AIR	UNPAVED ROADS					
		UNPAVED AIRSTRIPS					
		PAVED ROADS					
		MINERAL PROCESSING					
		TILLING ACTIVITIES					
		LOADING CRUSHED ROCK, SAND, GRAVEL					
		CONSTRUCTION	3				
	AIRBORNE DUST CAUSED BY NATURAL WINDS	STORAGE PILES					
		TILLED LAND					
		UNTILLED LAND					
GRAND TOTAL	AREA		2893	3575			
	POINT		3225	18976			

Table 7.1
Continued

MASTER GRID SYSTEM FOR BERGEN COUNTY, XMIN,YMIN= 561. 451(



X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
573.	4510.	4000.	0.024	0.019
571.	4514.	2000.	0.034	0.035
573.	4514.	2000.	0.112	0.095
575.	4514.	2000.	0.045	0.028
571.	4516.	2000.	0.085	0.049
573.	4516.	2000.	0.249	0.220
575.	4516.	2000.	0.097	0.085
577.	4516.	2000.	0.054	0.041
585.	4514.	4000.	0.061	0.053
573.	4518.	2000.	0.154	0.138
575.	4518.	2000.	0.234	0.211
573.	4520.	2000.	0.131	0.119
575.	4520.	2000.	0.266	0.256
575.	4522.	2000.	0.288	0.291
573.	4524.	2000.	0.061	0.064
575.	4524.	2000.	0.234	0.239
574.	4522.	1000.	0.070	0.063
574.	4523.	1000.	0.199	0.172
579.	4518.	2000.	0.105	0.108
581.	4518.	2000.	0.121	0.135
583.	4518.	2000.	0.192	0.189
577.	4520.	2000.	0.343	0.227
579.	4520.	2000.	0.137	0.138
581.	4520.	2000.	0.190	0.218
583.	4520.	2000.	0.211	0.209
577.	4522.	2000.	0.153	0.147
581.	4522.	2000.	0.151	0.156
583.	4522.	2000.	0.146	0.148
577.	4524.	2000.	0.246	0.246
579.	4524.	2000.	0.319	0.323
581.	4524.	2000.	0.162	0.157
583.	4524.	2000.	0.106	0.100
577.	4518.	1000.	0.038	0.034
578.	4518.	1000.	0.044	0.040
577.	4519.	1000.	0.094	0.080
578.	4519.	1000.	0.091	0.092
579.	4522.	1000.	0.044	0.046
580.	4522.	1000.	0.034	0.036
579.	4523.	1000.	0.053	0.057
580.	4523.	1000.	0.048	0.052
585.	4520.	2000.	0.160	0.161
587.	4520.	2000.	0.013	0.011
587.	4522.	2000.	0.044	0.047
585.	4524.	2000.	0.162	0.155
587.	4524.	2000.	0.083	0.080
585.	4518.	1000.	0.079	0.069
586.	4518.	1000.	0.228	0.215
585.	4519.	1000.	0.036	0.034

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
586.	4519.	1000.	0.029	0.026
585.	4522.	1000.	0.051	0.055
586.	4522.	1000.	0.081	0.078
585.	4523.	1000.	0.051	0.048
586.	4523.	1000.	0.089	0.085
573.	4530.	4000.	0.460	0.425
573.	4526.	2000.	0.278	0.254
575.	4526.	2000.	0.211	0.207
573.	4528.	2000.	0.297	0.264
575.	4528.	2000.	0.242	0.221
571.	4530.	2000.	0.064	0.058
571.	4532.	2000.	0.092	0.080
577.	4526.	2000.	0.231	0.224
579.	4526.	2000.	0.272	0.261
581.	4526.	2000.	0.194	0.176
583.	4526.	2000.	0.192	0.169
577.	4528.	2000.	0.195	0.174
579.	4528.	2000.	0.167	0.157
581.	4528.	2000.	0.121	0.112
583.	4528.	2000.	0.172	0.160
577.	4530.	2000.	0.130	0.112
579.	4530.	2000.	0.112	0.102
581.	4530.	2000.	0.168	0.159
583.	4530.	2000.	0.189	0.176
577.	4532.	2000.	0.126	0.107
579.	4532.	2000.	0.110	0.102
581.	4532.	2000.	0.104	0.098
583.	4532.	2000.	0.152	0.138
589.	4526.	4000.	0.056	0.059
589.	4530.	4000.	0.094	0.081
585.	4526.	2000.	0.151	0.145
587.	4526.	2000.	0.082	0.071
585.	4528.	2000.	0.123	0.114
587.	4528.	2000.	0.039	0.033
585.	4530.	2000.	0.129	0.119
587.	4530.	2000.	0.052	0.045
585.	4532.	2000.	0.092	0.086
587.	4532.	2000.	0.052	0.046
561.	4534.	8000.	0.207	0.180
569.	4534.	4000.	0.159	0.143
573.	4534.	4000.	0.338	0.304
569.	4538.	4000.	0.208	0.190
573.	4538.	4000.	0.199	0.181
577.	4534.	4000.	0.309	0.275
581.	4534.	4000.	0.190	0.173
577.	4538.	4000.	0.214	0.193
581.	4538.	4000.	0.165	0.164
585.	4534.	4000.	0.237	0.206

AREA SOURCE EMISSIONS FOR BERGEN COUNTY 1975

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
589.	4534.	4000.	0.060	0.059
585.	4538.	4000.	0.237	0.207
589.	4538.	4000.	0.064	0.054
561.	4542.	8000.	0.146	0.134
569.	4542.	8000.	0.554	0.500
577.	4542.	4000.	0.185	0.165
581.	4542.	4000.	0.134	0.129
577.	4546.	4000.	0.025	0.022
585.	4542.	4000.	0.017	0.015
565.	4550.	4000.	0.008	0.006
569.	4550.	4000.	0.181	0.194

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
573.	4510.	4000.	0.025	0.024
571.	4514.	2000.	0.035	0.040
573.	4514.	2000.	0.122	0.131
575.	4514.	2000.	0.052	0.058
571.	4516.	2000.	0.093	0.052
573.	4516.	2000.	0.255	0.246
575.	4516.	2000.	0.106	0.141
577.	4516.	2000.	0.058	0.055
585.	4514.	4000.	0.061	0.060
573.	4518.	2000.	0.160	0.156
575.	4518.	2000.	0.239	0.246
573.	4520.	2000.	0.135	0.136
575.	4520.	2000.	0.274	0.288
575.	4522.	2000.	0.286	0.316
573.	4524.	2000.	0.063	0.072
575.	4524.	2000.	0.241	0.268
574.	4522.	1000.	0.071	0.072
574.	4523.	1000.	0.195	0.192
579.	4518.	2000.	0.108	0.138
581.	4518.	2000.	0.130	0.161
583.	4518.	2000.	0.201	0.223
577.	4520.	2000.	0.359	0.280
579.	4520.	2000.	0.143	0.168
581.	4520.	2000.	0.200	0.256
583.	4520.	2000.	0.219	0.254
577.	4522.	2000.	0.162	0.165
581.	4522.	2000.	0.157	0.190
583.	4522.	2000.	0.151	0.179
577.	4524.	2000.	0.251	0.282
579.	4524.	2000.	0.317	0.352
581.	4524.	2000.	0.168	0.181
583.	4524.	2000.	0.112	0.120
577.	4518.	1000.	0.038	0.038
578.	4518.	1000.	0.043	0.045
577.	4519.	1000.	0.098	0.094
578.	4519.	1000.	0.094	0.121
579.	4522.	1000.	0.047	0.053
580.	4522.	1000.	0.036	0.045
579.	4523.	1000.	0.055	0.061
580.	4523.	1000.	0.050	0.061
585.	4520.	2000.	0.168	0.212
587.	4520.	2000.	0.014	0.016
587.	4522.	2000.	0.048	0.060
585.	4524.	2000.	0.175	0.205
587.	4524.	2000.	0.093	0.112
585.	4518.	1000.	0.080	0.079
586.	4518.	1000.	0.225	0.315
585.	4519.	1000.	0.037	0.042

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
586.	4519.	1000.	0.030	0.032
585.	4522.	1000.	0.054	0.077
586.	4522.	1000.	0.085	0.111
585.	4523.	1000.	0.053	0.063
586.	4523.	1000.	0.095	0.123
573.	4530.	4000.	0.476	0.475
573.	4526.	2000.	0.277	0.273
575.	4526.	2000.	0.217	0.237
573.	4528.	2000.	0.297	0.284
575.	4528.	2000.	0.239	0.234
571.	4530.	2000.	0.064	0.065
571.	4532.	2000.	0.092	0.086
577.	4526.	2000.	0.237	0.258
579.	4526.	2000.	0.270	0.303
581.	4526.	2000.	0.198	0.196
583.	4526.	2000.	0.199	0.197
577.	4528.	2000.	0.200	0.191
579.	4528.	2000.	0.168	0.183
581.	4528.	2000.	0.125	0.126
583.	4528.	2000.	0.177	0.191
577.	4530.	2000.	0.135	0.129
579.	4530.	2000.	0.120	0.120
581.	4530.	2000.	0.173	0.174
583.	4530.	2000.	0.196	0.202
577.	4532.	2000.	0.129	0.122
579.	4532.	2000.	0.116	0.115
581.	4532.	2000.	0.106	0.105
583.	4532.	2000.	0.157	0.152
589.	4526.	4000.	0.060	0.086
589.	4530.	4000.	0.104	0.129
585.	4526.	2000.	0.160	0.177
587.	4526.	2000.	0.085	0.080
585.	4528.	2000.	0.126	0.133
587.	4528.	2000.	0.044	0.044
585.	4530.	2000.	0.133	0.136
587.	4530.	2000.	0.057	0.055
585.	4532.	2000.	0.098	0.098
587.	4532.	2000.	0.058	0.057
561.	4534.	8000.	0.227	0.228
569.	4534.	4000.	0.166	0.158
573.	4534.	4000.	0.350	0.344
569.	4538.	4000.	0.220	0.212
573.	4538.	4000.	0.209	0.196
577.	4534.	4000.	0.324	0.313
581.	4534.	4000.	0.204	0.198
577.	4538.	4000.	0.226	0.225
581.	4538.	4000.	0.172	0.175
585.	4534.	4000.	0.256	0.246

AREA SOURCE EMISSIONS FOR BERGEN COUNTY 1980 PAGE 3

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
589.	4534.	4000.	0.072	0.098
585.	4538.	4000.	0.248	0.234
589.	4538.	4000.	0.076	0.093
561.	4542.	8000.	0.157	0.159
569.	4542.	8000.	0.588	0.578
577.	4542.	4000.	0.201	0.200
581.	4542.	4000.	0.142	0.135
577.	4546.	4000.	0.026	0.027
585.	4542.	4000.	0.021	0.022
565.	4550.	4000.	0.008	0.010
569.	4550.	4000.	0.191	0.218

AREA SOURCE EMISSIONS FOR BERGEN COUNTY 1985

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
573.	4510.	4000.	0.029	0.029
571.	4514.	2000.	0.037	0.038
573.	4514.	2000.	0.158	0.162
575.	4514.	2000.	0.083	0.090
571.	4516.	2000.	0.099	0.050
573.	4516.	2000.	0.271	0.247
575.	4516.	2000.	0.119	0.161
577.	4516.	2000.	0.062	0.065
585.	4514.	4000.	0.063	0.059
573.	4518.	2000.	0.176	0.160
575.	4518.	2000.	0.232	0.237
573.	4520.	2000.	0.143	0.131
575.	4520.	2000.	0.294	0.292
575.	4522.	2000.	0.292	0.302
573.	4524.	2000.	0.065	0.067
575.	4524.	2000.	0.251	0.251
574.	4522.	1000.	0.072	0.066
574.	4523.	1000.	0.193	0.172
579.	4518.	2000.	0.113	0.137
581.	4518.	2000.	0.150	0.185
583.	4518.	2000.	0.216	0.216
577.	4520.	2000.	0.433	0.357
579.	4520.	2000.	0.161	0.174
581.	4520.	2000.	0.226	0.269
583.	4520.	2000.	0.236	0.235
577.	4522.	2000.	0.182	0.174
581.	4522.	2000.	0.171	0.178
583.	4522.	2000.	0.161	0.161
577.	4524.	2000.	0.262	0.257
579.	4524.	2000.	0.322	0.327
581.	4524.	2000.	0.178	0.168
583.	4524.	2000.	0.132	0.138
577.	4518.	1000.	0.021	0.030
578.	4518.	1000.	0.025	0.034
577.	4519.	1000.	0.074	0.092
578.	4519.	1000.	0.052	0.097
579.	4522.	1000.	0.053	0.056
580.	4522.	1000.	0.038	0.042
579.	4523.	1000.	0.058	0.062
580.	4523.	1000.	0.053	0.058
585.	4520.	2000.	0.175	0.173
587.	4520.	2000.	0.015	0.015
587.	4522.	2000.	0.056	0.055
585.	4524.	2000.	0.197	0.197
587.	4524.	2000.	0.107	0.107
585.	4518.	1000.	0.083	0.077
586.	4518.	1000.	0.234	0.224
585.	4519.	1000.	0.040	0.039

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
586.	4519.	1000.	0.033	0.030
585.	4522.	1000.	0.058	0.062
586.	4522.	1000.	0.093	0.092
585.	4523.	1000.	0.057	0.055
586.	4523.	1000.	0.106	0.104
573.	4530.	4000.	0.499	0.472
573.	4526.	2000.	0.281	0.262
575.	4526.	2000.	0.229	0.230
573.	4528.	2000.	0.302	0.276
575.	4528.	2000.	0.245	0.234
571.	4530.	2000.	0.066	0.061
571.	4532.	2000.	0.094	0.085
577.	4526.	2000.	0.257	0.249
579.	4526.	2000.	0.277	0.262
581.	4526.	2000.	0.212	0.193
583.	4526.	2000.	0.216	0.202
577.	4528.	2000.	0.211	0.196
579.	4528.	2000.	0.178	0.165
581.	4528.	2000.	0.133	0.122
583.	4528.	2000.	0.186	0.174
577.	4530.	2000.	0.145	0.136
579.	4530.	2000.	0.133	0.128
581.	4530.	2000.	0.179	0.167
583.	4530.	2000.	0.206	0.193
577.	4532.	2000.	0.137	0.125
579.	4532.	2000.	0.125	0.120
581.	4532.	2000.	0.112	0.104
583.	4532.	2000.	0.162	0.148
589.	4526.	4000.	0.066	0.070
589.	4530.	4000.	0.129	0.134
585.	4526.	2000.	0.172	0.173
587.	4526.	2000.	0.091	0.081
585.	4528.	2000.	0.130	0.120
587.	4528.	2000.	0.050	0.049
585.	4530.	2000.	0.142	0.131
587.	4530.	2000.	0.063	0.059
585.	4532.	2000.	0.105	0.100
587.	4532.	2000.	0.069	0.064
561.	4534.	8000.	0.294	0.271
569.	4534.	4000.	0.175	0.160
573.	4534.	4000.	0.374	0.346
569.	4538.	4000.	0.244	0.221
573.	4538.	4000.	0.227	0.206
577.	4534.	4000.	0.350	0.327
581.	4534.	4000.	0.222	0.212
577.	4538.	4000.	0.251	0.239
581.	4538.	4000.	0.192	0.184
585.	4534.	4000.	0.298	0.278

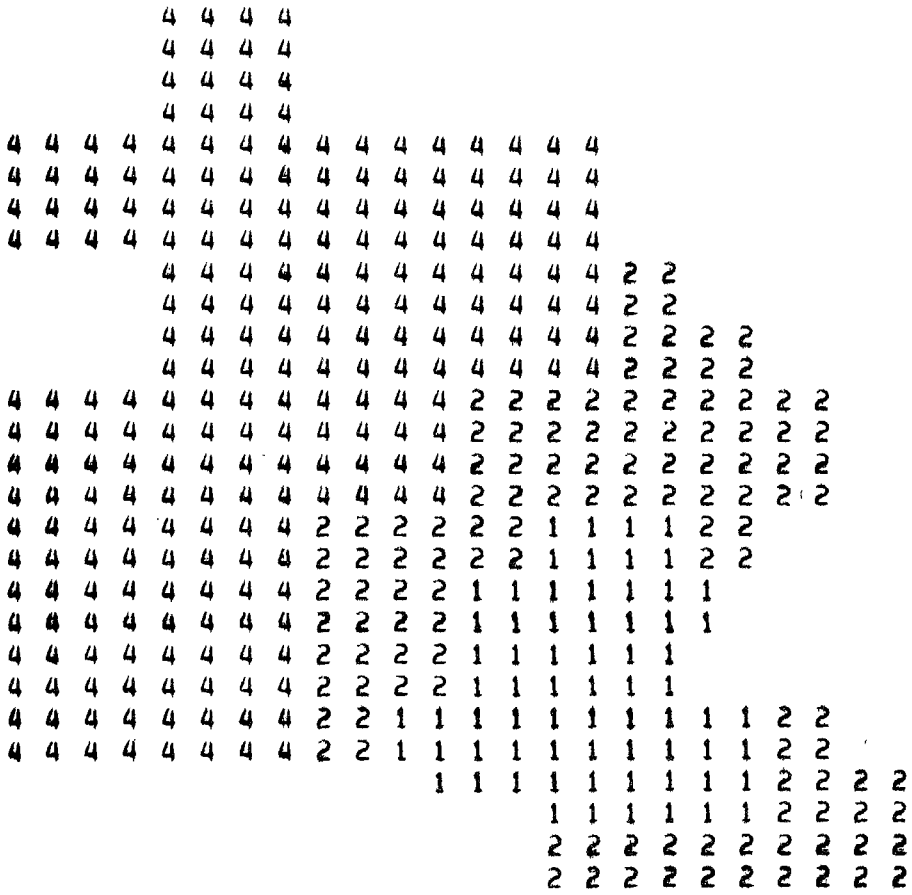
X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
589.	4534.	4000.	0.094	0.102
585.	4538.	4000.	0.272	0.255
589.	4538.	4000.	0.102	0.110
561.	4542.	8000.	0.191	0.181
569.	4542.	8000.	0.656	0.624
577.	4542.	4000.	0.240	0.226
581.	4542.	4000.	0.148	0.136
577.	4546.	4000.	0.030	0.028
585.	4542.	4000.	0.026	0.028
565.	4550.	4000.	0.010	0.010
569.	4550.	4000.	0.195	0.215

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
573.	4510.	4000.	0.035	0.033
571.	4514.	2000.	0.041	0.040
573.	4514.	2000.	0.220	0.223
575.	4514.	2000.	0.128	0.131
571.	4516.	2000.	0.123	0.054
573.	4516.	2000.	0.312	0.268
575.	4516.	2000.	0.170	0.223
577.	4516.	2000.	0.084	0.087
585.	4514.	4000.	0.069	0.061
573.	4518.	2000.	0.219	0.189
575.	4518.	2000.	0.270	0.260
573.	4520.	2000.	0.171	0.148
575.	4520.	2000.	0.343	0.322
575.	4522.	2000.	0.308	0.304
573.	4524.	2000.	0.070	0.067
575.	4524.	2000.	0.272	0.256
574.	4522.	1000.	0.082	0.071
574.	4523.	1000.	0.207	0.173
579.	4518.	2000.	0.136	0.161
581.	4518.	2000.	0.182	0.202
583.	4518.	2000.	0.241	0.228
577.	4520.	2000.	0.592	0.488
579.	4520.	2000.	0.180	0.185
581.	4520.	2000.	0.271	0.304
583.	4520.	2000.	0.274	0.257
577.	4522.	2000.	0.231	0.212
581.	4522.	2000.	0.199	0.198
583.	4522.	2000.	0.182	0.170
577.	4524.	2000.	0.295	0.270
579.	4524.	2000.	0.338	0.324
581.	4524.	2000.	0.204	0.181
583.	4524.	2000.	0.168	0.163
577.	4518.	1000.	0.024	0.031
578.	4518.	1000.	0.028	0.037
577.	4519.	1000.	0.093	0.106
578.	4519.	1000.	0.064	0.115
579.	4522.	1000.	0.064	0.064
580.	4522.	1000.	0.042	0.043
579.	4523.	1000.	0.063	0.063
580.	4523.	1000.	0.059	0.062
585.	4520.	2000.	0.192	0.175
587.	4520.	2000.	0.018	0.016
587.	4522.	2000.	0.068	0.062
585.	4524.	2000.	0.235	0.223
587.	4524.	2000.	0.126	0.120
585.	4518.	1000.	0.092	0.081
586.	4518.	1000.	0.263	0.237
585.	4519.	1000.	0.047	0.042

