




UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

18 FEB 1983

MEMORANDUM

Subject: Status of 1982 Ozone State Implementation Plan (SIP)
Data Bases

From: Richard G. Rhoads, Director 
Monitoring and Data Analysis Division (MD-14)

To: Director, Air Management Division,
Regions I, V, and IX
Director, Air and Waste Management Division,
Regions II-IV, VI-VIII, and X
Director, Environmental Services Division,
Regions I-VIII and X
Director, Office of Technical and Scientific Assistance,
Region IX

I am attaching the eighth and last scheduled quarterly report on the status of 1982 ozone SIP data bases. This report summarizes the air monitoring and emission inventory data in each ozone extension area and reflects information gathered through contacts with your staff and review of draft and final SIPs available to us as of February 1, 1983.

We are not providing an overview discussion of the various air quality modeling and emission inventory issues associated with the SIPs, as we have done in previous transmittal memoranda. As you know, the approval/disapproval status of the SIPs for each of the ozone extension areas was recently proposed in the February 3, 1983, Federal Register. As such, we believe the SIPs have reached a point where further overview analysis is no longer necessary. We do hope, however, that our previous comparative analyses have been helpful to you in identifying and resolving data base related issues.

Nevertheless, we would appreciate the continued support of your staffs in bringing any updated or corrected SIP data base information to our attention. Please refer to the Introduction of the attached report to find the appropriate persons to contact in OAQPS regarding the data bases. We are particularly interested in the emission data base, since a number of States have not provided separate 1987 baseline and SIP strategy inventories in their SIPs. As a result, we have had to make various assumptions, based on limited information, to develop the emission summary tables in the attached report.

Attachment

cc: S. Meyers, OAQPS
C. Elkins, OANR
R. Smith, OANR
D. Tyler, CPDD

1982 OZONE SIP DATA BASE STATUS AND SUMMARY REPORT

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1.0 Introduction

This report has been prepared to summarize the status and content of 1982 State Implementation Plan (SIP) data bases and modeling analyses for ozone nonattainment areas. The information has been included as obtained from Environmental Protection Agency (EPA) Regional Offices (ROs) and other readily available sources, with minimal interpretation. Data have been continuously compiled during the SIP development period and distributed quarterly to EPA staff for internal purposes. The report is intended as a national review resource document. Information for individual nonattainment areas may not be as complete and current as is available to the ROs, which are primarily responsible for review of the SIPs. Any information or data contained in this report does not construe approval or disapproval of any portions of the SIPs by EPA.

Comments or corrections to this report are encouraged and may be directed to the respective Office of Air Quality Planning and Standards (OAQPS) contacts. All contacts are located at the U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.

Air Quality/Modeling

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Emission Inventories

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1.1 1982 OZONE SIP DATA BASE SUMMARY - NONATTAINMENT AREAS AND REGIONAL CONTACTS

Region	Name	Regional Office Contacts Specialty(ies)	FTS Number	Nonattainment Area
I	Norm Beloin Betsy Horne Tom Wholley Alan Dion Cynthia Greene	Air Quality Data Modeling Emission Inventory (Highway) Emission Inventory, Control Strategies (CT, RI) Emission Inventory, Control Strategies (MA)	828-6256 223-5630 223-5130 223-5132 223-5130	Boston, MA Springfield, MA Worcester, MA Providence, RI Hartford, CT
II	Art Perritt Rob Predale George Kerr Alex Salpeter	Air Quality Data Modeling Emission Inventory Control Strategies	264-9800 264-9800 264-9869 264-2517	New York (NY/CT/NJ) Trenton, NJ
III	Ted Erdman Craig Ham	Air Quality Data Modeling, Emission Inventory, Control Strategies	597-9318 597-2745	Philadelphia (PA/NJ/DE) Pittsburgh, PA Wilmington, DE Baltimore, MD Washington, (DC/VA/MD)
IV	Doug Cook Doyle Brittain Tom Lyttle Waymond Blackmon	Control Strategies Air Quality Data Modeling, Emission Inventory (LVLL) Modeling, Emission Inventory (NSHVL)	257-2865 250-3197 257-2864 257-2864	Louisville (KY/IN) Nashville, TN
V	Steve Goranson John Summerhays Ed Doty Steve Rosenthal	Air Quality Data Modeling, Emission Inventory Emission Inventory Control Strategies	886-6229 886-6067 886-6058 886-6052	Chicago (IL/IN) Cincinnati (OH/KY) Cleveland, OH Milwaukee, WI
VI	Randy Brown Donna Ascenzi	Air Quality Data, Modeling, Emission Inventory Control Strategies	729-1518 729-1518	Houston, TX
VII	John Helvig Wayne Leidwanger Larry Backer	Air Quality Data Emission Inventory, Control Strategies Modeling	758-4461 758-3791 758-6525	St. Louis (MO/IL)
VIII	Bill Basbagill Paula Macklin Barry Levene Bill Bernardo Butch Rachel	Air Quality Data Control Strategies, Modeling (DNVR) Modeling, Emission Inventory (SLC) Emission Inventory (DNVR) Control Strategies	327-4261 327-6131 327-3711 327-6131 327-6131	Denver, CO Salt Lake City, UT
IX	Steve Body Michael Work Ben Almario Melinda Taplin	Air Quality Data Modeling Emission Inventory Control Strategies	454-8205 454-8221 454-8058 454-8062	Los Angeles/ San Bernardino, CA Sacramento, CA San Francisco, CA San Diego, CA Fresno, CA Ventura/Oxnard, CA
X	Dave Bray John Schweiss Mark Hooper Loren McPhillips	Modeling Air Quality Data Emission Inventory Control Strategies	399-1980 399-1106 399-1949 399-5343	Portland (OR/WA) Seattle, WA

1.2 1982 OZONE SIP EMISSION INVENTORY SUBMISSION AND REVIEW STATUS SUMMARY

Region	Nonattainment Area	Inventory Received at Headquarters		Headquarters' Scheduled Review Completion Date		Headquarters' Review Completed		Comments (a)
		Nonhighway	Highway	Nonhighway	Highway	Nonhighway	Highway	
I	Massachusetts-ALL	3/19/82	2/23/82	6/18/82		6/18/82	7/23/82	PS DOC. RCV'D 6/18/82
	Rhode Island-ALL	3/19/82	3/23/82	6/17/82		6/17/82	7/23/82	PS/AS DOC. RCV'D 6/17/82
	Connecticut-ALL	4/23/82	4/23/82	7/20/82		7/20/82	7/23/82	
II	New York,NY-ONLY	1/18/82	1/18/82	3/4/82		2/11/82	7/23/82	
	New Jersey-ALL	1/18/82	1/18/82	3/4/82		2/24/82	7/23/82	
III	Philadelphia,PA-ONLY	3/30/82	3/30/82	7/6/82		7/6/82	7/23/82	NO PHIL. CO. PS LIST
	Pittsburgh,PA	2/9/82	7/82	3/26/82		3/25/82	7/23/82	AS INV. RCV'D 8/11/82
	Allentown,PA	8/11/82	8/11/82	10/6/82		10/6/82	11/1/82	
	Wilmington,DE	1/25/82	1/25/82	3/11/82		2/23/82	7/23/82	
	Baltimore,MD	1/19/82	1/19/82	5/5/82		2/23/82	7/23/82	
	Washington,DC/MD/VA	7/23/82	7/23/82	7/28/82		7/27/82	11/1/82	METRO REVIEW, NO PS LIST
IV	Louisville,KY/IN	12/29/81	12/29/81	2/12/82		2/12/82	7/23/82	NO KY PS LIST
	Memphis,TN	12/29/81	12/29/82	2/12/82		2/12/82	7/23/82	
V	Madison,WI	7/21/82	7/21/82	8/25/82		8/23/82	8/23/82	
	Chicago [IL	3/1/82	7/82	4/14/82		4/14/82	7/23/82	
	[IN	2/16/82	7/82	4/14/82		4/14/82	7/23/82	
	Cincinnati,OH/KY	4/15/82	4/15/82	6/15/82		6/15/82	7/23/82	OH PS INV. RCV'D 6/18/82
	Cleveland,OH	2/16/82	2/16/82	4/2/82		3/10/82	7/23/82	PS INV. RCV'D 6/28/82
	Detroit,MI	8/26/82	8/26/82	9/16/82		9/16/82	11/1/82	NO PS LIST
VI	Houston,TX	4/19/82	4/19/82	6/3/82		4/26/82	7/23/82	NO NO _x INV. RCV'D
	St. Louis [MO	3/16/82	3/1/82	6/14/82		6/14/82	7/23/82	
	[IL	3/16/82	3/1/82	6/14/82		6/14/82	7/23/82	
VIII	Denver,CO	2/22/82	2/22/82	5/28/82		5/28/82	7/23/82	
	Salt Lake City,UT	3/23/82	3/23/82	6/9/82		6/9/82	7/23/82	
IX	LA/San Bern'dino,CA	1/18/82	1/18/82	3/5/82		3/5/82	7/23/82	
	Sacramento,CA	1/18/82	1/18/82	3/5/82		3/5/82	11/1/82	NO PS LIST
	San Francisco,CA	1/18/82	1/18/82	3/5/82		3/5/82	11/1/82	
	San Diego,CA	1/18/82	1/18/82	3/4/82		2/12/82	11/1/82	
	Fresno, CA	1/18/82	1/18/82	3/5/82		3/5/82	7/23/82	
	Ventura/Oxnard,CA	1/25/82	1/18/82	3/11/82		3/10/82	7/23/82	NO PS LIST
	Oakland [OR	2/4/82	2/4/82	3/23/82		3/23/82	7/23/82	
	[WA	4/23/82	5/24/82	7/8/82		7/8/82	11/1/82	
	Seattle,WA	4/19/82	5/24/82	6/18/82		6/2/82	7/23/82	

Abbreviations: PS - point source; AS - area source; INV. - inventory; DOC. - documentation; RCV'D - received.

Regions	Nonattainment Area	Air Quality Data Base Accepted	Modeling Analysis Completed And Reviewed	Major Air Quality/Modeling Issues Resolved	Calculated % HC Control
I	Boston, MA	/	/	/	35*
	Springfield, MA	/	/	/	35*
	Worcester, MA	/	/	/	40
	Providence (RI/MA)	/	/	/	12*
	Hartford, CT	/	/		(48*)
	New Haven/ Bridgeport, CT	/	/		(48*)
II	New York (NY/NJ/CT)	/	/		60*
	Trenton, NJ	-----	Included with Philadelphia	-----	44
III	Philadelphia (PA/NJ/DE)	/	/	/	44
	Pittsburgh, PA	/	/	/	36.7
	Allentown, PA	/	/	/	27.5
	Wilmington, DE	-----	Included with Philadelphia	-----	44
	Baltimore, MD	/	/	/	49
	Washington (DC/MD/VA)	/	/	/	46
IV	Louisville, KY	/	/	/	32.5
	Nashville, TN	/	/	/	9.2
V	Chicago (IL/IN)	/			(20-41*)
	Cincinnati (OH/KY/IN)	/	/	/	14.3
	Cleveland, OH	/	/	/	8.0*
	Detroit, MI	/	/	/	27.1
	Milwaukee, WI	/			(29.4-40.9*)
VI	Houston, TX	/	/		41*
VII	St. Louis (MO/IL)	/			(24.9*)
VIII	Denver, CO	/	/	/	54
	Salt Lake City, UT	/	/	/	29
IX	Los Angeles, CA (SCAB)	/	/	/	85*
	Sacramento, CA	/	/	/	50
	San Francisco, CA	/	/	/	31
	San Diego, CA	/			31
	Fresno, CA	/	/		70*
	Ventura/Oxnard, CA	/	/	/	42(Ojai Valley) 48(Oxnard Plain)
X	Portland, OR/ Vancouver, WA	/	/	/	9.5*
	Seattle, WA	/	/	/	24.3*

Note: / Indicates action(s) completed.

* Qualifying footnotes regarding these control values contained in the individual modeling sheets for the nonattainment areas.

() Tentative values.

