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NORTHEAST CORRIDOR REGIONAL MODELING PROJECT ANNUAL EMISSION INVENTORY COMPILATION AND FORMATTING

Volume VI: Massachusetts Emission Inventory

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Volume VI: Massachusetts Emission Inventory

by
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DRAFT

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SECTION 1

INTRODUCTION

BACKGROUND

On a nationwide basis, nonattainment of the National Ambient Air Quality Standard (NAAQS) for ozone is one of the most serious and widespread air pollution problems facing the air quality management community. The Northeast Corridor, a megalopolis of urban and suburban areas extending from Washington, D.C. to Boston, bears a large extent of the ozone problem. The United States Environmental Protection Agency (USEPA), in cooperation with the northeastern states, local agencies and Metropolitan Planning Organizations (MPOs), has undertaken the Northeast Corridor Regional Modeling Project (NECRMP) to develop regional and urban ozone control strategies through the use of photochemical air quality simulation models.

To employ a regional model, an inventory of point and area source emissions covering the entire NECRMP study area had to be assembled and placed into a common format. Unfortunately, existing data bases were inadequate to either properly test or validate a regional model. To this end, USEPA's Office of Air Quality Planning and Standards retained GCA/Technology Division to complete an annual inventory for use in NECRMP. The study area, shown in Figure 1, includes the entire northeast quadrant of the United States from longitude 69 degrees to 82 degrees West* and latitude 38 degrees to 45 degrees North.

OBJECTIVES

The objective of the effort reported in this volume was to assemble the most current, comprehensive and accurate emission inventory possible for the Commonwealth of Massachusetts. This was achieved through the cooperation of the U.S. Environmental Protection Agency's Region I Office and the Massachusetts Department of Environmental Quality Engineering (DEQE). The intent of the program was to avoid direct contact between GCA and individual facilities in Massachusetts. Rather, GCA worked directly with the Massachusetts DEQE who contacted individual sources when necessary.

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*The study area also includes the Ohio Counties of Franklin, Licking, Perry and Fairfield. To accomodate these additional counties, the NECRMP grid system, shown in Figure 1, actually extends West to 84° longitude.

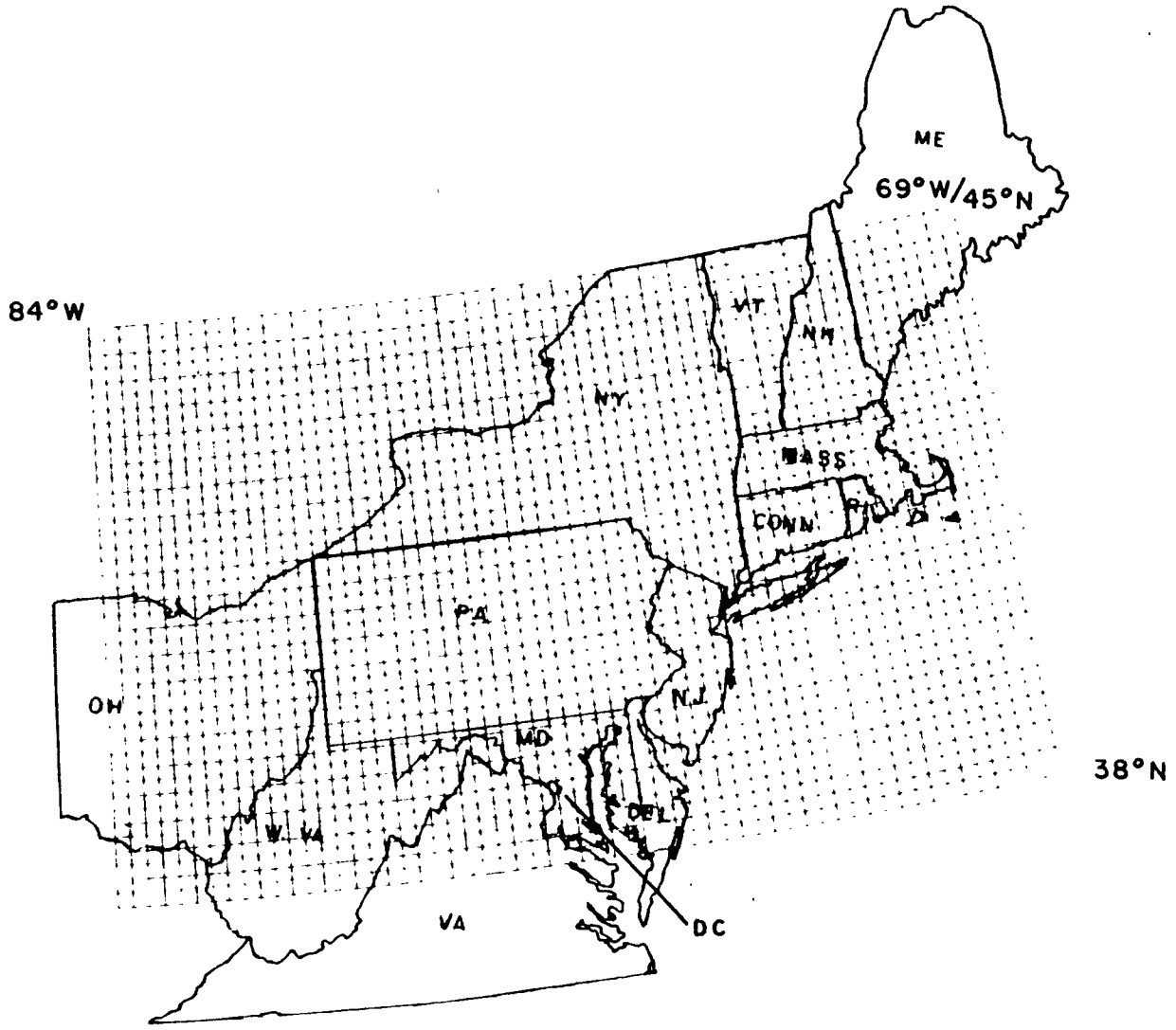

Figure 1. Boundaries of regional model grid system.

The major pollutants of interest were VOC and NO_x, although TSP, SO_x and CO emissions were also compiled for point sources. Because of this emphasis, qualty assurance checks focused primarily on VOC and NO_x.

The completed inventories were computerized for further use in the NECRMP study. Point source data were computerized in the format specified in the Emission Inventory System/Point Source (EIS/PS) User's Guide[1] and area source data were coded into EIS/AS[2] format.

REPORT ORGANIZATION

The results of the NECRMP annual emission inventory are reported in an 18 volume set of documents. Volume I in this series describes the background of the program and discusses the methods used to compile and verify the annual emission inventory. Volumes II through XVI present a more detailed discussion of each state's inventory effort. Volume XVII describes the spatial, temporal, and species allocation factors developed to allow for the creation of modeler's tapes from the completed inventory. Volume XVIII presents a summary of the point and area source inventories for the entire study area. Also included in Volume XVIII is a detailed analysis of the overall quality of the data base and an assessment of the data's suitability for use in photochemical modeling. A directory of the NECRMP annual emission inventory reports is presented in Table 1.

This volume, which presents a discussion of the annual emission inventory for Massachusetts, consists of five sections. Section 2 describes the project history and includes a summary of the major events that relate to the Massachusetts inventory development. Section 3 discusses in greater detail the point source inventory task while the area source inventory development is covered in Section 4. All references cited in this volume are identified in Section 5. Appendices A and B present air pollution control district (APCD) emissions for point and area sources, respectively. The computer routines used to fix "generic" problems with the Massachusetts data are provided in Appendix C.

TABLE 1. DIRECTORY OF THE NECRMP ANNUAL REGIONAL EMISSION INVENTORY REPORTS

Volume	Contents
I	Project Approach
II	Connecticut Emission Inventory
III	Delaware Emission Inventory
IV	Maine Emission Inventory
V	Maryland Emission Inventory
VI	Massachusetts Emission Inventory
VII	New Hampshire Emission Inventory
VIII	New Jersey Emission Inventory
IX	New York Emission Inventory
X	Ohio Emission Inventory
XI	Pennsylvania Emission Inventory
XII	Rhode Island Emission Inventory
XIII	Vermont Emission Inventory
XIV	Virginia Emission Inventory
XV	Washington, D.C. Emission Inventory
XVI	West Virginia Emission Inventory
XVII	Development of Allocation Factors
XVIII	Inventory Review and Evaluation

SECTION 2

PROJECT HISTORY

AGENCY CONTACTS

The EPA Project Officer provided agency contacts in the Massachusetts Department of Environmental Quality Engineering (DEQE) and the Environmental Protection Agency's Region I Office (EPA/Region I). The Massachusetts DEQE contact was responsible for confirming data, supplying required corrections or additional data, interfacing with individual sources as necessary, and concurring on the comprehensiveness and accuracy of the final data base. The Massachusetts DEQE contact was Mr. Robert Boiselle, (617) 292-5609.

SUMMARY OF EVENTS

Summaries of major milestones pertaining to the Massachusetts portion of the NECRMP annual emission inventory are provided separately for the point and area source data, as follows.

Point Sources

Work on the Massachusetts point source inventory occurred between September 1981 and February 1983. Major milestones are identified below.

• Computer tape sent to Massachusetts DEQE for point source data	04/10/81
• NEDS data (1979) received (through EPA/Region I)	09/28/81
• QA audit completed, list of questions/problems sent to Project Officer, agency contacts	10/29/81
• Massachusetts revised NEDS data per GCA comments; GCA received updated NEDS file (through EPA/Region I)	02/25/82
• EIS/PS Master File sent to EPA	05/04/82
• GCA notified of problems with the point source data	11/16/82
• Meeting held at EPA/Region I to resolve point source problems	11/23/82

- GCA receives update transactions to correct the Massachusetts point source data from EPA/Region I — 01/18/83
- EIS/PS Master File updated and forwarded to EPA — 02/28/83

Area Sources

Work on the Massachusetts portion of the NECRMP annual emission inventory occurred between September 1981 and July 1982. Major milestones are identified below.

- GCA sent list of data requirements, categories to DEQE — 5/29/81
- GCA received 1979 area source inventory in hard copy — 9/15/81
- GCA sent list of additional data needs to DEQE — 10/29/81
- GCA received on-highway mobile source inventory (through EPA/OAQPS) — 2/12/82
- GCA received additional data on stationary sources (through EPA/Region I) — 3/10/82
- Completed EIS/AS master file forwarded to EPA — 8/06/82

SECTION 3

POINT SOURCE INVENTORY

DATA PROCUREMENT

A computer tape was forwarded to the Massachusetts Department of Environmental Quality Engineering (DEQE) on April 10, 1981. The point source inventory was received, through EPA/Region I, on September 28, 1981. The DEQE maintains the Massachusetts point source inventory in Emission Inventory System/Permits and Registration (EIS/P&R) format. The EIS/P&R data were translated into National Emission Data System (NEDS) format and forwarded to EPA/Region I in dual fulfillment of the NECRMP and NEDS reporting requirements. The tape contained 1979 data on 690 facilities. A revised tape, reflecting corrections to problems discussed later in this section, was supplied on February 25, 1982. The revised tape contained 1979 data on 4,363 individual emission points at 1,274 facilities. Additional corrections were provided on computer cards by EPA/Region I on January 18, 1983 based on data supplied by DEQE.

DATA REVIEW AND UPDATE

The Massachusetts NEDS file was converted into EIS/PS format using the GCA-modified version of the NEDS-to-EIS/PS Conversion Editor[1] described previously in Volume I.[3] The data were subjected to the quality assurance (QA) measures described in Volume I.[3]

A number of "generic" problems prohibited conversion of the NEDS data into EIS format and had to be addressed using the computer routines presented in Appendix C. These are discussed briefly as follows.

For a number of sources, emission control equipment codes were blank, but the corresponding estimated control efficiency fields were coded as zeros. To successfully pass the edit checks of the EIS installation used in NECRMP,[1] the control device and corresponding efficiency fields had to be either both blank or both numeric. Blank control device and efficiency fields were zero-filled using a computer routine, which is presented in Appendix C.

Throughout the entire Massachusetts NEDS file, the "points with common stack" fields were incorrectly coded to enable translation from NEDS to EIS/PS format. The most frequent example occurred for points that did not share the same stack with any other point. In these instances, the "points with common stack" fields should be left blank. However, these fields had been coded as if the point "shared" a stack with itself (e.g., for a point ID of 01, the points with common stack field was coded as: 0101; indicating that point 01

shares a stack with point 01). This miscode results in a conditional error message indicating that the first common stack point ID is not less than the second common stack point ID. While this error itself does not cause the transaction in question to be rejected, its reoccurrence (several thousand times) made the error listings unmanagably large thus making it more difficult to identify the more important problems. A computer routine, presented in Appendix C, deleted the points with common stack fields for all instances where the first and second point ID's were equal.

As a result of the translation of the EIS/P&R formatted data into NEDS format, all of the "action code" fields in the point source file appeared as "C" or change transactions, when the data in fact reflected add or "A" transactions. A computer routine, presented in Appendix C, was used to address this problem.

The next QA measure was to cross-check sources listed in the Directory of Volatile Organic Compound (VOC) Sources Covered by Reasonably Available Control Technology Requirements (RACT),[4] the "Organic Chemical Producers Data Base,"[5] and the Emissions Inventory for the SURE Region[6] against those sources included in the Massachusetts inventory, to identify possible omissions. Table 2 identifies sources listed in the above data bases but not in the Massachusetts NEDS file, and the DEQE's resolution[7] of these potential omissions.

A manual review was undertaken of all sources emitting more than 100 tons/year of VOC or NO_x or 500 tons/year of any other criteria pollutant. Additionally, all "error," "conditional," and "warning" messages resulting from the conversion of data from NEDS format to EIS/PS format were examined.

In addition to the generic deficiencies discussed earlier, the following problems were the most frequently encountered. Most of the point sources included in the NEDS file indicated an emissions estimation method of "Code 3" indicating that the emissions should be calculated by the NEDS (or EIS) system using the NEDS emission factor file. However, the following conditions prohibiting these calculations existed throughout the DEQE supplied NEDS file:

- the annual operating rate was blank;
- sulfur and/or ash contents were blank; and
- SCCs for which there are no published emission factors were designated (i.e., 9-99-999-99).

When the above conditions occur, the EIS/PS system substitutes zeros for the affected emissions fields.

A total of 1,010 points within the Massachusetts inventory were missing stack data, and 170 points reported illegal SCC codes. A significant number of sources were flagged out as having miscoded or out of range UTM coordinates, and a total of 69 sources were determined to have multiple duplicate SCCs at the same point.

TABLE 2. MASSACHUSETTS SOURCES LISTED IN THE RACT DIRECTORY,[4] THE ORGANIC CHEMICAL PRODUCERS DATA BASE,[5] AND THE SURE INVENTORY,[6] BUT NOT IN THE MASSACHUSETTS INVENTORY

Data base	Facility name	Location	Resolution
OCPDB, RACT	Beatrice Foods	Peabody	None
OCPDB, RACT	Beatrice Foods	Wilmington	None
OCPDB, RACT	Carl Gordon Industries	Oxford	I.D. Supplied*
OCPDB, RACT	Carl Gordon Industries	Worcester	I.D. Supplied*
OCPDB, RACT	Cooper Polymers, Inc.	Wilmington	None
OCPDB	Mobil Oil Corp.	Holyoke	Listed as Springfield Terminal
OCPDB, RACT	Derby Co., The	Ashland	None
OCPDB, RACT	IMEX Polymers	New Bedford	I.D. Supplied*
OCPDB, RACT	Perstorp, Inc.	Florence	None
OCPDB, RACT	Polystar Group	Leominster	I.D. Supplied*
OCPDB, RACT	Raffi and Swanson	Wilmington	None
OCPDB, RACT	Teknor Apex Co.	Hebronville	I.D. Supplied*
OCPDB, RACT	Trancoa Chem. Corp.	Reading	None
RACT	Brittany Dyeing and Printing	New Bedford	I.D. Supplied*
RACT	Capri Textile Processing	Fall River	I.D. Supplied*
RACT	Dartmouth Finishing Co.	New Bedford	I.D. Supplied*
RACT	River Textile Printers	Fall River	I.D. Supplied*
RACT	Swan Finishing Co.	Fall River	I.D. Supplied*
RACT	Malden Mills	Lawrence	Emissions Data Supplied in Revised Tape
RACT	Mastex Industries	Holyoke	None
RACT	Brockton Contract Pkg. Corp.	Brockton	None
RACT	Chartpak, Inc.	Leeds	Data Supplied in Revised Tape
RACT	Scott Paper	South Hadley	Listed as James River Graphics

(continued)

TABLE 2 (continued)

Data base	Facility name	Location	Resolution
RACT	St. Regis Paper	Newton	None
RACT	Graphic Arts Finishers	Boston	None
RACT	Rotney Metals	New Bedford	None
RACT	National Metals Industries	Springfield	Listed as N.M. Industries
RACT	Dutton Andrew Co.	Boston	None
RACT	Eastern Stainless Rack	Boston	None
RACT	Glenwood Range Co.	Taunton	None
RACT	Vaughn Corp.	Salisbury	None
RACT	Boston Stove Co.	Reading	None
RACT	Everhot All Cooper	Boston	None
RACT	Coronet Print	Fall River	None
RACT	Providence Pile Fabrics	Fall River	None
RACT	Textiles, Inc.	Fall River	None
RACT	Gilbertville Mills	Gilbertville	I.D. Provided*
RACT	Photolon Corp.	Worcester	None
RACT	Teledyne-Rodney	New Bedford	Data Provided in Revised Tape
RACT	Dover Stamping	Fall River	None
RACT	Sexton Can	Everett	None
RACT	Fall River Gas	Fall River	None
RACT	Massachusetts LNG	Lynn	None
RACT	Springfield Gas	Ludlow	Listed as Bay State Gas
RACT	Hopkinton LNG	Hopkinton	None
RACT	Boston Gas	Boston	None
RACT	General Latex and Chemical	Cambridge	None
RACT	Quinn, K. J. & Co.	Malden	None
RACT	Davidson Rubber Co.	Dover	None

(continued)

TABLE 2 (continued)

Data base	Facility name	Location	Resolution
RACT	Exxon Co.	Waltham	Data Provided in Revised Tape
RACT	American Oil	Chelsea	Data Provided in Revised Tape
RACT	White Fuel	Boston	None
RACT	Antons Cleaners	(10 locations)	I.D. Provided for One Facility*
RACT	Master Cleaners	Saxonville	None
RACT	Avon Cleaners	Avon	None

*Although the DEQE identified these facilities, data covering them were not provided in either the original submission nor in the revised tape.

A comprehensive list of questions and/or problems was forwarded to the DEQE contact on October 29, 1981. Rather than provide individual responses to GCA's list of specific questions, DEQE updated their EIS/P&R file using the GCA error list as a guide, and forwarded a revised NEDS file. GCA received the revised NEDS tape, through EPA/Region I, on February 25, 1982.

The revised NEDS file reflected corrections to many of the problems identified by GCA. However, most of the translation problems identified previously persisted. These were addressed using the computer routines provided in Appendix C. Most of the UTM errors identified earlier had been corrected on the revised tape although a number of error messages still occurred. Most of these sources were determined to be located close to the state boundary and, according to the DEQE,[7] were incorrectly flagged out by the EIS system.