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
586.	4519.	1000.	0.039	0.034
585.	4522.	1000.	0.066	0.066
586.	4522.	1000.	0.116	0.106
585.	4523.	1000.	0.068	0.061
586.	4523.	1000.	0.130	0.120
573.	4530.	4000.	0.557	0.488
573.	4526.	2000.	0.303	0.264
575.	4526.	2000.	0.260	0.243
573.	4528.	2000.	0.324	0.277
575.	4528.	2000.	0.259	0.233
571.	4530.	2000.	0.072	0.062
571.	4532.	2000.	0.102	0.085
577.	4526.	2000.	0.317	0.287
579.	4526.	2000.	0.305	0.268
581.	4526.	2000.	0.258	0.223
583.	4526.	2000.	0.266	0.230
577.	4528.	2000.	0.246	0.215
579.	4528.	2000.	0.199	0.175
581.	4528.	2000.	0.149	0.129
583.	4528.	2000.	0.204	0.179
577.	4530.	2000.	0.169	0.149
579.	4530.	2000.	0.156	0.143
581.	4530.	2000.	0.196	0.169
583.	4530.	2000.	0.226	0.199
577.	4532.	2000.	0.155	0.136
579.	4532.	2000.	0.141	0.128
581.	4532.	2000.	0.124	0.106
583.	4532.	2000.	0.179	0.152
589.	4526.	4000.	0.076	0.075
589.	4530.	4000.	0.163	0.159
585.	4526.	2000.	0.194	0.179
587.	4526.	2000.	0.102	0.086
585.	4528.	2000.	0.144	0.121
587.	4528.	2000.	0.062	0.056
585.	4530.	2000.	0.156	0.135
587.	4530.	2000.	0.074	0.065
585.	4532.	2000.	0.120	0.104
587.	4532.	2000.	0.083	0.077
561.	4534.	8000.	0.370	0.336
569.	4534.	4000.	0.197	0.167
573.	4534.	4000.	0.426	0.368
569.	4538.	4000.	0.278	0.238
573.	4538.	4000.	0.260	0.221
577.	4534.	4000.	0.397	0.350
581.	4534.	4000.	0.261	0.232
577.	4538.	4000.	0.291	0.261
581.	4538.	4000.	0.223	0.201
585.	4534.	4000.	0.360	0.324

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
589.	4534.	4000.	0.124	0.129
585.	4538.	4000.	0.312	0.277
589.	4538.	4000.	0.140	0.143
561.	4542.	8000.	0.238	0.217
569.	4542.	8000.	0.793	0.708
577.	4542.	4000.	0.301	0.276
581.	4542.	4000.	0.169	0.145
577.	4546.	4000.	0.038	0.032
585.	4542.	4000.	0.034	0.033
565.	4550.	4000.	0.013	0.014
569.	4550.	4000.	0.215	0.221

MASTER GRID SYSTEM FOR ESSEX COUNTY, XMIN,YMIN= 552. 4504.



AREA SOURCE EMISSIONS FOR ESSEX COUNTY 1975 PAGE 1

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
563.	4507.	1000.	0.079	0.070
566.	4504.	2000.	0.087	0.076
568.	4504.	2000.	0.148	0.116
570.	4504.	2000.	0.177	0.147
566.	4506.	1000.	0.105	0.091
567.	4506.	1000.	0.081	0.072
568.	4506.	1000.	0.099	0.084
569.	4506.	1000.	0.084	0.057
570.	4506.	1000.	0.104	0.073
571.	4506.	1000.	0.041	0.036
564.	4507.	1000.	0.080	0.068
565.	4507.	1000.	0.102	0.092
566.	4507.	1000.	0.120	0.103
567.	4507.	1000.	0.210	0.177
568.	4507.	1000.	0.118	0.120
569.	4507.	1000.	0.152	0.133
570.	4507.	1000.	0.090	0.077
571.	4507.	1000.	0.059	0.069
572.	4504.	2000.	0.280	0.116
574.	4504.	2000.	0.025	0.021
572.	4506.	2000.	0.261	0.156
574.	4506.	2000.	0.140	0.034
552.	4508.	4000.	0.042	0.034
552.	4512.	4000.	0.086	0.069
556.	4508.	4000.	0.194	0.157
556.	4512.	4000.	0.181	0.151
560.	4508.	2000.	0.158	0.123
560.	4510.	2000.	0.094	0.076
562.	4510.	2000.	0.233	0.189
560.	4512.	2000.	0.052	0.041
562.	4512.	2000.	0.241	0.194
560.	4514.	2000.	0.048	0.040
562.	4514.	2000.	0.148	0.114
562.	4508.	1000.	0.023	0.019
563.	4508.	1000.	0.085	0.074
562.	4509.	1000.	0.065	0.054
563.	4509.	1000.	0.062	0.053
564.	4514.	2000.	0.236	0.201
570.	4514.	2000.	0.382	0.305
564.	4508.	1000.	0.090	0.079
565.	4508.	1000.	0.139	0.130
566.	4508.	1000.	0.151	0.128
567.	4508.	1000.	0.204	0.178
568.	4508.	1000.	0.157	0.147
569.	4508.	1000.	0.232	0.209
570.	4508.	1000.	0.146	0.129
571.	4508.	1000.	0.137	0.122
564.	4509.	1000.	0.101	0.079

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
565.	4509.	1000.	0.111	0.088
566.	4509.	1000.	0.153	0.128
567.	4509.	1000.	0.209	0.184
568.	4509.	1000.	0.278	0.239
569.	4509.	1000.	0.455	0.338
570.	4509.	1000.	0.358	0.264
571.	4509.	1000.	0.123	0.109
564.	4510.	1000.	0.128	0.100
565.	4510.	1000.	0.107	0.084
566.	4510.	1000.	0.129	0.109
567.	4510.	1000.	0.128	0.106
568.	4510.	1000.	0.272	0.221
569.	4510.	1000.	0.428	0.329
564.	4511.	1000.	0.068	0.053
565.	4511.	1000.	0.163	0.130
566.	4511.	1000.	0.153	0.129
567.	4511.	1000.	0.121	0.103
568.	4511.	1000.	0.172	0.160
569.	4511.	1000.	0.126	0.110
564.	4512.	1000.	0.131	0.101
565.	4512.	1000.	0.152	0.121
566.	4512.	1000.	0.121	0.101
567.	4512.	1000.	0.102	0.084
568.	4512.	1000.	0.161	0.133
569.	4512.	1000.	0.167	0.137
570.	4512.	1000.	0.113	0.100
564.	4513.	1000.	0.094	0.077
565.	4513.	1000.	0.102	0.086
566.	4513.	1000.	0.083	0.070
567.	4513.	1000.	0.132	0.110
568.	4513.	1000.	0.089	0.074
569.	4513.	1000.	0.094	0.079
570.	4513.	1000.	0.075	0.069
566.	4514.	1000.	0.073	0.059
567.	4514.	1000.	0.096	0.085
568.	4514.	1000.	0.075	0.069
569.	4514.	1000.	0.101	0.084
566.	4515.	1000.	0.069	0.056
567.	4515.	1000.	0.064	0.057
568.	4515.	1000.	0.057	0.051
569.	4515.	1000.	0.085	0.067
572.	4508.	2000.	0.612	0.500
552.	4516.	4000.	0.057	0.048
556.	4516.	4000.	0.249	0.191
560.	4516.	4000.	0.225	0.185
556.	4520.	4000.	0.159	0.131
560.	4520.	4000.	0.374	0.300
564.	4520.	4000.	0.369	0.299

AREA SOURCE EMISSIONS FOR ESSEX COUNTY 1975 PAGE 3

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
564.	4516.	2000.	0.196	0.166
566.	4516.	2000.	0.211	0.171
568.	4516.	2000.	0.223	0.185
570.	4516.	2000.	0.217	0.187
564.	4518.	2000.	0.137	0.116
566.	4518.	2000.	0.139	0.116
568.	4518.	2000.	0.137	0.115
570.	4518.	2000.	0.215	0.172
568.	4520.	2000.	0.155	0.127
570.	4520.	2000.	0.193	0.152
568.	4522.	2000.	0.020	0.018
572.	4516.	2000.	0.062	0.057
572.	4518.	2000.	0.094	0.085
552.	4524.	4000.	0.002	0.001
556.	4524.	4000.	0.127	0.107
560.	4524.	4000.	0.273	0.218
556.	4528.	4000.	0.005	0.003
564.	4524.	4000.	0.090	0.070

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
563.	4507.	1000.	0.080	0.088
566.	4504.	2000.	0.093	0.091
568.	4504.	2000.	0.160	0.128
570.	4504.	2000.	0.189	0.153
566.	4506.	1000.	0.107	0.115
567.	4506.	1000.	0.085	0.092
568.	4506.	1000.	0.107	0.120
569.	4506.	1000.	0.093	0.062
570.	4506.	1000.	0.114	0.078
571.	4506.	1000.	0.044	0.040
564.	4507.	1000.	0.086	0.084
565.	4507.	1000.	0.107	0.115
566.	4507.	1000.	0.118	0.130
567.	4507.	1000.	0.211	0.225
568.	4507.	1000.	0.127	0.159
569.	4507.	1000.	0.162	0.174
570.	4507.	1000.	0.096	0.091
571.	4507.	1000.	0.063	0.078
572.	4504.	2000.	0.327	0.132
574.	4504.	2000.	0.027	0.026
572.	4506.	2000.	0.273	0.174
574.	4506.	2000.	0.169	0.041
552.	4508.	4000.	0.046	0.039
552.	4512.	4000.	0.090	0.077
556.	4508.	4000.	0.206	0.174
556.	4512.	4000.	0.187	0.165
560.	4508.	2000.	0.173	0.139
560.	4510.	2000.	0.102	0.088
562.	4510.	2000.	0.247	0.238
560.	4512.	2000.	0.052	0.048
562.	4512.	2000.	0.250	0.236
560.	4514.	2000.	0.049	0.047
562.	4514.	2000.	0.160	0.148
562.	4508.	1000.	0.024	0.021
563.	4508.	1000.	0.086	0.094
562.	4509.	1000.	0.065	0.068
563.	4509.	1000.	0.062	0.068
564.	4514.	2000.	0.239	0.252
570.	4514.	2000.	0.419	0.370
564.	4508.	1000.	0.091	0.100
565.	4508.	1000.	0.138	0.165
566.	4508.	1000.	0.149	0.160
567.	4508.	1000.	0.199	0.232
568.	4508.	1000.	0.160	0.193
569.	4508.	1000.	0.245	0.268
570.	4508.	1000.	0.154	0.153
571.	4508.	1000.	0.145	0.144
564.	4509.	1000.	0.102	0.099

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
565.	4509.	1000.	0.111	0.107
566.	4509.	1000.	0.151	0.156
567.	4509.	1000.	0.202	0.200
568.	4509.	1000.	0.282	0.309
569.	4509.	1000.	0.512	0.393
570.	4509.	1000.	0.403	0.305
571.	4509.	1000.	0.129	0.129
564.	4510.	1000.	0.132	0.114
565.	4510.	1000.	0.109	0.095
566.	4510.	1000.	0.130	0.132
567.	4510.	1000.	0.138	0.131
568.	4510.	1000.	0.301	0.274
569.	4510.	1000.	0.479	0.391
564.	4511.	1000.	0.073	0.062
565.	4511.	1000.	0.162	0.170
566.	4511.	1000.	0.158	0.166
567.	4511.	1000.	0.132	0.125
568.	4511.	1000.	0.180	0.203
569.	4511.	1000.	0.134	0.149
564.	4512.	1000.	0.143	0.137
565.	4512.	1000.	0.152	0.164
566.	4512.	1000.	0.122	0.139
567.	4512.	1000.	0.101	0.097
568.	4512.	1000.	0.165	0.162
569.	4512.	1000.	0.181	0.182
570.	4512.	1000.	0.115	0.126
564.	4513.	1000.	0.102	0.104
565.	4513.	1000.	0.104	0.115
566.	4513.	1000.	0.083	0.103
567.	4513.	1000.	0.132	0.143
568.	4513.	1000.	0.088	0.085
569.	4513.	1000.	0.092	0.097
570.	4513.	1000.	0.074	0.090
566.	4514.	1000.	0.078	0.077
567.	4514.	1000.	0.102	0.101
568.	4514.	1000.	0.074	0.083
569.	4514.	1000.	0.102	0.101
566.	4515.	1000.	0.074	0.066
567.	4515.	1000.	0.068	0.068
568.	4515.	1000.	0.061	0.061
569.	4515.	1000.	0.095	0.080
572.	4508.	2000.	0.634	0.546
552.	4516.	4000.	0.063	0.057
556.	4516.	4000.	0.270	0.233
560.	4516.	4000.	0.240	0.223
556.	4520.	4000.	0.166	0.159
560.	4520.	4000.	0.406	0.365
564.	4520.	4000.	0.388	0.341

AREA SOURCE EMISSIONS FOR ESSEX COUNTY 1980 PAGE 3

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
564.	4516.	2000.	0.211	0.206
566.	4516.	2000.	0.231	0.210
568.	4516.	2000.	0.238	0.217
570.	4516.	2000.	0.230	0.213
564.	4518.	2000.	0.145	0.139
566.	4518.	2000.	0.142	0.128
568.	4518.	2000.	0.139	0.130
570.	4518.	2000.	0.231	0.199
568.	4520.	2000.	0.168	0.143
570.	4520.	2000.	0.219	0.173
568.	4522.	2000.	0.021	0.020
572.	4516.	2000.	0.069	0.066
572.	4518.	2000.	0.105	0.100
552.	4524.	4000.	0.002	0.001
556.	4524.	4000.	0.135	0.125
560.	4524.	4000.	0.302	0.265
556.	4528.	4000.	0.005	0.005
564.	4524.	4000.	0.100	0.085

AREA SOURCE EMISSIONS FOR ESSEX COUNTY 1985

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
563.	4507.	1000.	0.085	0.072
566.	4504.	2000.	0.097	0.088
568.	4504.	2000.	0.177	0.131
570.	4504.	2000.	0.202	0.159
566.	4506.	1000.	0.113	0.092
567.	4506.	1000.	0.091	0.082
568.	4506.	1000.	0.127	0.124
569.	4506.	1000.	0.108	0.069
570.	4506.	1000.	0.129	0.083
571.	4506.	1000.	0.045	0.041
564.	4507.	1000.	0.088	0.073
565.	4507.	1000.	0.111	0.096
566.	4507.	1000.	0.123	0.101
567.	4507.	1000.	0.221	0.180
568.	4507.	1000.	0.145	0.156
569.	4507.	1000.	0.174	0.157
570.	4507.	1000.	0.104	0.088
571.	4507.	1000.	0.068	0.077
572.	4504.	2000.	0.351	0.130
574.	4504.	2000.	0.028	0.023
572.	4506.	2000.	0.282	0.179
574.	4506.	2000.	0.189	0.040
552.	4508.	4000.	0.051	0.041
552.	4512.	4000.	0.106	0.086
556.	4508.	4000.	0.220	0.176
556.	4512.	4000.	0.214	0.181
560.	4508.	2000.	0.180	0.138
560.	4510.	2000.	0.110	0.087
562.	4510.	2000.	0.259	0.205
560.	4512.	2000.	0.059	0.049
562.	4512.	2000.	0.268	0.214
560.	4514.	2000.	0.058	0.051
562.	4514.	2000.	0.186	0.159
562.	4508.	1000.	0.025	0.020
563.	4508.	1000.	0.091	0.077
562.	4509.	1000.	0.069	0.056
563.	4509.	1000.	0.067	0.055
564.	4514.	2000.	0.260	0.217
570.	4514.	2000.	0.433	0.328
564.	4508.	1000.	0.097	0.081
565.	4508.	1000.	0.147	0.130
566.	4508.	1000.	0.156	0.127
567.	4508.	1000.	0.209	0.177
568.	4508.	1000.	0.169	0.154
569.	4508.	1000.	0.256	0.228
570.	4508.	1000.	0.161	0.142
571.	4508.	1000.	0.148	0.129
564.	4509.	1000.	0.109	0.082

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
565.	4509.	1000.	0.117	0.088
566.	4509.	1000.	0.158	0.125
567.	4509.	1000.	0.214	0.183
568.	4509.	1000.	0.292	0.245
569.	4509.	1000.	0.512	0.380
570.	4509.	1000.	0.402	0.297
571.	4509.	1000.	0.131	0.115
564.	4510.	1000.	0.139	0.102
565.	4510.	1000.	0.114	0.084
566.	4510.	1000.	0.135	0.107
567.	4510.	1000.	0.140	0.113
568.	4510.	1000.	0.304	0.242
569.	4510.	1000.	0.479	0.365
564.	4511.	1000.	0.075	0.055
565.	4511.	1000.	0.169	0.129
566.	4511.	1000.	0.163	0.132
567.	4511.	1000.	0.134	0.109
568.	4511.	1000.	0.186	0.168
569.	4511.	1000.	0.137	0.115
564.	4512.	1000.	0.145	0.110
565.	4512.	1000.	0.157	0.121
566.	4512.	1000.	0.126	0.102
567.	4512.	1000.	0.106	0.082
568.	4512.	1000.	0.170	0.134
569.	4512.	1000.	0.183	0.144
570.	4512.	1000.	0.122	0.105
564.	4513.	1000.	0.104	0.083
565.	4513.	1000.	0.109	0.089
566.	4513.	1000.	0.088	0.072
567.	4513.	1000.	0.139	0.111
568.	4513.	1000.	0.093	0.073
569.	4513.	1000.	0.098	0.078
570.	4513.	1000.	0.078	0.067
566.	4514.	1000.	0.080	0.063
567.	4514.	1000.	0.105	0.091
568.	4514.	1000.	0.081	0.070
569.	4514.	1000.	0.108	0.086
566.	4515.	1000.	0.077	0.060
567.	4515.	1000.	0.070	0.061
568.	4515.	1000.	0.063	0.055
569.	4515.	1000.	0.096	0.074
572.	4508.	2000.	0.654	0.549
552.	4516.	4000.	0.075	0.067
556.	4516.	4000.	0.339	0.302
560.	4516.	4000.	0.276	0.235
556.	4520.	4000.	0.197	0.174
560.	4520.	4000.	0.452	0.376
564.	4520.	4000.	0.424	0.337

AREA SOURCE EMISSIONS FOR ESSEX COUNTY 1985 PAGE 3

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
564.	4516.	2000.	0.218	0.176
566.	4516.	2000.	0.238	0.186
568.	4516.	2000.	0.252	0.202
570.	4516.	2000.	0.244	0.200
564.	4518.	2000.	0.151	0.122
566.	4518.	2000.	0.151	0.119
568.	4518.	2000.	0.154	0.126
570.	4518.	2000.	0.241	0.189
568.	4520.	2000.	0.179	0.145
570.	4520.	2000.	0.222	0.171
568.	4522.	2000.	0.024	0.020
572.	4516.	2000.	0.072	0.064
572.	4518.	2000.	0.114	0.101
552.	4524.	4000.	0.002	0.002
556.	4524.	4000.	0.156	0.146
560.	4524.	4000.	0.345	0.297
556.	4528.	4000.	0.007	0.007
564.	4524.	4000.	0.110	0.089