2.0 NONATTAINMENT AREA DATA SUMMARY SHEETS

2.1 Region I

Boston, MA

Worcester, MA

Springfield, MA

Hartford, CT

New Haven/Bridgeport, CT

Providence, RI

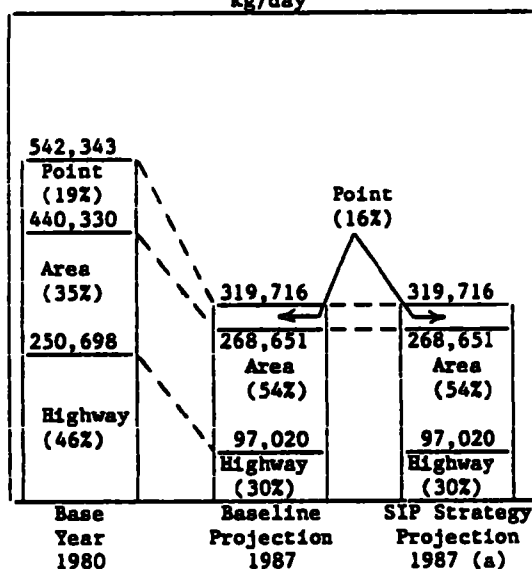
1982 OZONE SIP DATA BASE SUMMARY

CITY: Boston STATE(s): Massachusetts REGION: I
COUNTIES: Suffolk, Barnstable, Dukes, Plymouth, Bristol, Norfolk, and parts of Middlesex,
Worcester (Merrimack Valley, Metropolitan Boston and Southeastern Massachusetts APCD's)
RESPONSIBLE AGENCIES: Massachusetts Department of Environmental Quality Engineering - All

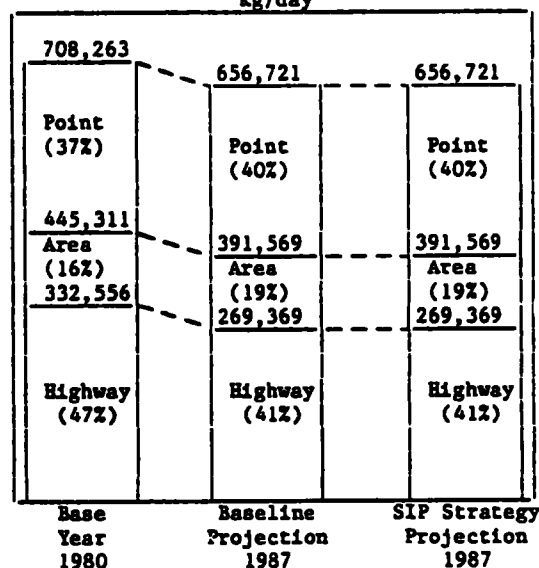
EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: VOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1987
DATE RECEIVED BY REGIONAL OFFICE: 3/9/82 POPULATION: 4,583,910 (1980)
REVIEW COMPLETION DATES: NONHIGHWAY 6/18/82 HIGHWAY 7/23/82 4,838,215 (1987)

VOLATILE ORGANIC COMPOUNDS kg/day



NITROGEN OXIDES kg/day



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(b)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	22.3	57.4	10.6	54.8	10.6	54.8	-50	+ 1
Nonhighway Area	41.3	24.6	35.5	25.3	10.6	25.3	- 9	+ 8
Highway	54.7	72.5	20.0	55.7	20.0	55.7	-61	-19
TOTAL	118.3	154.5	66.1	135.8	66.1	135.8	-38	- 7

Number of Facilities Emitting Greater than 250 kg/day (100 TPY): VOC 62 NO_x (c)

COMMENTS: (a) RACT on major nonRACT sources included in SIP but not in above tables (estimated at 5,200 TPY statewide). Controls included in SIP are RACT I,II, I/M, TCMs, and all 100+ TPY sources (including RACT III). (b) Calculated percent change is for total emissions, not normalized emissions per capita. (c) Only fuel use data supplied for major NO_x facilities summarized for entire state (no breakdown by individual plant).

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1978, 1979 & 1980 (expected effect of 1981 data on control strategy to be summarized in final SIP.)
- Have all data been edited by ROs and verified by State/local Agency(ies)? Yes/NoX
- Are all data entered in SAROAD? Yes/NoX If No, what is missing? _____
- Accepted by EPA? Yes/NoX, if Yes, date 8/24/82

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Boston, MA

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD. (m)	TRAFFIC ADT
WDOC/NOx/ Ozone	220240021A05	340 Bremen Ave.	East Boston	MA	NAMS	center city/ residential	1980	4.0	2	10.0	3000
WDOC/NOx/ Ozone	222380005A05	Victory Rd.	Watertown	MA			1980				
Ozone	300480005F01	18 Mulberry St.	Nashua/ Hillsborough	NH	SLAMS	center city/ commercial	1978	3.1	60		
Ozone	300540009F01	Vaughn St.	Portsmouth/ Rockingham	NH	NAMS	center city/ commercial	79-81	3.1	80	12.0	1000
Ozone	221060001P05	60 Westview St.	Lexington	MA			1979		19		
Ozone	220730001F03	Georgetown High School Parking Lot	Georgetown	MA		suburban/ residential	78-81	4.2			

OTHER:Wind data collected at all available area wind data sources used to select potential modeling daysWind data from nearest M/S station (hourly) used to construct trajectory paths used for modeling.Mixing height data from Albany (Radiosonde) used for modeling.

MODELING

o Modeling Status

Model used: City-Specific EKMA- Preliminary Modeling Completed? Yes/X; if Yes, date 1/29/82- Reviewed by: RO(s) Yes OAQPS No- Final Modeling Completed? Yes/X; if Yes, date unknown- Reviewed by: RO(s) Yes OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/X; if Yes, date unknown

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Nashua, NH #300480005F01				
5/30/78	9.4*	0.033	0.24	52.1
8/15/78	9.4*	0.060	0.160	34.7
8/13/78	9.4*	0.024	0.125	8.7
Lexington, MA #22106001F03				
7/25/79	9.4*	0.085	0.135	35.2
Georgetown, MA #220730001P05				
7/31/79	9.4*	0.070	0.128	26.0
7/25/79	9.4*	0.085	0.135	13.9
8/01/80	9.4*	0.118	0.140	7.1
Portsmouth, MA #300540009F01				
8/01/80	9.4*	0.118	0.132	0

*Seasonal median 6-9 a.m.

o % HC Control Needed To Attain O₃ NAAQS 35**

o Remarks: **Since both Boston and Springfield contributed to standard exceedances at the Nashua, NH monitor, this % control would ensure that at least one of these urban areas (Springfield) would not contribute any exceedances while the other, (Boston) would be allowed one per year.

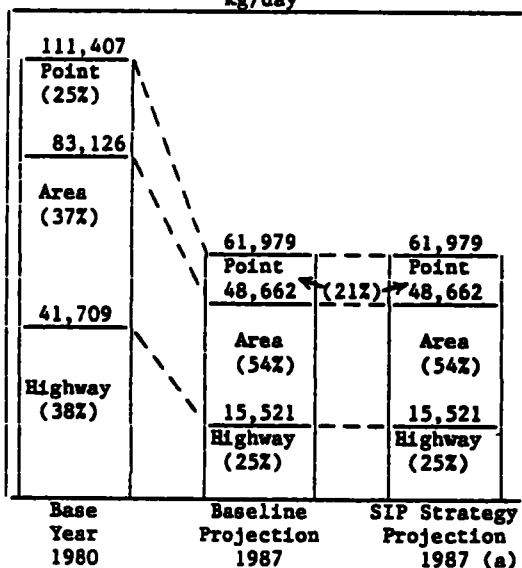
1982 OZONE SIP DATA BASE SUMMARY

CITY: Worcester STATE(s): Massachusetts REGION: I
COUNTIES: Worcester (most of county), Middlesex (northwest corner) (Central Massachusetts Air Pollution Control District)
RESPONSIBLE AGENCIES: Massachusetts Department of Environmental Quality Engineering - ALL

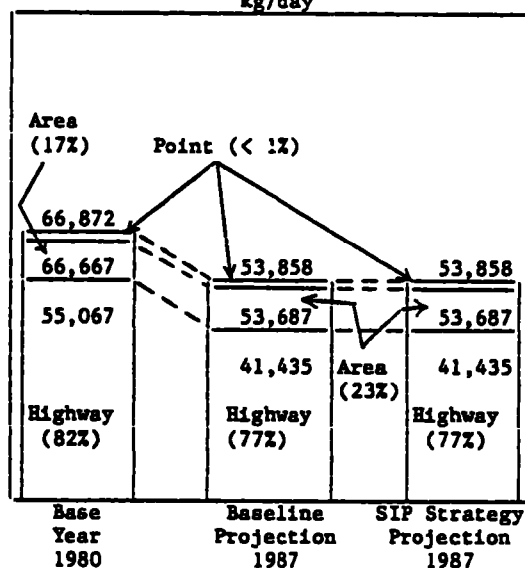
EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: VOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1987
DATE RECEIVED BY REGIONAL OFFICE: 3/9/82 POPULATION: 647,299 (1980)
REVIEW COMPLETION DATES: NONHIGHWAY 6/18/82 HIGHWAY 7/23/82 674,636 (1987)

VOLATILE ORGANIC COMPOUNDS kg/day



NITROGEN OXIDES kg/day



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(b)	
Pollutants	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	43.7	0.3	19.7	0.3	19.7	0.3	-53	-17
Nonhighway Area	64.0	17.9	49.1	18.1	49.1	18.1	-20	+ 6
Highway	64.4	85.1	23.0	61.4	23.0	61.4	-63	-25
TOTAL	172.1	103.3	91.8	79.8	91.8	79.8	-44	-19

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 13 NO_x (c)

COMMENTS: (a) Credit not included in emission totals for RACT on major nonRACT sources estimated at 5,200 TPY statewide). Controls included in SIP are RACT I, II, I/M, TCMs, and RACT on all 100+ TPY sources (including RACT III). (b) Calculated percent change is for total emissions, not normalized emissions per capita. (c) Only fuel use data supplied for major NO_x facilities for entire state (no breakdown by individual plant).

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1978, 1979 & 1980 (expected effect of 1981 data on control strategy to be summarized in final SIP.)
- Have all data been edited by ROs and verified by State/local Agency(ies)? Yes/No
- Are all data entered in SAROAD? Yes/No. If No, what is missing? _____
- Accepted by EPA? Yes/No; if Yes, date 8/24/82

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Worcester, MA

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD. (m)	TRAFFIC ADT
PM10/NOx/ Ozone	222640019F01	DPV Yard, Belmont St.	Worcester	MA	NAMS	center city/ residential	78-80)*-81	5.4		98	3500
Ozone	220730001F03	Georgetown High School Parking Lot	Georgetown	MA		suburban/ residential	78-81	4.2	95		
Ozone	221060001P05	60 Westview St.	Lexington	MA			1979		52		
Ozone	300540009F01	Vaughn St.	Portsmouth/ Rockingham	NH	NAMS	center city/ residential	79-81	3.1	125	12	1000

OTHER:

Wind data collected at all available area wind data sources used to select potential modeling days

Wind data from nearest NWS station (hourly) used to construct trajectory paths used for modeling.

Mixing height data from Portland, ME (Radiosonde) and Sudbury, MA (Acoustic Soudner) used for modeling.

* ozone only

MODELING

o Modeling Status

Model used: City-Specific EKMA

- Preliminary Modeling Completed? Yes/No; if Yes, date 1/29/82
- Reviewed by: RO(s) Yes OAQPS No
- Final Modeling Completed? Yes/No; if Yes, date unknown
- Reviewed by: RO(s) Yes OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date unknown

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Georgetown, MA #220730001F01				
7/21/78	8.3*	0.097	0.155	39.9
7/10/79	8.3*	0.073	0.144	28.8
7/30/78	8.3*	0.071	0.145	27.4
7/17/79	8.3*	0.096	0.140	17.1
7/08/78	8.3*	0.08	0.125	0
Lexington, MA #221060001P05				
7/23/79	8.3*	0.11	0.16	43.2
7/10/79	8.3*	0.073	0.16	40.0
7/21/79	8.3*	0.093	0.125	7.2
6/29/79	8.3*	0.06	0.125	0
Portsmouth, MA #300540009F01				
7/21/80	8.3*	0.083	0.135	13.5
6/25/80	8.3*	0.11	0.127	0

*seasonal median 6-9 a.m.

o % HC Control Needed To Attain O₃ NAAQS 40

Remarks: _____

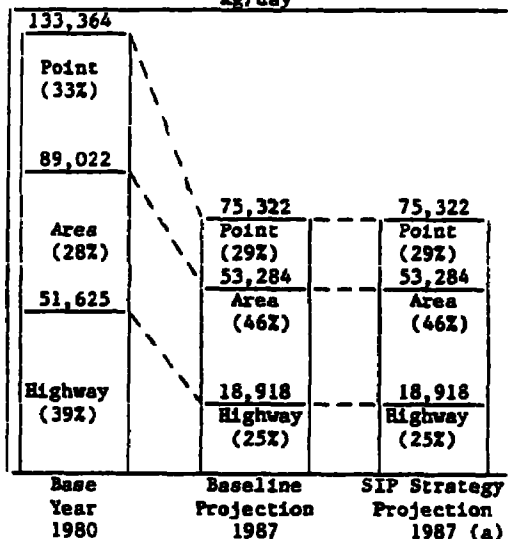
1982 OZONE SIP DATA BASE SUMMARY

CITY: Springfield STATE(s): Massachusetts REGION: I
COUNTIES: Franklin, Hampshire, Hampden, and Berkshire (Berkshire and Pioneer Valley Air Pollution Control Districts)
RESPONSIBLE AGENCIES: Massachusetts Department of Environmental Quality Engineering - ALL

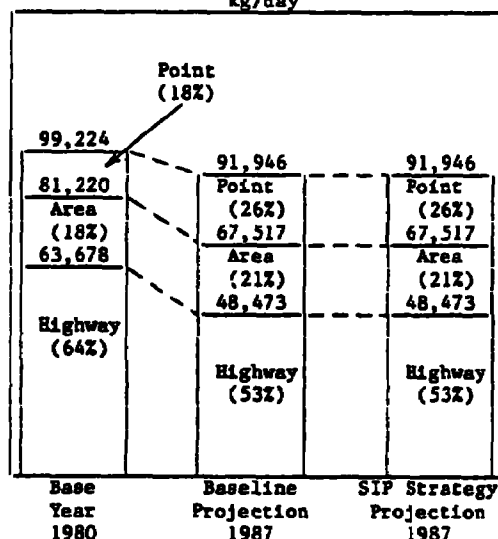
EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: VOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1987
DATE RECEIVED BY REGIONAL OFFICE: 3/9/82 POPULATION: 878,270 (1980)
REVIEW COMPLETION DATES: NONHIGHWAY 6/18/82 HIGHWAY 7/23/82 918,449 (1987)

VOLATILE ORGANIC COMPOUNDS kg/day



NITROGEN OXIDES kg/day



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(b)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	50.4	20.5	24.1	26.6	24.1	26.6	-50	+36
Nonhighway Area	42.7	20.7	37.3	20.7	37.3	20.7	- 8	+ 8
Highway	58.7	71.8	20.6	52.8	20.6	52.8	-63	-24
TOTAL	151.8	113.0	82.0	100.1	82.0	100.1	-44	- 7

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 31 NO_x (c)

COMMENTS: (a) Credit not included in emission totals for RACT on major nonRACT sources

(estimated at 5,200 TPY statewide). Controls included in SIP are RACT I, II, I/M, TCMs, and

RACT on all 100+ TPY sources (including RACT III). (b) Calculated percent change is for total

emissions, not normalized emissions per capita. (c) Only fuel use data supplied for major NO_x

facilities summarized for entire state (no breakdown by individual plant).