Points that did not have stack data were changed to ambient temperature (77°F) plumes with ground level release heights, using a computer routine which can be found in Appendix C. While this did not necessarily result in correct stack data for these points, it did allow conversion from NEDS to EIS format to occur.

One set of problems inhibiting conversion into EIS/PS Master File format related to duplicate SCCs at the same point. According to the DEQE,[8] Massachusetts uses duplicate SCCs when a source uses fuel with differing sulfur or ash contents at different times during the year, rather than using the weighted average approach specified in the AEROS manual.[9] Since the EIS/PS Master File Maintenance Program[1] rejects duplicate SCC's, GCA calculated the appropriate weighted average sulfur and ash percents, summed process rates and combined the duplicate NEDS Card 6 records.

The updated NEDS file was then converted into EIS/PS format using the NEDS-to-EIS conversion editor, and an EIS/PS Master File was created. The Massachusetts point source inventory was written onto computer tape for delivery to EPA. Included on the tape, which was forwarded on May 4, 1982, were the following files:

- Original NEDS (1979) submission
- EIS/PS Master File (1979)
- "New" NEDS (1979) converted from EIS/PS

Upon review of the initial NECRMP report for Massachusetts, the DEQE noted discrepancies in VOC emissions for a number of facilities. The problem was traced back to conversion of the Massachusetts data from EIS/P&R format to NEDS format. Apparently, for a number of major facilities, DEQE had stored reactive VOC data in a separate, sixth pollutant field in their EIS/P&R file. These data were subsequently "lost" in the conversion to NEDS format. A meeting was held on November 23, 1982 at EPA/Region I offices to determine the most efficient approach to restore the missing VOC data.

As agreed, the DEQE supplied listings of VOC emissions data, which included the reactive VOC data stored in the above mentioned separate pollutant field, to EPA/Region I. Update transactions to enable the appropriate corrections were coded and keypunched by EPA/Region I and forwarded to GCA, who updated the EIS/PS master file, accordingly. GCA also took this opportunity to correct the SCC codes of several lime manufacturing point sources which had previously been miscoded as a result of a typographical error in the 11/78 version of the NEDS SCC listing on page C-59 of AP-42. Changes made to the Massachusetts point source inventory in this regard are summarized in Table 3.

RESULTS

For reporting purposes, point source emissions for Massachusetts were aggregated into 70 categories based on specific SCC-SIC combinations. A complete description of the codes used to aggregate emissions is presented in Volume I.[3] For points with multiple SCCs, no attempt was made to split emissions into more than one category. In these instances, the primary SCC was used to account for all emissions at that point. Statewide point source emissions for 1979 are presented, by category, in Table 4. Air Pollution Control District (APCD) emissions are presented, by category, in Appendix A.

A list of "major" facilities was developed by totaling emissions at each facility, using a criteria of 100 tons/year of VOC or NO_x to define a major source. These facilities, and their reported 1979 emissions for all five criteria pollutants, are presented in Table 5. Further evaluation of the Massachusetts emission inventory can be found in Volume XVIII.

TABLE 3. UPDATES MADE TO MASSACHUSETTS POINT SOURCES

Facility	EIS I.D.	Update Action Taken
Berkshire APCD (0187)		
Arnold Print Works	0002	Changed VOC at 1 point
Lee Lime	0012	Changed SCC codes at 4 points
Mead Corp.	0013	Changed VOC at 1 point
Sprague Electric	0024	Changed VOC at 1 point
General Electric	0028	Changed VOC at 4 points
Pfizer	0042	Changed SCC codes at 8 points
W. R. Grace	0078	Changed VOC at 8 points
Central Massachusetts APCD (0369)		
L. S. Starrett Co.	0004	Changed VOC at 1 point
Borden Chemical	0050	Changed VOC at 1 point
American Hoechst Corp.	0051	Changed VOC at 1 point
Ideal Tape	0053	Changed VOC at 1 point
Flexcon Co.	0078	Changed VOC at 1 point
Cranston Print Works	0092	Changed VOC at 1 point
Dekotone	0097	Changed VOC at 1 point
Robinson Thread	0120	Changed VOC at 4 points
American Optical	0142	Changed VOC at 1 point
Bay State Abrasives	0143	Changed VOC at 1 point
James River	0394	Changed VOC at 1 point
Nichols & Stone	0415	Changed VOC at 1 point
Polyclad Laminates	0455	Changed VOC at 1 point
Industrial Polymers	0470	Changed VOC at 1 point
Temple Stuart	0481	Changed VOC at 1 point
Custom CTG & Laminating	0510	Changed VOC at 1 point
Asbestos Textile Corp.	0543	Changed VOC at 1 point
James River	0835	Changed VOC at 1 point
Vertipile	0911	Changed VOC at 1 point
Flexcon Co.	0998	Changed VOC at 1 point

(continued)

TABLE 3 (continued)

Facility	EIS I.D.	Update Action Taken
Merrimack Valley APCD (1274)		
Andrew Wilson	0028	Changed VOC at 12 points
Ideal Tape	0036	Changed VOC at 6 points
Majilite	0050	Changed VOC at 9 points
Western Electric	0053	Changed VOC at 1 point
Urray Printing	0059	Changed VOC at 13 points
Foilmark	0066	Changed VOC at 3 points
Hollingsworth & Vose	0086	Changed VOC at 1 point
Compo Industries	0087	Changed VOC at 6 points
Crown Cork & Seal	0088	Changed VOC at 7 points
Compo Industries	0089	Changed VOC at 2 points
Vernon Plastics	0093	Changed VOC at 10 points
G.S.F.	0107	Changed VOC at 1 point
Malden Mills	0212	Changed VOC at 1 point
Metropolitan Boston APCD (1291)		
Gillette	0033	Changed VOC at 7 points
Weymouth Art & Leather	0082	Changed VOC at 1 point
IRW Carr Division	0096	Changed VOC at 8 points
Plymouth Rubber Co.	0114	Changed VOC at 1 point
Samuel Cabot	0121	Changed VOC at 1 point
Dennison	0134	Changed VOC at 7 points
North American Phillip	0139	Changed VOC at 9 points
Polaroid	0213	Changed VOC at 1 point
Odell Co.	0222	Changed VOC at 3 points
Hartz Mason	0223	Changed VOC at 1 point
Texaco	0279	Changed VOC at 8 points
Belcher New England	0280	Changed VOC at 2 points
Amoco Oil	0281	Changed VOC at 6 points
Sterling Clak Lurton	0307	Changed VOC at 2 points

(continued)

TABLE 3 (continued)

Facility	EIS I.D.	Update Action Taken
Metropolitan Boston APCD (1291) (CONT.)		
W. R. Grace (Organic)	0313	Changed VOC at 1 point
W. R. Grace (Polyfibron)	0314	Changed VOC at 1 point
Chase & Sons	0319	Changed VOC at 5 points
Stedfast Rubber	0323	Changed VOC at 8 points
Sweetheart Plastics	0326	Changed VOC at 7 points
Hub Leather	0329	Changed VOC at 1 point
Beverly Leather	0355	Changed VOC at 3 points
Southside Dye House	0382	Changed VOC at 6 points
GM Assembly Division	0427	Changed VOC at 11 points
BASF Systems	0447	Changed VOC at 1 point
Damon Corp.	0449	Changed VOC at 4 points
Mobil Oil	0481	Changed VOC at 1 point
Gulf Oil	0483	Changed VOC at 6 points
Exxon Corp.	0484	Changed VOC at 12 points
Cities Service	0485	Changed VOC at 22 points
Gibbs Oil	0490	Changed VOC at 3 points
Coatings Engineering	0514	Changed VOC at 7 points
Millipore	0600	Changed VOC at 2 points
Boston Herald American	1198	Changed VOC at 1 point
Data General	1614	Changed VOC at 1 point
Linvure Co.	1918	Changed VOC at 5 points
Van Leer Plastics	3766	Changed VOC at 2 points
Norton Company	3816	Changed VOC at 8 points
National Coating Corp.	3821	Changed VOC at 1 point
Lepages	5900	Changed VOC at 2 points
Shawmut Mills	7701	Changed VOC at 5 points
Northeast Petroleum	7708	Changed VOC at 6 points

(continued)

TABLE 3 (continued)

Facility	EIS I.D.	Update Action Taken
Pioneer Valley APCD (1798)		
Spalding	0014	Changed VOC at 3 points
Texon	0074	Changed VOC at 1 point
Columbia Mfg.	0107	Changed VOC at 1 point
Forbes-Wright	0125	Changed VOC at 1 point
Hazen Paper	0128	Changed VOC at 4 points
Holyoke Cards & Paper	0145	Changed VOC at 1 point
Eastern Etching	0149	Changed VOC at 1 point
Sullivan Paper	0157	Changed VOC at 9 points
National Gypsum	0160	Changed VOC at 5 points
Digital Equipment Corp.	0174	Changed VOC at 1 point
Premoid	0175	Changed VOC at 1 point
Hampden Papers	0181	Changed VOC at 1 point
Ludlow Corp.	0189	Changed VOC at 3 points
Xidex	0192	Changed VOC at 5 points
James River Graphics	0193	Changed VOC at 1 point
Ludlow Corp.	0194	Changed VOC at 1 point
Monsanto Co.	0205	Changed VOC at 14 points
Interstate Uniform	0464	Changed VOC at 1 point
Servus Rubber	0620	Changed VOC at 1 point
Westavco Envelope	0775	Changed VOC at 1 point
Southeastern Massachusetts APCD (2121)		
Texas Instruments	0002	Changed VOC at 1 point
Acushnet Co.	0038	Changed VOC at 1 point
Goodyear Tire & Rubber	0040	Changed VOC at 5 points
Attleboro Dye & Finish	0057	Changed VOC at 1 point
Globe Mfg.	0106	Changed VOC at 1 point
The Foxboro Company	0125	Changed VOC at 1 point

(continued)

TABLE 3 (continued)

Facility	EIS I.D.	Update Action Taken
Southeastern Massachusetts APCD (2121) (CONT.)		
Archer Rubber	0134	Changed VOC at 1 point
Coaters Inc.	0140	Changed VOC at 1 point
Teledyne Rodney	0155	Changed VOC at 1 point
Engelhardinds Chemical	0160	Changed VOC at 1 point
Cape Dory Yachts	0168	Changed VOC at 1 point
Shell Oil	0176	Changed VOC at 4 points
Attleboro Mfg. Co.	0185	Changed VOC at 5 points
Aluminum Processing	0219	Changed VOC at 2 points
Bangor Punta Marine	0237	Changed VOC at 1 point
Harbor Fuel Oil Corp.	0871	Changed VOC at 6 points
J. Campbell Oil Co.	0903	Changed VOC at 3 points

TABLE 4. MASSACHUSETTS POINT SOURCE EMISSIONS (1979) BY CATEGORY--STATEWIDE

STATE OR REGION TOTALS

	CATEGORY	POINT COUNT	PRIMARY SCC EMISSIONS (TONS/YEAR) TSP	SO2	NOX	HC	CO
1	OIL AND GAS PRODUCTION & PROCESSING	0	0	0	0	0	0
2	SYN. ORGANIC CHEM. STORAGE & TRANSFER	0	0	0	0	0	0
3	GASOLINE AND CRUDE OIL STORAGE	61	0	0	0	379	0
4	SHIP AND BARGE TRANSFER OF VOC	0	0	0	0	0	0
5	BARGE AND TANKER CLEANING	0	0	0	0	0	0
6	BULK GASOLINE TERMINALS	62	0	0	0	7687	0
7	GASOLINE BULK PLANTS	2	0	0	0	0	0
8	TANK TRUCK LOADING	5	0	0	0	2014	0
9	SERVICE STATION LOADING (STAGE I)	4	0	0	0	0	0
10	SERVICE STATION UNLOADING (STAGE II)	0	0	0	0	0	0
11	OTHERS-(STORAGE, TRANSP., MKT OF VOC)	4	0	0	0	17	0
12	LUBE OIL MANUFACTURE	0	0	0	0	0	0
13	PETROLEUM REFINERIES	3	3	0	4	0	0
14	PHARMACEUTICAL MANUFACTURE	2	0	0	0	0	0
15	TEXTILE POLYMERS & RESIN MANUFACTURE	90	341	0	0	2176	0
16	SYNTHETIC FIBER MANUFACTURE	1	0	0	0	0	0
17	ORGANIC CHEMICAL MANUFACTURE	4	13	0	0	3	11
18	INORGANIC CHEMICAL MANUFACTURE	2	88	546	0	0	0
19	FERMENTATION PROCESSES	1	0	0	0	0	0
20	VEGETABLE OIL PROCESSING	0	0	0	0	0	0
21	PLASTIC PRODUCTS MANUFACTURE	11	0	0	0	47	0
22	RUBBER TIRE MANUFACTURE	0	0	0	0	0	0
23	SBF RUBBER MANUFACTURE	3	255	0	0	15	0
24	OTHER CHEMICAL MANUFACTURE	97	72	0	1	2785	0
25	IRON AND STEEL MANUFACTURE	26	201	0	4	0	2574
26	TOBACCO PRODUCTS	0	0	0	0	0	0
27	FOOD PRODUCTS	34	24	0	0	0	0
28	TEXTILE MILL PRODUCTS	63	37	0	0	4024	0
29	LUMBER AND WOOD PRODUCTS	24	146	0	0	0	0
30	PAPER AND ALLIED PRODUCTS	4	0	0	0	0	0
31	STONE,CLAY,GLASS,CONCRETE	127	938	337	590	153	53
32	PRIMARY & SECONDARY METALS & ELECTRICAL	94	383	8	4	0	555
33	FABRICATED METAL PRODUCTS	84	19	0	0	353	0
34	IN-PROCESS FUEL USE	130	114	110	264	711	26
35	OTHERS - (INDUSTRIAL PROCESSES)	48	426	0	1	7028	0
36	ADHESIVES	41	0	0	0	2539	0
37	IND. SFC. COATING-LARGE APPLIANCES	0	0	0	0	0	0
38	IND. SFC. COATING-MAGNET WIRE	0	0	0	0	0	0
39	IND. SFC. COATING-AUTOMOBILE	13	0	0	0	1100	0
40	IND. SFC. COATING-CANS	16	0	0	0	624	0
41	IND. SFC. COATING-METAL COILS	1	0	0	0	0	0
42	IND. SFC. COATING-PAPER	23	0	0	0	3576	0
43	IND. SFC. COATING-FABRIC	26	945	0	0	6037	0
44	IND. SFC. COATING-MISC. FURNITURE	0	0	0	0	0	0
45	IND. SFC. COATING-METAL/WOOD PRODUCTS	25	0	0	0	465	0
46	PLASTIC PARTS PAINTING	0	0	0	0	0	0
47	LARGE SHIPS	1	0	0	0	50	0
48	LARGE AIRCRAFT	0	0	0	0	0	0
49	IND. SFC. COATING-MISC.METAL PRODUCTS	205	1	0	0	13552	0
50	OTHERS - (INDUSTRIAL SURFACE COATING)	115	66	0	0	1937	0

TABLE 4 (continued)

STATE OR REGION TOTALS

CATEGORY	POINT COUNT	PRIMARY SCC EMISSIONS (TONS/YEAR) TSP	SO2	NOX	HC	CO
51 DEGREASING	112	0	0	0	8839	0
52 DRY CLEANING	35	0	0	0	312	0
53 GRAPHIC ARTS	67	0	0	0	8651	0
54 OTHER - (SOLVENT USE)	0	0	0	0	0	0
55 ARCHITECTURAL COATINGS	0	0	0	0	0	0
56 AUTO REFINISHING	0	0	0	0	0	0
57 OTHERS-(NON-INDUSTRIAL SURFACE COATING)	6	0	0	0	37	0
58 EXT. COMB. BOILERS-ELEC. GENERATION	122	3817	277697	105746	994	4980
59 EXT. COMB. BOILERS-INDUSTRIAL	1214	2260	33225	18602	29953	1059
60 EXT. COMB. BOILERS-COMM/INST	1051	1306	5966	2655	264	173
61 EXT. COMB. SPACE HEATERS-INDUST.	51	2	7	14	335	2
62 EXT. COMB. SPACE HEATERS-COMM.	6	0	0	1	0	0
63 OTHERS-(FUEL COMBUSTION)	1	0	0	0	0	0
64 SOLID WASTE DISPOSAL-GOVT.	17	247	207	268	779	1877
65 SOLID WASTE DISPOSAL-COMM/INST	35	62	551	664	664	2237
66 SOLID WASTE DISPOSAL-INDUSTRIAL	17	70	23	26	26	99
67 OTHER SOLID WASTE DISPOSAL	1	0	0	0	0	0
68 WASTE SOLVENT RECOVERY PROCESSES	36	0	0	0	3095	0
69 STATIONARY INTERNAL COMBUSTION ENGINES	46	1582	1584	22231	1776	4841
70 NOT CLASSIFIED	69	38	0	0	429	0
STATE OR REGION TOTALS		13368	320261	151196	113328	18543