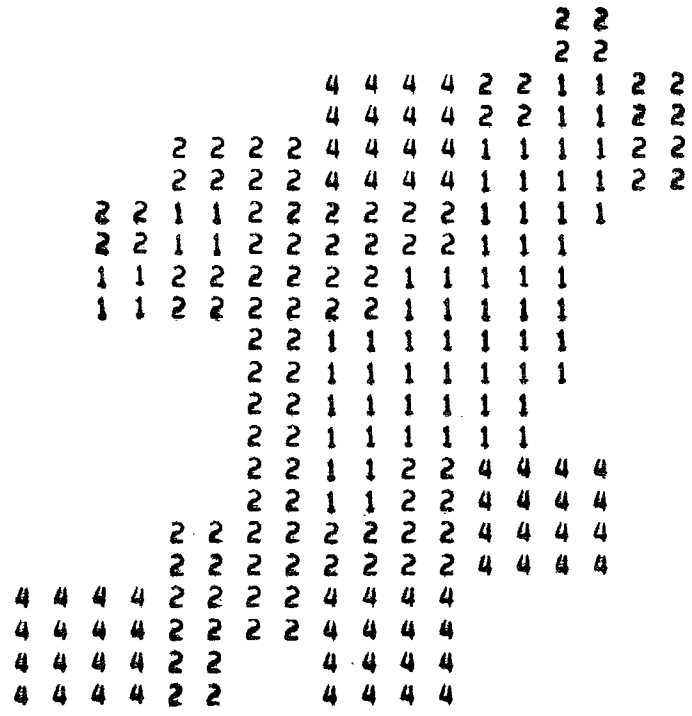
X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
563.	4507.	1000.	0.097	0.091
566.	4504.	2000.	0.086	0.083
568.	4504.	2000.	0.186	0.138
570.	4504.	2000.	0.201	0.169
566.	4506.	1000.	0.115	0.094
567.	4506.	1000.	0.087	0.082
568.	4506.	1000.	0.132	0.133
569.	4506.	1000.	0.127	0.079
570.	4506.	1000.	0.147	0.093
571.	4506.	1000.	0.048	0.050
564.	4507.	1000.	0.086	0.074
565.	4507.	1000.	0.109	0.101
566.	4507.	1000.	0.132	0.107
567.	4507.	1000.	0.173	0.158
568.	4507.	1000.	0.147	0.163
569.	4507.	1000.	0.167	0.160
570.	4507.	1000.	0.102	0.092
571.	4507.	1000.	0.070	0.083
572.	4504.	2000.	0.438	0.152
574.	4504.	2000.	0.031	0.026
572.	4506.	2000.	0.292	0.200
574.	4506.	2000.	0.251	0.050
552.	4508.	4000.	0.063	0.060
552.	4512.	4000.	0.136	0.125
556.	4508.	4000.	0.250	0.212
556.	4512.	4000.	0.260	0.230
560.	4508.	2000.	0.190	0.150
560.	4510.	2000.	0.145	0.119
562.	4510.	2000.	0.276	0.217
560.	4512.	2000.	0.067	0.057
562.	4512.	2000.	0.269	0.226
560.	4514.	2000.	0.078	0.076
562.	4514.	2000.	0.248	0.212
562.	4508.	1000.	0.025	0.021
563.	4508.	1000.	0.101	0.092
562.	4509.	1000.	0.075	0.060
563.	4509.	1000.	0.071	0.059
564.	4514.	2000.	0.291	0.254
570.	4514.	2000.	0.439	0.333
564.	4508.	1000.	0.105	0.092
565.	4508.	1000.	0.157	0.155
566.	4508.	1000.	0.175	0.149
567.	4508.	1000.	0.176	0.165
568.	4508.	1000.	0.159	0.156
569.	4508.	1000.	0.235	0.225
570.	4508.	1000.	0.148	0.143
571.	4508.	1000.	0.140	0.137
564.	4509.	1000.	0.110	0.086

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
565.	4509.	1000.	0.126	0.102
566.	4509.	1000.	0.151	0.131
567.	4509.	1000.	0.169	0.167
568.	4509.	1000.	0.277	0.246
569.	4509.	1000.	0.392	0.326
570.	4509.	1000.	0.417	0.312
571.	4509.	1000.	0.124	0.122
564.	4510.	1000.	0.141	0.112
565.	4510.	1000.	0.118	0.094
566.	4510.	1000.	0.146	0.121
567.	4510.	1000.	0.146	0.123
568.	4510.	1000.	0.311	0.251
569.	4510.	1000.	0.495	0.381
564.	4511.	1000.	0.076	0.059
565.	4511.	1000.	0.180	0.139
566.	4511.	1000.	0.173	0.145
567.	4511.	1000.	0.140	0.121
568.	4511.	1000.	0.170	0.165
569.	4511.	1000.	0.126	0.108
564.	4512.	1000.	0.141	0.107
565.	4512.	1000.	0.167	0.127
566.	4512.	1000.	0.136	0.109
567.	4512.	1000.	0.103	0.086
568.	4512.	1000.	0.179	0.143
569.	4512.	1000.	0.181	0.142
570.	4512.	1000.	0.113	0.102
564.	4513.	1000.	0.105	0.083
565.	4513.	1000.	0.116	0.095
566.	4513.	1000.	0.090	0.072
567.	4513.	1000.	0.149	0.120
568.	4513.	1000.	0.104	0.083
569.	4513.	1000.	0.108	0.085
570.	4513.	1000.	0.075	0.067
566.	4514.	1000.	0.083	0.065
567.	4514.	1000.	0.093	0.086
568.	4514.	1000.	0.060	0.064
569.	4514.	1000.	0.119	0.095
566.	4515.	1000.	0.080	0.066
567.	4515.	1000.	0.064	0.058
568.	4515.	1000.	0.038	0.043
569.	4515.	1000.	0.098	0.075
572.	4508.	2000.	0.647	0.579
552.	4516.	4000.	0.076	0.079
556.	4516.	4000.	0.430	0.393
560.	4516.	4000.	0.339	0.305
556.	4520.	4000.	0.246	0.231
560.	4520.	4000.	0.509	0.450
564.	4520.	4000.	0.479	0.396

AREA SOURCE EMISSIONS FOR ESSEX COUNTY 2000

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
564.	4516.	2000.	0.221	0.179
566.	4516.	2000.	0.228	0.185
568.	4516.	2000.	0.263	0.218
570.	4516.	2000.	0.236	0.205
564.	4518.	2000.	0.157	0.126
566.	4518.	2000.	0.157	0.127
568.	4518.	2000.	0.167	0.141
570.	4518.	2000.	0.251	0.201
568.	4520.	2000.	0.197	0.166
570.	4520.	2000.	0.201	0.163
568.	4522.	2000.	0.026	0.024
572.	4516.	2000.	0.066	0.063
572.	4518.	2000.	0.112	0.109
552.	4524.	4000.	0.002	0.002
556.	4524.	4000.	0.172	0.168
560.	4524.	4000.	0.408	0.377
556.	4528.	4000.	0.010	0.010
564.	4524.	4000.	0.109	0.100

MASTER GRID SYSTEM FOR HUDSON COUNTY, XMIN,YMIN= 568. 4498.



X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
579.	4511.	1000.	0.146	0.097
572.	4512.	1000.	0.260	0.187
573.	4512.	1000.	0.015	0.011
572.	4513.	1000.	0.085	0.059
573.	4513.	1000.	0.023	0.017
580.	4506.	1000.	0.027	0.022
581.	4506.	1000.	0.118	0.055
580.	4507.	1000.	0.202	0.156
581.	4507.	1000.	0.069	0.059
580.	4508.	1000.	0.283	0.209
581.	4508.	1000.	0.099	0.072
582.	4508.	1000.	0.131	0.028
580.	4509.	1000.	0.207	0.164
581.	4509.	1000.	0.147	0.108
582.	4509.	1000.	0.118	0.088
580.	4510.	1000.	0.211	0.151
581.	4510.	1000.	0.212	0.151
582.	4510.	1000.	0.247	0.182
580.	4511.	1000.	0.173	0.115
581.	4511.	1000.	0.165	0.120
582.	4511.	1000.	0.154	0.355
580.	4512.	1000.	0.165	0.112
581.	4512.	1000.	0.140	0.101
582.	4512.	1000.	0.073	0.059
580.	4513.	1000.	0.108	0.076
581.	4513.	1000.	0.160	0.109
582.	4513.	1000.	0.043	0.031
583.	4513.	1000.	0.123	0.090
576.	4514.	4000.	0.367	0.267
572.	4514.	2000.	0.057	0.039
574.	4514.	2000.	0.025	0.019
584.	4514.	2000.	0.067	0.051
580.	4516.	2000.	0.148	0.109
584.	4516.	2000.	0.096	0.069
582.	4518.	2000.	0.139	0.105
580.	4514.	1000.	0.078	0.055
581.	4514.	1000.	0.154	0.104
582.	4514.	1000.	0.134	0.094
583.	4514.	1000.	0.072	0.051
580.	4515.	1000.	0.055	0.040
581.	4515.	1000.	0.122	0.083
582.	4515.	1000.	0.171	0.121
583.	4515.	1000.	0.087	0.064
582.	4516.	1000.	0.135	0.095
583.	4516.	1000.	0.069	0.048
582.	4517.	1000.	0.073	0.052
583.	4517.	1000.	0.077	0.053

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
568.	4498.	4000.	0.016	0.011
576.	4498.	4000.	0.382	0.158
572.	4498.	2000.	0.191	0.033
572.	4500.	2000.	0.291	0.146
574.	4500.	2000.	0.320	0.175
572.	4502.	2000.	0.092	0.063
574.	4502.	2000.	0.192	0.133
576.	4502.	2000.	0.114	0.089
578.	4502.	2000.	0.108	0.020
574.	4504.	2000.	0.120	0.086
578.	4504.	2000.	0.050	0.043
576.	4504.	1000.	0.080	0.058
577.	4504.	1000.	0.042	0.030
576.	4505.	1000.	0.077	0.054
577.	4505.	1000.	0.091	0.061
580.	4502.	4000.	0.103	0.019
570.	4512.	2000.	0.173	0.122
570.	4510.	1000.	0.186	0.144
571.	4510.	1000.	0.121	0.091
570.	4511.	1000.	0.133	0.077
571.	4511.	1000.	0.103	0.073
574.	4506.	2000.	0.184	0.136
574.	4508.	2000.	0.283	0.215
572.	4510.	2000.	0.248	0.159
574.	4510.	2000.	0.125	0.212
576.	4510.	2000.	0.185	0.127
574.	4512.	2000.	0.053	0.037
576.	4512.	2000.	0.148	0.113
578.	4512.	2000.	0.195	0.139
576.	4506.	1000.	0.114	0.081
577.	4506.	1000.	0.132	0.091
578.	4506.	1000.	0.081	0.067
579.	4506.	1000.	0.072	0.070
576.	4507.	1000.	0.075	0.052
577.	4507.	1000.	0.119	0.083
578.	4507.	1000.	0.152	0.113
579.	4507.	1000.	0.205	0.168
576.	4508.	1000.	0.077	0.054
577.	4508.	1000.	0.117	0.083
578.	4508.	1000.	0.242	0.171
579.	4508.	1000.	0.202	0.152
576.	4509.	1000.	0.080	0.058
577.	4509.	1000.	0.076	0.058
578.	4509.	1000.	0.187	0.136
579.	4509.	1000.	0.158	0.111
578.	4510.	1000.	0.068	0.071
579.	4510.	1000.	0.126	0.088
578.	4511.	1000.	0.029	0.021

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
579.	4511.	1000.	0.125	0.087
572.	4512.	1000.	0.251	0.183
573.	4512.	1000.	0.011	0.007
572.	4513.	1000.	0.073	0.054
573.	4513.	1000.	0.018	0.013
580.	4506.	1000.	0.023	0.018
581.	4506.	1000.	0.105	0.054
580.	4507.	1000.	0.185	0.142
581.	4507.	1000.	0.071	0.059
580.	4508.	1000.	0.261	0.193
581.	4508.	1000.	0.102	0.075
582.	4508.	1000.	0.107	0.030
580.	4509.	1000.	0.193	0.160
581.	4509.	1000.	0.146	0.110
582.	4509.	1000.	0.120	0.090
580.	4510.	1000.	0.199	0.148
581.	4510.	1000.	0.207	0.152
582.	4510.	1000.	0.246	0.183
580.	4511.	1000.	0.153	0.106
581.	4511.	1000.	0.151	0.115
582.	4511.	1000.	0.139	0.349
580.	4512.	1000.	0.148	0.104
581.	4512.	1000.	0.117	0.089
582.	4512.	1000.	0.053	0.047
580.	4513.	1000.	0.097	0.070
581.	4513.	1000.	0.145	0.103
582.	4513.	1000.	0.036	0.028
583.	4513.	1000.	0.114	0.087
576.	4514.	4000.	0.318	0.241
572.	4514.	2000.	0.051	0.037
574.	4514.	2000.	0.014	0.011
584.	4514.	2000.	0.058	0.047
580.	4516.	2000.	0.106	0.082
584.	4516.	2000.	0.090	0.067
582.	4518.	2000.	0.122	0.098
580.	4514.	1000.	0.059	0.043
581.	4514.	1000.	0.141	0.100
582.	4514.	1000.	0.122	0.090
583.	4514.	1000.	0.063	0.047
580.	4515.	1000.	0.032	0.026
581.	4515.	1000.	0.107	0.076
582.	4515.	1000.	0.157	0.116
583.	4515.	1000.	0.078	0.059
582.	4516.	1000.	0.123	0.091
583.	4516.	1000.	0.062	0.046
582.	4517.	1000.	0.065	0.049
583.	4517.	1000.	0.069	0.050

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
568.	4498.	4000.	0.015	0.011
576.	4498.	4000.	0.340	0.156
572.	4498.	2000.	0.143	0.029
572.	4500.	2000.	0.243	0.138
574.	4500.	2000.	0.307	0.174
572.	4502.	2000.	0.085	0.062
574.	4502.	2000.	0.168	0.122
576.	4502.	2000.	0.086	0.071
578.	4502.	2000.	0.074	0.012
574.	4504.	2000.	0.105	0.081
578.	4504.	2000.	0.032	0.025
576.	4504.	1000.	0.067	0.052
577.	4504.	1000.	0.030	0.022
576.	4505.	1000.	0.067	0.051
577.	4505.	1000.	0.081	0.058
580.	4502.	4000.	0.078	0.017
570.	4512.	2000.	0.156	0.115
570.	4510.	1000.	0.182	0.143
571.	4510.	1000.	0.109	0.087
570.	4511.	1000.	0.118	0.075
571.	4511.	1000.	0.093	0.070
574.	4506.	2000.	0.182	0.138
574.	4508.	2000.	0.254	0.208
572.	4510.	2000.	0.220	0.149
574.	4510.	2000.	0.112	0.203
576.	4510.	2000.	0.123	0.090
574.	4512.	2000.	0.036	0.025
576.	4512.	2000.	0.122	0.102
578.	4512.	2000.	0.154	0.112
576.	4506.	1000.	0.108	0.081
577.	4506.	1000.	0.119	0.088
578.	4506.	1000.	0.067	0.052
579.	4506.	1000.	0.053	0.044
576.	4507.	1000.	0.068	0.050
577.	4507.	1000.	0.110	0.081
578.	4507.	1000.	0.137	0.106
579.	4507.	1000.	0.176	0.140
576.	4508.	1000.	0.070	0.052
577.	4508.	1000.	0.100	0.075
578.	4508.	1000.	0.235	0.175
579.	4508.	1000.	0.185	0.142
576.	4509.	1000.	0.054	0.040
577.	4509.	1000.	0.050	0.040
578.	4509.	1000.	0.170	0.132
579.	4509.	1000.	0.147	0.108
578.	4510.	1000.	0.059	0.065
579.	4510.	1000.	0.112	0.082
578.	4511.	1000.	0.016	0.011

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
579.	4511.	1000.	0.122	0.116
572.	4512.	1000.	0.249	0.185
573.	4512.	1000.	0.010	0.007
572.	4513.	1000.	0.071	0.063
573.	4513.	1000.	0.017	0.013
580.	4506.	1000.	0.021	0.017
581.	4506.	1000.	0.098	0.053
580.	4507.	1000.	0.172	0.166
581.	4507.	1000.	0.070	0.061
580.	4508.	1000.	0.241	0.226
581.	4508.	1000.	0.097	0.085
582.	4508.	1000.	0.099	0.030
580.	4509.	1000.	0.183	0.197
581.	4509.	1000.	0.138	0.129
582.	4509.	1000.	0.118	0.123
580.	4510.	1000.	0.193	0.191
581.	4510.	1000.	0.205	0.203
582.	4510.	1000.	0.241	0.255
580.	4511.	1000.	0.150	0.143
581.	4511.	1000.	0.151	0.157
582.	4511.	1000.	0.137	0.384
580.	4512.	1000.	0.144	0.140
581.	4512.	1000.	0.113	0.113
582.	4512.	1000.	0.049	0.047
580.	4513.	1000.	0.094	0.094
581.	4513.	1000.	0.141	0.138
582.	4513.	1000.	0.035	0.037
583.	4513.	1000.	0.111	0.127
576.	4514.	4000.	0.293	0.233
572.	4514.	2000.	0.049	0.043
574.	4514.	2000.	0.008	0.007
584.	4514.	2000.	0.057	0.068
580.	4516.	2000.	0.090	0.066
584.	4516.	2000.	0.087	0.088
582.	4518.	2000.	0.117	0.103
580.	4514.	1000.	0.056	0.047
581.	4514.	1000.	0.137	0.137
582.	4514.	1000.	0.118	0.126
583.	4514.	1000.	0.061	0.064
580.	4515.	1000.	0.030	0.022
581.	4515.	1000.	0.102	0.098
582.	4515.	1000.	0.150	0.154
583.	4515.	1000.	0.075	0.081
582.	4516.	1000.	0.118	0.121
583.	4516.	1000.	0.060	0.061
582.	4517.	1000.	0.063	0.058
583.	4517.	1000.	0.067	0.065

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
568.	4498.	4000.	0.014	0.012
576.	4498.	4000.	0.324	0.155
572.	4498.	2000.	0.129	0.031
572.	4500.	2000.	0.231	0.158
574.	4500.	2000.	0.308	0.213
572.	4502.	2000.	0.084	0.076
574.	4502.	2000.	0.161	0.157
576.	4502.	2000.	0.078	0.079
578.	4502.	2000.	0.065	0.011
574.	4504.	2000.	0.101	0.099
578.	4504.	2000.	0.028	0.026
576.	4504.	1000.	0.063	0.061
577.	4504.	1000.	0.027	0.024
576.	4505.	1000.	0.065	0.069
577.	4505.	1000.	0.079	0.082
580.	4502.	4000.	0.070	0.015
570.	4512.	2000.	0.149	0.126
570.	4510.	1000.	0.179	0.154
571.	4510.	1000.	0.103	0.092
570.	4511.	1000.	0.115	0.092
571.	4511.	1000.	0.091	0.080
574.	4506.	2000.	0.178	0.150
574.	4508.	2000.	0.240	0.216
572.	4510.	2000.	0.207	0.150
574.	4510.	2000.	0.107	0.201
576.	4510.	2000.	0.104	0.089
574.	4512.	2000.	0.030	0.020
576.	4512.	2000.	0.102	0.084
578.	4512.	2000.	0.138	0.115
576.	4506.	1000.	0.106	0.101
577.	4506.	1000.	0.117	0.127
578.	4506.	1000.	0.062	0.068
579.	4506.	1000.	0.045	0.046
576.	4507.	1000.	0.066	0.058
577.	4507.	1000.	0.107	0.118
578.	4507.	1000.	0.134	0.157
579.	4507.	1000.	0.161	0.165
576.	4508.	1000.	0.067	0.060
577.	4508.	1000.	0.098	0.100
578.	4508.	1000.	0.234	0.256
579.	4508.	1000.	0.176	0.185
576.	4509.	1000.	0.052	0.047
577.	4509.	1000.	0.048	0.048
578.	4509.	1000.	0.170	0.194
579.	4509.	1000.	0.145	0.154
578.	4510.	1000.	0.058	0.071
579.	4510.	1000.	0.109	0.115
578.	4511.	1000.	0.014	0.011