Non-attainment area Springfield, MA

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1978, 1979 & 1980 (expected effect of 1981 data on control strategy to be summarized in final SIP)
- Have all data been edited by ROs and verified by State/local Agency(ies)? Yes/NA
- Are all data entered in SAROAD? Yes/NA. If No, what is missing? _____
- Accepted by EPA? Yes/NA; if Yes, date 8/24/82

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Springfield, MA

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (m)	DISTANCE FROM RD. (m)	TRAFFIC ADT
PM10/NOx/ Ozone	222160014F01	Fernbank St. & North Boston Rd	Springfield	MA	NAVS	suburban/ commercial	80-81	3.6	8	17	1000
Ozone	220060001F01	University of Massachusetts	Amherst	MA			78-79		33		
Ozone	300480005F01	18 Mulberry St.	Nashua/ Hillsborough	NH	SLAMS	center city/ commercial	1978	3.1	118		
Ozone	220720002F01	Airport	Gardner	MA	SLAMS		1979		70		

OTHER:

Wind data collected at all available area wind data sources used to select potential modeling days

Wind data from nearest NWS station (hourly) used to construct trajectory paths used for modeling.

Mixing height data from Albany (Radiosonde) used for modeling.

MODELING

o Modeling Status

Model used: City-Specific EKMA

- Preliminary Modeling Completed? Yes/No; if Yes, date 1/29/82
- Reviewed by: RO(s) Yes OAQPS No
- Final Modeling Completed? Yes/No; if Yes, date unknown
- Reviewed by: RO(s) Yes OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date unknown

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Amherst, MA #220060001F01				
6/12/78	7*	0.099	0.155	36.5
7/14/79	7*	0.141	0.152	35.0
6/28/79	7*	0.06	0.135	23.6
6/11/78	7*	0.11	0.125	0
Nashua, NH #300480005F01				
7/21/78	7*	0.103	0.150	34.5
8/16/78	7*	0.06	0.140	25.2
Gardner, MA #220720002F01				
7/21/79	7*	0.06	0.138	18.5
7/10/79	7*	0.084	0.127	4.1

*Seasonal median 6-9 a.m.

o % HC Control Needed To Attain O₃ NAAQS 35**

o Remarks: **Since both Boston and Springfield contributed to standard exceedances at the Nashua, NH monitor, this % HC control would ensure that at least one of these urban areas (Springfield) would not contribute any exceedances while the other, (Boston) would be allowed one per year.

1982 OZONE SIP DATA BASE SUMMARY

CITY: Hartford STATE(s): Connecticut REGION: I

COUNTIES: Hartford area only (a)

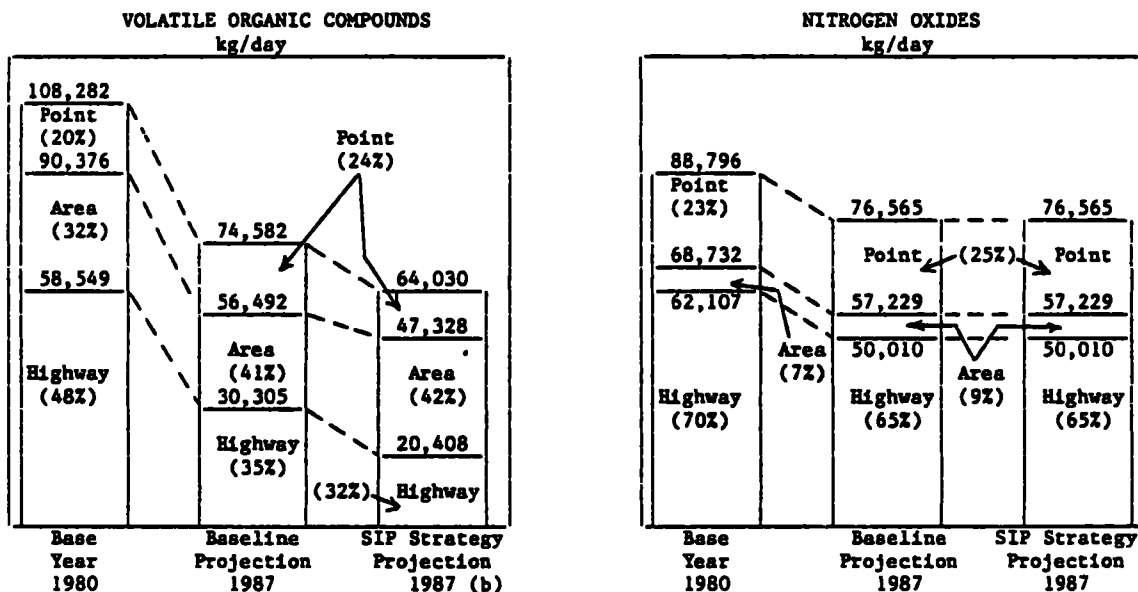
RESPONSIBLE AGENCIES: Connecticut Department of Environmental Protection

EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: VOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1987

DATE RECEIVED BY REGIONAL OFFICE: 4/15/82 POPULATION: 807,766 (1980)

REVIEW COMPLETION DATES: NONHIGHWAY 7/20/82 HIGHWAY 7/23/82 836,652 (1987)



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(c)	
Pollutants	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	23.5	24.8	21.6	23.1	20.0	23.1	- 7	0
Nonhighway Area	39.0	8.2	36.2	8.6	32.2	8.6	-15	+ 4
Highway	57.6	76.9	31.3	59.8	24.5	59.8	-65	-36
TOTAL	120.1	109.9	89.1	91.5	76.5	91.5	-41	-19

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 12 NO_x 7

COMMENTS: (a) For Hartford County only. Inventory area does not correspond with modeling areas.

(b) 1987 SIP strategy inventory for New Haven estimated from statewide totals. Controls included in SIP are RACT I, II, I/M, TCMs, and RACT on all 100+ TPY sources (including RACT III).

(c) Calculated percent change is for total emissions, not normalized emissions per capita.

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1975, 1976 & 1977 (expected effect of 1978, 1979 & 1980 data on control strategy to be summarized in final SIP; no plans to consider 1981 data.)
- Have all data been edited by ROs and verified by State/local Agency(ies)? Yes/NA; However, State has not presented summary of data for recent three years nor assessed effect on control strategy in SIP. The only NMOC data available, gathered in 1981, is known to be unreliable.
- Are all data entered in SAROAD? Yes/NA. If No, what is missing? _____
- Accepted by EPA? Yes/NA; if Yes, date 1/18/83

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area

Connecticut (Statewide)

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD. (m)	TRAFFIC ADT
Ozone	070060123F01	Keller St. & Borsum Ave.	Bridgeport/ Fairfield	CT		center city/ residential	75-77	6	NA*		
Ozone	070175123F01	Connecticut State College Osborne & 7th	Danbury/ Fairfield	CT		Suburban/ residential	75-77	4.5	NA*		
Ozone	070190123F01	Caroline ST. Est. near Shelton Indust. Zone	Darby/ New Haven	CT		center city/ commercial	76-77	14	NA*		
Ozone	070330004F01	Bruce Golf Course, King St.	Greenwich/ Fairfield	CT		rural/ near urban	75-77	1.8	NA*		
Ozone	070350123F01	University of Connecticut Avery Point	Groton/ New Haven	CT		suburban/ residential	75-77	9	NA*		
Ozone	070400001F01	Hamden Ag. Exp. Stn.	Hamden/ New Haven	CT		rural/ agricultural	75-77	4.5	NA*		
Ozone	070220013F01	30 Remington E. Hartford	Hartford/ Hartford	CT		suburban/ residential	75-77	4	NA*		
Ozone	070570007F01	Conn. Valley Hosp. Eastern Dr.	Middlesex/ Middlesex	CT		rural/ unqualified	75-77	5.8	NA*		
Ozone	070700123F01	715 State St.	New Haven/ New Haven	CT		center city/ residential	75-77	7.5	NA*		

* Not applicable Statewide

OTHERWind data collected at Bradley, Sikorsky (CT) and Central Park (NY) by NMS used in trajectory analysis to select possible modeling days.Wind data, Once possible modeling days were selected, not used in standard EJMA modeling.Mixing height data not needed for standard EJMA Hence, available regional data not used for modeling.

Non-attainment area Hartford, CT

MODELING

o Modeling Status

Model used: Standard EKMA (applied statewide)

- Preliminary Modeling Completed? Yes/NA; if Yes, date 1/29/82 Using pre-79 data base. (same as 79 SIP analysis)
- Reviewed by: RO(s) Yes, previously OAQPS Yes, previously in 79 SIP review.
- Final Modeling Completed? Yes/NA; if Yes, date unknown
- Reviewed by: RO(s) Yes* OAQPS Yes*

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/NA; if Yes, date unknown

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Groton, CT #070350123F01				
8/02/75	9.5**	0.050	0.145	55
8/25/76	9.5**	0.060	0.145	55
8/20/76	9.5**	0.065	0.144	54
8/21/76	9.5**	0.095	0.148	48

o % HC Control Needed To Attain O₃ NAAQS 48***

Remarks: *Still pending is review of recent air quality data on control strategy,
to be discussed in final SIP submittal. **Default value. ***Tentative until
effect of recent air quality data evaluated.

1982 OZONE SIP DATA BASE SUMMARY

CITY: New Haven STATE(s): Connecticut REGION: I

COUNTIES: New Haven area only (Fairfield County is added to New York City AQCR) (a)

RESPONSIBLE AGENCIES: Connecticut Department of Environmental Protection

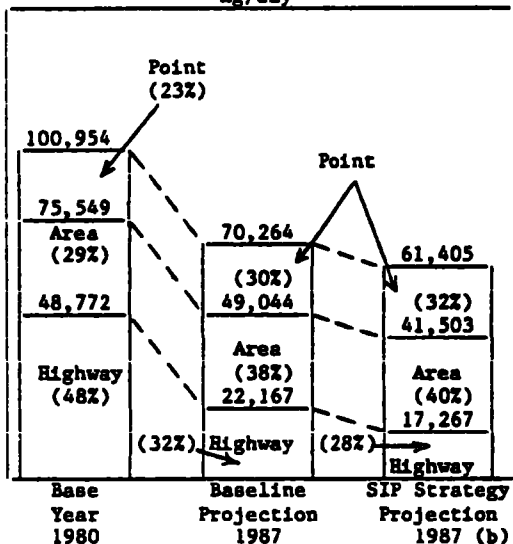
EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: VOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1987

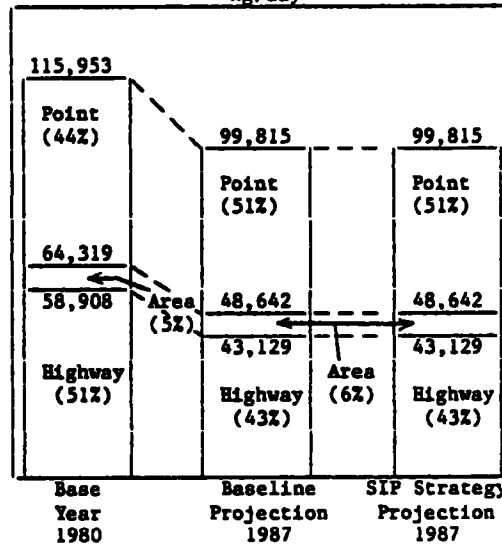
DATE RECEIVED BY REGIONAL OFFICE: 4/15/82 POPULATION: 761,337 (1980)

REVIEW COMPLETION DATES: NONHIGHWAY 7/20/82 HIGHWAY 7/23/82 776,128 (1987)

VOLATILE ORGANIC COMPOUNDS kg/day



NITROGEN OXIDES kg/day



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(c)	
Pollutants	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	30.7	67.8	27.3	65.9	25.6	65.9	-15	- 1
Nonhighway Area	37.8	7.1	34.6	7.1	31.2	7.1	-16	+ 2
Highway	64.1	77.4	28.6	55.6	22.3	55.6	-65	-27
TOTAL	132.6	152.3	90.5	128.6	79.1	128.6	-39	-14

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 18 NO_x 8

COMMENTS: (a) For New Haven County only. Inventory area does not correspond with modeling areas.

(b) 1987 SIP strategy inventory for New Haven estimated from statewide totals. Controls included in SIP are RACT I, II, I/M, TCMs, and RACT on all 100+ TPY sources (including RACT III).

(c) Calculated percent change is for total emissions, not normalized emissions per capita.