TABLE 5. MASSACHUSETTS SOURCES (1979) EMITTING MORE THAN 100 TONS/YEAR OF VOC AND/OR NO_x

STATE	COUNTY	AQCR	PLANT	FACILITY		TSP (****)	SO2 (****)	NOX (100)	HC (100)	CO (****)
22	187	117	0002	ARNOLD PRINT WORKS INC	COLUMBIA STREET,A	12	221	90	390	4
22	187	117	0013	MEAD CORP -MORART	ROUTE 102 S. LEE	0	0	0	381	0
22	187	117	0016	KIMBERLY-CLARK CORP.	COLUMBIA MILL,LEE	25	712	186	2	12
22	187	117	0024	SPRAGUE ELECTRIC CO.	87 MARSHALL ST.,	15	237	42	215	3
22	187	117	0028	GENERAL ELECTRIC LARGE	TRANSFORMER BUSI	50	1379	367	143	25
22	187	117	0039	CRANE&CO. PIONEER	MILL,PIONEER ST.,	24	719	122	4	9
22	187	117	0042	PFIZER INC.	260 COLUMBIA ST.,	89	185	248	3	22
22	187	117	0078	W.R.GRACE&CO.	HARMONY STREET,AD	2	52	11	974	1
22	369	118	0004	L.S. STARRETT CO.	121 CRESCENT ST.,	3	40	14	108	1
22	369	118	0027	FITCHBURG PAPER CO.	601 RIVER ST. ,	34	725	174	13	15
22	369	118	0039	WYMAN-GORDON COMPANY	244 WORCESTER ST	123	128	151	4	11
22	369	118	0050	BORDEN CHEMICAL CO.	511 LANCASTER ST.	42	555	210	125	18
22	369	118	0053	IDEAL TAPE		0	0	0	176	0
22	369	118	0057	GRANGER INDUSTRIES	MC CRACKEN RD., M	19	8	201	2	14
22	369	118	0078	FLEXCON CO., INC.	WALL ST., SPENCER	0	0	1	583	0
22	369	118	0092	CRANSTON PRINT WORKS	WORCESTER RD., WE	29	849	146	1015	12
22	369	118	0097	DEKOTONE		0	0	0	573	0
22	369	118	0115	NORTON CO.	1 NEW BOND ST., W	399	247	513	4	14
22	369	118	0120	ROBINSON THREAD CO.	19 MC KEON RD, WO	1	7	3	165	0
22	369	118	0131	CENTRAL STEAM PLT. U.	701 WESTMINSTER S	78	1830	449	15	34
22	369	118	0141	BALDWINVILLE PRODUCTS	MILL ST. , BALD.	22	649	111	2	9
22	369	118	0142	AMERICAN OPTICAL CORP.	14 MECHANIC ST.,	0	0	0	144	0
22	369	118	0394	JAMES RIVER-FITCHBURG	OLD PRINCETON RD.	1	15	6	706	0
22	369	118	0415	NICHOLS & STONE CO.	232 SHERMAN ST.,	90	3	29	165	4
22	369	118	0455	POLYCLAD LAMINATES	86 PROVIDENCE RD.	0	1	1	455	0
22	369	118	0470	INDUSTRIAL POLYMERS	508 BOSTON TURNPI	7	6	2	271	0
22	369	118	0481	TEMPLE STUART CO.	HOLMAN ST. TEMPLE	0	0	0	154	0
22	369	118	0510	CUSTOM CTG + LAMINATIN	717 PLANTATION ST	0	0	1	484	0
22	369	118	0543	ASBESTOS TEXTILE CORP.	14 SO. COMMON ST.	0	1	1	242	0
22	369	118	0835	JAMES RIVER-MA PLT 10	701 WESTMINSTER S	0	0	5	3711	0
22	369	118	0911	VERTIPILE,INC.	SCOTT DRIVE, LEOM	3	0	6	203	0
22	369	118	0998	FLEXCON CO., INC.	SOUTH SPENCER RD.	0	0	5	786	0
22	1274	121	0017	HAVERHILL PAPERBOARD	100 S. KIMBALL ST	17	276	313	1	12
22	1274	121	0024	GRTR. LAWRENCE IND.	LAWRENCE	63	540	1737	5	54
22	1274	121	0028	ANDREW WILSON	15 MELROSE ST LAW	0	0	0	288	0
22	1274	121	0036	IDEAL TAPE CO.	1400 MIDDLESEX ST	0	0	0	1980	0
22	1274	121	0050	MAJILITE CORP	100 WHIPPLE	0	0	0	738	0
22	1274	121	0053	WESTERN ELECTRIC CO	1600 OSGOOD ST N.	20	284	108	690	8
22	1274	121	0056	BORDEN CHEMICAL	1 CLARK STREET N.	11	5	4	418	0
22	1274	121	0059	URRRAY PRINTING CO.	PLEASANT ST. WEST	2	48	10	648	1
22	1274	121	0066	FOILMARK INC.	36 HIGH ST.ANESBU	0	0	0	149	0
22	1274	121	0086	HOLLINGSWORTH & VOSE	TOWNSEND RD, WEST	0	0	0	131	1
22	1274	121	0087	COMPO INDUSTRIES	75 ROGERS STLOWEL	0	0	0	3958	0
22	1274	121	0088	CROWN CORK SEAL	155 SHEPARD ST LA	0	0	4	700	0
22	1274	121	0089	COMPO INDUSTRIES	200 MARKET ST LOW	945	0	0	1789	0
22	1274	121	0093	VERNON PLASTICS CO	SHELLY RD WARD HI	201	34	6	789	2
22	1274	121	0106	LAWRENCE PRINT WORKS	360 MERRIMACK ST.	6	32	356	0	1
22	1274	121	0107	GEN SERV FACILITY		0	0	0	280	0
22	1274	121	0154	LAWRENCE PAPERBOARD	250 CANAL ST LAWR	30	401	151	3	13
22	1274	121	0212	MALDEN MILLS		0	0	0	223	0
22	1274	121	0226	TOWLE MANUFACTURRING	260 MERRIMAC ST.	20	10	248	23	40
22	1291	119	0010	BOSTON EDISON L STREET	776 SUMMER ST BOS	186	2261	1492	15	72

TABLE 5 (continued)

STATE	COUNTY	AQCR	PLANT	FACILITY		TSP (****)	SO2 (****)	NOX (100)	HC (100)	CO (****)
22	1291	119	0012	BOSTON EDISON NEW BOST	776 SUMMMER ST	1600	19568	12922	123	615
22	1291	119	0033	THE GILLETTE COMPANY	GILLETTE PARK BO	0	0	0	151	0
22	1291	119	0058	REVERE SUGAR CORP.	333 MEDFORD ST CH	64	418	316	5	26
22	1291	119	0075	DIAMOND INTERN CO	892 RIVER ST BOST	42	282	214	5	17
22	1291	119	0082	WEYMOUTH ART & LEATHER	180 PEARL ST	0	0	0	281	0
22	1291	119	0092	CAMBRIDGE ELECTRIC	CAMBRIDGE	35	216	396	4	16
22	1291	119	0093	CAMB. ELECTRIC KENDALL	CAMBRIDGE	190	525	1684	6	58
22	1291	119	0096	TRW CARK DIVISION	31 AMES ST CAMBRI	2	6	4	254	1
22	1291	119	0114	PLYMOUTH RUBBER CO. IN	CANTON	6	96	48	1927	3
22	1291	119	0121	SAMUEL CABOT	CHELSEA	0	0	0	348	0
22	1291	119	0128	BOSTON EDISON MYSTIC	175 ALFORRD ST. B	2157	24012	36812	1894	5476
22	1291	119	0134	DENNISON	300 HOWARD STREET	8	273	63	9337	4
22	1291	119	0138	GENERAL ELECTRIC	LYNN	46	1172	609	4	27
22	1291	119	0139	NORTH AMERICAN PHILLIP	YNNWAY LYNN	0	0	0	585	0
22	1291	119	0151	CONTAINER CORP OF AMER	200 BOSOIN AVE. M	1	5	4	6300	0
22	1291	119	0175	EASTMAN GELATIN CORP.	227 WASHINGTON PL	34	393	204	0	17
22	1291	119	0179	S AND S LEATHER CO INC	PEABODY	0	0	0	117	0
22	1291	119	0194	NEW ENGLAND POWER	24 FORT AVE SALEM	251	42131	13235	126	631
22	1291	119	0206	BIRD & SON, INC.	WASHINGTON ST E.	87	1447	261	7	37
22	1291	119	0213	POLAROID CORP, 868 WINTER ST, WALTHAM		0	0	0	4222	0
22	1291	119	0222	THE GDELL COMPANY	60 ACTON ST WATER	1	6	5	138	0
22	1291	119	0223	HARTZ MASON INC.	WATERTOWN	7	41	31	362	0
22	1291	119	0234	ATLANTIC GELATIN DIV.	WOBURN	16	692	195	4	17
22	1291	119	0247	COMBUSTION EQUIP. ASSO	THATCHER ST. E. B	8	122	97	723	964
22	1291	119	0279	TEXICO INC	99 MARGINAL ST	0	0	0	131	0
22	1291	119	0280	BELCHER NEW ENGLAND	222 LEE BURBANK H	5	49	19	752	1
22	1291	119	0281	AMOCO OIL COMPANY	CHELSEA	3	36	9	144	3
22	1291	119	0307	STERLING CLAK LURTON	184 COMMERCIAL ST	0	0	0	134	0
22	1291	119	0313	W.R. GRACE (ORGANIC)	INDEPENDENCE RD.	3	34	21	120	1
22	1291	119	0319	CHASE & SONS INC.	19 HIGHLAND AVE	1	11	4	266	0
22	1291	119	0323	STEDFAST RUBBER CO.	50 OLIVER ST NORT	11	143	54	524	5
22	1291	119	0326	SWEETHEART PLASTICS	1 BURLINGTON AVE.	0	0	1	159	0
22	1291	119	0329	HUB LEATHER CO.	7 CHARLTON ST	0	0	0	295	0
22	1291	119	0355	BEVERLY LEATHER FINISH	SALEM	0	0	0	235	0
22	1291	119	0382	SOUTHSIDE DYE HOUSE	173 NORFOLK AVE R	1	2	8	132	0
22	1291	119	0427	GM ASSEMBLY DIVISION	WESTERN AVE FRAMI	26	481	84	3455	0
22	1291	119	0447	BASF SYSTEMS	BEDFORD	0	18	6	112	0
22	1291	119	0449	DAMON CORPORRATION	115 FOURTH AVE NE	0	0	0	107	0
22	1291	119	0481	MOBIL OIL	CHELSEA ST.BOSTON	0	0	0	138	0
22	1291	119	0483	GULF OIL CO. USA	CHELSEA	0	2	1	750	0
22	1291	119	0484	EXXON CORPORATION	151 BOW STREET E	30	180	139	2070	13
22	1291	119	0485	CITIES SERVICE COMPANY	385 QUINCY AV E B	0	0	0	175	0
22	1291	119	0487	ATLANTIC RICHFIELD CO	REVERE	0	0	0	378	0
22	1291	119	0490	GIBBS OIL COMPANY	REVERE	0	0	0	1003	0
22	1291	119	0491	BRAINTREE ELECTRIC	REAR QUINCY AVE	10	83	134	10	28
22	1291	119	0507	BOSTON EDISON	165 KNEELAND ST.	76	235	5246	10	137
22	1291	119	0514	COATINGS ENGINEERING	SUDBURY	0	0	0	2139	0
22	1291	119	0573	POLAROID CORPORATION	MAIN ST. WALTHAM	28	178	154	3	11
22	1291	119	0600	MILLIPORE CORP	80 ASHLY RD BEDFO	0	0	0	488	0
22	1291	119	1198	BOSTON HERALD AM 300 HA	RRISON AVE BOSTON	0	0	0	215	0
22	1291	119	1614	DATA GENERAL	ROUTE 9 SOUTHBORO	0	0	0	102	0
22	1291	119	1918	THE LINVURE CO INC	61 CLYDE ST SOMME	1	2	2	310	0

TABLE 5 (continued)

STATE	COUNTY	AQCR	PLANT	FACILITY		TSP (****)	SO2 (****)	NOX (100)	HC (100)	CO (****)
22	1291	119	3816	NORTON COMPANY	WALPOLE	1	9	3	209	3
22	1291	119	3821	NATIONAL COATING CORP	ROCKLAND	0	0	0	315	0
22	1291	119	5342	KYANIZE PAINTS	EVERETT	0	0	0	173	0
22	1291	119	5704	GENERAL ELECTRIC CO.	EASTERN AVE. CHEL	0	1	1	132	1
22	1291	119	5900	LEPAGES INC	147ESSEX AVE GLOU	1	14	5	1795	0
22	1291	119	7654	REFUSE ENERGY SYSTEN	SAUGUS	46	552	660	658	2190
22	1291	119	7701	SHAWMUT MILLS	STOUGHTON	0	0	0	231	0
22	1798	42	0004	UNIV.OF MASSACHUSETTS	AMHERST CAMPUS,AM	910	882	465	21	47
22	1798	42	0014	SPALDING NORTH AMERICA	425 MEADOW ST.,CH	3	26	57	724	5
22	1798	42	0038	HOLYOKE GAS&ELEC DEPT	102 CABOT ST HOLY	12	146	177	2	7
22	1798	42	0039	HOLY WATER PWR.RIVRSD	WATER STREET,HOLY	37	453	299	3	15
22	1798	42	0040	HOLY WATER PWR.MT.TOM	RTE.5 HOLYOKE	265	3322	2194	21	134
22	1798	42	0049	DEERFIELD SPECIALTY	PAPERS,MAIN ST.,	27	793	136	3	12
22	1798	42	0086	MONSANTO CO-SPFLD.PLT.	730 WORCESTER ST	83	1262	654	4	28
22	1798	42	0107	COLUMBIA MANUFACTURING	CO., 1 CYCLE ST,W	6	60	24	129	3
22	1798	42	0117	WESTERN MASS.ELEC CO.	15 AGAWAM AVE.,ES	227	8945	3865	28	156
22	1798	42	0121	ERVING PAPER MILLS	EAST MAIN STREET,	19	285	101	2	9
22	1798	42	0124	STRATHMORE PAPER CO.	#2 MILL,WORONOCO	30	374	173	14	41
22	1798	42	0125	FORBES-WRIGHT,INC.	PALMER ROAD,MONSO	5	52	23	118	2
22	1798	42	0128	HAZEN PAPER CO	THIRD LEVEL CANAL	0	0	0	461	1
22	1798	42	0145	HOLYOKE CARD&PAPER CO.	95 FISK AVE.,SPFL	1	8	3	198	0
22	1798	42	0149	EASTERN ETCHING&MFG.	GRAPE ST.,CHICOPE	0	1	1	172	0
22	1798	42	0157	SULLIVAN PAPER CO	61 PROGRESS AVE,W	0	1	1	441	0
22	1798	42	0160	NATIONAL GYPSUM CO	142 ELM ST HATFIE	0	1	0	473	0
22	1798	42	0174	DIGITAL EQUIP CORP	1111SOUTHAMPTON R	2	24	9	142	1
22	1798	42	0175	PREMOID CORP	FRONT ST WEST SPR	7	71	33	329	2
22	1798	42	0181	HAMPDEN PAPERS INC.	100 WATER ST.,HOL	0	0	0	360	0
22	1798	42	0189	LUDLOW CORP.SPEC.PAPER	DIV.CUMMINGS ST.	4	40	17	789	2
22	1798	42	0192	XIDEX CORP.	195 APPLETON ST.	0	0	0	2111	3
22	1798	42	0193	JAMES RIVER GRAPHICS	28 GAYLORD ST.SO.	30	426	75	4642	0
22	1798	42	0194	LUDLOW CORP-PKG DIV.	111 MOSHER ST.,HO	0	1	1	115	
22	1798	42	0202	MOBIL OIL CORP.SPFLD.	TERM.145 ALBANY	0	0	0	4814	0
22	1798	42	0205	MONSANTO CO-BIRCHM BND	1905ROCHMAL AVE,S	51	0	0	1051	0
22	1798	42	0464	INTERSTATE UNIFORM SER	295 PARKER ST.SP	1	12	5	156	0
22	1798	42	0620	SERVUS RUBBER CO.	1195 MONTGOMERY C	1	13	7	456	2
22	1798	42	0775	WESTVACO U.S.ENVELOPE	311 INDUSTRY AVE.	0	0	1	341	0
22	2121	120	0002	TEXAS INSTRUMENT INC.	34 FOREST ST. ATT	22	348	104	1352	9
22	2121	120	0036	ACUSHNET CO.PLANT-A	4 SLOCUM ST. ACUS	1	63	23	113	3
22	2121	120	0040	GOODYEAR TIRE-RUBBERCO	545 ORCHARD ST NE	3	39	14	539	1
22	2121	120	0041	N.B. GAS & EDISON LT	693 PURCHASE ST.	17	635	710	8	47
22	2121	120	0054	CANAL ELECTRIC CO.	FREEZER RD. SANDW	53	71979	21606	297	1028
22	2121	120	0057	ATTLEBORO DYE & FINISH	36 MAPLE AVE. SEE	6	75	27	121	3
22	2121	120	0060	MONTAUP ELECTRIC CO.	1606 RIVERSIDEAVE	109	10596	3187	31	152
22	2121	120	0061	NEW ENGLAND POWER CO.	BRAYTON PT. RD SO	133	89660	26985	256	1286
22	2121	120	0067	TAUNTON MUN LIGHT PLAN	1314 SOMERSET AVE	159	4140	1341	15	76
22	2121	120	0106	GLOBE MANUFACTURING CO	456 BEDFORD ST F	6	70	32	2376	2
22	2121	120	0125	THE FOXBORO COMPANY	38 NEPONSET AVE F	15	69	30	412	2
22	2121	120	0133	BOS.EDISON CO.STAT#46	WEST ST. W.MEDWAY	2	2	158	0	4
22	2121	120	0134	ARCHER RUBBER CO.	213 CENTRAL ST. M	2	32	12	648	0
22	2121	120	0140	COATERS INC.	305 NASH RD. NEW	1	17	7	523	1
22	2121	120	0146	MORSE CUTTING TOOLS	163 PLEASANT ST N	2	10	4	104	0
22	2121	120	0155	TELEDYNE RODNEY METLS	1357 RODNEYFRENCH	1	4	11	6657	0

TABLE 5 (continued)

STATE	COUNTY	AQCR	PLANT	FACILITY		TSP (****)	SO2 (****)	NOX (100)	HC (100)	CO (****)	
22	2121	120	0160	ENGELHARDINDS-CHEMCORP	ROUTE 152 PLAINVI	5	26	10	287	1	
22	2121	120	0168	CAPE DORY YACHTS INC	160 MIDDLEBORO AV	1	9	4	766	[illegible]	
22	2121	120	0176	SHELL OIL COMPANY	1 NEW ST. FALL RI	2	16	6	1463	2	
22	2121	120	0185	ATTLEBORO MFG CO.	ROBERT & OLIVE ST	2	25	10	2436	0	
22	2121	120	0219	ALUMINUMPROCESSINGCORP	631 AIRPORT RD FA	0	0	3	372	0	
22	2121	120	0229	JOAN FABRICS CORP.	1822 N. MAIN ST.	0	6	2	2251	0	
22	2121	120	0237	BANGOR PUNTA MARINE	848 AIRPORT RD FA	0	0	0	1156	0	
22	2121	120	0270	OWENS ILLINOIS	241 FRANCIS AVE.	0	38	142	0	6	
22	2121	120	0341	C.RAY RANDALL MFG.CO.	426 MT.HOPE ST. N	0	1	2	141	0	
22	2121	120	0903	J. CAMPBELL OIL CO. IN	BEACH RD. VINEYAR	0	0	0	269	0	
					TOTALS	9534	301147	143630	110169	13771	

SECTION 4

AREA SOURCE INVENTORY DEVELOPMENT

OBJECTIVES

The area source emission inventory task entailed reviewing area source inventories prepared by the states for technical accuracy and consistency with EPA-prescribed procedures and developing these area source inventories where state-developed inventories were unavailable. The major objective of this effort was to ensure that all emissions of VOC and NO_x were accounted for and that the procedures used to develop the inventories were consistent from state to state. It was also important that the inventories be disaggregated into sufficient categories to allow for application of temporal and pollutant allocation factors and the evaluation of control scenarios in subsequent modeling efforts.

DATA PROCUREMENT AND REVIEW

GCA sent a description of the area source inventory data requirements and a list of area source emission categories included in the NECRMP inventory to the Massachusetts DEQE on May 29, 1981. The Massachusetts 1979 area source data were received on September 15, 1981 in hard copy format.

While area source inventories for the other NECRMP states were compiled on a county level, the Massachusetts emission inventory deviates from this approach. The Massachusetts DEQE utilizes Air Pollution Control Districts (APCD) for virtually all aspects of air quality management, including emission inventories. The Massachusetts APCDs and their relationship to counties is shown in Figure 2. As shown in Figure 2, the Massachusetts APCDs do not adhere to county boundaries. To accommodate Massachusetts' deviation from the other NECRMP states, the following steps were taken: (1) the Massachusetts point and area source inventories were compiled on an APCD basis, and (2) spatial allocation factors[13] for Massachusetts were altered to enable spatial resolution to NECRMP grids from APCDs rather than counties. Since the Massachusetts spatial allocation factors have been based on APCDs, this deviation will not seriously impact the use of the Massachusetts data in subsequent modeling.