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
579.	4511.	1000.	0.118	0.085
572.	4512.	1000.	0.248	0.179
573.	4512.	1000.	0.010	0.007
572.	4513.	1000.	0.069	0.051
573.	4513.	1000.	0.016	0.012
580.	4506.	1000.	0.020	0.015
581.	4506.	1000.	0.091	0.049
580.	4507.	1000.	0.171	0.130
581.	4507.	1000.	0.068	0.055
580.	4508.	1000.	0.238	0.173
581.	4508.	1000.	0.092	0.065
582.	4508.	1000.	0.085	0.027
580.	4509.	1000.	0.173	0.135
581.	4509.	1000.	0.129	0.092
582.	4509.	1000.	0.117	0.087
580.	4510.	1000.	0.184	0.140
581.	4510.	1000.	0.194	0.156
582.	4510.	1000.	0.237	0.181
580.	4511.	1000.	0.146	0.105
581.	4511.	1000.	0.145	0.119
582.	4511.	1000.	0.132	0.344
580.	4512.	1000.	0.141	0.100
581.	4512.	1000.	0.109	0.080
582.	4512.	1000.	0.046	0.035
580.	4513.	1000.	0.092	0.066
581.	4513.	1000.	0.138	0.098
582.	4513.	1000.	0.033	0.025
583.	4513.	1000.	0.109	0.082
576.	4514.	4000.	0.278	0.197
572.	4514.	2000.	0.048	0.035
574.	4514.	2000.	0.006	0.003
584.	4514.	2000.	0.056	0.092
580.	4516.	2000.	0.081	0.054
584.	4516.	2000.	0.084	0.063
582.	4518.	2000.	0.106	0.085
580.	4514.	1000.	0.053	0.036
581.	4514.	1000.	0.135	0.096
582.	4514.	1000.	0.116	0.086
583.	4514.	1000.	0.059	0.082
580.	4515.	1000.	0.028	0.019
581.	4515.	1000.	0.100	0.070
582.	4515.	1000.	0.147	0.109
583.	4515.	1000.	0.074	0.103
582.	4516.	1000.	0.116	0.086
583.	4516.	1000.	0.059	0.043
582.	4517.	1000.	0.060	0.045
583.	4517.	1000.	0.065	0.048

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
568.	4498.	4000.	0.014	0.010
576.	4498.	4000.	0.304	0.150
572.	4498.	2000.	0.108	0.025
572.	4500.	2000.	0.213	0.132
574.	4500.	2000.	0.303	0.172
572.	4502.	2000.	0.082	0.059
574.	4502.	2000.	0.156	0.114
576.	4502.	2000.	0.074	0.062
578.	4502.	2000.	0.053	0.010
574.	4504.	2000.	0.096	0.073
578.	4504.	2000.	0.027	0.022
576.	4504.	1000.	0.060	0.045
577.	4504.	1000.	0.025	0.018
576.	4505.	1000.	0.063	0.048
577.	4505.	1000.	0.076	0.057
580.	4502.	4000.	0.059	0.015
570.	4512.	2000.	0.145	0.104
570.	4510.	1000.	0.173	0.134
571.	4510.	1000.	0.097	0.073
570.	4511.	1000.	0.108	0.072
571.	4511.	1000.	0.088	0.065
574.	4506.	2000.	0.169	0.125
574.	4508.	2000.	0.226	0.175
572.	4510.	2000.	0.195	0.124
574.	4510.	2000.	0.102	0.193
576.	4510.	2000.	0.094	0.061
574.	4512.	2000.	0.028	0.017
576.	4512.	2000.	0.094	0.063
578.	4512.	2000.	0.130	0.092
576.	4506.	1000.	0.102	0.078
577.	4506.	1000.	0.113	0.087
578.	4506.	1000.	0.060	0.047
579.	4506.	1000.	0.043	0.034
576.	4507.	1000.	0.062	0.045
577.	4507.	1000.	0.104	0.079
578.	4507.	1000.	0.130	0.104
579.	4507.	1000.	0.160	0.125
576.	4508.	1000.	0.063	0.046
577.	4508.	1000.	0.093	0.070
578.	4508.	1000.	0.223	0.172
579.	4508.	1000.	0.173	0.134
576.	4509.	1000.	0.049	0.036
577.	4509.	1000.	0.045	0.036
578.	4509.	1000.	0.163	0.130
579.	4509.	1000.	0.139	0.107
578.	4510.	1000.	0.057	0.064
579.	4510.	1000.	0.106	0.082
578.	4511.	1000.	0.013	0.009

MASTER GRID SYSTEM FOR MIDDLESEX COUNTY, XMIN,YMIN= 531. 4454.

AREA SOURCE EMISSIONS FOR MIDDLESEX COUNTY 1975

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
543.	4454.	4000.	0.002	0.004
535.	4458.	4000.	0.001	0.0
531.	4462.	4000.	0.045	0.038
535.	4462.	4000.	0.020	0.020
539.	4458.	8000.	0.099	0.091
547.	4458.	8000.	0.090	0.080
531.	4466.	8000.	0.134	0.122
539.	4466.	8000.	0.174	0.161
547.	4466.	4000.	0.095	0.092
551.	4466.	4000.	0.043	0.038
547.	4470.	4000.	0.094	0.092
551.	4470.	4000.	0.187	0.197
555.	4466.	8000.	0.255	0.252
563.	4470.	4000.	0.008	0.009
535.	4474.	4000.	0.026	0.026
539.	4474.	4000.	0.076	0.076
543.	4474.	4000.	0.127	0.123
539.	4478.	4000.	0.028	0.034
543.	4478.	2000.	0.097	0.108
545.	4478.	2000.	0.131	0.139
543.	4480.	2000.	0.097	0.106
545.	4480.	1000.	0.054	0.056
546.	4480.	1000.	0.036	0.045
545.	4481.	1000.	0.145	0.102
546.	4481.	1000.	0.100	0.101
547.	4474.	4000.	0.196	0.194
551.	4478.	4000.	0.159	0.140
551.	4474.	2000.	0.051	0.052
553.	4474.	2000.	0.039	0.038
551.	4476.	2000.	0.132	0.138
553.	4476.	2000.	0.068	0.079
547.	4478.	2000.	0.067	0.064
549.	4478.	2000.	0.079	0.079
547.	4480.	2000.	0.114	0.129
549.	4480.	2000.	0.038	0.045
555.	4474.	4000.	0.207	0.212
559.	4474.	4000.	0.106	0.104
555.	4478.	4000.	0.226	0.283
559.	4478.	4000.	0.215	0.208
563.	4474.	4000.	0.062	0.063
563.	4478.	4000.	0.026	0.026
539.	4486.	4000.	0.059	0.139
543.	4486.	4000.	0.167	0.175
543.	4484.	2000.	0.030	0.028
545.	4484.	2000.	0.047	0.045
545.	4482.	1000.	0.064	0.081
546.	4482.	1000.	0.107	0.109
546.	4483.	1000.	0.037	0.046

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
551.	4482.	4000.	0.242	0.257
547.	4486.	4000.	0.170	0.181
547.	4482.	2000.	0.185	0.195
549.	4482.	2000.	0.291	0.390
547.	4484.	2000.	0.044	0.047
549.	4484.	2000.	0.072	0.075
551.	4486.	2000.	0.146	0.170
553.	4486.	2000.	0.096	0.096
551.	4488.	2000.	0.061	0.058
553.	4488.	2000.	0.084	0.086
555.	4482.	4000.	0.269	0.994
555.	4486.	4000.	0.483	0.364
559.	4482.	2000.	0.102	0.082
561.	4482.	2000.	0.175	0.061
559.	4484.	2000.	0.159	0.164
561.	4484.	2000.	0.326	0.297
559.	4486.	2000.	0.133	0.139
561.	4486.	2000.	0.178	0.591
559.	4488.	2000.	0.100	0.105
561.	4488.	2000.	0.134	0.141
563.	4486.	4000.	0.237	0.032
539.	4490.	4000.	0.140	0.154
543.	4490.	4000.	0.375	0.379
547.	4490.	4000.	0.411	0.486
551.	4490.	4000.	0.193	0.194
551.	4494.	4000.	0.021	0.022
547.	4494.	2000.	0.073	0.075
549.	4494.	2000.	0.048	0.049
555.	4490.	4000.	0.282	0.288
559.	4490.	4000.	0.513	0.529
555.	4494.	4000.	0.129	0.134
561.	4494.	2000.	0.042	0.055
563.	4494.	4000.	0.055	0.166
563.	4490.	2000.	0.181	0.134
565.	4490.	2000.	0.195	0.193
563.	4492.	2000.	0.186	0.179
565.	4492.	2000.	0.064	0.191

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
543.	4454.	4000.	0.002	0.004
535.	4458.	4000.	0.001	0.001
531.	4462.	4000.	0.053	0.058
535.	4462.	4000.	0.027	0.038
539.	4458.	8000.	0.125	0.146
547.	4458.	8000.	0.113	0.144
531.	4466.	8000.	0.169	0.188
539.	4466.	8000.	0.202	0.233
547.	4466.	4000.	0.113	0.132
551.	4466.	4000.	0.060	0.082
547.	4470.	4000.	0.114	0.137
551.	4470.	4000.	0.207	0.255
555.	4466.	8000.	0.296	0.383
563.	4470.	4000.	0.009	0.012
535.	4474.	4000.	0.032	0.039
539.	4474.	4000.	0.089	0.102
543.	4474.	4000.	0.135	0.150
539.	4478.	4000.	0.029	0.042
543.	4478.	2000.	0.101	0.129
545.	4478.	2000.	0.135	0.162
543.	4480.	2000.	0.100	0.126
545.	4480.	1000.	0.056	0.064
546.	4480.	1000.	0.038	0.053
545.	4481.	1000.	0.147	0.112
546.	4481.	1000.	0.103	0.116
547.	4474.	4000.	0.207	0.230
551.	4478.	4000.	0.180	0.187
551.	4474.	2000.	0.058	0.067
553.	4474.	2000.	0.042	0.050
551.	4476.	2000.	0.138	0.154
553.	4476.	2000.	0.072	0.093
547.	4478.	2000.	0.072	0.078
549.	4478.	2000.	0.084	0.098
547.	4480.	2000.	0.119	0.155
549.	4480.	2000.	0.043	0.063
555.	4474.	4000.	0.218	0.267
559.	4474.	4000.	0.116	0.163
555.	4478.	4000.	0.253	0.374
559.	4478.	4000.	0.231	0.270
563.	4474.	4000.	0.068	0.081
563.	4478.	4000.	0.029	0.033
539.	4486.	4000.	0.063	0.156
543.	4486.	4000.	0.182	0.228
543.	4484.	2000.	0.031	0.035
545.	4484.	2000.	0.050	0.059
545.	4482.	1000.	0.067	0.095
546.	4482.	1000.	0.109	0.123
546.	4483.	1000.	0.039	0.056

AREA SOURCE EMISSIONS FOR MIDDLESEX COUNTY 1980

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
551.	4482.	4000.	0.257	0.310
547.	4486.	4000.	0.191	0.246
547.	4482.	2000.	0.194	0.245
549.	4482.	2000.	0.296	0.420
547.	4484.	2000.	0.047	0.061
549.	4484.	2000.	0.077	0.092
551.	4486.	2000.	0.154	0.201
553.	4486.	2000.	0.101	0.115
551.	4488.	2000.	0.067	0.075
553.	4488.	2000.	0.089	0.107
555.	4482.	4000.	0.294	1.038
555.	4486.	4000.	0.505	0.470
559.	4482.	2000.	0.115	0.106
561.	4482.	2000.	0.205	0.078
559.	4484.	2000.	0.165	0.189
561.	4484.	2000.	0.330	0.350
559.	4486.	2000.	0.140	0.168
561.	4486.	2000.	0.184	0.619
559.	4488.	2000.	0.103	0.125
561.	4488.	2000.	0.140	0.164
563.	4486.	4000.	0.258	0.037
539.	4490.	4000.	0.147	0.185
543.	4490.	4000.	0.395	0.461
547.	4490.	4000.	0.432	0.546
551.	4490.	4000.	0.210	0.255
551.	4494.	4000.	0.023	0.026
547.	4494.	2000.	0.072	0.084
549.	4494.	2000.	0.048	0.058
555.	4490.	4000.	0.305	0.358
559.	4490.	4000.	0.533	0.626
555.	4494.	4000.	0.133	0.155
561.	4494.	2000.	0.042	0.062
563.	4494.	4000.	0.056	0.177
563.	4490.	2000.	0.186	0.147
565.	4490.	2000.	0.220	0.217
563.	4492.	2000.	0.191	0.203
565.	4492.	2000.	0.067	0.201

AREA SOURCE EMISSIONS FOR MIDDLESEX COUNTY 1985

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
543.	4454.	4000.	0.003	0.004
535.	4458.	4000.	0.001	0.002
531.	4462.	4000.	0.070	0.077
535.	4462.	4000.	0.051	0.066
539.	4458.	8000.	0.183	0.214
547.	4458.	8000.	0.171	0.213
531.	4466.	8000.	0.229	0.257
539.	4466.	8000.	0.271	0.319
547.	4466.	4000.	0.148	0.173
551.	4466.	4000.	0.095	0.126
547.	4470.	4000.	0.154	0.187
551.	4470.	4000.	0.238	0.287
555.	4466.	8000.	0.380	0.476
563.	4470.	4000.	0.009	0.011
535.	4474.	4000.	0.044	0.054
539.	4474.	4000.	0.116	0.143
543.	4474.	4000.	0.155	0.171
539.	4478.	4000.	0.032	0.042
543.	4478.	2000.	0.108	0.130
545.	4478.	2000.	0.137	0.162
543.	4480.	2000.	0.104	0.123
545.	4480.	1000.	0.055	0.060
546.	4480.	1000.	0.039	0.052
545.	4481.	1000.	0.147	0.107
546.	4481.	1000.	0.102	0.109
547.	4474.	4000.	0.227	0.249
551.	4478.	4000.	0.214	0.224
551.	4474.	2000.	0.066	0.076
553.	4474.	2000.	0.051	0.060
551.	4476.	2000.	0.141	0.154
553.	4476.	2000.	0.082	0.107
547.	4478.	2000.	0.077	0.081
549.	4478.	2000.	0.091	0.104
547.	4480.	2000.	0.124	0.149
549.	4480.	2000.	0.052	0.069
555.	4474.	4000.	0.247	0.290
559.	4474.	4000.	0.138	0.160
555.	4478.	4000.	0.308	0.441
559.	4478.	4000.	0.255	0.275
563.	4474.	4000.	0.069	0.078
563.	4478.	4000.	0.029	0.033
539.	4486.	4000.	0.073	0.167
543.	4486.	4000.	0.221	0.265
543.	4484.	2000.	0.035	0.038
545.	4484.	2000.	0.062	0.072
545.	4482.	1000.	0.067	0.088
546.	4482.	1000.	0.108	0.115
546.	4483.	1000.	0.042	0.055

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
551.	4482.	4000.	0.289	0.338
547.	4486.	4000.	0.242	0.314
547.	4482.	2000.	0.196	0.220
549.	4482.	2000.	0.300	0.409
547.	4484.	2000.	0.055	0.068
549.	4484.	2000.	0.082	0.091
551.	4486.	2000.	0.158	0.199
553.	4486.	2000.	0.106	0.114
551.	4488.	2000.	0.077	0.085
553.	4488.	2000.	0.096	0.108
555.	4482.	4000.	0.343	1.085
555.	4486.	4000.	0.538	0.471
559.	4482.	2000.	0.129	0.116
561.	4482.	2000.	0.224	0.074
559.	4484.	2000.	0.169	0.187
561.	4484.	2000.	0.327	0.324
559.	4486.	2000.	0.147	0.164
561.	4486.	2000.	0.190	0.621
559.	4488.	2000.	0.110	0.127
561.	4488.	2000.	0.145	0.167
563.	4486.	4000.	0.275	0.040
539.	4490.	4000.	0.154	0.184
543.	4490.	4000.	0.409	0.451
547.	4490.	4000.	0.464	0.580
551.	4490.	4000.	0.240	0.280
551.	4494.	4000.	0.026	0.029
547.	4494.	2000.	0.070	0.078
549.	4494.	2000.	0.048	0.054
555.	4490.	4000.	0.327	0.362
559.	4490.	4000.	0.565	0.639
555.	4494.	4000.	0.136	0.153
561.	4494.	2000.	0.045	0.063
563.	4494.	4000.	0.061	0.182
563.	4490.	2000.	0.191	0.151
565.	4490.	2000.	0.240	0.220
563.	4492.	2000.	0.193	0.203
565.	4492.	2000.	0.069	0.201

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
543.	4454.	4000.	0.003	0.005
535.	4458.	4000.	0.003	0.005
531.	4462.	4000.	0.083	0.099
535.	4462.	4000.	0.066	0.091
539.	4458.	8000.	0.223	0.288
547.	4458.	8000.	0.211	0.278
531.	4466.	8000.	0.276	0.340
539.	4466.	8000.	0.330	0.402
547.	4466.	4000.	0.171	0.207
551.	4466.	4000.	0.120	0.173
547.	4470.	4000.	0.182	0.230
551.	4470.	4000.	0.256	0.305
555.	4466.	8000.	0.435	0.561
563.	4470.	4000.	0.009	0.010
535.	4474.	4000.	0.054	0.067
539.	4474.	4000.	0.137	0.179
543.	4474.	4000.	0.163	0.188
539.	4478.	4000.	0.031	0.043
543.	4478.	2000.	0.106	0.125
545.	4478.	2000.	0.135	0.151
543.	4480.	2000.	0.101	0.115
545.	4480.	1000.	0.053	0.054
546.	4480.	1000.	0.037	0.047
545.	4481.	1000.	0.144	0.100
546.	4481.	1000.	0.098	0.098
547.	4474.	4000.	0.233	0.259
551.	4478.	4000.	0.246	0.247
551.	4474.	2000.	0.069	0.079
553.	4474.	2000.	0.055	0.066
551.	4476.	2000.	0.139	0.142
553.	4476.	2000.	0.086	0.111
547.	4478.	2000.	0.080	0.084
549.	4478.	2000.	0.094	0.105
547.	4480.	2000.	0.120	0.141
549.	4480.	2000.	0.058	0.077
555.	4474.	4000.	0.257	0.302
559.	4474.	4000.	0.154	0.174
555.	4478.	4000.	0.338	0.476
559.	4478.	4000.	0.266	0.278
563.	4474.	4000.	0.071	0.076
563.	4478.	4000.	0.030	0.032
539.	4486.	4000.	0.078	0.174
543.	4486.	4000.	0.240	0.303
543.	4484.	2000.	0.036	0.041
545.	4484.	2000.	0.066	0.083
545.	4482.	1000.	0.063	0.078
546.	4482.	1000.	0.104	0.104
546.	4483.	1000.	0.041	0.051

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
551.	4482.	4000.	0.304	0.371
547.	4486.	4000.	0.272	0.358
547.	4482.	2000.	0.189	0.205
549.	4482.	2000.	0.298	0.402
547.	4484.	2000.	0.059	0.079
549.	4484.	2000.	0.084	0.092
551.	4486.	2000.	0.154	0.185
553.	4486.	2000.	0.107	0.111
551.	4488.	2000.	0.085	0.093
553.	4488.	2000.	0.099	0.107
555.	4482.	4000.	0.389	1.131
555.	4486.	4000.	0.547	0.472
559.	4482.	2000.	0.147	0.120
561.	4482.	2000.	0.283	0.070
559.	4484.	2000.	0.165	0.176
561.	4484.	2000.	0.306	0.293
559.	4486.	2000.	0.144	0.159
561.	4486.	2000.	0.182	0.607
559.	4488.	2000.	0.109	0.124
561.	4488.	2000.	0.143	0.158
563.	4486.	4000.	0.324	0.045
539.	4490.	4000.	0.155	0.175
543.	4490.	4000.	0.410	0.434
547.	4490.	4000.	0.475	0.590
551.	4490.	4000.	0.258	0.300
551.	4494.	4000.	0.027	0.031
547.	4494.	2000.	0.067	0.071
549.	4494.	2000.	0.046	0.050
555.	4490.	4000.	0.329	0.355
559.	4490.	4000.	0.563	0.621
555.	4494.	4000.	0.134	0.142
561.	4494.	2000.	0.043	0.058
563.	4494.	4000.	0.065	0.182
563.	4490.	2000.	0.191	0.148
565.	4490.	2000.	0.289	0.221
563.	4492.	2000.	0.190	0.188
565.	4492.	2000.	0.069	0.196

MASTER GRID SYSTEM FOR MONMOUTH COUNTY, XMIN,YMIN= 532. 4435.