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1975, 1976 & 1977 (expected effect of 1978, 1979 & 1980 data on control strategy to be summarized in final SIP; no plans to consider 1981 data.)
- Have all data been edited by ROs and verified by State/local Agency(ies)? Yes/M&; However, State has not presented summary of data for recent three years nor assessed effect on control strategy in SIP. The only NMOC data available, gathered in 1981, is known to be unreliable.
- Are all data entered in SAROAD? Yes/M&. If No, What is missing? _____
- Accepted by EPA? Yes/M&; if Yes, date 1/18/83

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Connecticut (Statewide)

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (m)	DISTANCE FROM RD (m)	TRAFFIC ADT
Ozone	070060123F01	Holler St. & Bornum Ave.	Bridgeport/ Fairfield	CT		center city/ residential	75-77	6	NA*		
Ozone	070175123F01	Connecticut State College Osborne & 7th	Danbury/ Fairfield	CT		Suburban/ residential	75-77	4.5	NA*		
Ozone	070190123F01	Caroline ST. Ext. near Shelton Indust. Zone	Derby/ New Haven	CT		center city/ commercial	76-77	14	NA*		
Ozone	070330004F01	Bruce Golf Course, King St.	Greenwich/ Fairfield	CT		rural/ near urban	75-77	1.8	NA*		
Ozone	070350123F01	University of Connecticut Avery Point	Groton/ New Haven	CT		suburban/ residential	75-77	9	NA*		
Ozone	070400001F01	Harden Ag. Exp. Stn.	Harden/ New Haven	CT		rural/ agricultural	75-77	4.5	NA*		
Ozone	070220013F01	30 Remington E. Hartford	Hartford/ Hartford	CT		suburban/ residential	75-77	4	NA*		
Ozone	070570007F01	Conn. Valley Hosp. Eastern Dr.	Middletown/ Middletown	CT		rural/ unqualified	75-77	5.8	NA*		
Ozone	070700123F01	715 State St.	New Haven/ New Haven	CT		center city/ residential	75-77	7.5	NA*		

* Not applicable Statewide

OTHER:Wind data collected at Bradley, Sikorsky (CT) and Central Park (NY) by NMS used in trajectory analysis to select possible modeling days.Wind data. Once possible modeling days were selected, not used in standard EIOA modeling.Mixing height data not needed for standard EIOA Hence, available regional data not used for modeling.

MODELING

o Modeling Status

Model used: Standard EKMA (applied statewide)

- Preliminary Modeling Completed? Yes/~~No~~; if Yes, date 1/29/82 Using pre-79 data base. (same as 79 SIP analysis)
- Reviewed by: RO(s) Yes, previously OAQPS Yes, previously in 79 SIP review
- Final Modeling Completed? Yes/~~No~~; if Yes, date unknown
- Reviewed by: RO(s) Yes* OAQPS Yes*

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/~~No~~; if Yes, date unknown

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
8/02/75	9.5**	0.050	0.145	55
8/25/76	9.5**	0.060	0.145	55
8/20/76	9.5**	0.065	0.144	54
8/21/76	9.5**	0.095	0.148	48

- o % HC Control Needed To Attain O₃ NAAQS 48***
- o Remarks: *Still pending is review of recent air quality data on control strategy to be discussed in final SIP submittal. **Default value. ***Tentative until effect of recent air quality data evaluated.

1982 OZONE SIP DATA BASE SUMMARY

CITY: Providence STATE(s): Rhode Island REGION: I

COUNTIES: Rhode Island - Providence, Kent, Washington, Bristol and Newport

RESPONSIBLE AGENCIES: Nonhighway - Rhode Island Division of Air and Hazardous Materials,
Department of Environmental Management; Highway - Rhode Island Department of State Planning

EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: VOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1982

DATE RECEIVED BY REGIONAL OFFICE: 3/82 POPULATION: 947,154 (1980)

REVIEW COMPLETION DATES: NONHIGHWAY 6/17/80 HIGHWAY 7/23/82 953,000 (1982)(a)

VOLATILE ORGANIC COMPOUNDS kg/day

168,817 Point (24%)	149,111 Point (27%)	149,111 Point (27%)
127,875 Area (24%)	109,260 Area (25%)	109,260 Area (25%)
87,995 Highway (52%)	72,530 Highway (48%)	72,530 Highway (48%)
Base Year 1980	Baseline Projection 1982	SIP Strategy Projection 1982 (b)

NITROGEN OXIDES kg/day

Point (18%)	Point (17%)
105,227	97,559
86,468	80,800
76,968	71,300
Highway (73%)	Highway (73%)
Base Year 1980	Baseline Projection 1982
Area (9%)	Area (10%)
Highway (73%)	Highway (73%)
Base Year 1980	SIP Strategy Projection 1982

TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(c)	
Pollutants	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	43.3	19.8	41.8	17.6	41.8	17.6	- 3	-10
Nonhighway Area	42.1	10.0	38.6	10.0	38.6	10.0	- 8	0
Highway	92.9	81.3	76.1	74.8	76.1	74.8	-18	- 7
TOTAL	178.3	111.1	156.5	102.4	156.5	102.4	-12	- 7

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 26 NO_x (d)

COMMENTS: (a) No 1982 population for Rhode Island. Estimated by back calculation from consumer
/commercial solvent emissions. (b) Controls in SIP include RACT I, II and I/M. While I/M is
included in calculation of totals, Rhode Island claims that I/M is not part of their SIP since
an extension to 1987 is no longer requested (but will maintain program). (c) Calculated percent
change for total emissions, not emissions per capita. (d) No listing of major NO_x sources.

Non-attainment area Providence, RI

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981
- Have all data been edited by ROs and verified by State/local Agency(ies)? Yes/No
- Are all data entered in SAROAD? XXX/No; If No, what is missing? NOx data characterized as "spotty" in draft SIP. Used in SIP analysis but not entered in SAROAD.
- Accepted by EPA? Yes/No; if Yes, date 11/28/82

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Providence, RI

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD (m)	TRAFFIC ADT
PM10/NOx	410300018F05	Lead Observatory	Providence/Providence	RI		center city/	1981		cc		
Ozone	410300012F01	Rockefeller Library	Providence/Providence	RI	NAVS	center city/residential	79-81	2.5	cc	10	4000
Ozone	410140002F03	W. Alton Jones Campus	Kent County	RI	SLAWS	rural/unqualified	79-81	3.1			
Ozone	410300011F01	Health Department State St. Trailer	Providence/Providence	RI		center city/commercial	1979		cc		
Ozone	221880002F01	Fors River Bridge	Quincy	MA		rural/near urban	79-80		58		
Ozone	220535001F01	Post Office 300 Main Street	North Easton	MA	NAVS	rural/commercial	80-81	4.3	36	80	8000
Ozone	221210001F01	Hedfield State Hospital	Hedfield	MA	SLAWS	rural/commercial	79-81	2.3	41		
Ozone	222196001F01	Water Row Rd - Great Meadows Nat. Wildlife	Sudbury	MA		rural/agricultural	1980	4.3	59		

OTHER:

Wind data collected at Alton Jones Campus, RI Health Lab., Dyer Street monitoring site, and Green Airport (NWS)

Wind data from Alton Jones Campus, and Green Airport used for modeling.

Mixing height data from AP-101 climatological and Hopedale or Boston EPA sounding data (when available) used for modeling.

MODELING

o Modeling Status

Model used: City-Specific EKMA

- Preliminary Modeling Completed? Yes/No; if Yes, date 3/82
- Reviewed by: RO(s) Yes OAQPS No
- Final Modeling Completed? Yes/No; if Yes, date Unknown
- Reviewed by: RO(s) Yes OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date Unknown

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Quincy, MA #221880002F01				
7/14/79	4.5*	0.103	0.138	16
Medfield, MA #221210001F01				
8/05/80	4.5*	0.091	0.159	30
7/15/80	4.5*	0.110	0.135	12
7/25/79	4.5*	0.113	0.132	0
Nortn Easton, MA #220535001F01				
7/17/80	4.5*	0.072(or 0.094?)	0.150	27
7/16/80	4.5*	0.119	0.127	0

*Value used for all modeling days.

o % HC Control Needed To Attain O₃ NAAQS 12**Remarks: **Fourth highest control value selected from all the six site-days modeled.

2.2 Region II

New York, NY/NJ/CT

1982 OZONE SIP DATA BASE SUMMARY

CITY: New York STATE(s): New York, New Jersey, Connecticut REGION: II

COUNTIES: NJ - Bergen, Essex, Hudson, Middlesex, Monmouth, Morris, Passaic, Somerset, Union;
NY - Suffolk, Rockland, Westchester, Nassau, Manhattan, Kings, Queens, Bronx, Richmond;
CT - Fairfield.

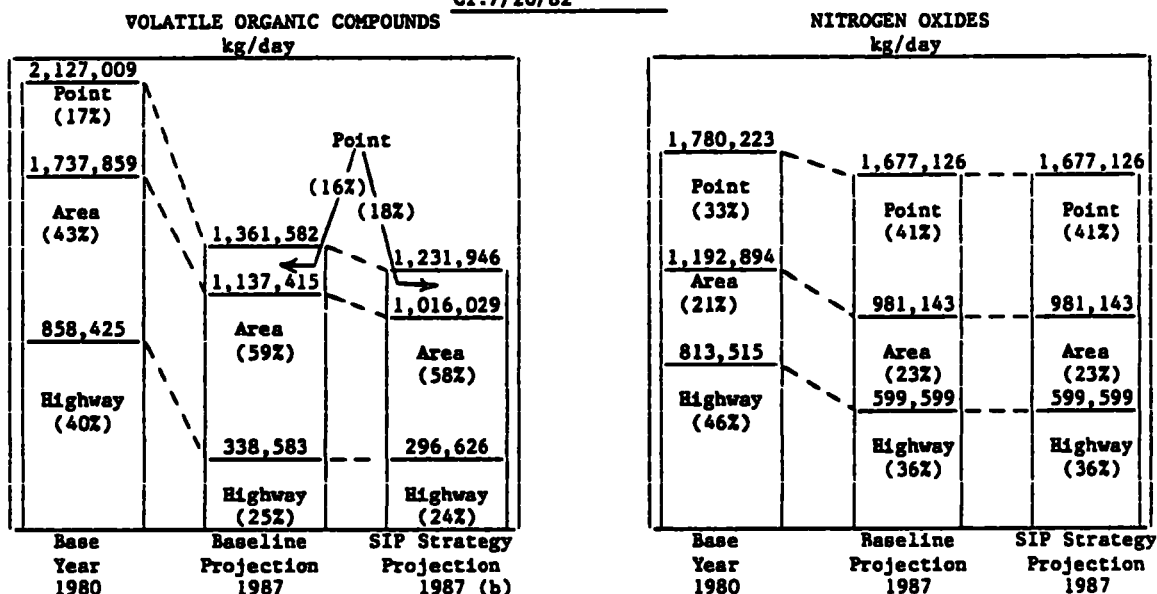
RESPONSIBLE AGENCIES: NY City DEP (all sources in city), TRI-State RPC (Highway, NY) NYSDEC
(Nonhighway, NY); NJDEP (Nonhighway, NJ), NJDOT (Highway, NJ); CTDEP (all sources, CT)

EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: VOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: (a)

DATE RECEIVED BY REGIONAL OFFICE: NY, NJ: 1/82; CT: 4/82 POPULATION: 16,668,193 (1980)

REVIEW COMPLETION DATES: NONHIGHWAY NY:2/11; NJ:2/24; HIGHWAY 7/23/82 17,010,978 (1987)
CT:7/20/82



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(c)	
Pollutants	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	21.5	35.3	13.2	40.9	12.7	40.9	-40	+18
Nonhighway Area	54.6	22.8	47.0	22.4	42.3	22.4	-21	- 1
Highway	51.5	48.8	19.9	35.2	17.4	35.2	-65	-26
TOTAL	127.6	106.8	80.1	98.5	72.4	98.5	-42	- 5

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 119 NO_x 112

COMMENTS: (a) Attainment not demonstrated by 1987. (b) 1987 SIP strategy inventory estimated for Fairfield Co, CT. Controls included in SIPs are RACT I, II, I/M, TCM's and for NJ and CT RACT on additional VOC sources above and below 100 TPY cutoff. SIP strategy inventory does not include extraordinary control measures for NJ. (c) Calculated percent change is for total emissions, not emissions per capita.

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981
- Have all data been edited by ROs and verified by State/local Agency(ies)? Yes/No
- Are all data entered in SAROAD? Yes/No. If No, what is missing? Sandy Hook is not in SAROAD; NJ has delayed sending 1981 data from SLAMS (Dumont)
- Accepted by EPA? Yes/No, if Yes, date *

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
New York City, NY/NJ/CT

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD. (m)	TRAFFIC ADT
PM10	334680084 A05	Steinway P.O. Astoria Queens	New York City/ Queens Co	NY			80	3	<10		
PM10	334680085 A05	Prospect Park Brooklyn	New York City/ Kings Co	NY			80	3	<10		
NOx	334680070 F01	Moolsey P.O. Astoria Queens	NYC/Queens	NY	SLAMS	city center/ residential	80	6	<10	30	8000
NOx	334680076 F01	PS 121 Brooklyn	NYC/Kings Co	NY	SLAMS	city center/ residential	80	12	<10	46	10,000
PM10/NOx	312580002 A05 312580002 J05	Linden	Linden/Union Co.	NJ		suburban/ industrial	80	5	25		
PM10/NOx	313500002 F01	New Brunswick	New Brunswick/ Middlesex Co	NJ	SLAMS	suburban/ residential	80	4	45		
PM10/NOx	310180003 F01	Bayonne	Bayonne/ Hudson Co	NJ	NAMS	city center/ residential	80	5	<10	420	20,000
PM10	313480004 A05	NJ Institute of Technology	Newark/ Essex Co	NJ		city center/ residential	80	21	15		
NOx	313480008 F01	Newark	Newark/Essex Co	NJ		city center/ commercial	80	4	15		
Ozone	070190123 F01	Derby	Derby/ New Haven Co	CT	SLAMS	city center/ commercial	78-80	5	90		
Ozone	070420123 F01	Hartford	Hartford/ Hartford Co	CT	SLAMS		78-80		150		
Ozone	070330004 F01	Greenwich Bruce Golf Course	Greenwich/ Fairfield Co	CT	SLAMS	rural/near urban	79-81	2	45		
Ozone	070220003 F01	East Hartford	E. Hartford/ Hartford Co	CT	NAMS	suburban/ residential	81	5	150	50	2000
Ozone	070700123 F01	New Haven	New Haven/ New Haven, Co	CT	NAMS	city center/ residential	79-81	4	105	12	9900
Ozone	070478001 F01	Morris Dam	Litchfield Co	CT	SLAMS	remote	78-80	2	120		
Ozone	070570007 F01	Middletown	Middletown/ Middlesex Co	CT	NAMS	rural/ unqualified	80-81	18	145	225	50,000
Ozone	071110007 F01	Stratford Potat	Bridgeport/ Fairfield Co	CT	NAMS	suburban/ residential	80-81	30	90	75	500
Ozone	330280002 F01	Babylon	Babylon/ Suffolk Co	NY	SLAMS	suburban/ industrial	78-81	5	60	30	3900
Ozone	NOT in SAROAD	Sandy Hook	Middlesex Co	NJ	SLAMS		78-81		30		
Ozone	311120001 F01	Dumont	Dumont/ Bergen Co	NJ	SLAMS	suburban/ residential	80	5	25		

OTHER:Wind data collected at agency sites and at local airportsWind data from Newark, Philadelphia and Hartford NWS Officesused for modeling.Mixing height data from Fort Totten, NY (NYC) NWS Soundingsused for modeling.