The area source inventory was reviewed for comprehensiveness and consistency with the Volume I[3] area source methodologies. The documentation supplied provided only the VOC and NO_x emissions in kg/day. Activity or

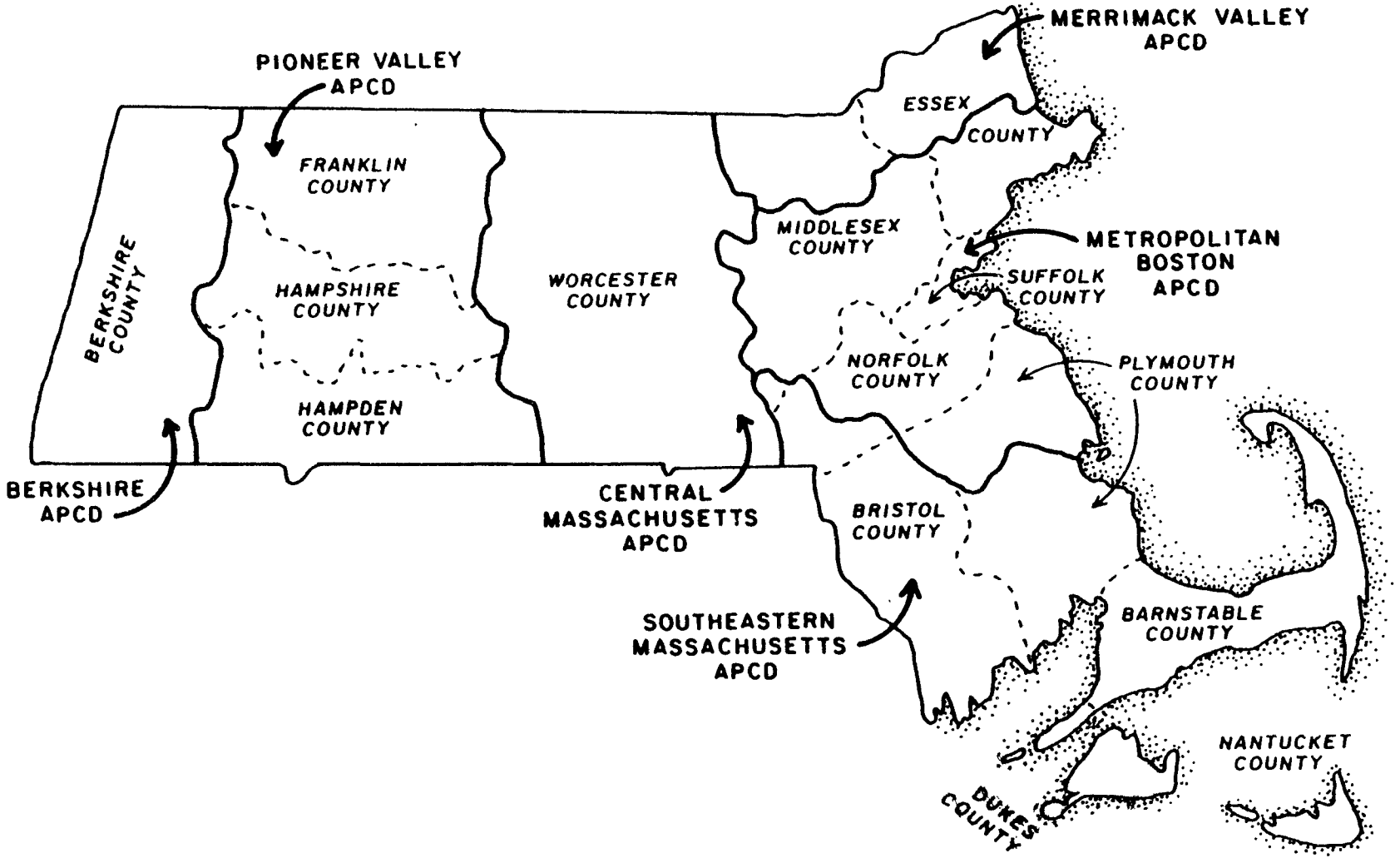

Figure 2. Massachusetts air pollution control districts and counties.

process rates, emission factors, and annual emissions in tons/year were not provided. Additionally, the following area source categories were not addressed:

- Small Industrial Surface Coating;
- Commercial/Institutional Coal Combustion; and
- Off-Highway Vehicles.

Four categories required further disaggregation to maintain conformity with the requirements for NECRMP.

- Residential coal (anthracite/bituminous)
- Residential oil (residual/distillate)
- Aircraft (military/civil/commercial)
- Vessels (gasoline/distillate/residual)

GCA was also unable to duplicate DEQE's emission levels for gasoline handling, architectural surface coating, and autobody refinishing. Additional information was requested. The DEQE estimate for small industrial/commercial degreasing included only cold cleaning. GCA asked DEQE to verify that all open-top vapor and conveyorized degreasing had been covered in the point source inventory's 8839 tons VOC/year (covering 112 emission points). The DEQE estimate for structural fires included VOC emissions only; GCA requested NO_x data as well.

The above data were requested from DEQE in a letter dated October 29, 1981. GCA subsequently received sufficient DEQE documentation, through EPA, to complete the Massachusetts inventory. On-highway mobile source data were sent by EPA/OAQPS on February 12, 1982;[10] and the remaining data[11] were sent by EPA/Region I[12] on March 10, 1982.

The DEQE report[11] presented, in general, the information requested by GCA. The report presented emissions on a kg/day basis and included activity data and the emission factors used for most categories. For these categories, GCA calculated annual emissions from the DEQE supplied activity rates and emission factors. For cutback asphalt, pesticides, and forest fires, GCA calculated annual emissions using the DEQE's seasonal data and the temporal adjustment factors presented in Volume XVII.[13] For vessel emissions, the DEQE did not disaggregate emissions by fuel type. Therefore, all vessel emissions were coded into one composite category (number 45) by GCA and annual emissions were calculated using the Volume XVII[13] adjustment factors. Similarly, aircraft emissions were not disaggregated by sector (Civil, Commercial, Military) and a single composite category (number 41) was used. Off-highway vehicle emissions were also not disaggregated by fuel type, and a single composite category (number 48) was used. For small industrial surface coating, GCA calculated annual emissions from DEQE's seasonal data and the temporal adjustment factors presented in Volume XVIII.[13] To enable coding into EIS/AS, GCA utilized a 2000 lb/ton VOC emission factor.

DEVELOPMENT OF THE EIS/AS MASTER FILE

After emissions were verified for all area source categories on an Air Pollution Control District basis, the completed inventory was coded and keypunched in EIS/AS format and subjected to the series of computerized QA checks included in the EIS/AS System.[2] The completed Master File was then manually verified before the finalized data were written onto computer tape for delivery to EPA.

Table 6 presents a list of the area source categories included in the Massachusetts portion of the NECRMP inventory. Also identified is the type of VOC represented by the emission factor (total or reactive).

RESULTS

Regionwide totals of VOC in the Massachusetts portion of the NECRMP study area are presented in Table 7. Air Pollution Control District (APCD) summaries are provided in Appendix B.

TABLE 6. AREA SOURCE CATEGORIES INVENTORIED FOR MASSACHUSETTS

EIS/AS Category No.	Category description	Pollutants inventoried
001	Stage I Gasoline Evaporation	TVOC
002	Stage II Gasoline Evaporation	TVOC
003	Storage Tank Breathing	TVOC
004	Gasoline Loading/Transit	TVOC
005	Small Industrial/Commercial Degreasing	RVOC
006	Dry Cleaning	RVOC
007	Architectural Surface Coating	RVOC
008	Autobody Refinishing	RVOC
009	Small Industrial Surface Coating	TVOC
010	Graphic Arts	RVOC
011	Commercial/Consumer Solvent Use	RVOC
012	Cutback Asphalt	RVOC
013	Pesticides	RVOC
014	On-Highway Light Duty Vehicles	RVOC NO_x
015	On-Highway Light Duty Trucks - Class I	RVOC NO_x
016	On-Highway Light Duty Trucks - Class II	RVOC NO_x
017	On-Highway Heavy Duty Gas Trucks	RVOC NO_x
018	On-Highway Heavy Duty Diesel Trucks	RVOC NO_x
019	On-Highway Motorcycles	RVOC NO_x
020	Residential Anthracite Coal	TVOC NO_x
021	Residential Bituminous Coal	TVOC NO_x
022	Residential Residual Oil	TVOC NO_x
023	Residential Distillate	TVOC NO_x
024	Residential Natural Gas	TVOC NO_x
025	Residential LPG	TVOC NO_x
026	Residential Wood	RVOC NO_x
027	Commercial/Institutional Anthracite	TVOC NO_x
028	Commercial/Institutional Bituminous	TVOC NO_x

(continued)

TABLE 6 (continued)

EIS/AS Category No.	Category description	Pollutants inventoried
029	Commercial/Institutional Residual Oil	TVOC NO_x
030	Commercial/Institutional Distillate Oil	TVOC NO_x
031	Commercial/Institutional Natural Gas	TVOC NO_x
032	Commercial/Institutional LPG	TVOC NO_x
033	Commercial/Institutional Wood/other	TVOC NO_x
034	Industrial Anthracite	TVOC NO_x
035	Industrial Bituminous	TVOC NO_x
036	Industrial Residual Oil	TVOC NO_x
037	Industrial Distillate Oil	TVOC NO_x
038	Industrial Natural Gas	TVOC NO_x
039	Industrial LPG	TVOC NO_x
040	Industrial Wood/other	TVOC NO_x
041	Aircraft	TVOC NO_x
044	Railroad Locomotives	TVOC NO_x
045	Vessels	TVOC NO_x
048	Off-Highway Vehicles	TVOC NO_x
050	Onsite Incineration	TVOC NO_x
051	Open Burning	TVOC NO_x
052	Structural Fires	TVOC NO_x
053	Field/Slash Burning	TVOC NO_x
054	Forest Fires	TVOC NO_x

TABLE 7. AREA SOURCE EMISSIONS (1979) FOR MASSACHUSETTS--STATEWIDE

STATE SUMMARY

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
001	STAGE I GASOLINE EVAP	2311461	THOUS GAL			
				NOX		0
				VOC		3907
002	STAGE II GASOLINE EVAP	2311461	THOUS GAL			
				NOX		0
				VOC		11210
003	STORAGE TANK BREATHING	2311461	THOUS GAL			
				NOX		0
				VOC		1157
004	GASOLINE LOADING/TRANSIT	1294418	THOUS GAL			
				NOX		0
				VOC		213
005	SM IND/COMM DEGREASING	6109479	POPULATION			
				NOX		0
				VOC		9164
006	DRY CLEANING	6109479	POPULATION			
				NOX		0
				VOC		4582
007	ARCH SURFACE COATING	6109479	POPULATION			
				NOX		0
				VOC		14051
008	AUTO BODY REFINISHING	6109479	POPULATION			
				NOX		0
				VOC		5803
009	SM IND SURFACE COATING	12176	TON			
				NOX		0
				VOC		12176
010	GRAPHIC ARTS	6109479	POPULATION			
				NOX		0
				VOC		2444
011	COMM/CONS SOLVENT USE	6109479	POPULATION			
				NOX		0
				VOC		19244
012	CUTBACK ASPHALT	1397	TON			
				NOX		0
				VOC		1397
013	PESTICIDES	214218	ACRE			
				NOX		0
				VOC		375

TABLE 7 (continued)

STATE SUMMARY

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
014	ON-HIGHWAY LDV	29585913	THOUS VMT			
				NOX		112411
				VOC		98988
015	ON-HIGHWAY LDT1	2921606	THOUS VMT			
				NOX		15155
				VOC		15776
016	ON-HIGHWAY LDT2	473324	THOUS VMT			
				NOX		3214
				VOC		3349
017	ON-HIGHWAY HDG	864424	THOUS VMT			
				NOX		18595
				VOC		13928
018	ON-HIGHWAY HDD	846013	THOUS VMT			
				NOX		28545
				VOC		2668
019	ON-HIGHWAY MC	328075	THOUS VMT			
				NOX		167
				VOC		2093
023	RESIDENTIAL DISTILLATE	1225000	THOUS GAL			
				NOX		11035
				VOC		612
024	RESIDENTIAL NATURAL GAS	81000	MIL CU FT			
				NOX		4052
				VOC		129
025	RESIDENTIAL LPG	94900	THOUS GAL			
				NOX		474
				VOC		36
029	COMM/INST RESIDUAL OIL	729330	THOUS GAL			
				NOX		21881
				VOC		324
030	COMM/INST DISTILLATE OIL	924798	THOUS GAL			
				NOX		27745
				VOC		463
031	COMM/INST NATURAL GAS	38000	MIL CU FT			
				NOX		2717
				VOC		61
032	COMM/INST LPG	10500	THOUS GAL			
				NOX		48
				VOC		3

TABLE 7 (continued)

STATE SUMMARY

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
035	INDUSTRIAL BITUMINOUS	64300	TON			
				NOX		869
				VOC		10
036	INDUSTRIAL RESIDUAL OIL	229300	THOUS GAL			
				NOX		6857
				VOC		101
037	INDUSTRIAL DISTILLATE OIL	60500	THOUS GAL			
				NOX		1814
				VOC		31
038	INDUSTRIAL NATURAL GAS	21000	MIL CU FT			
				NOX		3329
				VOC		13
039	INDUSTRIAL LPG	11300	THOUS GAL			
				NOX		9
				VOC		5
040	INDUSTRIAL WOOD	100300	TON			
				NOX		500
				VOC		17
041	AIRCRAFTS	3348	TON			
				NOX		2121
				VOC		3348
044	RAILROAD LOCOMOTIVES	3984	THOUS GAL			
				NOX		737
				VOC		134
045	VESSELS	6098	TON			
				NOX		3024
				VOC		6098
048	OFF-HIGHWAY VEHICLES-GAS	1459	TON			
				NOX		612
				VOC		1459
052	STRUCTURAL FIRES	13281	FIRES			
				NOX		113
				VOC		412
054	FOREST FIRES	81	TON			
				NOX		12
				VOC		81
STATE OR REGION TOTALS						
				NOX		266046
				VOC		235862

SECTION 5

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APPENDIX A

POINT SOURCE EMISSIONS BY CATEGORY FOR THE
MASSACHUSETTS AIR POLLUTION CONTROL DISTRICTS

Table A-1 presents point source emissions, by category, for each of the Massachusetts Air Pollution Control Districts, which are identified below:

Air Pollution Control District	"County" Code
Berkshire APCD	0187
Central Massachusetts APCD	0369
Merrimack Valley APCD	1274
Metropolitan Boston APCD	1291
Pioneer Valley APCD	1798
Southeastern Massachusetts APCD	2121

TABLE A-1. AIR POLLUTION CONTROL DISTRICT SUMMARIES OF POINT SOURCE EMISSIONS (1979) FOR MASSACHUSETTS

COUNTY: 0187

	CATEGORY	POINT COUNT	PRIMARY SCC EMISSIONS (TONS/YEAR) TSP	SO2	NOX	HC	CO
1	OIL AND GAS PRODUCTION & PROCESSING	0	0	0	0	0	0
2	SYN. ORGANIC CHEM. STORAGE & TRANSFER	0	0	0	0	0	0
3	GASOLINE AND CRUDE OIL STORAGE	0	0	0	0	0	0
4	SHIP AND BARGE TRANSFER OF VOC	0	0	0	0	0	0
5	BARGE AND TANKER CLEANING	0	0	0	0	0	0
6	BULK GASOLINE TERMINALS	0	0	0	0	0	0
7	GASOLINE BULK PLANTS	0	0	0	0	0	0
8	TANK TRUCK LOADING	0	0	0	0	0	0
9	SERVICE STATION LOADING (STAGE I)	0	0	0	0	0	0
10	SERVICE STATION UNLOADING (STAGE II)	0	0	0	0	0	0
11	OTHERS-(STORAGE, TRANSP., MKT OF VOC)	0	0	0	0	0	0
12	LUBE OIL MANUFACTURE	0	0	0	0	0	0
13	PETROLEUM REFINERIES	1	3	0	0	0	0
14	PHARMACEUTICAL MANUFACTURE	0	0	0	0	0	0
15	TEXTILE POLYMERS & RESIN MANUFACTURE	1	0	0	0	0	0
16	SYNTHETIC FIBER MANUFACTURE	0	0	0	0	0	0
17	ORGANIC CHEMICAL MANUFACTURE	0	0	0	0	0	0
18	INORGANIC CHEMICAL MANUFACTURE	0	0	0	0	0	0
19	FERMENTATION PROCESSES	0	0	0	0	0	0
20	VEGETABLE OIL PROCESSING	0	0	0	0	0	0
21	PLASTIC PRODUCTS MANUFACTURE	1	0	0	0	47	0
22	RUBBER TIRE MANUFACTURE	0	0	0	0	0	0
23	SBR RUBBER MANUFACTURE	0	0	0	0	0	0
24	OTHER CHEMICAL MANUFACTURE	0	0	0	0	0	0
25	IRON AND STEEL MANUFACTURE	0	0	0	0	0	0
26	TOBACCO PRODUCTS	0	0	0	0	0	0
27	FOOD PRODUCTS	0	0	0	0	0	0
28	TEXTILE MILL PRODUCTS	2	0	0	0	92	0
29	LUMBER AND WOOD PRODUCTS	0	0	0	0	0	0
30	PAPER AND ALLIED PRODUCTS	0	0	0	0	0	0
31	STONE,CLAY,GLASS,CONCRETE	27	329	214	229	3	20
32	PRIMARY & SECONDARY METALS & ELECTRICAL	0	0	0	0	0	0
33	FABRICATED METAL PRODUCTS	0	0	0	0	0	0
34	IN-PROCESS FUEL USE	7	31	6	35	0	4
35	OTHERS - (INDUSTRIAL PROCESSES)	1	0	0	0	0	0
36	ADHESIVES	0	0	0	0	0	0
37	IND. SFC. COATING-LARGE APPLIANCES	0	0	0	0	0	0
38	IND. SFC. COATING-MAGNET WIRE	0	0	0	0	0	0
39	IND. SFC. COATING-AUTOMOBILE	0	0	0	0	0	0
40	IND. SFC. COATING-CANS	0	0	0	0	0	0
41	IND. SFC. COATING-METAL COILS	0	0	0	0	0	0
42	IND. SFC. COATING-PAPER	1	0	0	0	0	0
43	IND. SFC. COATING-FABRIC	0	0	0	0	0	0
44	IND. SFC. COATING-MISC. FURNITURE	0	0	0	0	0	0
45	IND. SFC. COATING-METAL/WOOD PRODUCTS	0	0	0	0	0	0
46	PLASTIC PARTS PAINTING	0	0	0	0	0	0
47	LARGE SHIPS	0	0	0	0	0	0
48	LARGE AIRCRAFT	0	0	0	0	0	0
49	IND. SFC. COATING-MISC.METAL PRODUCTS	5	0	0	0	0	0
50	OTHERS - (INDUSTRIAL SURFACE COATING)	10	0	0	0	846	0

TABLE A-1 (continued)