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
536.	4435.	8000.	0.007	0.007
564.	4439.	4000.	0.023	0.024
568.	4435.	8000.	0.015	0.014
576.	4435.	8000.	0.233	0.259
532.	4443.	4000.	0.013	0.013
532.	4447.	4000.	0.012	0.012
536.	4443.	8000.	0.061	0.058
544.	4443.	8000.	0.006	0.007
552.	4443.	8000.	0.013	0.016
560.	4443.	8000.	0.128	0.129
568.	4443.	4000.	0.016	0.013
572.	4443.	4000.	0.014	0.016
568.	4447.	4000.	0.068	0.064
572.	4447.	4000.	0.050	0.048
576.	4443.	4000.	0.052	0.053
580.	4443.	4000.	0.234	0.246
576.	4447.	4000.	0.071	0.087
580.	4447.	4000.	0.450	0.410
584.	4443.	4000.	0.006	0.006
584.	4447.	4000.	0.153	0.092
540.	4451.	4000.	0.002	0.002
544.	4451.	8000.	0.027	0.030
552.	4451.	8000.	0.080	0.086
560.	4451.	4000.	0.060	0.061
564.	4451.	4000.	0.029	0.025
560.	4455.	4000.	0.169	0.317
564.	4455.	4000.	0.008	0.009
568.	4451.	8000.	0.056	0.044
576.	4451.	4000.	0.077	0.081
576.	4455.	4000.	0.031	0.032
580.	4455.	4000.	0.126	0.137
580.	4451.	2000.	0.087	0.092
582.	4451.	2000.	0.246	0.267
580.	4453.	2000.	0.053	0.054
582.	4453.	2000.	0.100	0.114
584.	4455.	4000.	0.081	0.082
584.	4451.	2000.	0.213	0.226
584.	4453.	2000.	0.061	0.067
586.	4453.	2000.	0.002	0.002
548.	4459.	4000.	0.001	0.001
552.	4459.	8000.	0.169	0.172
560.	4459.	8000.	0.143	0.139
568.	4459.	8000.	0.135	0.134
576.	4459.	4000.	0.169	0.221
580.	4459.	4000.	0.270	0.302
580.	4463.	4000.	0.116	0.136
576.	4463.	2000.	0.019	0.022
578.	4463.	2000.	0.060	0.063

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
576.	4465.	2000.	0.058	0.063
578.	4465.	2000.	0.145	0.148
584.	4463.	4000.	0.081	0.087
584.	4459.	2000.	0.129	0.135
586.	4459.	2000.	0.029	0.031
584.	4461.	2000.	0.139	0.141
586.	4461.	2000.	0.059	0.062
556.	4467.	4000.	0.009	0.008
560.	4467.	4000.	0.030	0.031
564.	4467.	4000.	0.039	0.038
560.	4471.	4000.	0.023	0.025
564.	4471.	4000.	0.247	0.253
568.	4467.	4000.	0.080	0.071
572.	4467.	4000.	0.054	0.055
568.	4471.	4000.	0.108	0.101
572.	4471.	2000.	0.025	0.022
574.	4471.	2000.	0.038	0.036
572.	4473.	2000.	0.119	0.110
574.	4473.	2000.	0.046	0.049
576.	4467.	4000.	0.134	0.126
580.	4467.	4000.	0.097	0.086
576.	4471.	4000.	0.161	0.112
580.	4471.	4000.	0.093	0.099
584.	4467.	8000.	0.149	0.138
564.	4475.	4000.	0.196	0.196
568.	4475.	4000.	0.164	0.171
572.	4475.	4000.	0.197	0.215
568.	4479.	4000.	0.001	0.001
572.	4479.	4000.	0.005	0.005
576.	4475.	4000.	0.047	0.046
580.	4475.	4000.	0.007	0.011
580.	4479.	4000.	0.003	0.008
584.	4475.	4000.	0.004	0.011
584.	4479.	4000.	0.004	0.013

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
536.	4435.	8000.	0.008	0.009
564.	4439.	4000.	0.036	0.041
568.	4435.	8000.	0.024	0.027
576.	4435.	8000.	0.266	0.300
532.	4443.	4000.	0.017	0.023
532.	4447.	4000.	0.018	0.022
536.	4443.	8000.	0.100	0.123
544.	4443.	8000.	0.008	0.009
552.	4443.	8000.	0.016	0.018
560.	4443.	8000.	0.167	0.189
568.	4443.	4000.	0.022	0.018
572.	4443.	4000.	0.016	0.019
568.	4447.	4000.	0.082	0.083
572.	4447.	4000.	0.061	0.066
576.	4443.	4000.	0.062	0.073
580.	4443.	4000.	0.258	0.289
576.	4447.	4000.	0.087	0.106
580.	4447.	4000.	0.511	0.486
584.	4443.	4000.	0.006	0.007
584.	4447.	4000.	0.175	0.106
540.	4451.	4000.	0.002	0.003
544.	4451.	8000.	0.040	0.046
552.	4451.	8000.	0.104	0.108
560.	4451.	4000.	0.085	0.091
564.	4451.	4000.	0.039	0.037
560.	4455.	4000.	0.193	0.356
564.	4455.	4000.	0.013	0.015
568.	4451.	8000.	0.073	0.058
576.	4451.	4000.	0.092	0.103
576.	4455.	4000.	0.045	0.053
580.	4455.	4000.	0.148	0.175
580.	4451.	2000.	0.097	0.111
582.	4451.	2000.	0.265	0.313
580.	4453.	2000.	0.060	0.069
582.	4453.	2000.	0.110	0.134
584.	4455.	4000.	0.089	0.096
584.	4451.	2000.	0.216	0.255
584.	4453.	2000.	0.065	0.076
586.	4453.	2000.	0.002	0.002
548.	4459.	4000.	0.002	0.002
552.	4459.	8000.	0.240	0.265
560.	4459.	8000.	0.179	0.200
568.	4459.	8000.	0.176	0.185
576.	4459.	4000.	0.188	0.276
580.	4459.	4000.	0.289	0.344
580.	4463.	4000.	0.130	0.151
576.	4463.	2000.	0.021	0.027
578.	4463.	2000.	0.067	0.072

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
576.	4465.	2000.	0.068	0.078
578.	4465.	2000.	0.156	0.178
584.	4463.	4000.	0.093	0.107
584.	4459.	2000.	0.140	0.176
586.	4459.	2000.	0.032	0.038
584.	4461.	2000.	0.151	0.174
586.	4461.	2000.	0.064	0.077
556.	4467.	4000.	0.015	0.015
560.	4467.	4000.	0.037	0.040
564.	4467.	4000.	0.050	0.056
560.	4471.	4000.	0.026	0.030
564.	4471.	4000.	0.284	0.317
568.	4467.	4000.	0.107	0.114
572.	4467.	4000.	0.072	0.074
568.	4471.	4000.	0.146	0.156
572.	4471.	2000.	0.030	0.030
574.	4471.	2000.	0.045	0.044
572.	4473.	2000.	0.126	0.124
574.	4473.	2000.	0.055	0.057
576.	4467.	4000.	0.157	0.156
580.	4467.	4000.	0.115	0.101
576.	4471.	4000.	0.201	0.149
580.	4471.	4000.	0.115	0.135
584.	4467.	8000.	0.172	0.164
564.	4475.	4000.	0.219	0.238
568.	4475.	4000.	0.197	0.219
572.	4475.	4000.	0.233	0.261
568.	4479.	4000.	0.001	0.002
572.	4479.	4000.	0.005	0.007
576.	4475.	4000.	0.053	0.054
580.	4475.	4000.	0.008	0.013
580.	4479.	4000.	0.003	0.010
584.	4475.	4000.	0.004	0.011
584.	4479.	4000.	0.004	0.013

AREA SOURCE EMISSIONS FOR MONMOUTH COUNTY 1985

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
536.	4435.	8000.	0.009	0.009
564.	4439.	4000.	0.043	0.051
568.	4435.	8000.	0.030	0.030
576.	4435.	8000.	0.284	0.308
532.	4443.	4000.	0.027	0.031
532.	4447.	4000.	0.025	0.028
536.	4443.	8000.	0.149	0.179
544.	4443.	8000.	0.009	0.009
552.	4443.	8000.	0.019	0.020
560.	4443.	8000.	0.209	0.233
568.	4443.	4000.	0.024	0.020
572.	4443.	4000.	0.017	0.022
568.	4447.	4000.	0.096	0.098
572.	4447.	4000.	0.077	0.078
576.	4443.	4000.	0.072	0.080
580.	4443.	4000.	0.273	0.282
576.	4447.	4000.	0.097	0.115
580.	4447.	4000.	0.540	0.466
584.	4443.	4000.	0.006	0.007
584.	4447.	4000.	0.189	0.098
540.	4451.	4000.	0.002	0.004
544.	4451.	8000.	0.050	0.056
552.	4451.	8000.	0.121	0.132
560.	4451.	4000.	0.104	0.114
564.	4451.	4000.	0.049	0.048
560.	4455.	4000.	0.207	0.359
564.	4455.	4000.	0.017	0.019
568.	4451.	8000.	0.083	0.076
576.	4451.	4000.	0.105	0.109
576.	4455.	4000.	0.060	0.068
580.	4455.	4000.	0.163	0.180
580.	4451.	2000.	0.102	0.110
582.	4451.	2000.	0.271	0.288
580.	4453.	2000.	0.064	0.069
582.	4453.	2000.	0.116	0.122
584.	4455.	4000.	0.091	0.092
584.	4451.	2000.	0.218	0.232
584.	4453.	2000.	0.065	0.070
586.	4453.	2000.	0.002	0.002
548.	4459.	4000.	0.002	0.003
552.	4459.	8000.	0.307	0.341
560.	4459.	8000.	0.218	0.242
568.	4459.	8000.	0.208	0.228
576.	4459.	4000.	0.200	0.269
580.	4459.	4000.	0.298	0.342
580.	4463.	4000.	0.134	0.155
576.	4463.	2000.	0.023	0.027
578.	4463.	2000.	0.069	0.073

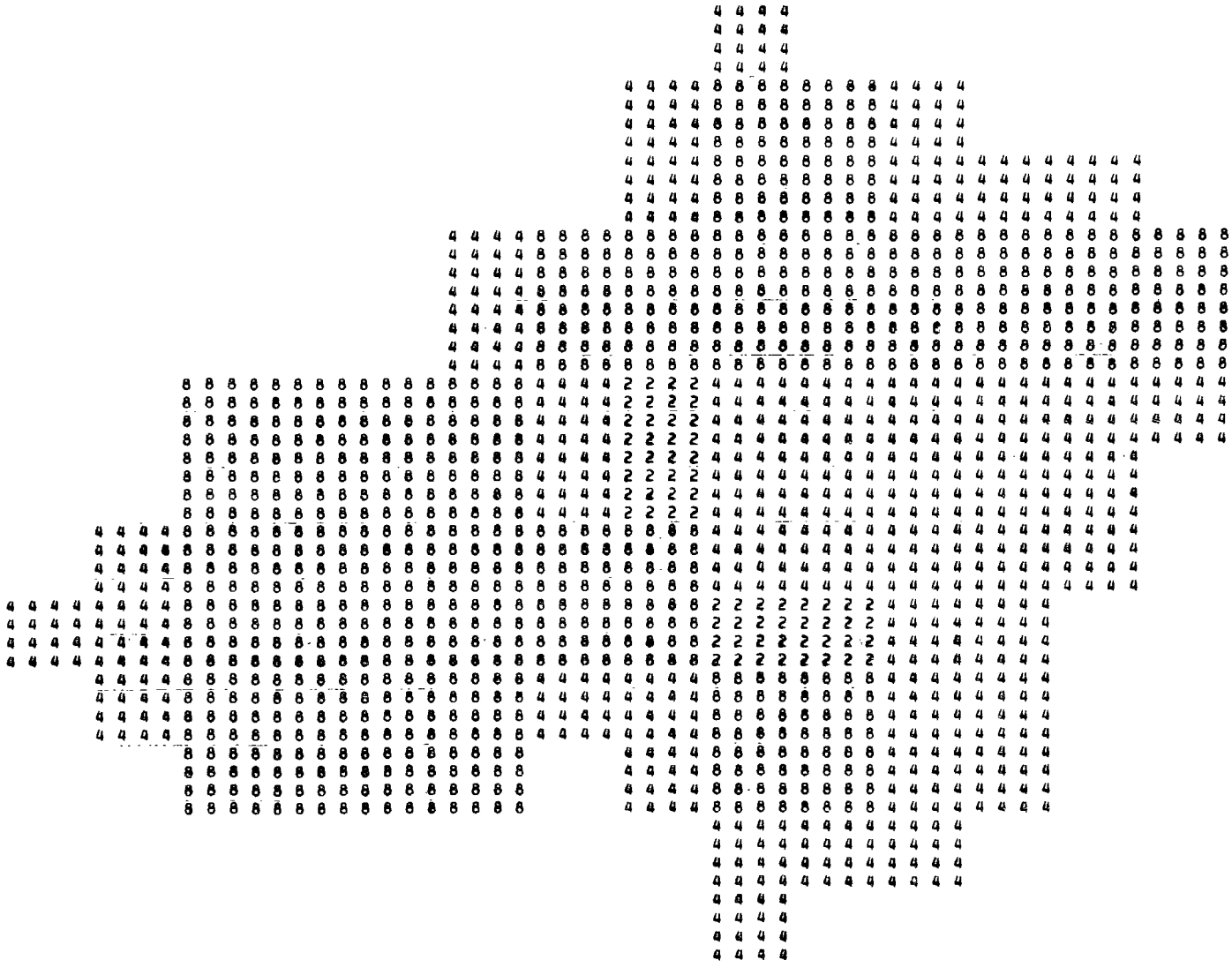
X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
576.	4465.	2000.	0.072	0.078
578.	4465.	2000.	0.160	0.162
584.	4463.	4000.	0.100	0.099
584.	4459.	2000.	0.145	0.150
586.	4459.	2000.	0.032	0.033
584.	4461.	2000.	0.156	0.157
586.	4461.	2000.	0.065	0.068
556.	4467.	4000.	0.020	0.023
560.	4467.	4000.	0.042	0.045
564.	4467.	4000.	0.063	0.070
560.	4471.	4000.	0.029	0.032
564.	4471.	4000.	0.314	0.336
568.	4467.	4000.	0.132	0.153
572.	4467.	4000.	0.084	0.090
568.	4471.	4000.	0.177	0.193
572.	4471.	2000.	0.035	0.037
574.	4471.	2000.	0.048	0.048
572.	4473.	2000.	0.130	0.129
574.	4473.	2000.	0.061	0.063
576.	4467.	4000.	0.173	0.162
580.	4467.	4000.	0.127	0.108
576.	4471.	4000.	0.231	0.171
580.	4471.	4000.	0.132	0.144
584.	4467.	8000.	0.182	0.163
564.	4475.	4000.	0.235	0.240
568.	4475.	4000.	0.213	0.229
572.	4475.	4000.	0.254	0.271
568.	4479.	4000.	0.001	0.002
572.	4479.	4000.	0.006	0.006
576.	4475.	4000.	0.056	0.058
580.	4475.	4000.	0.008	0.012
580.	4479.	4000.	0.003	0.010
584.	4475.	4000.	0.004	0.012
584.	4479.	4000.	0.004	0.013

AREA SOURCE EMISSIONS FOR MONMOUTH COUNTY 2000

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
536.	4435.	8000.	0.010	0.011
564.	4439.	4000.	0.062	0.071
568.	4435.	8000.	0.041	0.042
576.	4435.	8000.	0.334	0.341
532.	4443.	4000.	0.042	0.050
532.	4447.	4000.	0.035	0.040
536.	4443.	8000.	0.252	0.303
544.	4443.	8000.	0.009	0.009
552.	4443.	8000.	0.024	0.024
560.	4443.	8000.	0.294	0.323
568.	4443.	4000.	0.030	0.028
572.	4443.	4000.	0.021	0.029
568.	4447.	4000.	0.124	0.124
572.	4447.	4000.	0.100	0.106
576.	4443.	4000.	0.091	0.100
580.	4443.	4000.	0.306	0.297
576.	4447.	4000.	0.118	0.137
580.	4447.	4000.	0.627	0.491
584.	4443.	4000.	0.007	0.007
584.	4447.	4000.	0.232	0.102
540.	4451.	4000.	0.004	0.004
544.	4451.	8000.	0.088	0.100
552.	4451.	8000.	0.174	0.188
560.	4451.	4000.	0.156	0.175
564.	4451.	4000.	0.064	0.066
560.	4455.	4000.	0.248	0.389
564.	4455.	4000.	0.026	0.031
568.	4451.	8000.	0.125	0.115
576.	4451.	4000.	0.131	0.137
576.	4455.	4000.	0.085	0.099
580.	4455.	4000.	0.199	0.212
580.	4451.	2000.	0.114	0.120
582.	4451.	2000.	0.292	0.296
580.	4453.	2000.	0.077	0.079
582.	4453.	2000.	0.126	0.125
584.	4455.	4000.	0.103	0.093
584.	4451.	2000.	0.229	0.233
584.	4453.	2000.	0.071	0.071
586.	4453.	2000.	0.002	0.002
548.	4459.	4000.	0.004	0.005
552.	4459.	8000.	0.453	0.507
560.	4459.	8000.	0.304	0.341
568.	4459.	8000.	0.294	0.319
576.	4459.	4000.	0.232	0.296
580.	4459.	4000.	0.326	0.363
580.	4463.	4000.	0.156	0.165
576.	4463.	2000.	0.028	0.031
578.	4463.	2000.	0.077	0.077

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
576.	4465.	2000.	0.084	0.087
578.	4465.	2000.	0.172	0.165
584.	4463.	4000.	0.116	0.106
584.	4459.	2000.	0.158	0.154
586.	4459.	2000.	0.034	0.033
584.	4461.	2000.	0.168	0.161
586.	4461.	2000.	0.069	0.069
556.	4467.	4000.	0.040	0.045
560.	4467.	4000.	0.055	0.056
564.	4467.	4000.	0.091	0.100
560.	4471.	4000.	0.035	0.037
564.	4471.	4000.	0.377	0.393
568.	4467.	4000.	0.196	0.225
572.	4467.	4000.	0.114	0.117
568.	4471.	4000.	0.247	0.262
572.	4471.	2000.	0.045	0.048
574.	4471.	2000.	0.062	0.061
572.	4473.	2000.	0.140	0.141
574.	4473.	2000.	0.074	0.074
576.	4467.	4000.	0.206	0.186
580.	4467.	4000.	0.157	0.123
576.	4471.	4000.	0.305	0.219
580.	4471.	4000.	0.167	0.181
584.	4467.	8000.	0.215	0.167
564.	4475.	4000.	0.267	0.267
568.	4475.	4000.	0.262	0.264
572.	4475.	4000.	0.301	0.298
568.	4479.	4000.	0.002	0.002
572.	4479.	4000.	0.006	0.006
576.	4475.	4000.	0.069	0.067
580.	4475.	4000.	0.009	0.013
580.	4479.	4000.	0.003	0.010
584.	4475.	4000.	0.003	0.011
584.	4479.	4000.	0.003	0.013

MASTER GRID SYSTEM FOR MORRIS COUNTY, XMIN,YMIN= 507. 4498.