*Since EPA Region II was closely involved in verifying data used for modeling it did not plan to formally advise States on data acceptance.

MODELING

o Modeling Status

Model used: City-Specific EKMA- Preliminary Modeling Completed? Yes/No; if Yes, date 7/15/81 report date- Reviewed by: RO(s) Yes OAQPS Yes- Final Modeling Completed? Yes/No; if Yes, date 3/15/82 transmittal date- Reviewed by: RO(s) Yes OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date unknown

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concentration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Stratford Point, CT #071110007F01				
7/20/80	9.6**	0.122	0.272	***
7/21/80*	9.6**	0.125	0.303	64
6/24/80*	9.6**	0.102	0.253	60
Middletown, CT #070570007F01				
7/21/80	9.6**	0.125	0.262	***
7/16/80*	9.6**	0.100	0.262	63
6/24/80*	9.6**	0.102	0.234	58
New Haven, CT #070700123F01				
7/21/80	9.6**	0.125	0.235	***
7/20/80	9.6**	0.122	0.226	***
7/16/80	9.6**	0.100	0.291	***
7/22/80*	9.6**	0.089	0.227	60

o % HC Control-Needed To Attain O₃ NAAQS 60****

o Remarks: *These site/days were modeled using the City-Specific EKMA Appendix B procedures which account for precursor transport. **Mean median of daily 6-9 a.m. ratios for six sites in 1980 excluding weekend days. ***Not modeled with Appendix B, but preliminary screening indicated that these days would yield higher % control value(s), for each particular site, if Appendix B were used. ****New Jersey has accepted the 60% VOC control value. New York has rejected the 60% value on grounds that the Stratford Point site is unrepresentative. New York has selected a 58% control value. The Region contends that the site is representative and that 60% is the appropriate value.

2.3 Region III

Allentown, PA

Baltimore, MD

Pittsburgh, PA

Philadelphia, PA/NJ/DE

Washington, DC

1982 OZONE SIP DATA BASE SUMMARY

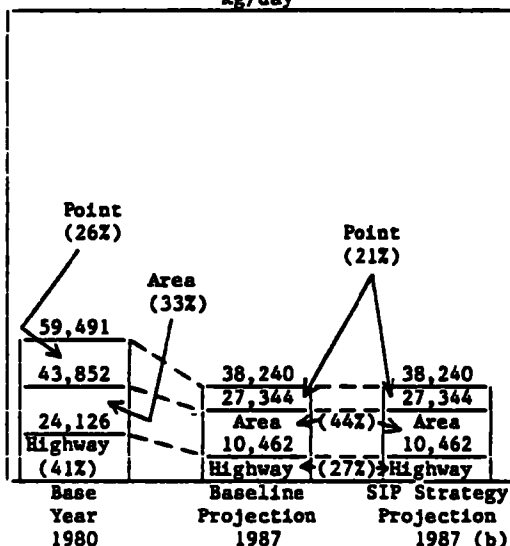
CITY: Allentown STATE(s): Pennsylvania REGION: III
COUNTIES: Lehigh, Northampton

RESPONSIBLE AGENCIES: Pennsylvania Department of Environmental Resources - Nonhighway
Pennsylvania Department of Transportation - Highway

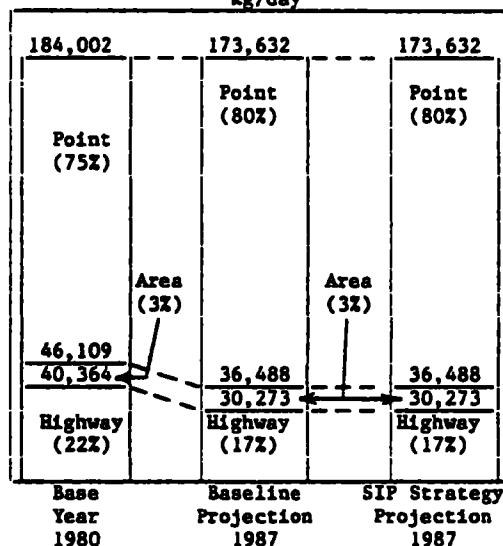
EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: VOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1987
DATE RECEIVED BY REGIONAL OFFICE: 7/82 POPULATION: 497,500 (1980) (a)
REVIEW COMPLETION DATES: NONHIGHWAY 10/6/82 HIGHWAY 11/1/82 516,800 (1987) (a)

VOLATILE ORGANIC COMPOUNDS kg/day



NITROGEN OXIDES kg/day



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(c)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	31.4	277.2	21.1	277.0	21.1	277.0	-30	+ 4
Nonhighway Area	39.7	11.5	32.6	12.0	32.6	12.0	-14	+ 8
Highway	48.5	81.1	20.2	58.6	20.2	58.6	-57	-25
TOTAL	119.6	369.8	73.9	347.6	73.9	347.6	-36	- 2

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 14 NO_x 13

COMMENTS: (a) Population data not directly available at publication. Population estimated by back calculation from consumer/commercial solvent use. (b) Includes effects of I/M program. Controls included in SIP are RACT I, II (except Perchloroethylene Dry Cleaners), I/M, and TCMs. (c) Calculated percent change for total emissions, not normalized emissions per capita.

Non-attainment area Allentown, PA

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981
- Have all data been edited by ROs and verified by State/local Agency(ies)?
Yes/NOX
- Are all data entered in SAROAD? Yes/NOX If No, what is missing? _____
- Accepted by EPA? Yes/NOX; if Yes, date 11/23/82

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Allentown, PA

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (m)	DISTANCE FROM RD. (m)	TRAFFIC ADT
Ozone/ NMOC/NOx	390120003F01	James & Fenwick Sts.	Allentown/ Lehigh	PA	NAVS	suburban/ residential	79-81	2		18	50
Ozone/ NMOC/NOx	390760017F01	East Market & Wood Sts.	Bethlehem/ Northampton	PA	NAVS	suburban/ industrial	79-81	4		50	2000
Ozone	392720100F01	Coal & Milton Sts.	Easton/ Northampton	PA	NAVS	suburban/ residential	80-81	4		10	50
Ozone	394620001F05	Kutztown State College Grin Science Bldg.	Kutztown/ Berks	PA		rural/ unqualified	80-81				

OTHER:

Wind data collected at Allentown
 Wind data from Allentown HWS used for modeling.
 Mixing height data from Albany, NY & Washington (Dulles Airport), DC used for modeling.

MODELING

o Modeling Status

Model used: City-Specific EKMA- Preliminary Modeling Completed? Yes/No; if Yes, date unknown

- Reviewed by: RO(s) _____ OAQPS _____

- Final Modeling Completed? Yes/No; if Yes, date 6/25/82- Reviewed by: RO(s) Yes OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date 6/25/82

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Allentown, PA #390120003F01				
6/01/79	7.0	0.114	0.162	40.0
5/09/79	7.0	0.070	0.173	39.3
6/15/79	7.0	0.087	0.172	35.4
9/04/80	7.0	0.068	0.145	20.0
6/19/80	7.0	0.087	0.142	18.5
6/08/79	7.0	0.104	0.136	9.8
8/27/80	7.0	0.132	0.137	0
Bethlehem, PA #390780017F01				
6/01/79	7.0	0.114	0.228	53.8
6/19/80	7.0	0.087	0.155	32.2
5/11/79	7.0	0.132	0.157	30.0
6/15/79	7.0	0.087	0.154	27.5
7/15/80	7.0	0.121	0.152	26.2
5/31/80	7.0	0.068	0.148	25.5
9/04/80	7.0	0.068	0.151	21.4
Easton, PA #392720100F01				
9/04/80	7.0	0.068	0.153	21.7
9/13/80	7.0	0.089	0.149	19.7
9/20/80	7.0	0.057	0.126	6.5
8/25/80	7.0	0.078	0.126	0

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o % HC Control Needed To Attain O₃ NAAQS 27.5

o Remarks: _____

Kutztown, PA #394620001F05

6/30/81	7.0	0.077	0.147	24.1
7/10/80	7.0	0.090	0.143	24.1
9/09/80	7.0	0.044	0.148	22.5
7/24/81	7.0	0.062	0.144	21.7
7/26/80	7.0	0.080	0.137	20.7
8/29/80	7.0	0.039	0.146	16.7
7/19/80	7.0	0.080	0.137	14.0

1982 OZONE SIP DATA BASE SUMMARY

CITY: Baltimore STATE(s): Maryland REGION: III

COUNTIES: Anne Arundel, Baltimore, Carroll, Harford, and Howard

RESPONSIBLE AGENCIES: Maryland Air Management Administration - Point

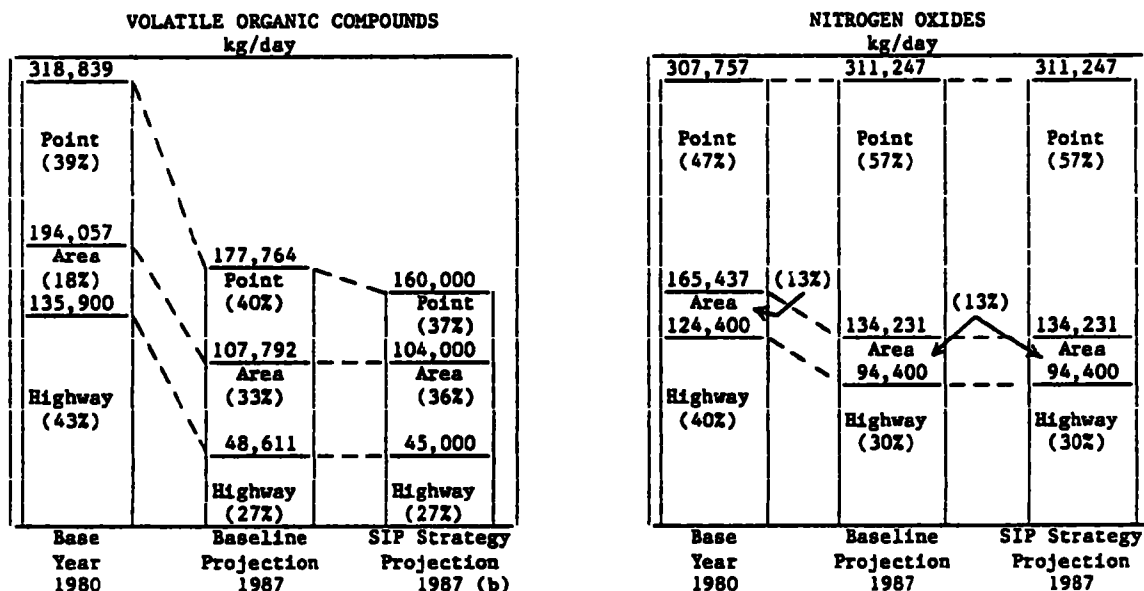
Baltimore Regional Planning Council - Highway

EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: EVOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1987

DATE RECEIVED BY REGIONAL OFFICE: 12/81 POPULATION: 2,174,023 (1980)

REVIEW COMPLETION DATES: NONHIGHWAY 2/23/82 HIGHWAY 7/23/82 2,254,000 (1987)(a)



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(c)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	57.5	66.5	31.1	78.6	27.5	78.6	-68	+23
Nonhighway Area	26.8	18.9	26.3	17.7	26.2	17.7	+1	-3
Highway	62.6	57.3	21.6	42.0	20.0	42.0	-67	-24
TOTAL	146.9	142.7	79.0	138.3	73.7	138.3	-48	-0

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 37 NO_x 24 (d)

COMMENTS: (a) 1987 population estimated by interpolation of 1985 and 1990 figures. (b) Emission goal with a 9,000 kg/day VOC reduction necessary to be achieved with additional RACT.

Controls in SIP include RACT I, II, I/M, TCM's, and RACT on all 100 TPY sources (including RACT III). (c) Calculated percent change for total emissions, not normalized emissions per capita.

(d) Number of major NO_x facilities not included. Number of NO_x sources from NECRMP study data.