COUNTY:0187

CATEGORY	POINT COUNT	PRIMARY SCC EMISSIONS (TONS/YEAR) TSP	SO2	NOx	HC	CO
51 DEGREASING	0	0	0	0	0	0
52 DRY CLEANING	1	0	0	0	23	0
53 GRAPHIC ARTS	1	0	0	0	381	0
54 OTHER - (SOLVENT USE)	0	0	0	0	0	0
55 ARCHITECTURAL COATINGS	0	0	0	0	0	0
56 AUTO REFINISHING	0	0	0	0	0	0
57 OTHERS-(NON-INDUSTRIAL SURFACE COATING)	0	0	0	0	0	0
58 EXT. COMB. BOILERS-ELEC. GENERATION	0	0	0	0	0	0
59 EXT. COMB. BOILERS-INDUSTRIAL	78	243	5481	1250	913	89
60 EXT. COMB. BOILERS-COMM/INST	130	13	260	117	0	1
61 EXT. COMB. SPACE HEATERS-INDUST.	1	0	0	1	0	0
62 EXT. COMB. SPACE HEATERS-COMM.	0	0	0	0	0	0
63 OTHERS-(FUEL COMBUSTION)	0	0	0	0	0	0
64 SOLID WASTE DISPOSAL-GOVT.	0	0	0	0	0	0
65 SOLID WASTE DISPOSAL-COMM/INST	1	0	0	0	0	0
66 SOLID WASTE DISPOSAL-INDUSTRIAL	1	0	0	0	0	1
67 OTHER SOLID WASTE DISPOSAL	0	0	0	0	0	0
68 WASTE SOLVENT RECOVERY PROCESSES	1	0	0	0	0	0
69 STATIONARY INTERNAL COMBUSTION ENGINES	7	0	3	17	0	0
70 NOT CLASSIFIED	0	0	0	0	0	0
COUNTY TOTALS		619	5964	1645	2301	119

TABLE A-1 (continued)

COUNTY:0369

	CATEGORY	POINT COUNT	PRIMARY SCC EMISSIONS (TONS/YEAR) TSP	SO2	NOX	HC	CO
1	OIL AND GAS PRODUCTION & PROCESSING	0	0	0	0	0	0
2	SYN. ORGANIC CHEM. STORAGE & TRANSFER	0	0	0	0	0	0
3	GASOLINE AND CRUDE OIL STORAGE	0	0	0	0	0	0
4	SHIP AND BARGE TRANSFER OF VOC	0	0	0	0	0	0
5	BARGE AND TANKER CLEANING	0	0	0	0	0	0
6	BULK GASOLINE TERMINALS	0	0	0	0	0	0
7	GASOLINE BULK PLANTS	2	0	0	0	0	0
8	TANK TRUCK LOADING	0	0	0	0	0	0
9	SERVICE STATION LOADING (STAGE I)	0	0	0	0	0	0
10	SERVICE STATION UNLOADING (STAGE II)	0	0	0	0	0	0
11	OTHERS-(STORAGE, TRANSP., MKT OF VOC)	0	0	0	0	0	0
12	LUBE OIL MANUFACTURE	0	0	0	0	0	0
13	PETROLEUM REFINERIES	0	0	0	0	0	0
14	PHARMACEUTICAL MANUFACTURE	1	0	0	0	0	0
15	TEXTILE POLYMERS & RESIN MANUFACTURE	6	3	0	0	0	0
16	SYNTHETIC FIBER MANUFACTURE	0	0	0	0	0	0
17	ORGANIC CHEMICAL MANUFACTURE	0	0	0	0	0	0
18	INORGANIC CHEMICAL MANUFACTURE	0	0	0	0	0	0
19	FERMENTATION PROCESSES	0	0	0	0	0	0
20	VEGETABLE OIL PROCESSING	0	0	0	0	0	0
21	PLASTIC PRODUCTS MANUFACTURE	0	0	0	0	0	0
22	RUBBER TIRE MANUFACTURE	0	0	0	0	0	0
23	SBR RUBBER MANUFACTURE	0	0	0	0	0	0
24	OTHER CHEMICAL MANUFACTURE	1	0	0	0	0	0
25	IRON AND STEEL MANUFACTURE	0	0	0	0	0	0
26	TOBACCO PRODUCTS	0	0	0	0	0	0
27	FOOD PRODUCTS	0	0	0	0	0	0
28	TEXTILE MILL PRODUCTS	4	16	0	0	203	0
29	LUMBER AND WOOD PRODUCTS	10	114	0	0	0	0
30	PAPER AND ALLIED PRODUCTS	0	0	0	0	0	0
31	STONE,CLAY,GLASS,CONCRETE	14	88	97	259	147	16
32	PRIMARY & SECONDARY METALS & ELECTRICAL	6	106	0	0	0	554
33	FABRICATED METAL PRODUCTS	1	4	0	0	0	0
34	IN-PROCESS FUEL USE	20	77	2	145	382	9
35	OTHERS - (INDUSTRIAL PROCESSES)	10	406	0	1	1392	0
36	ADHESIVES	2	0	0	0	0	0
37	IND. SFC. COATING-LARGE APPLIANCES	0	0	0	0	0	0
38	IND. SFC. COATING-MAGNET WIRE	0	0	0	0	0	0
39	IND. SFC. COATING-AUTOMOBILE	0	0	0	0	0	0
40	IND. SFC. COATING-CANS	0	0	0	0	0	0
41	IND. SFC. COATING-METAL COILS	0	0	0	0	0	0
42	IND. SFC. COATING-PAPER	8	0	0	0	1270	0
43	IND. SFC. COATING-FABRIC	8	0	0	0	0	0
44	IND. SFC. COATING-MISC. FURNITURE	0	0	0	0	0	0
45	IND. SFC. COATING-METAL/WOOD PRODUCTS	11	0	0	0	154	0
46	PLASTIC PARTS PAINTING	0	0	0	0	0	0
47	LARGE SHIPS	0	0	0	0	0	0
48	LARGE AIRCRAFT	0	0	0	0	0	0
49	IND. SFC. COATING-MISC.METAL PRODUCTS	12	0	0	0	0	0
50	OTHERS - (INDUSTRIAL SURFACE COATING)	15	0	0	0	0	0

TABLE A-1 (continued)

COUNTY:0369

CATEGORY	POINT COUNT	PRIMARY SCC EMISSIONS (TONS/YEAR) TSP	SO2	NOX	HC	CO
51 DEGREASING	1	0	0	0	0	0
52 DRY CLEANING	0	0	0	0	0	0
53 GRAPHIC ARTS	3	0	0	0	0	0
54 OTHER - (SOLVENT USE)	0	0	0	0	0	0
55 ARCHITECTURAL COATINGS	0	0	0	0	0	0
56 AUTO REFINISHING	0	0	0	0	0	0
57 OTHERS-(NON-INDUSTRIAL SURFACE COATING)	1	0	0	0	0	0
58 EXT. COMB. BOILERS-ELEC. GENERATION	1	1	7	5	0	1
59 EXT. COMB. BOILERS-INDUSTRIAL	145	398	6226	2004	6726	145
60 EXT. COMB. BOILERS-COMM/INST	36	39	378	162	4	6
61 EXT. COMB. SPACE HEATERS-INDUST.	1	0	0	0	0	0
62 EXT. COMB. SPACE HEATERS-COMM.	0	0	0	0	0	0
63 OTHERS-(FUEL COMBUSTION)	0	0	0	0	0	0
64 SOLID WASTE DISPOSAL-GOVT.	4	118	5	8	1	0
65 SOLID WASTE DISPOSAL-COMM/INST	2	8	1	2	0	0
66 SOLID WASTE DISPOSAL-INDUSTRIAL	1	66	23	28	28	94
67 OTHER SOLID WASTE DISPOSAL	0	0	0	0	0	0
68 WASTE SOLVENT RECOVERY PROCESSES	2	0	0	0	0	0
69 STATIONARY INTERNAL COMBUSTION ENGINES	1	3	3	45	4	10
70 NOT CLASSIFIED	1	0	0	0	0	0
COUNTY TOTALS		1447	6742	2662	10311	835

TABLE A-1 (continued)

COUNTY:1274

	CATEGORY	POINT COUNT	PRIMARY SCC EMISSIONS (TONS/YEAR) TSP	SO2	NOX	HC	CO
1	OIL AND GAS PRODUCTION & PROCESSING	0	0	0	0	0	0
2	SYN. ORGANIC CHEM. STORAGE & TRANSFER	0	0	0	0	0	0
3	GASOLINE AND CRUDE OIL STORAGE	0	0	0	0	0	0
4	SHIP AND BARGE TRANSFER OF VOC	0	0	0	0	0	0
5	BARGE AND TANKER CLEANING	0	0	0	0	0	0
6	BULK GASOLINE TERMINALS	0	0	0	0	0	0
7	GASOLINE BULK PLANTS	0	0	0	0	0	0
8	TANK TRUCK LOADING	0	0	0	0	0	0
9	SERVICE STATION LOADING (STAGE I)	0	0	0	0	0	0
10	SERVICE STATION UNLOADING (STAGE II)	0	0	0	0	0	0
11	OTHERS-(STORAGE, TRANSP., MKT OF VOC)	0	0	0	0	0	0
12	LUBE OIL MANUFACTURE	0	0	0	0	0	0
13	PETROLEUM REFINERIES	0	0	0	0	0	0
14	PHARMACEUTICAL MANUFACTURE	0	0	0	0	0	0
15	TEXTILE POLYMERS & RESIN MANUFACTURE	44	210	0	0	1125	0
16	SYNTHETIC FIBER MANUFACTURE	0	0	0	0	0	0
17	ORGANIC CHEMICAL MANUFACTURE	0	0	0	0	0	0
18	INORGANIC CHEMICAL MANUFACTURE	0	0	0	0	0	0
19	FERMENTATION PROCESSES	0	0	0	0	0	0
20	VEGETABLE OIL PROCESSING	0	0	0	0	0	0
21	PLASTIC PRODUCTS MANUFACTURE	4	0	0	0	0	0
22	RUBBER TIRE MANUFACTURE	0	0	0	0	0	0
23	SBR RUBBER MANUFACTURE	3	0	0	0	0	0
24	OTHER CHEMICAL MANUFACTURE	19	1	0	0	29	0
25	IRON AND STEEL MANUFACTURE	6	0	0	0	0	0
26	TOBACCO PRODUCTS	0	0	0	0	0	0
27	FOOD PRODUCTS	0	0	0	0	0	0
28	TEXTILE MILL PRODUCTS	23	21	0	0	0	0
29	LUMBER AND WOOD PRODUCTS	6	28	0	0	0	0
30	PAPER AND ALLIED PRODUCTS	0	0	0	0	0	0
31	STONE,CLAY,GLASS,CONCRETE	19	71	0	0	0	0
32	PRIMARY & SECONDARY METALS & ELECTRICAL	14	0	0	0	0	0
33	FABRICATED METAL PRODUCTS	7	1	0	0	47	0
34	IN-PROCESS FUEL USE	0	0	0	0	0	0
35	OTHERS - (INDUSTRIAL PROCESSES)	7	0	0	0	503	0
36	ADHESIVES	19	0	0	0	2360	0
37	IND. SFC. COATING-LARGE APPLIANCES	0	0	0	0	0	0
38	IND. SFC. COATING-MAGNET WIRE	0	0	0	0	0	0
39	IND. SFC. COATING-AUTOMOBILE	6	0	0	0	60	0
40	IND. SFC. COATING-CANS	13	0	0	0	616	0
41	IND. SFC. COATING-METAL COILS	0	0	0	0	0	0
42	IND. SFC. COATING-PAPER	0	0	0	0	0	0
43	IND. SFC. COATING-FABRIC	15	945	0	0	6011	0
44	IND. SFC. COATING-MISC. FURNITURE	0	0	0	0	0	0
45	IND. SFC. COATING-METAL/WOOD PRODUCTS	13	0	0	0	311	0
46	PLASTIC PARTS PAINTING	0	0	0	0	0	0
47	LARGE SHIPS	0	0	0	0	0	0
48	LARGE AIRCRAFT	0	0	0	0	0	0
49	IND. SFC. COATING-MISC.METAL PRODUCTS	40	0	0	0	56	0
50	OTHERS - (INDUSTRIAL SURFACE COATING)	30	0	0	0	132	0

TABLE A-1 (continued)

COUNTY:1274

CATEGORY	POINT COUNT	PRIMARY SCC EMISSIONS (TONS/YEAR) TSP	SO2	NOX	HC	CO
51 DEGREASING	16	0	0	0	109	0
52 DRY CLEANING	2	0	0	0	20	0
53 GRAPHIC ARTS	17	0	0	0	709	0
54 OTHER - (SOLVENT USE)	0	0	0	0	0	0
55 ARCHITECTURAL COATINGS	0	0	0	0	0	0
56 AUTO REFINISHING	0	0	0	0	0	0
57 OTHERS-(NON-INDUSTRIAL SURFACE COATING)	0	0	0	0	0	0
58 EXT. COMB. BOILERS-ELEC. GENERATION	2	4	0	346	0	8
59 EXT. COMB. BOILERS-INDUSTRIAL	94	219	2399	2945	1035	151
60 EXT. COMB. BOILERS-COMM/INST	43	33	516	196	5	15
61 EXT. COMB. SPACE HEATERS-INDUST.	0	0	0	0	0	0
62 EXT. COMB. SPACE HEATERS-COMM.	3	0	0	0	3	0
63 OTHERS-(FUEL COMBUSTION)	0	0	0	0	0	0
64 SOLID WASTE DISPOSAL-GOVT.	0	0	0	0	0	0
65 SOLID WASTE DISPOSAL-COMM/INST	10	4	2	3	3	9
66 SOLID WASTE DISPOSAL-INDUSTRIAL	1	0	0	0	0	0
67 OTHER SOLID WASTE DISPOSAL	1	0	0	0	0	0
68 WASTE SOLVENT RECOVERY PROCESSES	0	0	0	0	0	0
69 STATIONARY INTERNAL COMBUSTION ENGINES	7	0	5	12	0	1
70 NOT CLASSIFIED	1	0	0	0	0	0
COUNTY TOTALS		1537	2922	3504	13129	184

TABLE A-1 (continued)

COUNTY:1291

	CATEGORY	POINT COUNT	PRIMARY SCC EMISSIONS (TONS/YEAR) TSP	SO2	NOX	HC	CO
1	OIL AND GAS PRODUCTION & PROCESSING	0	0	0	0	0	0
2	SYN. ORGANIC CHEM. STORAGE & TRANSFER	0	0	0	0	0	0
3	GASOLINE AND CRUDE OIL STORAGE	61	0	0	0	279	0
4	SHIP AND BARGE TRANSFER OF VOC	0	0	0	0	0	0
5	BARGE AND TANKER CLEANING	0	0	0	0	0	0
6	BULK GASOLINE TERMINALS	55	0	0	0	3073	0
7	GASOLINE BULK PLANTS	0	0	0	0	0	0
8	TANK TRUCK LOADING	5	0	0	0	2014	0
9	SERVICE STATION LOADING (STAGE I)	4	0	0	0	0	0
10	SERVICE STATION UNLOADING (STAGE II)	0	0	0	0	0	0
11	OTHERS-(STORAGE, TRANSP., MKT OF VOC)	4	0	0	0	17	0
12	LUBE OIL MANUFACTURE	0	0	0	0	0	0
13	PETROLEUM REFINERIES	0	0	0	0	0	0
14	PHARMACEUTICAL MANUFACTURE	1	0	0	0	0	0
15	TEXTILE POLYMERS & RESIN MANUFACTURE	15	43	0	0	0	0
16	SYNTHETIC FIBER MANUFACTURE	1	0	0	0	0	0
17	ORGANIC CHEMICAL MANUFACTURE	3	0	0	0	0	0
18	INORGANIC CHEMICAL MANUFACTURE	2	88	546	0	0	0
19	FERMENTATION PROCESSES	1	0	0	0	0	0
20	VEGETABLE OIL PROCESSING	0	0	0	0	0	0
21	PLASTIC PRODUCTS MANUFACTURE	5	0	0	0	0	0
22	RUBBER TIRE MANUFACTURE	1	0	0	0	0	0
23	SBR RUBBER MANUFACTURE	15	250	0	0	0	0
24	OTHER CHEMICAL MANUFACTURE	63	71	0	1	455	0
25	IRON AND STEEL MANUFACTURE	9	159	0	1	0	973
26	TOBACCO PRODUCTS	0	0	0	0	0	0
27	FOOD PRODUCTS	33	21	0	0	0	5
28	TEXTILE MILL PRODUCTS	47	0	0	0	1478	0
29	LUMBER AND WOOD PRODUCTS	6	0	0	0	0	0
30	PAPER AND ALLIED PRODUCTS	4	0	0	0	0	0
31	STONE,CLAY,GLASS,CONCRETE	23	338	0	0	3	16
32	PRIMARY & SECONDARY METALS & ELECTRICAL	60	0	0	0	0	0
33	FABRICATED METAL PRODUCTS	39	0	0	0	93	0
34	IN-PROCESS FUEL USE	11	0	0	0	236	0
35	OTHERS - (INDUSTRIAL PROCESSES)	25	9	0	0	5131	0
36	ADHESIVES	17	0	0	0	546	0
37	IND. SFC. COATING-LARGE APPLIANCES	0	0	0	0	0	0
38	IND. SFC. COATING-MAGNET WIRE	0	0	0	0	0	0
39	IND. SFC. COATING-AUTOMOBILE	7	0	0	0	1040	0
40	IND. SFC. COATING-CANS	3	0	0	0	8	0
41	IND. SFC. COATING-METAL COILS	1	0	0	0	0	0
42	IND. SFC. COATING-PAPER	0	0	0	0	0	0
43	IND. SFC. COATING-FABRIC	2	0	0	0	26	0
44	IND. SFC. COATING-MISC. FURNITURE	0	0	0	0	0	0
45	IND. SFC. COATING-METAL/WOOD PRODUCTS	0	0	0	0	0	0
46	PLASTIC PARTS PAINTING	0	0	0	0	0	0
47	LARGE SHIPS	0	0	0	0	0	0
48	LARGE AIRCRAFT	0	0	0	0	0	0
49	IND. SFC. COATING-MISC.METAL PRODUCTS	117	1	0	0	12176	0
50	OTHERS - (INDUSTRIAL SURFACE COATING)	41	65	0	0	559	0

TABLE A-1 (continued)

COUNTY:1291

CATEGORY	POINT COUNT	PRIMARY SCC EMISSIONS (TONS/YEAR) TSP	SO2	NOX	HC	CO
51 DEGREASING	58	0	0	0	1000	0
52 DRY CLEANING	14	0	0	0	148	0
53 GRAPHIC ARTS	17	0	0	0	6973	0
54 OTHER - (SOLVENT USE)	0	0	0	0	0	0
55 ARCHITECTURAL COATINGS	0	0	0	0	0	0
56 AUTO REFINISHING	0	0	0	0	0	0
57 OTHERS-(NON-INDUSTRIAL SURFACE COATING)	1	0	0	0	20	0
58 EXT. COMB. BOILERS-ELEC. GENERATION	38	2779	87404	44729	417	2102
59 EXT. COMB. BOILERS-INDUSTRIAL	269	719	9609	8844	6474	405
60 EXT. COMB. BOILERS-COMM/INST	170	183	1627	890	201	79
61 EXT. COMB. SPACE HEATERS-INDUST.	17	2	6	2	3	1
62 EXT. COMB. SPACE HEATERS-COMM.	0	0	0	0	0	0
63 OTHERS-(FUEL COMBUSTION)	0	0	0	0	0	0
64 SOLID WASTE DISPOSAL-GOVT.	4	49	137	176	739	964
65 SOLID WASTE DISPOSAL-COMM/INST	19	49	548	659	661	2196
66 SOLID WASTE DISPOSAL-INDUSTRIAL	4	1	0	0	0	1
67 OTHER SOLID WASTE DISPOSAL	0	0	0	0	0	0
68 WASTE SOLVENT RECOVERY PROCESSES	0	0	0	0	0	0
69 STATIONARY INTERNAL COMBUSTION ENGINES	27	1579	1570	22151	1772	4824
70 NOT CLASSIFIED	19	8	0	0	23	0
COUNTY TOTALS		6413	101447	77459	45565	11554