X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
539.	4498.	4000.	0.014	0.015
539.	4502.	4000.	0.058	0.058
543.	4502.	4000.	0.065	0.069
547.	4502.	4000.	0.005	0.006
511.	4510.	4000.	0.008	0.009
515.	4506.	8000.	0.022	0.027
523.	4506.	8000.	0.022	0.030
535.	4506.	4000.	0.002	0.003
531.	4510.	4000.	0.042	0.044
535.	4510.	4000.	0.003	0.003
539.	4506.	8000.	0.094	0.112
547.	4506.	4000.	0.095	0.107
551.	4506.	4000.	0.023	0.024
547.	4510.	4000.	0.360	0.380
551.	4510.	4000.	0.077	0.089
507.	4514.	4000.	0.001	0.001
511.	4514.	4000.	0.006	0.006
511.	4518.	4000.	0.007	0.007
515.	4514.	8000.	0.057	0.068
523.	4514.	8000.	0.087	0.105
531.	4514.	8000.	0.167	0.197
539.	4518.	4000.	0.197	0.202
543.	4518.	4000.	0.408	0.338
539.	4514.	2000.	0.015	0.015
541.	4514.	2000.	0.065	0.074
543.	4514.	2000.	0.151	0.148
545.	4514.	2000.	0.065	0.062
539.	4516.	2000.	0.007	0.008
541.	4516.	2000.	0.094	0.103
543.	4516.	2000.	0.232	0.224
545.	4516.	2000.	0.085	0.079
547.	4514.	4000.	0.186	0.176
551.	4514.	4000.	0.281	0.247
547.	4518.	4000.	0.323	0.284
551.	4518.	4000.	0.122	0.123
555.	4518.	4000.	0.017	0.018
515.	4522.	8000.	0.090	0.136
523.	4522.	8000.	0.289	0.307
531.	4522.	4000.	0.090	0.101
531.	4526.	4000.	0.109	0.102
535.	4522.	2000.	0.044	0.046
537.	4522.	2000.	0.009	0.011
535.	4524.	2000.	0.137	0.139
537.	4524.	2000.	0.125	0.112
535.	4526.	2000.	0.287	0.233
537.	4526.	2000.	0.117	0.107
535.	4528.	2000.	0.029	0.027
537.	4528.	2000.	0.016	0.019

AREA SOURCE EMISSIONS FOR MORRIS COUNTY 1975

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
539.	4522.	4000.	0.083	0.088
543.	4522.	4000.	0.218	0.233
539.	4526.	4000.	0.295	0.303
543.	4526.	4000.	0.115	0.123
547.	4522.	4000.	0.293	0.333
551.	4522.	4000.	0.168	0.198
547.	4526.	4000.	0.394	0.358
551.	4526.	4000.	0.112	0.123
555.	4522.	4000.	0.045	0.051
555.	4526.	4000.	0.020	0.022
559.	4526.	4000.	0.029	0.034
527.	4530.	4000.	0.037	0.039
527.	4534.	4000.	0.011	0.012
531.	4530.	8000.	0.115	0.134
539.	4530.	8000.	0.130	0.140
547.	4530.	8000.	0.151	0.165
555.	4530.	8000.	0.298	0.338
535.	4538.	4000.	0.002	0.002
535.	4542.	4000.	0.003	0.003
539.	4538.	8000.	0.063	0.077
547.	4538.	4000.	0.012	0.014
551.	4538.	4000.	0.080	0.085
547.	4542.	4000.	0.001	0.001
555.	4538.	4000.	0.064	0.075
539.	4546.	4000.	0.001	0.001

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
539.	4498.	4000.	0.018	0.021
539.	4502.	4000.	0.067	0.074
543.	4502.	4000.	0.080	0.098
547.	4502.	4000.	0.006	0.008
511.	4510.	4000.	0.008	0.011
515.	4506.	8000.	0.026	0.032
523.	4506.	8000.	0.026	0.031
535.	4506.	4000.	0.003	0.003
531.	4510.	4000.	0.041	0.045
535.	4510.	4000.	0.002	0.003
539.	4506.	8000.	0.104	0.126
547.	4506.	4000.	0.105	0.123
551.	4506.	4000.	0.025	0.027
547.	4510.	4000.	0.382	0.425
551.	4510.	4000.	0.081	0.099
507.	4514.	4000.	0.001	0.002
511.	4514.	4000.	0.006	0.008
511.	4518.	4000.	0.005	0.007
515.	4514.	8000.	0.066	0.075
523.	4514.	8000.	0.098	0.107
531.	4514.	8000.	0.175	0.211
539.	4518.	4000.	0.215	0.239
543.	4518.	4000.	0.466	0.436
539.	4514.	2000.	0.015	0.017
541.	4514.	2000.	0.072	0.085
543.	4514.	2000.	0.155	0.171
545.	4514.	2000.	0.070	0.071
539.	4516.	2000.	0.008	0.010
541.	4516.	2000.	0.100	0.118
543.	4516.	2000.	0.241	0.258
545.	4516.	2000.	0.093	0.092
547.	4514.	4000.	0.204	0.206
551.	4514.	4000.	0.274	0.259
547.	4518.	4000.	0.349	0.325
551.	4518.	4000.	0.128	0.136
555.	4518.	4000.	0.018	0.020
515.	4522.	8000.	0.106	0.119
523.	4522.	8000.	0.321	0.340
531.	4522.	4000.	0.102	0.112
531.	4526.	4000.	0.120	0.116
535.	4522.	2000.	0.046	0.056
537.	4522.	2000.	0.011	0.014
535.	4524.	2000.	0.139	0.154
537.	4524.	2000.	0.132	0.123
535.	4526.	2000.	0.299	0.254
537.	4526.	2000.	0.123	0.117
535.	4528.	2000.	0.034	0.035
537.	4528.	2000.	0.020	0.025

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
539.	4522.	4000.	0.099	0.120
543.	4522.	4000.	0.260	0.312
539.	4526.	4000.	0.328	0.355
543.	4526.	4000.	0.134	0.155
547.	4522.	4000.	0.333	0.475
551.	4522.	4000.	0.183	0.251
547.	4526.	4000.	0.439	0.441
551.	4526.	4000.	0.146	0.194
555.	4522.	4000.	0.054	0.069
555.	4526.	4000.	0.026	0.037
559.	4526.	4000.	0.033	0.043
527.	4530.	4000.	0.038	0.042
527.	4534.	4000.	0.014	0.012
531.	4530.	8000.	0.139	0.169
539.	4530.	8000.	0.148	0.175
547.	4530.	8000.	0.175	0.198
555.	4530.	8000.	0.336	0.401
535.	4538.	4000.	0.002	0.003
535.	4542.	4000.	0.003	0.004
539.	4538.	8000.	0.068	0.085
547.	4538.	4000.	0.013	0.015
551.	4538.	4000.	0.088	0.098
547.	4542.	4000.	0.001	0.001
555.	4538.	4000.	0.071	0.088
539.	4546.	4000.	0.002	0.002

AREA SOURCE EMISSIONS FOR MORRIS COUNTY 1985 PAGE 1

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
539.	4498.	4000.	0.022	0.026
539.	4502.	4000.	0.081	0.088
543.	4502.	4000.	0.107	0.121
547.	4502.	4000.	0.007	0.009
511.	4510.	4000.	0.010	0.011
515.	4506.	8000.	0.029	0.035
523.	4506.	8000.	0.026	0.031
535.	4506.	4000.	0.004	0.004
531.	4510.	4000.	0.041	0.046
535.	4510.	4000.	0.003	0.004
539.	4506.	8000.	0.112	0.129
547.	4506.	4000.	0.110	0.123
551.	4506.	4000.	0.026	0.027
547.	4510.	4000.	0.401	0.423
551.	4510.	4000.	0.085	0.094
507.	4514.	4000.	0.002	0.002
511.	4514.	4000.	0.007	0.010
511.	4518.	4000.	0.006	0.006
515.	4514.	8000.	0.077	0.077
523.	4514.	8000.	0.108	0.112
531.	4514.	8000.	0.196	0.216
539.	4518.	4000.	0.229	0.249
543.	4518.	4000.	0.537	0.494
539.	4514.	2000.	0.015	0.016
541.	4514.	2000.	0.075	0.084
543.	4514.	2000.	0.157	0.157
545.	4514.	2000.	0.074	0.072
539.	4516.	2000.	0.010	0.010
541.	4516.	2000.	0.105	0.115
543.	4516.	2000.	0.245	0.240
545.	4516.	2000.	0.098	0.097
547.	4514.	4000.	0.228	0.231
551.	4514.	4000.	0.284	0.269
547.	4518.	4000.	0.382	0.354
551.	4518.	4000.	0.140	0.139
555.	4518.	4000.	0.019	0.021
515.	4522.	8000.	0.123	0.132
523.	4522.	8000.	0.362	0.374
531.	4522.	4000.	0.104	0.112
531.	4526.	4000.	0.126	0.117
535.	4522.	2000.	0.050	0.054
537.	4522.	2000.	0.012	0.013
535.	4524.	2000.	0.146	0.145
537.	4524.	2000.	0.136	0.124
535.	4526.	2000.	0.308	0.255
537.	4526.	2000.	0.128	0.117
535.	4528.	2000.	0.039	0.039
537.	4528.	2000.	0.024	0.029

AREA SOURCE EMISSIONS FOR MORRIS COUNTY 1985 PAGE 2

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
539.	4522.	4000.	0.124	0.138
543.	4522.	4000.	0.311	0.352
539.	4526.	4000.	0.364	0.381
543.	4526.	4000.	0.155	0.169
547.	4522.	4000.	0.381	0.439
551.	4522.	4000.	0.207	0.243
547.	4526.	4000.	0.496	0.474
551.	4526.	4000.	0.204	0.246
555.	4522.	4000.	0.071	0.083
555.	4526.	4000.	0.038	0.046
559.	4526.	4000.	0.043	0.051
527.	4530.	4000.	0.039	0.040
527.	4534.	4000.	0.015	0.013
531.	4530.	8000.	0.192	0.218
539.	4530.	8000.	0.177	0.201
547.	4530.	8000.	0.206	0.238
555.	4530.	8000.	0.382	0.434
535.	4538.	4000.	0.003	0.004
535.	4542.	4000.	0.003	0.004
539.	4538.	8000.	0.077	0.087
547.	4538.	4000.	0.015	0.015
551.	4538.	4000.	0.094	0.103
547.	4542.	4000.	0.001	0.001
555.	4538.	4000.	0.083	0.095
539.	4546.	4000.	0.001	0.002

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
539.	4498.	4000.	0.029	0.043
539.	4502.	4000.	0.106	0.145
543.	4502.	4000.	0.149	0.213
547.	4502.	4000.	0.010	0.014
511.	4510.	4000.	0.013	0.013
515.	4506.	8000.	0.037	0.047
523.	4506.	8000.	0.028	0.046
535.	4506.	4000.	0.005	0.007
531.	4510.	4000.	0.041	0.055
535.	4510.	4000.	0.003	0.007
539.	4506.	8000.	0.128	0.186
547.	4506.	4000.	0.123	0.165
551.	4506.	4000.	0.029	0.035
547.	4510.	4000.	0.435	0.555
551.	4510.	4000.	0.090	0.119
507.	4514.	4000.	0.002	0.003
511.	4514.	4000.	0.010	0.013
511.	4518.	4000.	0.006	0.007
515.	4514.	8000.	0.093	0.103
523.	4514.	8000.	0.117	0.152
531.	4514.	8000.	0.213	0.295
539.	4518.	4000.	0.249	0.336
543.	4518.	4000.	0.650	0.737
539.	4514.	2000.	0.016	0.022
541.	4514.	2000.	0.083	0.112
543.	4514.	2000.	0.161	0.193
545.	4514.	2000.	0.082	0.097
539.	4516.	2000.	0.011	0.017
541.	4516.	2000.	0.112	0.148
543.	4516.	2000.	0.255	0.299
545.	4516.	2000.	0.111	0.130
547.	4514.	4000.	0.272	0.333
551.	4514.	4000.	0.304	0.351
547.	4518.	4000.	0.454	0.499
551.	4518.	4000.	0.159	0.191
555.	4518.	4000.	0.022	0.030
515.	4522.	8000.	0.156	0.207
523.	4522.	8000.	0.448	0.573
531.	4522.	4000.	0.120	0.150
531.	4526.	4000.	0.138	0.149
535.	4522.	2000.	0.054	0.074
537.	4522.	2000.	0.015	0.022
535.	4524.	2000.	0.155	0.184
537.	4524.	2000.	0.146	0.155
535.	4526.	2000.	0.324	0.304
537.	4526.	2000.	0.140	0.150
535.	4528.	2000.	0.052	0.065
537.	4528.	2000.	0.031	0.048

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
539.	4522.	4000.	0.158	0.231
543.	4522.	4000.	0.392	0.552
539.	4526.	4000.	0.425	0.548
543.	4526.	4000.	0.188	0.260
547.	4522.	4000.	0.454	0.636
551.	4522.	4000.	0.250	0.361
547.	4526.	4000.	0.596	0.699
551.	4526.	4000.	0.302	0.459
555.	4522.	4000.	0.101	0.149
555.	4526.	4000.	0.052	0.084
559.	4526.	4000.	0.056	0.084
527.	4530.	4000.	0.041	0.049
527.	4534.	4000.	0.017	0.016
531.	4530.	8000.	0.347	0.475
539.	4530.	8000.	0.240	0.335
547.	4530.	8000.	0.275	0.382
555.	4530.	8000.	0.479	0.662
535.	4538.	4000.	0.004	0.006
535.	4542.	4000.	0.004	0.006
539.	4538.	8000.	0.091	0.125
547.	4538.	4000.	0.015	0.025
551.	4538.	4000.	0.107	0.146
547.	4542.	4000.	0.001	0.001
555.	4538.	4000.	0.103	0.151
539.	4546.	4000.	0.002	0.002

MASTER GRID SYSTEM FOR PASSIAC COUNTY, XMIN,YMIN= 540. 4519.

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
568.	4521.	2000.	0.028	0.028
570.	4521.	2000.	0.263	0.252
572.	4519.	2000.	0.162	0.128
572.	4521.	1000.	0.043	0.042
573.	4521.	1000.	0.060	0.060
572.	4522.	1000.	0.100	0.084
573.	4522.	1000.	0.126	0.108
560.	4523.	4000.	0.129	0.102
560.	4527.	4000.	0.345	0.302
564.	4523.	4000.	0.258	0.236
568.	4523.	2000.	0.124	0.109
570.	4523.	2000.	0.338	0.310
568.	4525.	2000.	0.114	0.102
570.	4525.	2000.	0.228	0.220
564.	4527.	2000.	0.131	0.114
566.	4527.	2000.	0.107	0.101
564.	4529.	2000.	0.060	0.055
566.	4529.	2000.	0.181	0.166
568.	4527.	1000.	0.008	0.007
569.	4527.	1000.	0.094	0.078
570.	4527.	1000.	0.100	0.091
571.	4527.	1000.	0.064	0.062
568.	4528.	1000.	0.131	0.118
569.	4528.	1000.	0.121	0.113
570.	4528.	1000.	0.123	0.126
571.	4528.	1000.	0.109	0.108
568.	4529.	1000.	0.095	0.080
569.	4529.	1000.	0.170	0.156
570.	4529.	1000.	0.176	0.171
571.	4529.	1000.	0.073	0.075
568.	4530.	1000.	0.124	0.119
569.	4530.	1000.	0.251	0.175
570.	4530.	1000.	0.197	0.201
571.	4530.	1000.	0.062	0.063
572.	4527.	2000.	0.122	0.111
572.	4529.	2000.	0.134	0.130
572.	4523.	1000.	0.100	0.100
573.	4523.	1000.	0.190	0.168
572.	4524.	1000.	0.144	0.136
573.	4524.	1000.	0.139	0.125
574.	4524.	1000.	0.179	0.290
572.	4525.	1000.	0.109	0.102
573.	4525.	1000.	0.083	0.079
572.	4526.	1000.	0.039	0.036
560.	4531.	4000.	0.192	0.162
556.	4535.	4000.	0.023	0.021
560.	4535.	4000.	0.093	0.084
564.	4531.	4000.	0.183	0.176

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
564.	4535.	4000.	0.021	0.021
568.	4535.	4000.	0.081	0.076
568.	4531.	2000.	0.216	0.207
568.	4533.	2000.	0.061	0.055
570.	4533.	2000.	0.152	0.134
570.	4531.	1000.	0.127	0.131
571.	4531.	1000.	0.082	0.080
570.	4532.	1000.	0.052	0.050
571.	4532.	1000.	0.068	0.067
540.	4543.	4000.	0.002	0.002
544.	4543.	4000.	0.014	0.011
548.	4539.	8000.	0.057	0.049
556.	4539.	8000.	0.242	0.213
544.	4547.	4000.	0.002	0.002
548.	4547.	8000.	0.048	0.042
556.	4547.	8000.	0.073	0.067
564.	4551.	4000.	0.005	0.004
548.	4555.	8000.	0.064	0.056
556.	4555.	4000.	0.003	0.003
560.	4555.	4000.	0.003	0.003
556.	4559.	4000.	0.003	0.003

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
568.	4521.	2000.	0.027	0.034
570.	4521.	2000.	0.269	0.285
572.	4519.	2000.	0.177	0.157
572.	4521.	1000.	0.044	0.051
573.	4521.	1000.	0.062	0.074
572.	4522.	1000.	0.103	0.106
573.	4522.	1000.	0.130	0.139
560.	4523.	4000.	0.133	0.124
560.	4527.	4000.	0.358	0.352
564.	4523.	4000.	0.264	0.284
568.	4523.	2000.	0.126	0.130
570.	4523.	2000.	0.345	0.364
568.	4525.	2000.	0.112	0.116
570.	4525.	2000.	0.230	0.258
564.	4527.	2000.	0.135	0.142
566.	4527.	2000.	0.107	0.120
564.	4529.	2000.	0.059	0.061
566.	4529.	2000.	0.181	0.196
568.	4527.	1000.	0.008	0.009
569.	4527.	1000.	0.096	0.092
570.	4527.	1000.	0.102	0.106
571.	4527.	1000.	0.065	0.072
568.	4528.	1000.	0.134	0.138
569.	4528.	1000.	0.124	0.132
570.	4528.	1000.	0.121	0.146
571.	4528.	1000.	0.104	0.125
568.	4529.	1000.	0.098	0.095
569.	4529.	1000.	0.173	0.192
570.	4529.	1000.	0.175	0.208
571.	4529.	1000.	0.066	0.087
568.	4530.	1000.	0.127	0.143
569.	4530.	1000.	0.254	0.214
570.	4530.	1000.	0.199	0.240
571.	4530.	1000.	0.059	0.075
572.	4527.	2000.	0.125	0.127
572.	4529.	2000.	0.129	0.156
572.	4523.	1000.	0.102	0.119
573.	4523.	1000.	0.194	0.209
572.	4524.	1000.	0.149	0.167
573.	4524.	1000.	0.143	0.154
574.	4524.	1000.	0.183	0.327
572.	4525.	1000.	0.112	0.123
573.	4525.	1000.	0.085	0.093
572.	4526.	1000.	0.040	0.042
560.	4531.	4000.	0.190	0.210
556.	4535.	4000.	0.022	0.025
560.	4535.	4000.	0.095	0.102
564.	4531.	4000.	0.178	0.218