Non-attainment area Baltimore, MD

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981
- Have all data been edited by ROs and verified by State/local Agency(ies)?
Yes/No
- Are all data entered in SAROAD? Yes/No. If No, what is missing? _____
- Accepted by EPA? Yes/No; if Yes, date 3/30/82

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Baltimore, MD

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (m)	DISTANCE FROM RD. (m)	TRAFFIC ADT
Ozone/ PM10	210080019G05	FT. Meade	Anne Arundel Co.	MD	SLAMS	suburban/ commercial	80-81	5			
Ozone	211360002G01	Elementary School Jenkins Road	Riviera Beach/ Anne Arundel	MD		suburban/ commercial	80-81				
Ozone/ PM10/NOx	210680001G01	Woodward & Dorsey Rds.	Essex/ Baltimore	MD	NAMS	suburban/ commercial	79-81	4		190	30000
Ozone	210500007G01	Greenside Drive	Cockeysville/ Baltimore	MD		suburban/ residential	80-81				
Ozone	210140010G01	Gunpowder Military Reservation	Baltimore Co.	MD		remote	80-81				
Ozone	210920080J05	3213 Copenheaver Rd & RD 2	Bel Air/ Harford	MD		remote	80				
Ozone	210650001FD1	Edgewood Army Center	Edgewood/ Harford	MD		suburban/ residential	80-81	4		10	100
PM10/NOx	210120004HD1	200 Read St	Baltimore/ Baltimore	MD		center city/ commercial	79-81	3		0	
PM10/NOx	210120018FD1	Calvertt & 22nd St.	Baltimore/ Baltimore	MD		center city/ commercial	79-81				

OTHER:

Wind data collected at _____
 Wind data from _____ used for modeling.
 Mixing height data from _____ used for modeling.

MODELING

o Modeling Status

Model used: City-Specific EKMA- Preliminary Modeling Completed? Yes/No; if Yes, date unknown- Reviewed by: RO(s) No OAQPS No- Final Modeling Completed? Yes/No; if Yes, date 7/01/82- Reviewed by: RO(s) Yes OAQPS Yes (8/06/82)

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date 7/01/82

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Ft. Meade, MD #210080019G05				
8/05/80	8.26*	0.042	0.176	53.0
7/17/80	8.26*	0.049	0.183	49.3
Riviera Beach, MD #211360002G01				
8/04/80	8.26*	0.056	0.198	49.0
Essex, MD #210680001G01				
7/19/80	8.26*	0.055	0.171	46.5
8/26/80	8.26*	0.043	0.167	31.9
Cockeysville, MD #210500007G01				
8/07/80	8.26*	0.062	0.167	48.0
8/11/80	8.26*	0.038	0.183	46.2

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o % HC Control Needed To Attain O₃ NAAQS 49o Remarks: *median ratio

Edgewood, MD #210650001F01

7/31/80	8.26*	0.070	0.162	49.3
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Baltimore Co., MD #210140010G01

8/05/80	8.26*	0.042	0.195	56.0
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8/27/80	8.26*	0.072	0.177	46.6
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Bel Air, MD #210920080J05

7/21/80	8.26*	0.050	0.179	44.9
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1982 OZONE SIP DATA BASE SUMMARY

CITY: Pittsburgh STATE(s): Pennsylvania REGION: III

COUNTIES: Allegheny, Armstrong, Beaver, Butler, Washington, Westmoreland

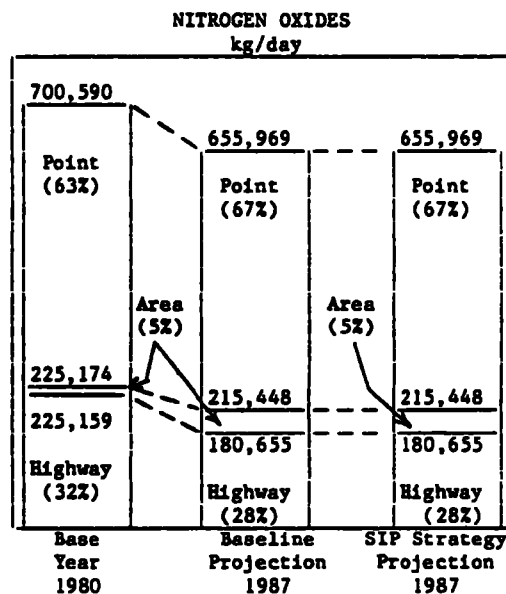
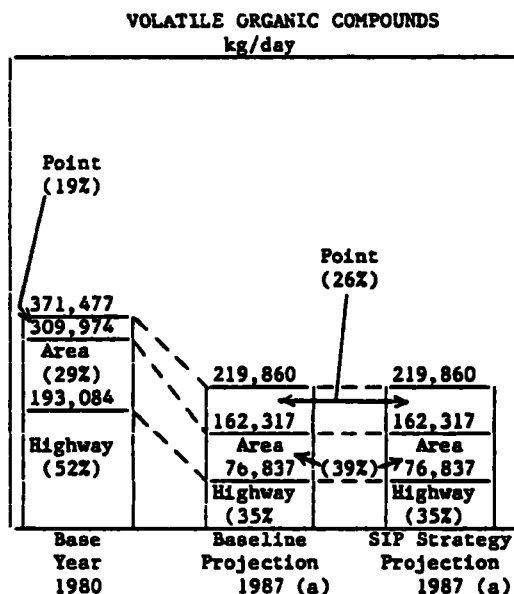
RESPONSIBLE AGENCIES: Allegheny County Bureau of Air Pollution Control, PA Department of Environmental Resources - Nonhighway; Southwest Pennsylvania Air Pollution Control - Highway

EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: VOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1987

DATE RECEIVED BY REGIONAL OFFICE: 2/82 POPULATION: 2,489,574 (1980)

REVIEW COMPLETION DATES: NONHIGHWAY 3/25/82 HIGHWAY 7/23/82 2,481,561 (1987)



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(b)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	28.3	177.3	23.2	177.5	23.2	177.5	-18	0
Nonhighway Area	43.3	13.7	34.4	14.0	34.4	14.0	-21	+ 2
Highway	77.6	90.4	31.0	72.8	31.0	72.8	-60	-20
TOTAL	149.2	281.4	88.6	264.3	88.6	264.3	-41	- 6

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 54 NO_x 48

COMMENTS: (a) Includes I/M credits. Controls in SIP include RACT I, II (except Perchloroethylene Dry Cleaners) and I/M. (b) Calculated percent change is for total emissions, not normalized emissions per capita.

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981
- Have all data been edited by ROs and verified by State/local Agency(ies)?
Yes/No
- Are all data entered in SAROAD? Yes/No. If No, what is missing? _____
- Accepted by EPA? Yes/No; if Yes, date 11/23/82

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Pittsburgh, PA

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT (m)	DISTANCE FROM CC (m)	DISTANCE FROM RD. (m)	TRAFFIC ADT
Ozone	390940001G01	Brackenridge Water Works	Brackenridge/ Allegheny	PA	NAVS	suburban/ residential	80-81	5		153	1000
Ozone/NOx	396520101F01	Logans Ferry Road	New Kensington/ Westmoreland	PA			81				
Ozone/NOx	397260008G01	301 39th Street Bldg. #7	Lawrenceville/ Allegheny	PA	NAVS	center city/ commercial	79-81	14		76	4000
Ozone	390100088G01	Municiple Bldg. 12245 Frankstown Road	Penn Hills/ Allegheny	PA	NAVS	suburban/ commercial	79-81	15		30	15000
PMOC/NOx	390100081J05	Civic Center Auditorium	Pittsburgh/ Allegheny	PA		suburban/ residential	80	11			
NOx	390100067J05	William C. Boyce Park	Allegheny	PA		suburban/ residential	80	4			
PMOC	390440004F01	US 65 & Holmes Ave.	Baden/ Beaver	PA		center city/ industrial	79-81	4			
PMOC/NOx	390580014F01	Eight St & River Alley	Beaver Falls/ Beaver	PA		center city/ residential	79-81	4			
PMOC/NOx	397260026J05	Township High School South Fayette	Pittsburgh/ Allegheny	PA		suburban/ residential	80	4			

OTHERWind data collected at Greater Pittsburgh International AirportWind data from Greater Pittsburgh International Airport

used for modeling.

Mixing height data from Greater Pittsburgh International Airport

used for modeling

MODELING

o Modeling Status

Model used: City-Specific EKMA- Preliminary Modeling Completed? Yes/NA; if Yes, date 8/81- Reviewed by: RO(s) Yes OAQPS No- Final Modeling Completed? Yes/NA; if Yes, date unknown- Reviewed by: RO(s) Yes OAQPS Yes (8/17/82)

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/NA; if Yes, date 6/25/82

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
New Kensington, PA #396520101F01				
7/18/81	7.0*	0.042	0.138	24.2
5/23/81	7.0*	0.075	0.130	11.3
Brackenridge, PA #390940001G01				
7/14/80	7.0*	0.077	0.154	37.0
7/18/81	7.0*	0.042	0.142	28.2
7/12/81	7.0*	0.069	0.132	13.2
Penn Hills, PA #390100088G01				
7/04/80	7.0*	0.106	0.177	51.3
7/14/80	7.0*	0.077	0.174	47.0
6/26/80	7.0*	0.083	0.153	42.0
6/30/81	7.0*	0.078	0.141	28.4
8/27/81	7.0*	0.055	0.129	17.0
7/26/80	7.0*	0.077	0.130	5.4

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o % HC Control Needed To Attain O₃ NAAQS 36.7o Remarks: *NMOC/NO_x ratio used for modeling is from 1980 summer study in Pittsburgh

Lawrenceville, PA #397260008G01

6/26/80	7.0*	0.083	0.174	55.2
7/21/79	7.0*	0.075	0.170	41.2
9/01/79	7.0*	0.091	0.167	41.1
7/20/79	7.0*	0.035	0.155	36.7
6/22/80	7.0*	0.064	0.146	33.3
8/26/80	7.0*	0.085	0.150	30.4
7/19/79	7.0*	0.031	0.147	29.8
9/03/79	7.0*	0.095	0.162	29.4
7/04/80	7.0*	0.106	0.148	27.6
7/18/81	7.0*	0.042	0.140	25.0

1982 OZONE SIP DATA BASE SUMMARY

CITY: Philadelphia STATE(s): Pennsylvania/New Jersey/Delaware REGION: III

COUNTIES: PA - Bucks, Chester, Delaware, Montgomery, Philadelphia; DE - New Castle;

NJ - Burlington, Camden, Gloucester, Mercer, Salem.

RESPONSIBLE AGENCIES: WIMAPCAO, NJDOT, DVRPC - Highway; Pennsylvania DER, New Jersey DEP,
Delaware DNREC and Philadelphia AMS - Nonhighway

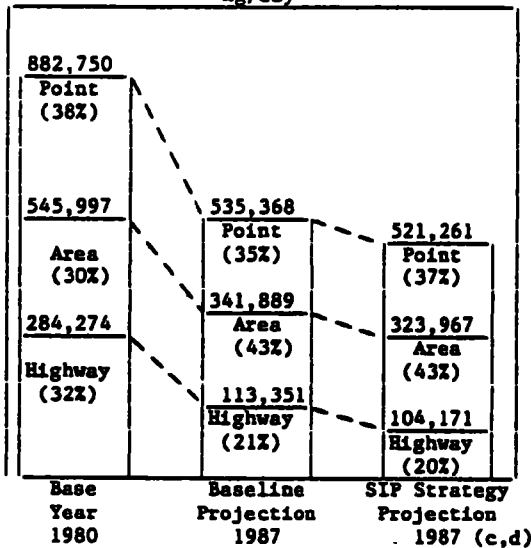
EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: VOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: (a)

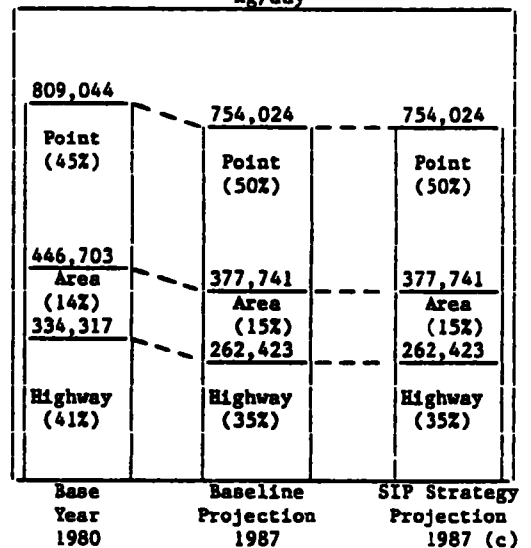
DATE RECEIVED BY REGIONAL OFFICE: NJ, DE: 1/82; PA 3/82 POPULATION: 5,615,240 (1980)

REVIEW COMPLETION DATES: NONHIGHWAY NJ, DE: 2/23; PA: 7/6 HIGHWAY 7/23/82 5,670,676 (1987)

VOLATILE ORGANIC COMPOUNDS (b)
kg/day



NITROGEN OXIDES (b)
kg/day



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(e)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	60.0	64.5	34.1	66.4	33.2	66.4	-43	+ 4
Nonhighway Area	46.6	20.0	40.3	20.3	38.8	20.3	-13	+ 3
Highway	50.6	59.5	20.0	46.3	18.4	46.3	-60	-22
TOTAL	157.2	144.0	94.0	133.0	90.4	133.0	-39	- 7

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 110 NO_x 49 (f)

COMMENTS: (a) '87 attainment not demonstrated. (b) Point/area breakdown assumed for DE. (c) No
change between baseline and SIP strategy PA 1987 emissions. (d) Controls include RACT I, II
(except for Ferch. Dry Cleaners in PA), I/M, TCM's (NJ only) and RACT on all sources including
sources below 100 TPY (NJ only). (e) Calculated percent change for total emissions, not emissions
per capita. (f) Number in Phil. Co. not submitted. NECRMP study data used.

Non-attainment area Philadelphia, PA.