TABLE A-1 (continued)

COUNTY:1798

	CATEGORY	POINT COUNT	PRIMARY SCC EMISSIONS (TONS/YEAR) TSP	SO2	NOX	HC	CO
1	OIL AND GAS PRODUCTION & PROCESSING	0	0	0	0	0	0
2	SYN. ORGANIC CHEM. STORAGE & TRANSFER	0	0	0	0	0	0
3	GASOLINE AND CRUDE OIL STORAGE	0	0	0	0	0	0
4	SHIP AND BARGE TRANSFER OF VOC	0	0	0	0	0	0
5	BARGE AND TANKER CLEANING	0	0	0	0	0	0
6	BULK GASOLINE TERMINALS	7	0	0	0	4814	0
7	GASOLINE BULK PLANTS	0	0	0	0	0	0
8	TANK TRUCK LOADING	0	0	0	0	0	0
9	SERVICE STATION LOADING (STAGE I)	0	0	0	0	0	0
10	SERVICE STATION UNLOADING (STAGE II)	0	0	0	0	0	0
11	OTHERS-(STORAGE, TRANSP., MKT OF VOC)	0	0	0	0	0	0
12	LUBE OIL MANUFACTURE	0	0	0	0	0	0
13	PETROLEUM REFINERIES	4	0	0	4	0	0
14	PHARMACEUTICAL MANUFACTURE	0	0	0	0	0	0
15	TEXTILE POLYMERS & RESIN MANUFACTURE	23	84	0	0	1051	0
16	SYNTHETIC FIBER MANUFACTURE	0	0	0	0	0	0
17	ORGANIC CHEMICAL MANUFACTURE	1	13	0	0	3	11
18	INORGANIC CHEMICAL MANUFACTURE	0	0	0	0	0	0
19	FERMENTATION PROCESSES	0	0	0	0	0	0
20	VEGETABLE OIL PROCESSING	0	0	0	0	0	0
21	PLASTIC PRODUCTS MANUFACTURE	1	0	0	0	0	0
22	RUBBER TIRE MANUFACTURE	0	0	0	0	0	0
23	SBR RUBBER MANUFACTURE	1	0	0	0	0	0
24	OTHER CHEMICAL MANUFACTURE	3	0	0	0	0	0
25	IRON AND STEEL MANUFACTURE	11	42	0	3	0	1704
26	TOBACCO PRODUCTS	0	0	0	0	0	0
27	FOOD PRODUCTS	0	0	0	0	0	0
28	TEXTILE MILL PRODUCTS	0	0	0	0	0	0
29	LUMBER AND WOOD PRODUCTS	0	0	0	0	0	0
30	PAPER AND ALLIED PRODUCTS	0	0	0	0	0	0
31	STONE,CLAY,GLASS,CONCRETE	30	103	26	12	0	1
32	PRIMARY & SECONDARY METALS & ELECTRICAL	5	184	8	4	0	1
33	FABRICATED METAL PRODUCTS	3	11	0	0	0	0
34	IN-PROCESS FUEL USE	33	6	102	84	2	15
35	OTHERS - (INDUSTRIAL PROCESSES)	4	12	0	0	0	0
36	ADHESIVES	2	0	0	0	0	0
37	IND. SFC. COATING-LARGE APPLIANCES	0	0	0	0	0	0
38	IND. SFC. COATING-MAGNET WIRE	2	0	0	0	0	0
39	IND. SFC. COATING-AUTOMOBILE	0	0	0	0	0	0
40	IND. SFC. COATING-CANS	0	0	0	0	0	0
41	IND. SFC. COATING-METAL COILS	0	0	0	0	0	0
42	IND. SFC. COATING-PAPER	14	0	0	0	2306	0
43	IND. SFC. COATING-FABRIC	0	0	0	0	0	0
44	IND. SFC. COATING-MISC. FURNITURE	0	0	0	0	0	0
45	IND. SFC. COATING-METAL/WOOD PRODUCTS	1	0	0	0	0	0
46	PLASTIC PARTS PAINTING	0	0	0	0	0	0
47	LARGE SHIPS	0	0	0	0	0	0
48	LARGE AIRCRAFT	0	0	0	0	0	0
49	IND. SFC. COATING-MISC.METAL PRODUCTS	16	0	0	0	15	0
50	OTHERS - (INDUSTRIAL SURFACE COATING)	7	0	0	0	0	0

TABLE A-1 (continued)

COUNTY:1798

CATEGORY	POINT COUNT	PRIMARY SCC EMISSIONS (TONS/YEAR) TSP	SO2	NOX	HC	CO
51 DEGREASING	16	0	0	0	163	0
52 DRY CLEANING	16	0	0	0	116	0
53 GRAPHIC ARTS	29	0	0	0	588	0
54 OTHER - (SOLVENT USE)	0	0	0	0	0	0
55 ARCHITECTURAL COATINGS	0	0	0	0	0	0
56 AUTO REFINISHING	0	0	0	0	0	0
57 OTHERS-(NON-INDUSTRIAL SURFACE COATING)	1	0	0	0	0	0
58 EXT. COMB. BOILERS-ELEC. GENERATION	14	541	12866	6535	54	284
59 EXT. COMB. BOILERS-INDUSTRIAL	271	473	6905	2470	9026	232
60 EXT. COMB. BOILERS-COMM/INST	583	1003	2729	1112	29	75
61 EXT. COMB. SPACE HEATERS-INDUST.	5	0	1	8	332	1
62 EXT. COMB. SPACE HEATERS-COMM.	3	0	0	1	0	0
63 OTHERS-(FUEL COMBUSTION)	0	0	0	0	0	0
64 SOLID WASTE DISPOSAL-GOVT.	3	2	1	7	1	0
65 SOLID WASTE DISPOSAL-COMM/INST	1	0	0	0	0	0
66 SOLID WASTE DISPOSAL-INDUSTRIAL	2	0	0	0	0	1
67 OTHER SOLID WASTE DISPOSAL	0	0	0	0	0	0
68 WASTE SOLVENT RECOVERY PROCESSES	22	0	0	0	182	0
69 STATIONARY INTERNAL COMBUSTION ENGINES	4	0	3	6	0	0
70 NOT CLASSIFIED	3	5	0	0	0	0
COUNTY TOTALS		2479	22641	10246	18686	2295

TABLE A-1 (continued)

COUNTY:2121

	CATEGORY	POINT COUNT	PRIMARY SCC EMISSIONS (TONS/YEAR) TSP	SO2	NOX	HC	CO
1	OIL AND GAS PRODUCTION & PROCESSING	0	0	0	0	0	0
2	SYN. ORGANIC CHEM. STORAGE & TRANSFER	0	0	0	0	0	0
3	GASOLINE AND CRUDE OIL STORAGE	0	0	0	0	0	0
4	SHIP AND BARGE TRANSFER OF VOC	0	0	0	0	0	0
5	BARGE AND TANKER CLEANING	0	0	0	0	0	0
6	BULK GASOLINE TERMINALS	0	0	0	0	0	0
7	GASOLINE BULK PLANTS	0	0	0	0	0	0
8	TANK TRUCK LOADING	0	0	0	0	0	0
9	SERVICE STATION LOADING (STAGE I)	0	0	0	0	0	0
10	SERVICE STATION UNLOADING (STAGE II)	0	0	0	0	0	0
11	OTHERS-(STORAGE, TRANSP., MKT OF VOC)	0	0	0	0	0	0
12	LUBE OIL MANUFACTURE	0	0	0	0	0	0
13	PETROLEUM REFINERIES	0	0	0	0	0	0
14	PHARMACEUTICAL MANUFACTURE	0	0	0	0	0	0
15	TEXTILE POLYMERS & RESIN MANUFACTURE	1	1	0	0	0	0
16	SYNTHETIC FIBER MANUFACTURE	0	0	0	0	0	0
17	ORGANIC CHEMICAL MANUFACTURE	0	0	0	0	0	0
18	INORGANIC CHEMICAL MANUFACTURE	0	0	0	0	0	0
19	FERMENTATION PROCESSES	0	0	0	0	0	0
20	VEGETABLE OIL PROCESSING	0	0	0	0	0	0
21	PLASTIC PRODUCTS MANUFACTURE	0	0	0	0	0	0
22	RUBBER TIRE MANUFACTURE	1	0	0	0	0	0
23	SBR RUBBER MANUFACTURE	11	5	0	0	15	0
24	OTHER CHEMICAL MANUFACTURE	11	0	0	0	2301	0
25	IRON AND STEEL MANUFACTURE	0	0	0	0	0	0
26	TOBACCO PRODUCTS	0	0	0	0	0	0
27	FOOD PRODUCTS	1	3	0	0	0	0
28	TEXTILE MILL PRODUCTS	7	0	0	0	2251	0
29	LUMBER AND WOOD PRODUCTS	2	4	0	0	0	0
30	PAPER AND ALLIED PRODUCTS	0	0	0	0	0	0
31	STONE,CLAY,GLASS,CONCRETE	14	1	0	0	0	0
32	PRIMARY & SECONDARY METALS & ELECTRICAL	9	13	0	0	0	0
33	FABRICATED METAL PRODUCTS	34	3	0	0	213	0
34	IN-PROCESS FUEL USE	29	0	0	0	91	0
35	OTHERS - (INDUSTRIAL PROCESSES)	1	0	0	0	0	0
36	ADHESIVES	1	0	0	0	33	0
37	IND. SFC. COATING-LARGE APPLIANCES	0	0	0	0	0	0
38	IND. SFC. COATING-MAGNET WIRE	0	0	0	0	0	0
39	IND. SFC. COATING-AUTOMOBILE	0	0	0	0	0	0
40	IND. SFC. COATING-CANS	0	0	0	0	0	0
41	IND. SFC. COATING-METAL COILS	0	0	0	0	0	0
42	IND. SFC. COATING-PAPER	0	0	0	0	0	0
43	IND. SFC. COATING-FABRIC	1	0	0	0	0	0
44	IND. SFC. COATING-MISC. FURNITURE	0	0	0	0	0	0
45	IND. SFC. COATING-METAL/WOOD PRODUCTS	0	0	0	0	0	0
46	PLASTIC PARTS PAINTING	0	0	0	0	0	0
47	LARGE SHIPS	1	0	0	0	50	0
48	LARGE AIRCRAFT	0	0	0	0	0	0
49	IND. SFC. COATING-MISC.METAL PRODUCTS	15	0	0	0	1111	0
50	OTHERS - (INDUSTRIAL SURFACE COATING)	12	1	0	0	400	0

TABLE A-1 (continued)

COUNTY:2121

CATEGORY	POINT COUNT	PRIMARY SCC EMISSIONS (TONS/YEAR) TSP	SO2	NOX	HC	CO
51 DEGREASING	21	0	0	0	7567	0
52 DRY CLEANING	2	0	0	0	8	0
53 GRAPHIC ARTS	0	0	0	0	0	0
54 OTHER - (SOLVENT USE)	0	0	0	0	0	0
55 ARCHITECTURAL COATINGS	0	0	0	0	0	0
56 AUTO REFINISHING	0	0	0	0	0	0
57 OTHERS-(NON-INDUSTRIAL SURFACE COATING)	3	0	0	0	17	0
58 EXT. COMB. BOILERS-ELEC. GENERATION	67	492	177420	54131	523	2585
59 EXT. COMB. BOILERS-INDUSTRIAL	357	208	2605	1289	5374	67
60 EXT. COMB. BOILERS-COMM/INST	89	35	456	176	25	7
61 EXT. COMB. SPACE HEATERS-INDUST.	27	0	0	3	0	0
62 EXT. COMB. SPACE HEATERS-COMM.	0	0	0	0	0	0
63 OTHERS-(FUEL COMBUSTION)	1	0	0	0	0	0
64 SOLID WASTE DISPOSAL-GOVT.	6	78	64	77	36	893
65 SOLID WASTE DISPOSAL-COMM/INST	2	1	0	0	0	2
66 SOLID WASTE DISPOSAL-INDUSTRIAL	4	3	0	0	0	2
67 OTHER SOLID WASTE DISPOSAL	0	0	0	0	0	0
68 WASTE SOLVENT RECOVERY PROCESSES	11	0	0	0	2913	0
69 STATIONARY INTERNAL COMBUSTION ENGINES	0	0	0	0	0	0
70 NOT CLASSIFIED	45	25	0	0	406	0
COUNTY TOTALS		873	180545	55676	23336	3556

APPENDIX B

AREA SOURCE EMISSIONS BY CATEGORY FOR THE MASSACHUSETTS AIR POLLUTION CONTROL DISTRICTS

Table B-1 presents area source emissions, by category, for each of the Massachusetts Air Pollution Control Districts which are identified below:

Air Pollution Control District	"County" Code
Berkshire APCD	0187
Central Massachusetts APCD	0369
Merrimack Valley APCD	1274
Metropolitan Boston APCD	1291
Pioneer Valley APCD	1798
Southeastern Massachusetts APCD	2121

TABLE B-1. AIR POLLUTION CONTROL DISTRICT SUMMARIES OF AREA SOURCE EMISSIONS (1979) FOR MASSACHUSETTS

COUNTY:0187

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
001	STAGE I GASOLINE EVAP	00006934	THOUS GAL	THC	7.30	0000253
002	STAGE II GASOLINE EVAP	00006934	THOUS GAL	THC	9.70	0000336
003	STORAGE TANK BREATHING	00006934	THOUS GAL	THC	1.00	0000035
004	GASOLINE LOADING/TRANSIT	00006934	THOUS GAL	THC	0.33	0000011
005	SM IND/COMM DEGREASING	00018838	POPULATION	NHC	3.00	0000280
006	DRY CLEANING	00018838	POPULATION	NHC	1.50	0000140
007	ARCH SURFACE COATING	00018838	POPULATION	NHC	4.60	0000429
008	AUTO BODY REFINISHING	00018838	POPULATION	NHC	1.90	0000177
009	SM IND SURFACE COATING	00000484	TON	THC	2,000.00	0000484
010	GRAPHIC ARTS	00018838	POPULATION	NHC	0.80	0000075
011	COMM/CONS SOLVENT USE	00018838	POPULATION	NHC	6.30	0000587
012	CUTBACK ASPHALT	00000072	TON	NHC	2,000.00	0000072
013	PESTICIDES	00002738	ACRE	NHC	3.50	0000045
14	ON-HIGHWAY LDV	00722822	THOUS VMT	NOX NHC	7.77 7.12	0002810 0002574
015	ON-HIGHWAY LDT1	00076157	THOUS VMT	NOX NHC	10.41 10.80	0000798 0000411
016	ON-HIGHWAY LDT2	00012116	THOUS VMT	NOX NHC	13.58 14.15	0000082 0000086

TABLE B-1 (continued)

COUNTY:0187

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
217	ON-HIGHWAY HDG	0.0019084	THOUS VMT			
				NOX	48.84	0.0931
				THC	36.02	0.0068
218	ON-HIGHWAY HDD	0.0030770	THOUS VMT			
				NOX	68.75	0.0211
				THC	6.64	0.0020
219	ON-HIGHWAY MC	0.0008854	THOUS VMT			
				NOX	1.00	0.0001
				THC	12.48	0.0011
220	RESIDENTIAL ANTHRACITE	0.0000000	TON			
				NOX	5.00	0.0000
				THC	2.50	0.0000
221	RESIDENTIAL BITUMINOUS	0.0000000	TON			
				NOX	6.00	0.0000
				THC	3.00	0.0000
222	RESIDENTIAL RESIDUAL OIL	0.0000000	THOUS GAL			
				NOX	50.00	0.0000
				THC	1.00	0.0000
223	RESIDENTIAL DISTILLATE	0.0003780	THOUS GAL			
				NOX	18.00	0.0068
				THC	1.00	0.0004
224	RESIDENTIAL NATURAL GAS	0.0002430	MIL CU FT			
				NOX	100.00	0.0243
				THC	3.20	0.0008
225	RESIDENTIAL LPG	0.0002847	THOUS GAL			
				NOX	10.00	0.0028
				THC	0.75	0.0002
226	RESIDENTIAL WOOD	0.0000000	TON			
				NOX	1.00	0.0000
				THC	5.00	0.0000
227	COMM/INST ANTHRACITE	0.0000000	TON			
				NOX	10.00	0.0000
				THC	0.00	0.0000
228	COMM/INST BITUMINOUS	0.0000000	TON			
				NOX	6.00	0.0000
				THC	3.00	0.0000
229	COMM/INST RESIDUAL OIL	0.0014587	THOUS GAL			
				NOX	60.00	0.0438
				THC	0.69	0.0010

TABLE B-1 (continued)

COUNTY:0187

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
030	COMM/INST DISTILLATE OIL	000018496	THOUS GAL			
				NOX	60.00	0000555
				THC	1.00	0000039
031	COMM/INST NATURAL GAS	000000750	MIL CU FT			
				NOX	143.00	0000054
				THC	3.20	0000001
032	COMM/INST LPG	000000210	THOUS GAL			
				NOX	9.50	0000001
				THC	0.75	0000000
033	COMM/INST WOOD	000000000	TON			
				NOX	10.00	0000000
				THC	0.34	0000000
034	INDUSTRIAL ANTHRACITE	000000000	TON			
				NOX	18.00	0000000
				THC	0.00	0000000
035	INDUSTRIAL BITUMINOUS	000001920	TON			
				NOX	27.20	0000026
				THC	0.34	0000000
036	INDUSTRIAL RESIDUAL OIL	000006867	THOUS GAL			
				NOX	60.00	0000206
				THC	0.89	0000003
037	INDUSTRIAL DISTILLATE OIL	000001815	THOUS GAL			
				NOX	60.00	0000054
				THC	1.00	0000001
038	INDUSTRIAL NATURAL GAS	000000630	MIL CU FT			
				NOX	317.00	0000100
				THC	1.20	0000000
039	INDUSTRIAL LPG	000000339	THOUS GAL			
				NOX	1.70	0000000
				THC	0.75	0000000
040	INDUSTRIAL WOOD	000003000	TON			
				NOX	10.00	0000015
				THC	0.34	0000001
041	AIRCRAFTS	000000129	TON			
				NOX	77.51	0000005
				THC	2,000.00	0000129
044	RAILROAD LOCOMOTIVES	000000330	THOUS GAL			
				NOX	370.00	0000061
				THC	94.00	0000015

TABLE B-1 (continued)