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
564.	4535.	4000.	0.021	0.023
568.	4535.	4000.	0.079	0.085
568.	4531.	2000.	0.220	0.242
568.	4533.	2000.	0.060	0.065
570.	4533.	2000.	0.152	0.150
570.	4531.	1000.	0.128	0.148
571.	4531.	1000.	0.081	0.092
570.	4532.	1000.	0.052	0.057
571.	4532.	1000.	0.069	0.075
540.	4543.	4000.	0.002	0.002
544.	4543.	4000.	0.012	0.011
548.	4539.	8000.	0.057	0.071
556.	4539.	8000.	0.254	0.291
544.	4547.	4000.	0.002	0.002
548.	4547.	8000.	0.048	0.055
556.	4547.	8000.	0.073	0.089
564.	4551.	4000.	0.006	0.005
548.	4555.	8000.	0.064	0.069
556.	4555.	4000.	0.003	0.003
560.	4555.	4000.	0.004	0.005
556.	4559.	4000.	0.003	0.004

AREA SOURCE EMISSIONS FOR PASSIAC COUNTY 1985

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
568.	4521.	2000.	0.029	0.032
570.	4521.	2000.	0.271	0.276
572.	4519.	2000.	0.189	0.152
572.	4521.	1000.	0.044	0.046
573.	4521.	1000.	0.063	0.068
572.	4522.	1000.	0.103	0.093
573.	4522.	1000.	0.129	0.117
560.	4523.	4000.	0.137	0.123
560.	4527.	4000.	0.378	0.376
564.	4523.	4000.	0.277	0.284
568.	4523.	2000.	0.128	0.124
570.	4523.	2000.	0.349	0.348
568.	4525.	2000.	0.118	0.117
570.	4525.	2000.	0.236	0.245
564.	4527.	2000.	0.145	0.149
566.	4527.	2000.	0.113	0.117
564.	4529.	2000.	0.064	0.069
566.	4529.	2000.	0.186	0.186
568.	4527.	1000.	0.009	0.009
569.	4527.	1000.	0.097	0.087
570.	4527.	1000.	0.102	0.099
571.	4527.	1000.	0.065	0.067
568.	4528.	1000.	0.135	0.132
569.	4528.	1000.	0.124	0.126
570.	4528.	1000.	0.124	0.137
571.	4528.	1000.	0.108	0.117
568.	4529.	1000.	0.097	0.089
569.	4529.	1000.	0.172	0.168
570.	4529.	1000.	0.177	0.184
571.	4529.	1000.	0.072	0.082
568.	4530.	1000.	0.126	0.129
569.	4530.	1000.	0.252	0.187
570.	4530.	1000.	0.198	0.216
571.	4530.	1000.	0.062	0.068
572.	4527.	2000.	0.125	0.121
572.	4529.	2000.	0.135	0.142
572.	4523.	1000.	0.102	0.109
573.	4523.	1000.	0.192	0.182
572.	4524.	1000.	0.148	0.149
573.	4524.	1000.	0.142	0.136
574.	4524.	1000.	0.182	0.304
572.	4525.	1000.	0.112	0.112
573.	4525.	1000.	0.085	0.087
572.	4526.	1000.	0.041	0.040
560.	4531.	4000.	0.221	0.229
556.	4535.	4000.	0.024	0.026
560.	4535.	4000.	0.110	0.114
564.	4531.	4000.	0.196	0.215

AREA SOURCE EMISSIONS FOR PASSIAC COUNTY 1985

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
564.	4535.	4000.	0.021	0.024
568.	4535.	4000.	0.087	0.088
568.	4531.	2000.	0.224	0.234
568.	4533.	2000.	0.068	0.072
570.	4533.	2000.	0.161	0.154
570.	4531.	1000.	0.128	0.142
571.	4531.	1000.	0.082	0.087
570.	4532.	1000.	0.053	0.056
571.	4532.	1000.	0.069	0.073
540.	4543.	4000.	0.006	0.005
544.	4543.	4000.	0.016	0.015
548.	4539.	8000.	0.071	0.081
556.	4539.	8000.	0.310	0.342
544.	4547.	4000.	0.002	0.002
548.	4547.	8000.	0.053	0.056
556.	4547.	8000.	0.084	0.091
564.	4551.	4000.	0.007	0.006
548.	4555.	8000.	0.067	0.068
556.	4555.	4000.	0.003	0.003
560.	4555.	4000.	0.008	0.009
556.	4559.	4000.	0.003	0.004

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
568.	4521.	2000.	0.031	0.033
570.	4521.	2000.	0.284	0.288
572.	4519.	2000.	0.231	0.178
572.	4521.	1000.	0.046	0.048
573.	4521.	1000.	0.068	0.072
572.	4522.	1000.	0.106	0.094
573.	4522.	1000.	0.132	0.117
560.	4523.	4000.	0.143	0.130
560.	4527.	4000.	0.435	0.429
564.	4523.	4000.	0.310	0.311
568.	4523.	2000.	0.136	0.127
570.	4523.	2000.	0.366	0.361
568.	4525.	2000.	0.128	0.126
570.	4525.	2000.	0.251	0.259
564.	4527.	2000.	0.166	0.168
566.	4527.	2000.	0.123	0.124
564.	4529.	2000.	0.083	0.087
566.	4529.	2000.	0.198	0.195
568.	4527.	1000.	0.010	0.011
569.	4527.	1000.	0.100	0.089
570.	4527.	1000.	0.106	0.101
571.	4527.	1000.	0.068	0.069
568.	4528.	1000.	0.139	0.134
569.	4528.	1000.	0.128	0.129
570.	4528.	1000.	0.133	0.144
571.	4528.	1000.	0.116	0.124
568.	4529.	1000.	0.100	0.090
569.	4529.	1000.	0.176	0.169
570.	4529.	1000.	0.185	0.188
571.	4529.	1000.	0.080	0.089
568.	4530.	1000.	0.131	0.130
569.	4530.	1000.	0.257	0.188
570.	4530.	1000.	0.206	0.219
571.	4530.	1000.	0.066	0.071
572.	4527.	2000.	0.128	0.123
572.	4529.	2000.	0.145	0.148
572.	4523.	1000.	0.107	0.112
573.	4523.	1000.	0.196	0.182
572.	4524.	1000.	0.154	0.152
573.	4524.	1000.	0.145	0.136
574.	4524.	1000.	0.186	0.305
572.	4525.	1000.	0.116	0.114
573.	4525.	1000.	0.087	0.088
572.	4526.	1000.	0.043	0.041
560.	4531.	4000.	0.271	0.275
556.	4535.	4000.	0.028	0.029
560.	4535.	4000.	0.139	0.144
564.	4531.	4000.	0.224	0.236

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
564.	4535.	4000.	0.025	0.026
568.	4535.	4000.	0.096	0.096
568.	4531.	2000.	0.237	0.242
568.	4533.	2000.	0.081	0.086
570.	4533.	2000.	0.174	0.165
570.	4531.	1000.	0.134	0.145
571.	4531.	1000.	0.085	0.089
570.	4532.	1000.	0.056	0.058
571.	4532.	1000.	0.072	0.074
540.	4543.	4000.	0.008	0.005
544.	4543.	4000.	0.017	0.017
548.	4539.	8000.	0.091	0.099
556.	4539.	8000.	0.412	0.445
544.	4547.	4000.	0.002	0.002
548.	4547.	8000.	0.069	0.078
556.	4547.	8000.	0.099	0.106
564.	4551.	4000.	0.008	0.007
548.	4555.	8000.	0.076	0.074
556.	4555.	4000.	0.003	0.004
560.	4555.	4000.	0.012	0.014
556.	4559.	4000.	0.004	0.004

MASTER GRID SYSTEM FOR SOMERSET COUNTY, XMIN,YMIN= 517. 4468.

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
517.	4472.	4000.	0.001	0.001
521.	4468.	8000.	0.162	0.109
529.	4468.	8000.	0.169	0.120
517.	4476.	4000.	0.001	0.001
517.	4480.	4000.	0.0	0.004
521.	4476.	8000.	0.090	0.083
529.	4476.	8000.	0.109	0.093
537.	4476.	4000.	0.033	0.023
541.	4476.	4000.	0.012	0.008
537.	4480.	4000.	0.047	0.035
541.	4480.	4000.	0.388	0.298
545.	4482.	2000.	0.152	0.105
517.	4484.	4000.	0.005	0.003
521.	4484.	8000.	0.248	0.200
529.	4484.	4000.	0.152	0.123
533.	4484.	4000.	0.255	0.207
529.	4488.	2000.	0.012	0.011
531.	4488.	2000.	0.112	0.079
533.	4488.	2000.	0.181	0.376
535.	4488.	2000.	0.247	0.220
529.	4490.	2000.	0.301	0.213
531.	4490.	2000.	0.353	0.249
533.	4490.	2000.	0.284	0.226
535.	4490.	2000.	0.377	0.264
537.	4484.	4000.	0.086	0.079
541.	4484.	4000.	0.191	0.147
537.	4488.	2000.	0.230	0.208
539.	4488.	2000.	0.156	0.148
537.	4490.	2000.	0.153	0.275
539.	4490.	2000.	0.107	0.078
521.	4492.	8000.	0.235	0.174
529.	4492.	8000.	0.695	0.518
537.	4492.	8000.	0.743	0.527
545.	4492.	4000.	0.055	0.047
549.	4496.	4000.	0.080	0.056
545.	4496.	2000.	0.201	0.148
547.	4496.	2000.	0.434	0.305
545.	4498.	2000.	0.062	0.047
547.	4498.	2000.	0.139	0.106
521.	4500.	8000.	0.297	0.198
529.	4500.	8000.	0.592	0.419
537.	4500.	4000.	0.063	0.049
541.	4500.	4000.	0.060	0.044
537.	4504.	4000.	0.100	0.074
545.	4500.	4000.	0.102	0.079
549.	4500.	4000.	0.068	0.046
525.	4508.	4000.	0.029	0.018
529.	4508.	4000.	0.020	0.014

AREA SOURCE EMISSIONS FOR SOMERSET COUNTY 1975 PAGE 2

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
533.	4508.	4000.	0.146	0.098
537.	4508.	4000.	0.017	0.012

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
517.	4472.	4000.	0.001	0.001
521.	4468.	8000.	0.183	0.137
529.	4468.	8000.	0.193	0.161
517.	4476.	4000.	0.002	0.001
517.	4480.	4000.	0.0	0.005
521.	4476.	8000.	0.122	0.132
529.	4476.	8000.	0.139	0.143
537.	4476.	4000.	0.040	0.037
541.	4476.	4000.	0.012	0.010
537.	4480.	4000.	0.055	0.047
541.	4480.	4000.	0.403	0.359
545.	4482.	2000.	0.150	0.115
517.	4484.	4000.	0.005	0.003
521.	4484.	8000.	0.304	0.285
529.	4484.	4000.	0.166	0.154
533.	4484.	4000.	0.273	0.251
529.	4488.	2000.	0.012	0.011
531.	4488.	2000.	0.114	0.088
533.	4488.	2000.	0.186	0.401
535.	4488.	2000.	0.245	0.252
529.	4490.	2000.	0.303	0.237
531.	4490.	2000.	0.355	0.283
533.	4490.	2000.	0.290	0.261
535.	4490.	2000.	0.364	0.281
537.	4484.	4000.	0.110	0.122
541.	4484.	4000.	0.205	0.181
537.	4488.	2000.	0.224	0.237
539.	4488.	2000.	0.159	0.178
537.	4490.	2000.	0.155	0.296
539.	4490.	2000.	0.107	0.089
521.	4492.	8000.	0.255	0.229
529.	4492.	8000.	0.742	0.626
537.	4492.	8000.	0.758	0.598
545.	4492.	4000.	0.053	0.058
549.	4496.	4000.	0.075	0.059
545.	4496.	2000.	0.203	0.177
547.	4496.	2000.	0.406	0.330
545.	4498.	2000.	0.059	0.053
547.	4498.	2000.	0.137	0.123
521.	4500.	8000.	0.291	0.210
529.	4500.	8000.	0.593	0.466
537.	4500.	4000.	0.066	0.058
541.	4500.	4000.	0.073	0.064
537.	4504.	4000.	0.101	0.083
545.	4500.	4000.	0.097	0.085
549.	4500.	4000.	0.064	0.049
525.	4508.	4000.	0.027	0.018
529.	4508.	4000.	0.018	0.015

AREA SOURCE EMISSIONS FOR SOMERSET COUNTY 1980 PAGE 2

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
533.	4508.	4000.	0.146	0.107
537.	4508.	4000.	0.021	0.016

AREA SOURCE EMISSIONS FOR SOMERSET COUNTY 1985

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	T8P (T/D)
517.	4472.	4000.	0.001	0.001
521.	4468.	8000.	0.241	0.185
529.	4468.	8000.	0.235	0.197
517.	4476.	4000.	0.002	0.001
517.	4480.	4000.	0.001	0.006
521.	4476.	8000.	0.175	0.181
529.	4476.	8000.	0.231	0.232
537.	4476.	4000.	0.061	0.051
541.	4476.	4000.	0.018	0.013
537.	4480.	4000.	0.075	0.069
541.	4480.	4000.	0.426	0.368
545.	4482.	2000.	0.152	0.113
517.	4484.	4000.	0.005	0.003
521.	4484.	8000.	0.384	0.364
529.	4484.	4000.	0.213	0.198
533.	4484.	4000.	0.329	0.300
529.	4488.	2000.	0.013	0.012
531.	4488.	2000.	0.122	0.092
533.	4488.	2000.	0.200	0.410
535.	4488.	2000.	0.250	0.257
529.	4490.	2000.	0.306	0.235
531.	4490.	2000.	0.360	0.275
533.	4490.	2000.	0.291	0.253
535.	4490.	2000.	0.366	0.280
537.	4484.	4000.	0.160	0.180
541.	4484.	4000.	0.245	0.214
537.	4488.	2000.	0.231	0.241
539.	4488.	2000.	0.168	0.183
537.	4490.	2000.	0.161	0.297
539.	4490.	2000.	0.109	0.086
521.	4492.	8000.	0.316	0.281
529.	4492.	8000.	0.831	0.697
537.	4492.	8000.	0.810	0.641
545.	4492.	4000.	0.054	0.051
549.	4496.	4000.	0.075	0.058
545.	4496.	2000.	0.217	0.175
547.	4496.	2000.	0.412	0.315
545.	4498.	2000.	0.062	0.053
547.	4498.	2000.	0.146	0.121
521.	4500.	8000.	0.295	0.211
529.	4500.	8000.	0.622	0.487
537.	4500.	4000.	0.068	0.059
541.	4500.	4000.	0.092	0.083
537.	4504.	4000.	0.108	0.085
545.	4500.	4000.	0.099	0.085
549.	4500.	4000.	0.065	0.050
525.	4508.	4000.	0.027	0.018
529.	4508.	4000.	0.018	0.014

AREA SOURCE EMISSIONS FOR SOMERSET COUNTY 1985 PAGE 2

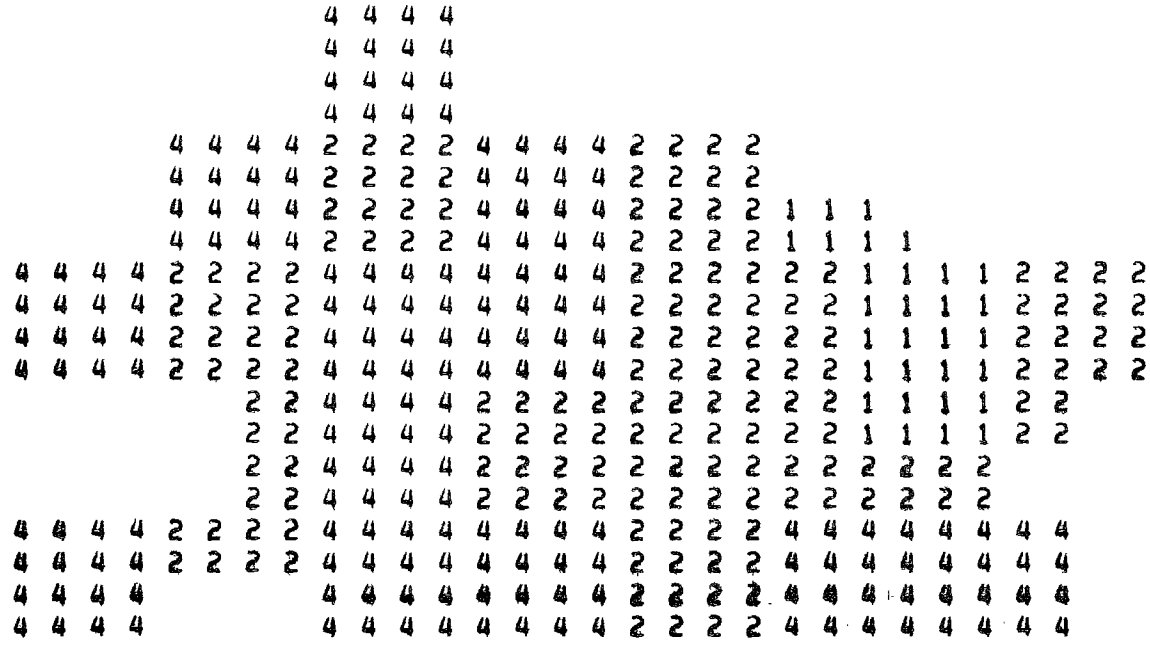
X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
535.	4508.	4000.	0.146	0.106
537.	4508.	4000.	0.025	0.023

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
517.	4472.	4000.	0.001	0.001
521.	4468.	8000.	0.390	0.281
529.	4468.	8000.	0.307	0.253
517.	4476.	4000.	0.002	0.001
517.	4480.	4000.	0.006	0.006
521.	4476.	8000.	0.256	0.240
529.	4476.	8000.	0.431	0.385
537.	4476.	4000.	0.083	0.070
541.	4476.	4000.	0.019	0.016
537.	4480.	4000.	0.119	0.098
541.	4480.	4000.	0.472	0.378
545.	4482.	2000.	0.160	0.109
517.	4484.	4000.	0.006	0.004
521.	4484.	8000.	0.509	0.448
529.	4484.	4000.	0.301	0.263
533.	4484.	4000.	0.464	0.374
529.	4488.	2000.	0.016	0.012
531.	4488.	2000.	0.138	0.097
533.	4488.	2000.	0.225	0.411
535.	4488.	2000.	0.249	0.234
529.	4490.	2000.	0.308	0.218
531.	4490.	2000.	0.357	0.253
533.	4490.	2000.	0.286	0.227
535.	4490.	2000.	0.361	0.257
537.	4484.	4000.	0.254	0.252
541.	4484.	4000.	0.344	0.265
537.	4488.	2000.	0.233	0.222
539.	4488.	2000.	0.180	0.176
537.	4490.	2000.	0.173	0.289
539.	4490.	2000.	0.109	0.079
521.	4492.	8000.	0.438	0.368
529.	4492.	8000.	0.965	0.768
537.	4492.	8000.	0.879	0.649
545.	4492.	4000.	0.055	0.046
549.	4496.	4000.	0.077	0.054
545.	4496.	2000.	0.245	0.177
547.	4496.	2000.	0.434	0.303
545.	4498.	2000.	0.068	0.052
547.	4498.	2000.	0.171	0.127
521.	4500.	8000.	0.295	0.199
529.	4500.	8000.	0.685	0.498
537.	4500.	4000.	0.074	0.057
541.	4500.	4000.	0.124	0.102
537.	4504.	4000.	0.118	0.087
545.	4500.	4000.	0.103	0.078
549.	4500.	4000.	0.069	0.049
525.	4508.	4000.	0.026	0.018
529.	4508.	4000.	0.018	0.013

AREA SOURCE EMISSIONS FOR SOMERSET COUNTY 2000

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
533.	4508.	4000.	0.145	0.099
537.	4508.	4000.	0.036	0.028

MASTER GRID SYSTEM FOR UNION COUNTY, XMIN,YMIN= 543. 4493.