Trenton, NJ

Wilmington, DE

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981

- Have all data been edited by ROs and verified by State/local Agency(ies)?
Yes/NOX

- Are all data entered in SAROAD? Yes/NO. If No, what is missing? _____

- Accepted by EPA? Yes/NO; if Yes, date 4/05/82

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Philadelphia, PA

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD. (m)	TRAFFIC ADT
PM10/NOx	37140029 NO1	20th & Race St.	Philadelphia/Philadelphia	PA		suburban/mobile	79-81	15.2	2*		
PM10/NOx	397140026 NO1	Broad & Spruce Sts.	Philadelphia/Philadelphia	PA		center city/commercial	79-81	4	1*		
PM10/NOx	397140004 NO1	1501 E. Lycoming Ave. AMS Labs.	Philadelphia/Philadelphia	PA		suburban/residential	79-81	5.2	4*		
Ozone	391080012 FO1	Rockview Dr.	Bristol/Bucks	PA		suburban/residential	79-81	2.1	36*		
Ozone	310720003 FO1	Copewood & Davis St.	Camden/Camden	N.J.	NAMS	suburban/residential	79-81	3.7	7*	150	3000
Ozone	310780003 FO1	Cape May City	Cape May	N.J.		rural/unpopulated	79-81	3.7	40*		
Ozone	391620002 FO1	Front & Morris Sts.	Chesster/Delaware	PA		suburban/industrial	79-81	2.1	27*		
Ozone	312750001 FO1	N. Boling Blvd. & E. Castle Rd.	McGuire/Burlington	N.J.	NAMS	suburban/residential	79-81	4.6	18*	21	3000
Ozone	397140024 NO1	N.E. Airport	Philadelphia/Philadelphia	PA	NAMS	suburban/commercial	79-81	6*	26*	60	1000
Ozone	396540013 FO1	State Armory 1046 Belvoir Rd.	Norristown/Montgomery	PA		suburban/residential	79-81	3.7	27*		
Ozone	397140014 NO1	Russ Water Pump Sta. EVA-Deamley Sts.	Philadelphia/Philadelphia	PA		suburban/residential	79-81	4	3*		
Ozone	315060001 FO1	86-88 West Main St.	Somerville/Somerville	N.J.		center city/commercial	79-81	4.9	30*		
Ozone	315400002 FO1	16 East State St.	Trenton/Mercer	N.J.		center city/commercial	79-81	4.6	26*		

OTHER

Wind data collected at Philadelphia AMS Allegheny & N.E. Airport

Wind data from // used for modeling.

Mixing height data from Radiosonde Data, New York & Dallas used for modeling.

*Estimated distance from center city of Philadelphia

MODELING

o Modeling Status

Model used: City-Specific EKMA- Preliminary Modeling Completed? Yes/No; if Yes, date 12/80- Reviewed by: RO(s) No OAQPS No- Final Modeling Completed? Yes/No; if Yes, date 2/22/82- Reviewed by: RO(s) Yes 3/26/82 OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date 4/05/82

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Bristol #391080012 F01				
8/27/80	6.9*	0.060	0.176	49
6/05/79	6.9*	0.042*	0.193	39
6/15/80	6.9*	0.040	0.183	20
Camden #310720003 F01				
8/07/80	6.9*	0.059	0.164	43
8/26/80	6.9*	0.020	0.166	37
Cape May #310780003 F01				
6/30/81	6.9*	0.042*	0.200	45
7/12/81	10.8	0.052	0.150	40
Chester #391620002 F01				
7/13/79	6.9*	0.105	0.183	54
6/07/79	6.9*	0.043	0.170	38
8/25/80	5.8	0.042*	0.194	35
McGuire #312750001 F01				
7/16/80	7.7	0.040	0.218	47
8/02/80	6.9*	0.050	0.173	43
7/21/80	6.9*	0.090	0.228	42

- continued on next page -

o % HC Control Needed To Attain O₃ NAAQS44

o Remarks:

N.E. Airport #397140024 H01

8/07/80	6.9*	0.059	0.180	52
7/13/79	6.9*	0.105	0.160	50
6/15/81	6.9*	0.030	0.180	48
8/05/80	6.9	0.040	0.180	39
6/29/80	6.9*	0.030	0.170	29

Norristown #396540013 F01

8/01/81	7.8	0.042*	0.221	54
7/13/79	6.9*	0.105	0.183	54
6/28/80	6.9*	0.042*	0.176	38

Roxborough #397140014 H01

7/13/79	6.9*	0.105	0.200	59
7/20/79	6.9*	0.070	0.170	53
6/24/80	8.2	0.050	0.160	39
7/19/79	6.9*	0.032	0.170	37

Somerville #315060001 F01

7/09/79	12.0	0.083	0.163	58
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Trenton #315400002 F01

6/23/80	6.9*	0.040	0.164	58
6/15/81	6.9*	0.030	0.206	55
8/04/80	6.9*	0.040	0.189	45
6/24/80	8.2	0.050	0.171	44
7/21/80	6.9*	0.090	0.194	42

* Signifies default values- basis for default values not provided.

1982 OZONE SIP DATA BASE SUMMARY

CITY: Washington STATE(s): District of Columbia/Virginia/Maryland REGION: III

COUNTIES: District of Columbia; MD - Montgomery, Prince Georges; VA - Arlington, Fairfax, Loudoun, Prince William

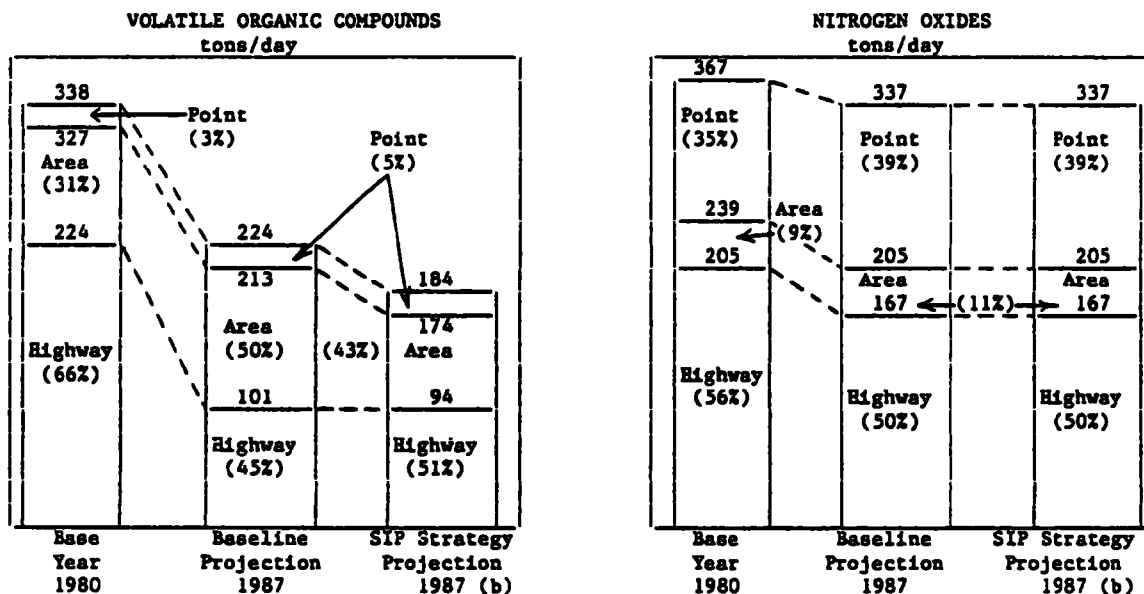
RESPONSIBLE AGENCIES: Washington Council of Governments (Lead Agency, All Sources)
Virginia Air Pollution Control Department; Maryland Bureau of Air Quality

EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: HC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1987

DATE RECEIVED BY REGIONAL OFFICE: 6/30/82 POPULATION: 2,988,171 (1980)

REVIEW COMPLETION DATES: NONHIGHWAY 7/27/82 HIGHWAY 11/1/82 3,256,000 (1987) (a)



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(c)	
Pollutants	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	3.0	38.9	3.1	36.9	2.8	36.9	- 9	+ 3
Nonhighway Area	31.6	10.3	31.3	10.6	22.3	22.3	-23	+12
Highway	68.2	62.4	28.2	46.6	26.3	46.6	-55	-19
TOTAL	102.8	111.6	62.6	94.1	51.4	94.1	-46	-16

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 21 NO_x 16 (d)

COMMENTS: (a) Population derived from 1980 census data and COG 1987 household projections.

(b) SIP strategy inventory estimated by QAQPS. Three different control strategies presently proposed. Controls in SIP include RACT I, II, I/M, TCM's, RACT on less than 100 TPY sources.

(c) Calculated percent change is for total emissions, not normalized emissions per capita.

(d) Number of major facilities from NECRMP data. Major VOC/NO_x source list not submitted.

Non-attainment area Washington, DC/MD/VA

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981
- Have all data been edited by ROs and verified by State/local Agency(ies)? Yes/No
- Are all data entered in SAROAD? Yes/No. If No, what is missing? _____
- Accepted by EPA? Yes/No; if Yes, date 3/22/82

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Washington, DC/MD/VA

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT (m)	DISTANCE FROM CC (m)	DISTANCE FROM RD (m)	TRAFFIC ADT
Ozone/NO _x	090020025101	Takoma School Piney Branch Rd. & DeHia St. N.W.	Washington	D.C.	NAMS	center city/ residential	80-81	11	3	147	10,000
PMOC/NO _x	090020017101	West End Library 24 & L Sts., NW	Washington	D.C.		center city/ commercial	80-81	11			

OTHER

Wind data collected at _____
 Wind data from _____ used for modeling.
 Missing height data from Dulles Airport used for modeling.

MODELING

o Modeling Status

Model used: City-Specific EKMA

- Preliminary Modeling Completed? Yes/No; if Yes, date 9/81
- Reviewed by: RO(s) No OAQPS No
- Final Modeling Completed? Yes/No; if Yes, date 4/07/82
- Reviewed by: RO(s) Yes OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date 3/22/82

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Washington, DC #090020025101 (Takoma)				
7/17/80	8.0*	0.06	0.20	55
7/16/80	8.0*	0.06	0.16	48
8/07/80	8.0*	0.06	0.18	46
8/29/80	8.0*	0.06	0.14	32
7/21/80	8.0*	0.06	0.14	30

o % HC Control Needed To Attain O₃ NAAQS 46o Remarks: Other sites used in preliminary modeling, but only the Takoma site was considered in final modeling.*median ratio

2.4 Region IV

Louisville, KY/IN

Nashville, TN

1982 OZONE SIP DATA BASE SUMMARY

CITY: Louisville STATE(s): Kentucky/Indiana REGION: IV

COUNTIES: Kentucky - Jefferson; Indiana - Clark, and Floyd

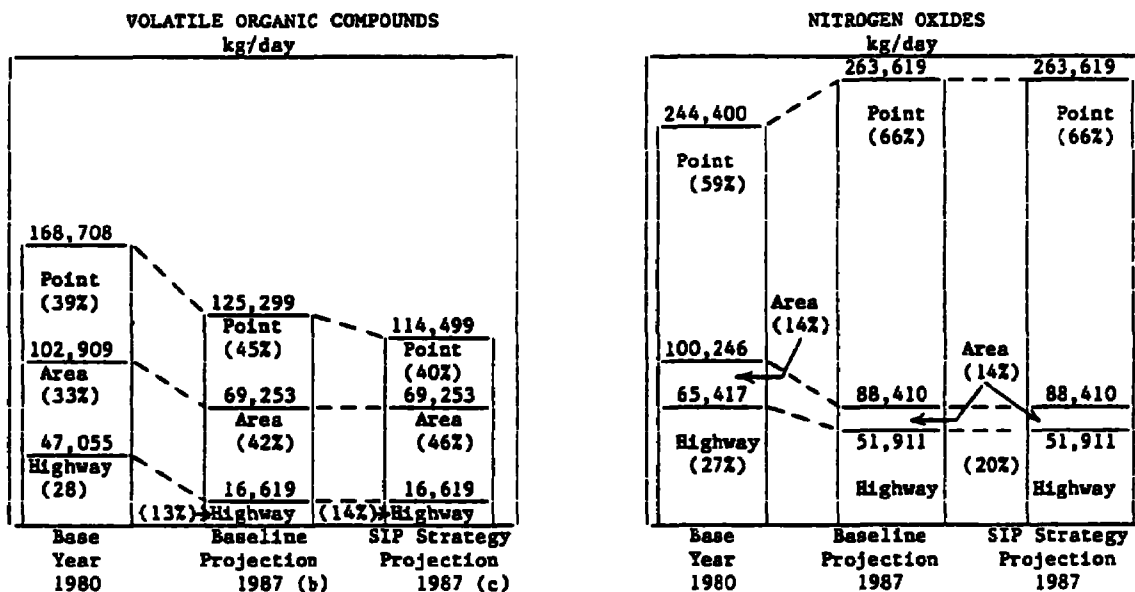
RESPONSIBLE AGENCIES: Jefferson County APCD; Indiana State Board of Health - Point Sources
Kentuckiana Regional Planning and Development Agency (KIPDA) - Highway Vehicles
Region IV (Engineering-Science) - Area Sources

EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: RVOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1987

DATE RECEIVED BY REGIONAL OFFICE: 12/81 POPULATION: 834,837 (1980)

REVIEW COMPLETION DATES: NONHIGHWAY 2/12/82 HIGHWAY 7/23/82 886,972 (1987) (a)



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(d)	
Pollutants	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	78.8	172.7	63.2	197.6	51.0	197.6	- 31	+ 22
Nonhighway Area	66.9	41.7	59.3	41.2	59.3	41.2	- 6	+ 5
Highway(e)	56.4	78.4	18.7	58.5	18.7	58.5	- 65	+ 21
TOTAL	202.1	292.8	141.2	297.3	129.0	297.3	- 32	+ 7

Number of Facilities Greater than 250 kg/day (100 TPY): VOC (f) NO_x (f)

COMMENTS: (a) 1987 population interpolated from KIPDA data. (b) 1987 baseline emissions graph includes controls for Kentucky which should be reflected in the 1987 SIP strategy projection only. (c) Controls included in SIP for RACT I, II, I/M, TCMs and RACT on all major VOC sources. (d) Calculated percent change is for total emissions not emissions per capita. (e) Nonhighway mobile sources included in Kentucky highway emissions. (f) No listing for Kentucky major sources.