COUNTY:0187

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
045	VESSELS	000000436	TON			
				NOX	110.00	0000024
				THC	2,000.00	0000436
048	OFF-HIGHWAY VEHICLES-GAS	000000346	TON			
				NOX	1,000.00	0000023
				THC	2,000.00	0000046
049	OFF-HIGHWAY VEH-DIESEL	000000000	TON			
				NOX	1,000.00	0000000
				THC	2,000.00	0000000
051	OPEN BURNING	000000000	TON			
				NOX	5.00	0000000
				NHC	30.00	0000000
052	STRUCTURAL FIRES	000000410	FIRES			
				NOX	17.00	0000003
				THC	62.00	0000013
053	FIELD/SLASH BURNING	000000000	TON			
				NOX	4.00	0000000
				THC	23.00	0000000
054	FOREST FIRES	000000002	TON			
				NOX	300.00	0000000
				THC	2,000.00	0000002
999	COUNTY TOTALS					
				THC		0001805
				NHC		0005361
				NOX		0006503

TABLE B-1 (continued)

COUNTY:0369

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
001	STAGE I GASOLINE EVAP	000439177	THOUS GAL			
				THC	7.30	0001603
002	STAGE II GASOLINE EVAP	000439177	THOUS GAL			
				THC	9.70	0002130
003	STORAGE TANK BREATHING	000439177	THOUS GAL			
				THC	1.00	0000220
004	GASOLINE LOADING/TRANSIT	000439177	THOUS GAL			
				THC	0.33	0000072
005	SM IND/COMM DEGREASING	000647299	POPULATION			
				NHC	3.00	0000971
006	DRY CLEANING	000647299	POPULATION			
				NHC	1.50	0000485
007	ARCH SURFACE COATING	000647299	POPULATION			
				NHC	4.60	0001489
008	AUTO BODY REFINISHING	000647299	POPULATION			
				NHC	1.90	0000615
009	SM IND SURFACE COATING	000003016	TON			
				THC	2,000.00	0003016
010	GRAPHIC ARTS	000647299	POPULATION			
				NHC	0.80	0000259
011	COMM/CONS SOLVENT USE	000647299	POPULATION			
				NHC	6.30	0002039
012	CUTBACK ASPHALT	000000448	TON			
				NHC	2,000.00	0000448
013	PESTICIDES	000044986	ACRE			
				NHC	3.50	0000779
014	ON-HIGHWAY LDV	003395818	THOUS VMT			
				NOX	8.01	0013602
				NHC	7.11	0012076
015	ON-HIGHWAY LDT1	000354665	THOUS VMT			
				NOX	10.37	0001839
				NHC	10.80	0001915
016	ON-HIGHWAY LDT2	000057073	THOUS VMT			
				NOX	13.58	0000388
				NHC	14.15	0000404

TABLE B-1 (continued)

COUNTY:0369

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
017	ON-HIGHWAY HDG	000097839	THOUS VMT			
				NOX	46.00	0002250
				VHC	34.73	0001699
018	ON-HIGHWAY HDD	000101915	THOUS VMT			
				NOX	67.78	0003454
				NHC	6.40	0000326
019	ON-HIGHWAY MC	000036690	THOUS VMT			
				NOX	1.09	0000020
				NHC	13.90	0000255
020	RESIDENTIAL ANTHRACITE	000000000	TON			
				NOX	3.00	0000000
				THC	2.50	0000000
021	RESIDENTIAL BITUMINOUS	000000000	TON			
				NOX	6.00	0000000
				THC	3.00	0000000
022	RESIDENTIAL RESIDUAL OIL	000000000	THOUS GAL			
				NOX	60.00	0000000
				THC	1.00	0000000
023	RESIDENTIAL DISTILLATE	000134350	THOUS GAL			
				NOX	18.00	0001214
				THC	1.00	0000067
024	RESIDENTIAL NATURAL GAS	000008910	MIL CU FT			
				NOX	100.00	0000445
				THC	3.20	0000014
025	RESIDENTIAL LPG	000010439	THOUS GAL			
				NOX	10.00	0000052
				THC	0.75	0000004
026	RESIDENTIAL WOOD	000000000	TON			
				NOX	1.00	0000000
				THC	5.00	0000000
027	COMM/INST ANTHRACITE	000000000	TON			
				NOX	10.00	0000000
				THC	0.00	0000000
028	COMM/INST BITUMINOUS	000000000	TON			
				NOX	6.00	0000000
				THC	3.00	0000000
029	COMM/INST RESIDUAL OIL	000051053	THOUS GAL			
				NOX	60.00	0001532
				THC	0.89	0000023

TABLE B-1 (continued)

COUNTY:0369

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
030	COMM/INST DISTILLATE OIL	000064736	THOUS GAL			
				NOX	60.00	0001942
				THC	1.00	0000032
031	COMM/INST NATURAL GAS	000002660	MIL CU FT			
				NOX	143.00	0000190
				THC	3.20	0000004
032	COMM/INST LPG	000000735	THOUS GAL			
				NOX	9.50	0000003
				THC	0.75	0000000
033	COMM/INST WOOD	000000000	TON			
				NOX	10.00	0000000
				THC	0.34	0000000
034	INDUSTRIAL ANTHRACITE	000000330	TON			
				NOX	18.00	0000030
				THC	0.00	0000000
035	INDUSTRIAL BITUMINOUS	000008320	TON			
				NOX	27.20	0000113
				THC	0.34	0000001
036	INDUSTRIAL RESIDUAL OIL	000029737	THOUS GAL			
				NOX	60.00	0000893
				THC	0.89	0000013
037	INDUSTRIAL DISTILLATE OIL	000007865	THOUS GAL			
				NOX	60.00	0000236
				THC	1.00	0000004
038	INDUSTRIAL NATURAL GAS	000002730	MIL CU FT			
				NOX	317.00	0000433
				THC	1.20	0000002
039	INDUSTRIAL LPG	000001469	THOUS GAL			
				NOX	1.70	0000001
				THC	0.75	0000001
040	INDUSTRIAL WOOD	000013000	TON			
				NOX	10.00	0000065
				THC	0.34	0000002
041	AIRCRAFTS	000000116	TON			
				NOX	86.20	0000005
				THC	2,000.00	0000116
044	RAILROAD LOCOMOTIVES	000000773	THOUS GAL			
				NOX	370.00	0000143
				THC	94.00	0000036

TABLE B-1 (continued)

COUNTY:0369

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
045	VESSELS	000000987	TON			
				NOX	109.42	0000054
				THC	2,000.00	0000987
048	OFF-HIGHWAY VEHICLES-GAS	000000166	TON			
				NOX	1,000.00	0000083
				THC	2,000.00	0000166
049	OFF-HIGHWAY VEH-DIESEL	000000000	TON			
				NOX	1,000.00	0000000
				THC	2,000.00	0000000
051	OPEN BURNING	000000000	TON			
				NOX	5.00	0000000
				NHC	30.00	0000000
052	STRUCTURAL FIRES	000001419	FIRES			
				NOX	17.00	0000012
				THC	62.00	0000044
053	FIELD/SLASH BURNING	000000000	TON			
				NOX	4.00	0000000
				THC	23.00	0000000
054	FOREST FIRES	000000014	TON			
				NOX	300.00	0000002
				THC	2,000.00	0000014
999	COUNTY TOTALS					
				THC		0008571
				NHC		0023060
				NOX		0028972

TABLE B-1 (continued)

COUNTY:1274

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
001	STAGE I GASOLINE EVAP	000254261	THOUS GAL	THC	7.30	0000928
002	STAGE II GASOLINE EVAP	000254261	THOUS GAL	THC	9.70	0001233
003	STORAGE TANK BREATHING	000254261	THOUS GAL	THC	1.00	0000127
004	GASOLINE LOADING/TRANSIT	000254261	THOUS GAL	THC	0.33	0000042
005	SM IND/COMM DEGREASING	000545389	POPULATION	NHC	3.00	0000818
006	DRY CLEANING	000545389	POPULATION	NHC	1.50	0000409
007	ARCH SURFACE COATING	000545389	POPULATION	NHC	4.60	0001254
008	AUTO BODY REFINISHING	000545389	POPULATION	NHC	1.90	0000518
009	SM IND SURFACE COATING	000000616	TON	THC	2,000.00	0000616
010	GRAPHIC ARTS	000545389	POPULATION	NHC	0.80	0000218
011	COMM/CONS SOLVENT USE	000545389	POPULATION	NHC	6.30	0001718
012	CUTBACK ASPHALT	000000118	TON	NHC	2,000.00	0000118
013	PESTICIDES	000025706	ACRE	NHC	3.50	0000045
014	ON-HIGHWAY LDV	003250213	THOUS VMT	NOX	8.02	0013040
				NHC	6.57	0010690
015	ON-HIGHWAY LDT1	000319183	THOUS VMT	NOX	10.37	0001655
				NHC	10.80	0001724
016	ON-HIGHWAY LDT2	000050632	THOUS VMT	NOX	13.58	0000344
				NHC	14.15	0000358

TABLE B-1 (continued)

COUNTY:1274

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
017	ON-HIGHWAY HDG	000101204	THOUS VMT			
				NOX	42.62	0002157
				NHC	29.72	0001504
018	ON-HIGHWAY HDD	000108989	THOUS VMT			
				NOX	60.75	0003311
				NHC	5.28	0000288
019	ON-HIGHWAY MC	000035032	THOUS VMT			
				NOX	1.08	0000019
				NHC	12.90	0000226
020	RESIDENTIAL ANTHRACITE	000000000	TON			
				NOX	3.00	0000000
				THC	2.50	0000000
021	RESIDENTIAL BITUMINOUS	000000000	TON			
				NOX	6.00	0000000
				THC	3.00	0000000
022	RESIDENTIAL RESIDUAL OIL	000000000	THOUS GAL			
				NOX	60.00	0000000
				THC	1.00	0000000
023	RESIDENTIAL DISTILLATE	000110340	THOUS GAL			
				NOX	18.00	0000993
				THC	1.00	0000055
024	RESIDENTIAL NATURAL GAS	000007290	MIL CU FT			
				NOX	100.00	0000365
				THC	3.20	0000012
025	RESIDENTIAL LPG	000008541	THOUS GAL			
				NOX	10.00	0000043
				THC	0.75	0000003
026	RESIDENTIAL WOOD	000000000	TON			
				NOX	1.00	0000000
				THC	5.00	0000000
027	COMM/INST ANTHRACITE	000000000	TON			
				NOX	10.00	0000000
				THC	0.00	0000000
028	COMM/INST BITUMINOUS	000000000	TON			
				NOX	6.00	0000000
				THC	3.00	0000000
029	COMM/INST RESIDUAL OIL	000043750	THOUS GAL			
				NOX	60.00	0001313
				THC	0.89	0000019

TABLE B-1 (continued)

COUNTY:1274

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
030	COMM/INST DISTILLATE OIL	000055498	THOUS GAL			
				NOX	60.00	0001665
				THC	1.00	0000028
031	COMM/INST NATURAL GAS	000002230	MIL CU FT			
				NOX	143.00	0000163
				THC	3.20	0000004
032	COMM/INST LPG	000000530	THOUS GAL			
				NOX	9.50	0000003
				THC	0.75	0000000
033	COMM/INST WOOD	000000000	TON			
				NOX	10.00	0000000
				THC	0.34	0000000
034	INDUSTRIAL ANTHRACITE	000000000	TON			
				NOX	18.00	0000000
				THC	0.00	0000000
035	INDUSTRIAL BITUMINOUS	000005750	TON			
				NOX	27.20	0000078
				THC	0.34	0000001
036	INDUSTRIAL RESIDUAL OIL	000020611	THOUS GAL			
				NOX	60.00	0000618
				THC	0.69	0000007
037	INDUSTRIAL DISTILLATE OIL	000005445	THOUS GAL			
				NOX	60.00	0000163
				THC	1.00	0000003
038	INDUSTRIAL NATURAL GAS	000001690	MIL CU FT			
				NOX	317.00	0000000
				THC	1.20	0000001
039	INDUSTRIAL LPG	000001017	THOUS GAL			
				NOX	1.70	0000001
				THC	0.75	0000000
040	INDUSTRIAL WOOD	000009000	TON			
				NOX	10.00	0000045
				THC	0.34	0000002
041	AIRCRAFTS	000000114	TON			
				NOX	107.52	0000005
				THC	2,000.00	0000114
044	RAILROAD LOCOMOTIVES	000000237	THOUS GAL			
				NOX	370.00	0000055
				THC	94.00	0000014

TABLE B-1 (continued)

COUNTY:1274

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
045	VESSELS	000000465	TON			
				NOX	107.52	0000025
				THC	2,000.00	0000465
048	OFF-HIGHWAY VEHICLES-GAS	000000166	TON			
				NOX	735.00	0000061
				THC	2,000.00	0000166
049	OFF-HIGHWAY VEH-DIESEL	000000000	TON			
				NOX	1,000.00	0000000
				THC	2,000.00	0000000
051	OPEN BURNING	000000000	TON			
				NOX	5.00	0000000
				NHC	30.00	0000000
052	STRUCTURAL FIRES	000001194	FIRES			
				NOX	17.00	0000010
				THC	62.00	0000037
053	FIELD/SLASH BURNING	000000000	TON			
				NOX	4.00	0000000
				THC	23.00	0000000
054	FOREST FIRES	000000014	TON			
				NOX	300.00	0000002
				THC	2,000.00	0000014
999	COUNTY TOTALS					
				THC		0003893
				NHC		0019888
				NOX		0026435

TABLE B-1 (continued)

COUNTY:1291

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
001	STAGE I GASOLINE EVAP	001017043	THOUS GAL			
				THC	0.30	0000153
002	STAGE II GASOLINE EVAP	001017043	THOUS GA_			
				THC	9.70	0004933
003	STORAGE TANK BREATHING	001017043	THOUS GA_			
				THC	1.00	0000509
004	GASOLINE LOADING/TRANSIT	000000000	THOUS GA_			
				THC	0.33	0000000
005	SM IND/COMM DEGREASING	003194950	POPULATION			
				NHC	3.00	0004792
006	DRY CLEANING	003194950	POPULATION			
				NHC	1.50	0002396
007	ARCH SURFACE COATING	003194950	POPULATION			
				NHC	4.60	0007348
008	AUTO BODY REFINISHING	003194950	POPULATION			
				NHC	1.90	0003035
009	SM IND SURFACE COATING	000006608	TON			
				THC	2,000.00	0006608
010	GRAPHIC ARTS	003194950	POPULATION			
				NHC	0.80	0001278
011	COMM/CONS SOLVENT USE	003194950	POPULATION			
				NHC	6.30	0010064
012	CUTBACK ASPHALT	000000217	TON			
				NHC	2,000.00	0000217
013	PESTICIDES	000025706	ACRE			
				NHC	3.50	0000045
014	ON-HIGHWAY LDV	014200140	THOUS VMT			
				NOX	7.17	0050922
				NHC	6.30	0044745
015	ON-HIGHWAY LDT1	001350736	THOUS VMT			
				NOX	10.36	0007002
				NHC	10.80	0007294
016	ON-HIGHWAY LDT2	000219503	THOUS VMT			
				NOX	13.58	0001490
				NHC	14.15	0001553

TABLE B-1 (continued)

COUNTY:1291

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
017	ON-HIGHWAY HDG	000422121	THOUS VMT			
				NOX	39.90	0008423
				NHC	29.83	0006296
018	ON-HIGHWAY HDD	000405236	THOUS VMT			
				NOX	63.81	0012931
				NHC	5.95	0001206
019	ON-HIGHWAY MC	000151963	THOUS VMT			
				NOX	1.00	0000076
				NHC	12.45	0000945
020	RESIDENTIAL ANTHRACITE	000000000	TON			
				NOX	3.00	0000000
				THC	2.50	0000000
021	RESIDENTIAL BITUMINOUS	000000000	TON			
				NOX	6.00	0000000
				THC	3.00	0000000
022	RESIDENTIAL RESIDUAL OIL	000000000	THOUS GAL			
				NOX	60.00	0000000
				THC	1.00	0000000
023	RESIDENTIAL DISTILLATE	000537520	THOUS GAL			
				NOX	18.00	0005738
				THC	1.00	0000319
024	RESIDENTIAL NATURAL GAS	000042120	MIL CU FT			
				NOX	100.00	0002106
				THC	3.20	0000067
025	RESIDENTIAL LPG	000049348	THOUS GAL			
				NOX	10.00	0000247
				THC	0.75	0000019
026	RESIDENTIAL WOOD	000000000	TON			
				NOX	1.00	0000000
				THC	5.00	0000000
027	COMM/INST ANTHRACITE	000000000	TON			
				NOX	10.00	0000000
				THC	0.00	0000000
028	COMM/INST BITUMINOUS	000000000	TON			
				NOX	6.00	0000000
				THC	3.00	0000000
029	COMM/INST RESIDUAL OIL	000474064	THOUS GAL			
				NOX	60.00	0014222
				THC	0.89	0000211

TABLE B-1 (continued)

COUNTY:1291

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
030	COMM/INST DISTILLATE OIL	000601118	THOUS GAL			
				NOX	60.00	0018034
				THC	1.00	0000301
031	COMM/INST NATURAL GAS	000024700	MIL CU FT			
				NOX	143.00	0001765
				THC	3.20	0000040
032	COMM/INST LPG	000006825	THOUS GAL			
				NOX	9.50	0000032
				THC	0.75	0000003
033	COMM/INST WOOD	000000000	TON			
				NOX	10.00	0000000
				THC	0.34	0000000
034	INDUSTRIAL ANTHRACITE	000000000	TON			
				NOX	18.00	0000000
				THC	0.00	0000000
035	INDUSTRIAL BITUMINOUS	000031360	TON			
				NOX	27.20	0000426
				THC	0.34	0000005
036	INDUSTRIAL RESIDUAL OIL	000112161	THOUS GAL			
				NOX	60.00	0003365
				THC	0.89	0000050
037	INDUSTRIAL DISTILLATE OIL	000029645	THOUS GAL			
				NOX	60.00	0000889
				THC	1.00	0000015
038	INDUSTRIAL NATURAL GAS	000010290	MIL CU FT			
				NOX	317.00	0001631
				THC	1.20	0000006
039	INDUSTRIAL LPG	000005537	THOUS GAL			
				NOX	1.70	0000005
				THC	0.75	0000002
040	INDUSTRIAL WOOD	000049000	TON			
				NOX	10.00	0000245
				THC	0.34	0000008
041	AIRCRAFTS	000001669	TON			
				NOX	2,014.37	0001681
				THC	2,000.00	0001669
044	RAILROAD LOCOMOTIVES	000001254	THOUS GAL			
				NOX	370.00	0000232
				THC	9.57	0000006

TABLE B-1 (continued)

COUNTY:1291

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
045	VESSELS	000002310	TON			
				NOX	1,331.17	0001684
				THC	2,000.00	0002310
048	OFF-HIGHWAY VEHICLES-GAS	000000567	TON			
				NOX	800.00	0000267
				THC	2,000.00	0000567
049	OFF-HIGHWAY VEH-DIESEL	000000000	TON			
				NOX	1,000.00	0000000
				THC	2,000.00	0000000
051	OPEN BURNING	000000000	TON			
				NOX	5.00	0000000
				VHC	30.00	0000000
052	STRUCTURAL FIRES	000006935	FIRES			
				NOX	17.00	0000059
				THC	62.00	0000215
053	FIELD/SLASH BURNING	000000000	TON			
				NOX	4.00	0000000
				THC	23.00	0000000
054	FOREST FIRES	000000018	TON			
				NOX	300.00	0000003
				THC	2,000.00	0000018
999	COUNTY TOTALS					
				THC		0018134
				NHC		0091215
				NOX		0133675