AREA SOURCE EMISSIONS FOR UNION COUNTY 1975

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
543.	4493.	4000.	0.103	0.090
547.	4495.	2000.	0.180	0.159
549.	4495.	2000.	0.132	0.114
551.	4493.	4000.	0.047	0.037
555.	4493.	4000.	0.085	0.072
563.	4493.	4000.	0.346	0.332
559.	4493.	2000.	0.086	0.076
561.	4493.	2000.	0.033	0.032
559.	4495.	2000.	0.167	0.146
561.	4495.	2000.	0.268	0.267
567.	4493.	4000.	0.131	0.011
543.	4501.	4000.	0.039	0.032
549.	4497.	2000.	0.127	0.104
549.	4499.	2000.	0.049	0.041
547.	4501.	2000.	0.015	0.012
549.	4501.	2000.	0.031	0.024
547.	4503.	2000.	0.061	0.052
549.	4503.	2000.	0.081	0.075
551.	4497.	4000.	0.316	0.249
551.	4501.	4000.	0.164	0.135
555.	4501.	4000.	0.346	0.319
555.	4497.	2000.	0.074	0.058
557.	4497.	2000.	0.126	0.119
555.	4499.	2000.	0.116	0.097
557.	4499.	2000.	0.145	0.119
559.	4497.	2000.	0.130	0.105
561.	4497.	2000.	0.190	0.157
563.	4497.	2000.	0.116	0.103
565.	4497.	2000.	0.136	0.103
559.	4499.	2000.	0.141	0.121
561.	4499.	2000.	0.175	0.144
563.	4499.	2000.	0.210	0.183
559.	4501.	2000.	0.144	0.122
561.	4501.	2000.	0.183	0.155
563.	4501.	2000.	0.227	0.192
559.	4503.	2000.	0.135	0.123
561.	4503.	2000.	0.135	0.113
563.	4503.	2000.	0.138	0.131
565.	4499.	1000.	0.065	0.059
566.	4499.	1000.	0.058	0.053
565.	4500.	1000.	0.085	0.081
566.	4500.	1000.	0.097	0.085
565.	4501.	1000.	0.126	0.116
566.	4501.	1000.	0.077	0.070
565.	4502.	1000.	0.087	0.077
566.	4502.	1000.	0.085	0.074
565.	4503.	1000.	0.037	0.035
566.	4503.	1000.	0.080	0.076

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
565.	4504.	1000.	0.053	0.046
566.	4504.	1000.	0.086	0.082
567.	4497.	2000.	0.159	0.029
569.	4499.	2000.	0.036	0.034
569.	4501.	2000.	0.051	0.052
571.	4501.	2000.	0.111	0.064
569.	4503.	2000.	0.199	0.164
571.	4503.	2000.	0.107	0.072
567.	4499.	1000.	0.052	0.045
568.	4499.	1000.	0.065	0.057
567.	4500.	1000.	0.083	0.071
568.	4500.	1000.	0.071	0.064
567.	4501.	1000.	0.071	0.072
568.	4501.	1000.	0.056	0.057
567.	4502.	1000.	0.086	0.086
568.	4502.	1000.	0.025	0.026
567.	4503.	1000.	0.040	0.040
568.	4503.	1000.	0.016	0.040
567.	4504.	1000.	0.073	0.075
568.	4504.	1000.	0.061	0.046
547.	4505.	4000.	0.103	0.084
555.	4505.	4000.	0.341	0.297
551.	4509.	4000.	0.042	0.039
551.	4505.	2000.	0.065	0.053
553.	4505.	2000.	0.061	0.053
551.	4507.	2000.	0.096	0.084
553.	4507.	2000.	0.120	0.105
559.	4505.	2000.	0.157	0.138
561.	4505.	2000.	0.189	0.167
559.	4507.	2000.	0.064	0.054
561.	4507.	2000.	0.110	0.093
563.	4505.	1000.	0.066	0.059
564.	4505.	1000.	0.066	0.059
565.	4505.	1000.	0.063	0.054
566.	4505.	1000.	0.074	0.065
563.	4506.	1000.	0.060	0.053
564.	4506.	1000.	0.086	0.074
565.	4506.	1000.	0.112	0.094

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
543.	4493.	4000.	0.111	0.114
547.	4495.	2000.	0.187	0.191
549.	4495.	2000.	0.140	0.137
551.	4493.	4000.	0.049	0.045
555.	4493.	4000.	0.089	0.085
563.	4493.	4000.	0.356	0.376
559.	4493.	2000.	0.091	0.088
561.	4493.	2000.	0.034	0.037
559.	4495.	2000.	0.175	0.166
561.	4495.	2000.	0.276	0.298
567.	4493.	4000.	0.163	0.017
543.	4501.	4000.	0.042	0.037
549.	4497.	2000.	0.134	0.122
549.	4499.	2000.	0.053	0.047
547.	4501.	2000.	0.016	0.014
549.	4501.	2000.	0.033	0.031
547.	4503.	2000.	0.066	0.060
549.	4503.	2000.	0.084	0.088
551.	4497.	4000.	0.336	0.281
551.	4501.	4000.	0.176	0.149
555.	4501.	4000.	0.359	0.361
555.	4497.	2000.	0.077	0.066
557.	4497.	2000.	0.133	0.138
555.	4499.	2000.	0.123	0.110
557.	4499.	2000.	0.154	0.135
559.	4497.	2000.	0.136	0.118
561.	4497.	2000.	0.198	0.179
563.	4497.	2000.	0.120	0.123
565.	4497.	2000.	0.137	0.128
559.	4499.	2000.	0.148	0.141
561.	4499.	2000.	0.183	0.170
563.	4499.	2000.	0.220	0.220
559.	4501.	2000.	0.152	0.147
561.	4501.	2000.	0.195	0.188
563.	4501.	2000.	0.238	0.245
559.	4503.	2000.	0.140	0.137
561.	4503.	2000.	0.140	0.127
563.	4503.	2000.	0.143	0.148
565.	4499.	1000.	0.064	0.069
566.	4499.	1000.	0.057	0.062
565.	4500.	1000.	0.083	0.108
566.	4500.	1000.	0.094	0.100
565.	4501.	1000.	0.125	0.158
566.	4501.	1000.	0.075	0.092
565.	4502.	1000.	0.085	0.105
566.	4502.	1000.	0.082	0.104
565.	4503.	1000.	0.036	0.043
566.	4503.	1000.	0.079	0.105

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
565.	4504.	1000.	0.053	0.052
566.	4504.	1000.	0.084	0.107
567.	4497.	2000.	0.193	0.035
569.	4499.	2000.	0.037	0.042
569.	4501.	2000.	0.052	0.060
571.	4501.	2000.	0.123	0.074
569.	4503.	2000.	0.209	0.161
571.	4503.	2000.	0.118	0.080
567.	4499.	1000.	0.051	0.056
568.	4499.	1000.	0.064	0.074
567.	4500.	1000.	0.081	0.085
568.	4500.	1000.	0.071	0.079
567.	4501.	1000.	0.070	0.088
568.	4501.	1000.	0.057	0.068
567.	4502.	1000.	0.086	0.108
568.	4502.	1000.	0.025	0.032
567.	4503.	1000.	0.040	0.055
568.	4503.	1000.	0.016	0.041
567.	4504.	1000.	0.072	0.101
568.	4504.	1000.	0.065	0.046
547.	4505.	4000.	0.109	0.098
555.	4505.	4000.	0.356	0.337
551.	4509.	4000.	0.044	0.044
551.	4505.	2000.	0.067	0.063
553.	4505.	2000.	0.064	0.061
551.	4507.	2000.	0.103	0.101
553.	4507.	2000.	0.125	0.124
559.	4505.	2000.	0.166	0.157
561.	4505.	2000.	0.198	0.191
559.	4507.	2000.	0.067	0.061
561.	4507.	2000.	0.115	0.109
563.	4505.	1000.	0.069	0.067
564.	4505.	1000.	0.068	0.066
565.	4505.	1000.	0.065	0.064
566.	4505.	1000.	0.076	0.081
563.	4506.	1000.	0.063	0.062
564.	4506.	1000.	0.089	0.089
565.	4506.	1000.	0.114	0.118

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
543.	4493.	4000.	0.106	0.100
547.	4495.	2000.	0.177	0.169
549.	4495.	2000.	0.130	0.120
551.	4493.	4000.	0.048	0.042
555.	4493.	4000.	0.087	0.080
563.	4493.	4000.	0.370	0.386
559.	4493.	2000.	0.087	0.082
561.	4493.	2000.	0.034	0.037
559.	4495.	2000.	0.167	0.155
561.	4495.	2000.	0.270	0.291
567.	4493.	4000.	0.187	0.020
543.	4501.	4000.	0.040	0.037
549.	4497.	2000.	0.125	0.110
549.	4499.	2000.	0.051	0.045
547.	4501.	2000.	0.017	0.015
549.	4501.	2000.	0.037	0.034
547.	4503.	2000.	0.067	0.063
549.	4503.	2000.	0.087	0.091
551.	4497.	4000.	0.320	0.272
551.	4501.	4000.	0.168	0.147
555.	4501.	4000.	0.348	0.353
555.	4497.	2000.	0.074	0.064
557.	4497.	2000.	0.129	0.133
555.	4499.	2000.	0.117	0.107
557.	4499.	2000.	0.148	0.131
559.	4497.	2000.	0.130	0.112
561.	4497.	2000.	0.187	0.165
563.	4497.	2000.	0.119	0.120
565.	4497.	2000.	0.146	0.129
559.	4499.	2000.	0.144	0.134
561.	4499.	2000.	0.174	0.153
563.	4499.	2000.	0.208	0.194
559.	4501.	2000.	0.150	0.141
561.	4501.	2000.	0.187	0.168
563.	4501.	2000.	0.224	0.203
559.	4503.	2000.	0.138	0.137
561.	4503.	2000.	0.136	0.125
563.	4503.	2000.	0.139	0.140
565.	4499.	1000.	0.064	0.063
566.	4499.	1000.	0.058	0.057
565.	4500.	1000.	0.085	0.088
566.	4500.	1000.	0.097	0.091
565.	4501.	1000.	0.126	0.125
566.	4501.	1000.	0.077	0.076
565.	4502.	1000.	0.085	0.082
566.	4502.	1000.	0.083	0.077
565.	4503.	1000.	0.037	0.037
566.	4503.	1000.	0.079	0.081

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
565.	4504.	1000.	0.054	0.050
566.	4504.	1000.	0.085	0.089
567.	4497.	2000.	0.215	0.036
569.	4499.	2000.	0.040	0.043
569.	4501.	2000.	0.057	0.064
571.	4501.	2000.	0.131	0.072
569.	4503.	2000.	0.248	0.183
571.	4503.	2000.	0.125	0.080
567.	4499.	1000.	0.053	0.050
568.	4499.	1000.	0.067	0.064
567.	4500.	1000.	0.083	0.077
568.	4500.	1000.	0.074	0.075
567.	4501.	1000.	0.075	0.086
568.	4501.	1000.	0.061	0.070
567.	4502.	1000.	0.091	0.102
568.	4502.	1000.	0.027	0.032
567.	4503.	1000.	0.040	0.044
568.	4503.	1000.	0.017	0.043
567.	4504.	1000.	0.073	0.083
568.	4504.	1000.	0.078	0.052
547.	4505.	4000.	0.111	0.100
555.	4505.	4000.	0.343	0.322
551.	4509.	4000.	0.045	0.045
551.	4505.	2000.	0.065	0.055
553.	4505.	2000.	0.061	0.055
551.	4507.	2000.	0.101	0.095
553.	4507.	2000.	0.121	0.112
559.	4505.	2000.	0.162	0.155
561.	4505.	2000.	0.190	0.183
559.	4507.	2000.	0.064	0.058
561.	4507.	2000.	0.109	0.100
563.	4505.	1000.	0.066	0.065
564.	4505.	1000.	0.066	0.065
565.	4505.	1000.	0.062	0.057
566.	4505.	1000.	0.071	0.067
563.	4506.	1000.	0.060	0.058
564.	4506.	1000.	0.083	0.078
565.	4506.	1000.	0.105	0.095

AREA SOURCE EMISSIONS FOR UNION COUNTY 2000

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
543.	4493.	4000.	0.112	0.099
547.	4495.	2000.	0.180	0.162
549.	4495.	2000.	0.133	0.115
551.	4493.	4000.	0.053	0.044
555.	4493.	4000.	0.092	0.080
563.	4493.	4000.	0.404	0.409
559.	4493.	2000.	0.091	0.080
561.	4493.	2000.	0.035	0.037
559.	4495.	2000.	0.173	0.152
561.	4495.	2000.	0.273	0.283
567.	4493.	4000.	0.261	0.030
543.	4501.	4000.	0.046	0.040
549.	4497.	2000.	0.133	0.108
549.	4499.	2000.	0.053	0.045
547.	4501.	2000.	0.018	0.015
549.	4501.	2000.	0.043	0.040
547.	4503.	2000.	0.075	0.067
549.	4503.	2000.	0.096	0.095
551.	4497.	4000.	0.342	0.274
551.	4501.	4000.	0.178	0.148
555.	4501.	4000.	0.360	0.344
555.	4497.	2000.	0.080	0.064
557.	4497.	2000.	0.133	0.132
555.	4499.	2000.	0.124	0.104
557.	4499.	2000.	0.157	0.130
559.	4497.	2000.	0.138	0.112
561.	4497.	2000.	0.197	0.164
563.	4497.	2000.	0.126	0.120
565.	4497.	2000.	0.154	0.133
559.	4499.	2000.	0.152	0.134
561.	4499.	2000.	0.183	0.151
563.	4499.	2000.	0.216	0.190
559.	4501.	2000.	0.162	0.142
561.	4501.	2000.	0.199	0.170
563.	4501.	2000.	0.235	0.199
559.	4503.	2000.	0.143	0.134
561.	4503.	2000.	0.145	0.126
563.	4503.	2000.	0.143	0.139
565.	4499.	1000.	0.062	0.061
566.	4499.	1000.	0.056	0.055
565.	4500.	1000.	0.081	0.082
566.	4500.	1000.	0.095	0.090
565.	4501.	1000.	0.121	0.118
566.	4501.	1000.	0.074	0.073
565.	4502.	1000.	0.082	0.077
566.	4502.	1000.	0.079	0.072
565.	4503.	1000.	0.035	0.035
566.	4503.	1000.	0.076	0.076

X (KM)	Y (KM)	SIDE (M)	SO2 (T/D)	TSP (T/D)
565.	4504.	1000.	0.052	0.047
566.	4504.	1000.	0.081	0.084
567.	4497.	2000.	0.291	0.040
569.	4499.	2000.	0.040	0.041
569.	4501.	2000.	0.063	0.069
571.	4501.	2000.	0.159	0.073
569.	4503.	2000.	0.290	0.203
571.	4503.	2000.	0.147	0.077
567.	4499.	1000.	0.052	0.048
568.	4499.	1000.	0.065	0.061
567.	4500.	1000.	0.082	0.076
568.	4500.	1000.	0.073	0.071
567.	4501.	1000.	0.074	0.084
568.	4501.	1000.	0.062	0.069
567.	4502.	1000.	0.090	0.100
568.	4502.	1000.	0.027	0.031
567.	4503.	1000.	0.038	0.042
568.	4503.	1000.	0.017	0.043
567.	4504.	1000.	0.070	0.078
568.	4504.	1000.	0.093	0.061
547.	4505.	4000.	0.122	0.104
555.	4505.	4000.	0.363	0.319
551.	4509.	4000.	0.048	0.047
551.	4505.	2000.	0.068	0.054
553.	4505.	2000.	0.063	0.054
551.	4507.	2000.	0.107	0.094
553.	4507.	2000.	0.124	0.111
559.	4505.	2000.	0.170	0.154
561.	4505.	2000.	0.196	0.181
559.	4507.	2000.	0.068	0.058
561.	4507.	2000.	0.116	0.101
563.	4505.	1000.	0.068	0.064
564.	4505.	1000.	0.068	0.064
565.	4505.	1000.	0.064	0.056
566.	4505.	1000.	0.074	0.066
563.	4506.	1000.	0.062	0.057
564.	4506.	1000.	0.086	0.077
565.	4506.	1000.	0.110	0.094

TECHNICAL REPORT DATA
(Please read Instructions on the reverse before completing)

1. REPORT NO.	2.	3. RECIPIENT'S ACCESSION NO.
EPA-902/4-78-006		

4. TITLE AND SUBTITLE	5. REPORT DATE
AIR QUALITY MAINTENANCE ANALYSIS FOR NEW JERSEY-NEW YORK AND MID-HUDSON AQMA	JUNE 1979
	6. PERFORMING ORGANIZATION CODE

7. AUTHOR(S)	8. PERFORMING ORGANIZATION REPORT NO.
Kenneth W. Wiltsee, Jr., William L. Frech, David B. Ramsay	GCA-TR-79-19-G

9. PERFORMING ORGANIZATION NAME AND ADDRESS	10. PROGRAM ELEMENT NO.
GCA CORPORATION GCA/TECHNOLOGY DIVISION Burlington Road Bedford, Massachusetts 01730	11. CONTRACT/GRANT NO. 68-02-2866

12. SPONSORING AGENCY NAME AND ADDRESS	13. TYPE OF REPORT AND PERIOD COVERED
U.S. ENVIRONMENTAL PROTECTION AGENCY Region II 26 Federal Plaza New York, New York 10007	Final Report 14. SPONSORING AGENCY CODE

15. SUPPLEMENTARY NOTES

16. ABSTRACT

An air quality maintenance analysis of SO_2 and TSP concentration was conducted for the New Jersey - New York and Mid-Hudson AQMA's. The year 1975 was used as the base and projections were made to 1980, 1985, and 2000. An emissions inventory created under a previous contract was reviewed and updated using best available data. Improvements were made in the point source inventory, county level area source inventories, and subcounty allocation procedures.

An improved version of the AQDM model was validated and then used to predict annual regional air quality levels for each year. The results indicated that annual primary SO_2 and TSP standards could be exceeded in the South Bronx by 2000. TSP levels throughout much of northeastern New Jersey and New York City exceed the secondary TSP annual guidelines.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Air Pollution Emission Inventory Air Quality Display Model		

18. DISTRIBUTION STATEMENT	19. SECURITY CLASS *(This Report)*	21. NO. OF PAGES
Release Unlimited	UNCLASSIFIED	409
	20. SECURITY CLASS *(This page)*	22. PRICE
	UNCLASSIFIED	

EPA Form 2220-1 (9-73)