TABLE B-1 (continued)

COUNTY:1798

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
001	STAGE I GASOLINE EVAP	000277375	THOUS GAL			
				THC	0.30	0000042
002	STAGE II GASOLINE EVAP	000277375	THOUS GAL			
				THC	9.70	0001345
003	STORAGE TANK BREATHING	000277375	THOUS GAL			
				THC	1.00	0000139
004	GASOLINE LOADING/TRANSIT	000277375	THOUS GAL			
				THC	0.33	0000046
005	SM IND/COMM DEGREASING	000691890	POPULATION			
				NHC	3.00	0001038
006	DRY CLEANING	000691890	POPULATION			
				NHC	1.50	0000519
007	ARCH SURFACE COATING	000691890	POPULATION			
				NHC	4.60	0001591
008	AUTO BODY REFINISHING	000691890	POPULATION			
				NHC	1.90	0000657
009	SM IND SURFACE COATING	000000836	TON			
				THC	2,000.00	0000836
010	GRAPHIC ARTS	000691890	POPULATION			
				NHC	0.80	0000277
011	COMM/CONS SOLVENT USE	000691890	POPULATION			
				VHC	6.30	0002179
012	CUTBACK ASPHALT	000000202	TON			
				VHC	2,000.00	0000202
013	PESTICIDES	000066408	ACRE			
				NHC	3.50	0000116
014	ON-HIGHWAY LDV	003376193	THOUS VMT			
				NOX	7.59	0012814
				NHC	7.38	0012472
015	ON-HIGHWAY LDT1	000338425	THOUS VMT			
				NOX	10.41	0001752
				NHC	10.80	0001827
016	ON-HIGHWAY LDT2	000056404	THOUS VMT			
				NOX	13.58	0000383
				NHC	14.15	0000399

TABLE B-1 (continued)

COUNTY:1798

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
017	ON-HIGHWAY HDG	000096693	THOUS VMT			
				NOX	43.85	0002120
				VHC	36.30	0001755
018	ON-HIGHWAY HDD	000092564	THOUS VMT			
				NOX	70.13	0003254
				VHC	7.25	0000336
019	ON-HIGHWAY MC	000040269	THOUS VMT			
				NOX	1.00	0000020
				VHC	13.10	0000264
020	RESIDENTIAL ANTHRACITE	000000000	TON			
				NOX	3.00	0000000
				THC	2.50	0000000
021	RESIDENTIAL BITUMINOUS	000000000	TON			
				NOX	6.00	0000000
				THC	3.00	0000000
022	RESIDENTIAL RESIDUAL OIL	000000000	THOUS GAL			
				NOX	60.00	0000000
				THC	1.00	0000000
023	RESIDENTIAL DISTILLATE	000134360	THOUS GAL			
				NOX	18.00	0001214
				THC	1.00	0000067
024	RESIDENTIAL NATURAL GAS	000006910	MIL CU FT			
				NOX	100.00	0000446
				THC	3.20	0000014
025	RESIDENTIAL LPG	000010439	THOUS GAL			
				NOX	10.00	0000052
				THC	0.75	0000004
026	RESIDENTIAL WOOD	000000000	TON			
				NOX	1.00	0000000
				THC	5.00	0000000
027	COMM/INST ANTHRACITE	000000000	TON			
				NOX	10.00	0000000
				THC	0.00	0000000
028	COMM/INST BITUMINOUS	000000000	TON			
				NOX	6.00	0000000
				THC	3.00	0000000
029	COMM/INST RESIDUAL OIL	000080226	THOUS GAL			
				NOX	60.00	0002407
				THC	0.89	0000036

TABLE B-1 (continued)

COUNTY:1796

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
030	COMM/INST DISTILLATE OIL	000101728	THOUS GAL			
				NOX	60.00	0003052
				THC	1.00	0000051
031	COMM/INST NATURAL GAS	000064130	MIL CU FT			
				NOX	143.00	0000299
				THC	3.20	0000007
032	COMM/INST LPG	000001155	THOUS GAL			
				NOX	9.50	0000005
				THC	0.75	0000000
033	COMM/INST WOOD	000000000	TON			
				NOX	10.00	0000000
				THC	0.34	0000000
034	INDUSTRIAL ANTHRACITE	000000000	TON			
				NOX	10.00	0000000
				THC	0.00	0000000
035	INDUSTRIAL BITUMINOUS	000007580	TON			
				NOX	27.20	0000104
				THC	0.34	0000001
036	INDUSTRIAL RESIDUAL OIL	000027458	THOUS GAL			
				NOX	60.00	0000824
				THC	0.89	0000012
037	INDUSTRIAL DISTILLATE OIL	000007260	THOUS GAL			
				NOX	60.00	0000218
				THC	1.00	0000004
038	INDUSTRIAL NATURAL GAS	000002520	MIL CU FT			
				NOX	317.00	0000399
				THC	1.20	0000002
039	INDUSTRIAL LPG	000001356	THOUS GAL			
				NOX	1.70	0000001
				THC	0.75	0000001
040	INDUSTRIAL WOOD	000012000	TON			
				NOX	10.00	0000060
				THC	0.34	0000002
041	AIRCRAFTS	000000506	TON			
				NOX	778.65	0000197
				THC	2,000.00	0000506
044	RAILROAD LOCOMOTIVES	000000811	THOUS GAL			
				NOX	370.00	0000150
				THC	94.00	0000038

TABLE B-1 (continued)

COUNTY:1798

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
045	VESSELS	0000000402	TON			
				NOX	144.27	0000029
				THC	2,000.00	0000402
048	OFF-HIGHWAY VEHICLES-GAS	0000000176	TON			
				NOX	1,000.00	0000088
				THC	2,000.00	0000176
049	OFF-HIGHWAY VEH-DIESEL	0000000000	TON			
				NOX	1,000.00	0000000
				THC	2,000.00	0000000
051	OPEN BURNING	0000000000	TON			
				NOX	5.00	0000000
				NHC	30.00	0000000
052	STRUCTURAL FIRES	0000001434	FIRES			
				NOX	17.00	0000013
				THC	62.00	0000046
053	FIELD/SLASH BURNING	0000000000	TON			
				NOX	4.00	0000000
				THC	23.00	0000000
054	FOREST FIRES	0000000008	TON			
				NOX	300.00	0000001
				THC	2,000.00	0000008
999	COUNTY TOTALS					
				THC		0003785
				NHC		0023632
				NOX		0029912

TABLE B-1 (continued)

COUNTY:2121

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
001	STAGE I GASOLINE EVAP	000254261	THOUS GAL	THC	7.30	0000928
002	STAGE II GASOLINE EVAP	000254261	THOUS GAL	THC	9.70	0001233
003	STORAGE TANK BREATHING	000254261	THOUS GAL	THC	1.00	0000127
004	GASOLINE LOADING/TRANSIT	000254261	THOUS GAL	THC	0.33	0000042
005	SM IND/COMM DEGREASING	000843571	POPULATION	NHC	3.00	0001265
006	DRY CLEANING	000843571	POPULATION	NHC	1.50	0000633
007	ARCH SURFACE COATING	000843571	POPULATION	NHC	4.60	0001940
008	AUTO BODY REFINISHING	000843571	POPULATION	NHC	1.90	0000801
009	SM IND SURFACE COATING	000000616	TON	THC	2,000.00	0001615
010	GRAPHIC ARTS	000843571	POPULATION	NHC	0.80	0000337
011	COMM/CONS SOLVENT USE	000843571	POPULATION	NHC	6.30	0002657
012	CUTBACK ASPHALT	000000340	TON	NHC	2,000.00	0000340
013	PESTICIDES	000025706	ACRE	NHC	3.50	0000345
014	ON-HIGHWAY LDV	004640927	THOUS VMT	NOX	8.28	0019223
				NHC	7.08	0016431
015	ON-HIGHWAY LDT1	000482390	THOUS VMT	NOX	10.36	0002501
				NHC	10.80	0002605
016	ON-HIGHWAY LDT2	000077526	THOUS VMT	NOX	13.58	0000527
				NHC	14.15	0000549

TABLE B-1 (continued)

COUNTY:2121

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
017	ON-HIGHWAY HDG	000127528	THOUS VMT			
				NOX	49.87	0003180
				NHC	36.25	0002312
018	ON-HIGHWAY HDD	000116439	THOUS VMT			
				NOX	83.84	0004881
				NHC	7.60	0000443
019	ON-HIGHWAY MC	000058447	THOUS VMT			
				NOX	1.00	0000028
				NHC	12.55	0000348
020	RESIDENTIAL ANTHRACITE	000000000	TON			
				NOX	3.00	0000000
				THC	2.50	0000000
021	RESIDENTIAL BITUMINOUS	000000000	TON			
				NOX	6.00	0000000
				THC	3.00	0000000
022	RESIDENTIAL RESIDUAL OIL	000000000	THOUS GAL			
				NOX	60.00	0000000
				THC	1.00	0000000
023	RESIDENTIAL DISTILLATE	000171640	THOUS GAL			
				NOX	18.00	0001545
				THC	1.00	0000086
024	RESIDENTIAL NATURAL GAS	000011340	MIL CU FT			
				NOX	100.00	0000567
				THC	3.20	0000018
025	RESIDENTIAL LPG	000013285	THOUS GAL			
				NOX	10.00	0000066
				THC	0.75	0000050
026	RESIDENTIAL WOOD	000000000	TON			
				NOX	1.00	0000000
				THC	5.00	0000000
027	COMM/INST ANTHRACITE	000000000	TON			
				NOX	10.00	0000000
				THC	0.00	0000000
028	COMM/INST BITUMINOUS	000000000	TON			
				NOX	6.00	0000000
				THC	3.00	0000000
029	COMM/INST RESIDUAL OIL	000065640	THOUS GAL			
				NOX	60.00	0001969
				THC	0.89	0000029

TABLE B-1 (continued)

COUNTY:2121

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
030	COMM/INST DISTILLATE OIL	000083232	THOUS GAL			
				NOX	60.00	0002497
				THC	1.00	0000042
031	COMM/INST NATURAL GAS	000003420	MIL CU FT			
				NOX	143.00	0000245
				THC	3.20	0000005
032	COMM/INST LPG	000000945	THOUS GAL			
				NOX	9.50	0000004
				THC	0.75	0000000
033	COMM/INST WOOD	000000000	TON			
				NOX	10.00	0000000
				THC	0.34	0000000
034	INDUSTRIAL ANTHRACITE	000000000	TON			
				NOX	18.00	0000000
				THC	0.00	0000000
035	INDUSTRIAL BITUMINOUS	000006950	TON			
				NOX	27.20	0000122
				THC	0.34	0000002
036	INDUSTRIAL RESIDUAL OIL	000032946	THOUS GAL			
				NOX	60.00	0000961
				THC	0.89	0000014
037	INDUSTRIAL DISTILLATE OIL	000006470	THOUS GAL			
				NOX	60.00	0000254
				THC	1.00	0000004
038	INDUSTRIAL NATURAL GAS	000002940	MIL CU FT			
				NOX	317.00	0000465
				THC	1.20	0000002
039	INDUSTRIAL LPG	000001582	THOUS GAL			
				NOX	1.70	0000001
				THC	0.75	0000001
040	INDUSTRIAL WOOD	000014000	TON			
				NOX	10.00	0000070
				THC	0.34	0000002
041	AIRCRAFTS	000000814	TON			
				NOX	557.74	0000227
				THC	2,000.00	0000814
044	RAILROAD LOCOMOTIVES	000000519	THOUS GAL			
				NOX	370.00	0000096
				THC	94.00	0000024

TABLE B-1 (continued)

COUNTY:2121

CATEGORY NUMBER	CATEGORY DESCRIPTION	PROCESS RATE	UNITS	POLLUTANT I.D.	EMISSION FACTOR	EMISSIONS ESTIMATE
045	VESSELS	0000014[illegible]	TON			
				NOX	1,345.79	0001908
				THC	2,000.00	0001498
048	OFF-HIGHWAY VEHICLES-GAS	000000238	TON			
				NOX	756.00	0000090
				THC	2,000.00	0000238
049	OFF-HIGHWAY VEH-DIESEL	000000000	TON			
				NOX	1,000.00	0000000
				THC	2,000.00	0000000
051	OPEN BURNING	000000000	TON			
				NOX	5.00	0000000
				NHC	30.00	0000000
052	STRUCTURAL FIRES	000001839	FIRES			
				NOX	17.00	0000316
				THC	62.00	0000057
053	FIELD/SLASH BURNING	000000000	TON			
				NOX	4.00	0000000
				THC	23.00	0000000
054	FOREST FIRES	000000025	TON			
				NOX	300.00	0000004
				THC	2,000.00	0000025
999	COUNTY TOTALS					
				THC		0005812
				NHC		0030706
				NOX		0040543

APPENDIX C

DOCUMENTATION OF THE COMPUTER ROUTINES USED FOR THE MASSACHUSETTS INVENTORY

As described in Section 3, there were several "generic" problems with the Massachusetts NEDS data that had to be addressed by computer routines. These included pollution control equipment fields coded as blanks but corresponding efficiency fields coded as zeros; improper coding of the NEDS action codes, improper coding of common stack fields for noncommon stacks, and missing stack parameters. The routines used to perform these corrections are provided as follows.

```
00000020 //*
00000030 //*   FIX NEDS CONTROL EFFICIENCY/CODE ERRORS FOR NEDRMP.
00000040 //*
00000050 //FIX  EXEC  PLIXCLG,PARM.PLI='OF,A,AG,NEST,STMT,OF(48)'.
00000060 //  PARM.LKED='NOMAP
00000070   FIXEFF:  /* ZERO FILL NEDS CONTROL DEVICE FIELDS */
00000080        PROC OPTIONS (MAIN);
00000090           DECLARE
00000100             KARD     CHAR(80),
00000110             MORE     BIT(1)  INIT('1'B),
00000120             NEDSIN   FILE INPUT RECORD,
00000130             NEDSOUT FILE OUTPUT RECORD,
00000140            (I,COUNT) FIXED BIN(31) INIT(0);
00000150           ON ENDFILE (NEDSIN)  MORE = '0'B;
00000160  /* ================================================ */
00000170           READ FILE (NEDSIN) INTO (KARD);
00000180  LOOP:
00000190           DO WHILE (MORE);
00000200             COUNT = COUNT + 1;
00000210             IF SUBSTR(KARD,80,1) = '3' THEN
00000220    DO3:
00000230               DO I=1 TO 45;
00000240                 IF SUBSTR(KARD,I+22,1) = ' ' THEN
00000250                   SUBSTR(KARD,I+22,1) = '0';
00000260               END DO3;
00000270             WRITE FILE (NEDSOUT) FROM (KARD);
00000271             READ FILE (NEDSIN) INTO (KARD);
00000280           END LOOP;
00000290           PUT SKIP(2) DATA (COUNT);
00000300    END FIXEFF;
00000310 //GO.NEDSIN  DD  DSN=GCA.FTEISPT.NEDS.MA79B,DISP=SHR
00000320 //GO.NEDSOUT DD  DSN=GCA.FTEISPT.NEDS.MA79,DISP=(NEW,CATLG),
00000330 //     LABEL=EXPDT=99000,UNIT=TAPE16,
00000340 //     DCB=(RECFM=FB,LRECL=80,BLKSIZE=8000)
```

```
00000030 //*    FIRST FIX OF PASS. NEDS CODE.
00000040 //*
00000050 //FIXPA  EXEC GCAEZT1
00000060 //FILEB  DD  DSN=GCA.FTEISPT.NEDS.MA79B,DISP=SHR
00000070 //NEDS   DD  DSN=GCA.FTEISPT.NEDS.MA79,DISP=SHR
00000100 FILE NEDS
00000110  CCODE 75 1 A
00000120 9999
00000130 IF FILE EQ FILE
00000140  CCODE = A
00000150 WRITE
```

```
00000020 //*
00000030 //*  SECOND EDIT OF PASS. DATA, FIX COMMON STKS, AND MISSING ST
00000040 //*
00000050 //FIXMAS  EXEC GCAEZT1
00000060 //FILEB   DD  DSN=GCA.FTEISPT.MEDS.MA79D.DISP=SHP
00000090 //MASS    DD  DSN=GCA.FTEISPT.MEDS.MA79,DISP=SHR
00000100 FILE MASS
00000110  STATE 1 2 N  COUNTY 3 4 N  AQCR 7 3 N
00000120  COMMON 56 4 A  COM*1 58 2 N  COM*2 58 2 N
00000130  PLANT 10 4 A  PT 14 2 A  CO*NO 80 1 A
00000140  STACK 33 22 A  TEMP 40 4 N  PLUME 31 4 N
00000150 9999
00000160 *
00000170 IF FILE EQ FILE
00000180 IF CO*NO NQ 2 THEN SUCCESS
00000190 IF STACK EQ * THEN
00000200      TEMP EQ 0077
00000210      PLUME EQ 0020
00000220      PRINT STATE COUNTY AQCR PLANT PT
00000230 IF COM*1 EQ COM*2 THEN
00000240      COMMON EQ *
00000250 WRITE
```

```
00000020 //*
00000030 //*   LISTING OF ALL POINTS WITHOUT STACK PARAMETERS.
00000040 //*
00000050 //LIST  EXEC GCALZT2
00000060 //NEDS  DD  UNIT=TAPE16,VOL=SER=GCA423,DISP=OLD,
00000070 //    LABEL=(1,BLP),
00000080 //    DCB=(RECFM=FB,LRECL=80,BLKSIZE=4000)
00000090 FILE NEDS
00000100  STATE 1 2 A   COUNTY 3 4 A  AQCR 7 3 A   PLANT 10 4 A
00000110  POINT 14 2 A  STACK 33 22 A
00000120  CD*'0 80 1 A
00000130 9999
00000140 *
00000150 IF CD*NO EQ 2 AND STACK EQ *
00000160 TIGCA/TECHNOLOGY DIVISION
00000170 T2NECRMP ANNUAL EMISSION INVENTORY
00000180 T3M4SSACHUSETTS POINTS WITH NO STACK PARAMETERS
00000190 *
00000200 SORT STATE COUNTY AQCR PLANT POINT
00000210 CONTROL STATE
00000220 LIST DETAIL NORE
00000230 STATE COUNTY AQCR PLANT POINT TALLY
```

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

1. REPORT NO.	2.	3. RECIPIENT'S ACCESSION NO.
EPA-450/4-82-013f		

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16. ABSTRACT

This report discusses the development of the Northeast Corridor Regional Modeling Project (NECRMP) annual regional emission inventory. The inventory reflects 1979/1980 data and focuses on point, area and mobile source emissions of Volatile Organic Compounds (VOC) and Nitrogen Oxides (NO_x), although particulate, sulfur oxides and carbon monoxide emissions were also compiled for point sources. The study area includes the entire northeast quadrant of the United States from longitude 69° to 82° West, and latitude 38° to 45° North. This volume discusses the emission inventory for Massachusetts.

17. KEY WORDS AND DOCUMENT ANALYSIS

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Emission Inventory Inventory Source Inventory Point Sources Area Sources Ozone Nitrogen Oxides Volatile Organic Compounds		

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