Non-attainment area Louisville, KY/IN

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981
- Have all data been edited by ROs and verified by State/local Agency(ies)? Yes/NO
- Are all data entered in SAROAD? Yes/NO If No, what is missing? Some 1981 NMOC & NOx data from modeled sites.
- Accepted by EPA? Yes/NO if Yes, date unknown

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Louisville, KY/IN

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD (m)	TRAFFIC ADT
PM10/NO2	182380035P01	Broadway Medical Bldg. 914 East Broadway	Louisville/ Jefferson	KY	NAMS	center city/ industrial	Jun-Sept 1981	13	center city	80	26000
PM10/NO2	152160002P01	Seagrass Property 211 East Court Library	Jefferson/ Clark	IN	SLAMS	center city/ commercial	Jun-Sept 1981		6 N		
Ozone	1823800021601	WKY TV Office Bldg. 1918 Mallwood Ave.	Louisville/ Jefferson	KY	NAMS	suburban/ residential	79-81	8	3 NE	120	8000
Ozone	1819200027603	Bates School 7601 Bardstown Rd.	Louisville/ Jefferson	KY		rural/ near urban	79-81				
Ozone	1506400037601	Army Ammo Plant - Gate 5 Highway 62	Charlestown/ Clark	IN	NAMS	suburban/ industrial	80-81	5	20 NE	200	5000

OTHER:

Wind data collected at Poby Elem. School - #183710004; Seagrass Property - #152160002; NWS airport sites

Wind data from NWS airport sites; Downtown site used for modeling.

Missing height data from NWS site in Dayton, Ohio used for modeling.

MODELING

o Modeling Status

Model used: City-Specific EKMA- Preliminary Modeling Completed? Yes/No, if Yes, date unknown- Reviewed by: RO(s) Yes OAQPS No- Final Modeling Completed? Yes/No, if Yes, date 6/30/82- Reviewed by: RO(s) Yes OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No, if Yes, date 12/23/81

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Louisville, KY #182380021G01				
6/27/80	7.2*	0.061	0.169	32.1
7/30/80	7.2*	0.052	0.190	29.7
5/28/80	7.2*	0.011	0.175	27.2
9/07/80	7.2*	0.042	0.158	24.8
9/03/79	7.2*	0.043	0.158	19.1
Louisville, KY #181920027G03				
7/16/80	7.2*	0.043	0.186	32.9
7/12/80	7.2*	0.043	0.152	21.5
7/08/80	7.2*	0.031	0.151	15.5
Charlestown, IN #150640003F01				
7/02/80	7.2*	0.043	0.18	36.9
7/16/80	7.2*	0.043	0.18	32.7
6/18/81	7.2*	0.043	0.162	32.5
8/26/80	7.2*	0.043	0.178	31.2
8/13/80	7.2*	0.043	0.158	24.2

*Mean median value - for high ozone days in 1981, also applied to "meteorologically equivalent days" in 1979-1980.

o % HC Control Needed To Attain O₃ NAAQS 32.5

o Remarks: _____

1982 OZONE SIP DATA BASE SUMMARY

CITY: Nashville STATE(s): Tennessee REGION: IV

COUNTIES: Nashville, Davidson

RESPONSIBLE AGENCIES: Metropolitan Health Department of Nashville and Davidson County -

Nonhighway sources; Nashville/Davidson County Metropolitan Planning Commission - Highway

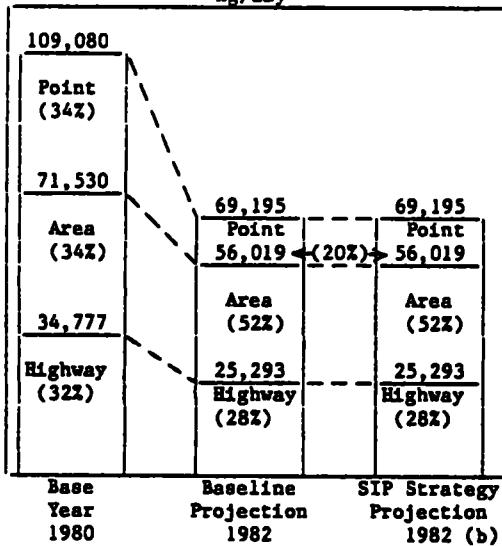
EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: RVOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1982

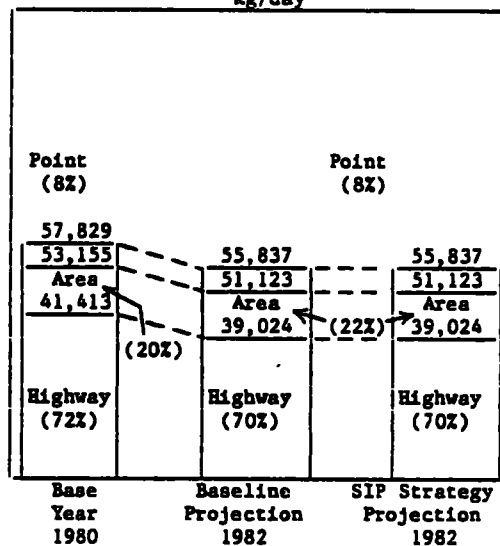
DATE RECEIVED BY REGIONAL OFFICE: 3/82 POPULATION: 495,000 (1980)

REVIEW COMPLETION DATES: NONHIGHWAY 2/12/82 HIGHWAY 7/23/82 508,300 (1982)

VOLATILE ORGANIC COMPOUNDS kg/day



NITROGEN OXIDES kg/day



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(c)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	75.9	9.4	25.9	9.3	25.9	9.3	-65	+ 1
Nonhighway Area	74.2	23.7	60.4	23.8	60.4	23.8	- 8	+ 3
Highway	70.3	83.7	49.8	76.8	49.8	76.8	-27	- 6
TOTAL	222.4	116.8	136.1	109.9	136.1	109.9	-37	- 3

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 29 NO_x (d)

COMMENTS: (a) 1982 population back calculated from consumer/commercial solvent emissions. (b) Controls include RACT I, II only. (c) Calculated percent change is for total emissions, not emissions per capita. (d) Listing not included for sources emitting >250kg/day of NO_x.

Non-attainment area Nashville, TN

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981
- Have all data been edited by ROs and verified by State/local Agency(ies)?
Yes/No
- Are all data entered in SAROAD? Yes/No. If No, what is missing? All 1981
NMOC & NOx data from modeled sites.
- Accepted by EPA? Yes/No; if Yes, date 11/02/82

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Nashville, TN

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (m)	DISTANCE FROM RD. (m)	TRAFFIC ADT
PMOC/NOx	442540010P01	Lentz Health Center 311 23rd Ave. N	Nashville/ Davidson	TN	RAVS	center city/ commercial	80-81	9	cc	38	10000
PMOC/NOx	442540032P01	Tennessee State University	Nashville/ Davidson	TN			80-81		cc		
Ozone	443320007F01	Hendersonville Rockland Recreation Area	Hendersonville/ Sumner	TN	RAVS	rural/ industrial	79-81	4	19	52	1000
Ozone	442540011G01	East Health Center Trinity Lane	Nashville/ Davidson	TN	RAVS	center city residential	79-81	13	cc	45	1000

OTHER:

Wind data collected at Spring Hill - #442300016; Nashville - #442540011 & #442540022; Sumner Co. - #443320007

Wind data from four sites within the Nashville area used for modeling.

Mixing height data from NMS site at Nashville, TN used for modeling.

MODELING

o Modeling Status

Model used: City-Specific EKMA

- Preliminary Modeling Completed? Yes/No; if Yes, date 1/82
- Reviewed by: RO(s) Yes OAQPS No
- Final Modeling Completed? Yes/No; if Yes, date 2/82
- Reviewed by: RO(s) Yes OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date by 12/23/81

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Hendersonville, TN #443320Q07F01				
9/11/81	4.733*	0.004	0.156	21.7
8/10/80	4.733*	0.043	0.132	18.4
8/01/80	4.733*	0.013	0.130	10.8
9/12/81	4.733*	0.006	0.127	9.2
7/25/80	4.733*	0.035	0.127	8.3
Nashville, TN #442540011G01				
8/10/80	4.733*	0.043	0.130	14.0
8/01/80	4.733*	0.013	0.130	13.3
7/02/80	4.733*	0.015	0.130	12.5
7/25/80	4.733*	0.035	0.130	8.7

*Mean median value - for high ozone days in 1981, also applied to "meteorologically equivalent days" in 1979-1980.

o % HC Control Needed To Attain O₃ NAAQS 9.2Remarks: _____

2.5 Region V

Chicago, IL

Cincinnati, OH

Cleveland, OH

Detroit, MI

Milwaukee, WI

1982 OZONE SIP DATA BASE SUMMARY

CITY: Chicago STATE(s): Illinois, Indiana REGION: V

COUNTIES: IL - Cook, Dupage, Kane, Lake, McHenry and Will; IN - Lake and Porter

RESPONSIBLE AGENCIES: Northeast Illinois Planning Commission (GCA) - Area Sources

Illinois Environmental Protection Agency - Point Sources

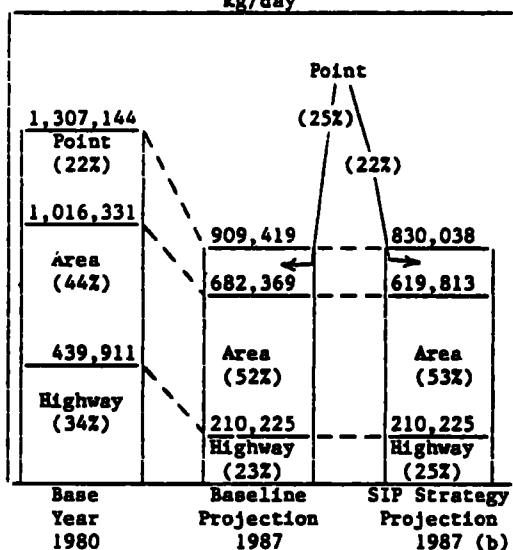
EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: VOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: (a)

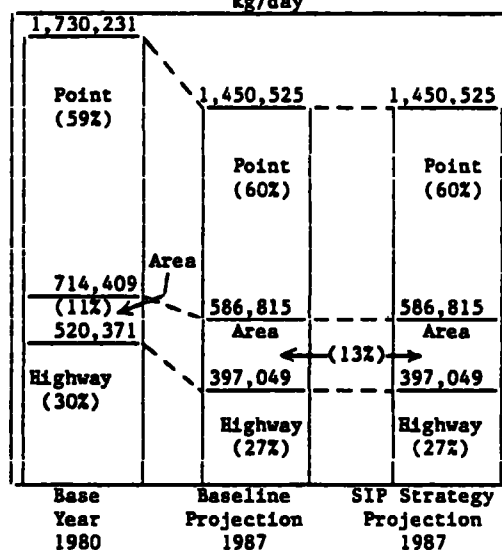
DATE RECEIVED BY REGIONAL OFFICE: 2/13/82 POPULATION: 7,745,109 (1980)

REVIEW COMPLETION DATES: NONHIGHWAY 4/14/82 HIGHWAY 7/23/82 7,969,163 (1987)

VOLATILE ORGANIC COMPOUNDS kg/day



NITROGEN OXIDES kg/day



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(c)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	37.6	131.2	28.5	108.4	22.8	108.4	-37	-15
Nonhighway Area	74.4	25.1	59.2	23.8	55.0	23.8	-24	-2
Highway	56.8	67.2	26.4	49.8	26.4	49.8	-52	-24
TOTAL	168.8	223.5	114.1	182.0	104.2	182.0	-36	-16

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 174 (d) NO_x 67 (e)

COMMENTS: (a) Attainment not demonstrated for SE Wisconsin. (b) SIP strategy inventory includes adopted and contingency measures for IL (i.e. RACT I,II TCM's, I/M and RACT on all 100+ TPY sources of VOC including RACT III). (c) Calculated percent change for total emissions, not normalized emissions per capita. (d) Does not include Lake Co.,IN major facilities. (e) Major facilities in IL portion of AQCR only.

Non-attainment area Chicago, IL/IN

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981
- Have all data been edited by ROs and verified by State/local Agency(ies)?
Yes/X
- Are all data entered in SAROAD? Yes/X. If No, what is missing? _____
- Accepted by EPA? Yes/X; if Yes, date unknown

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Chicago, IL/IN

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD. (m)	TRAFFIC ADT
Ozone	511540002F01	7944 Sheridan Road	Kenosha/ Kenosha	WI		center city/ residential	79-81				
Ozone	512880017F01	1521 Washington Ave.	Racine/ Racine	WI	NAMS	center city/ commercial	79-81	11		14	15140
Ozone	148020002F01	Golf & Jackson Streets	Maukegan/ Lake	IL	NAMS	suburban/ industrial	79-81	11		27	8000
Ozone	141760001F01	Woodland Park Elem. Sch. 1321 Wilmet Street	Deerfield/ Lake	IL	NAMS	suburban/ residential	79-81	7		300	999
NOx/NO2C	141220039F01	Huron & Fairbanks Ct.	Chicago/ Cook	IL		center city/ commercial	79-81	3			
NOx/NO2C	141220044G01	Museum of Science & Indus. 57th & Museum	Chicago/ Cook	IL		suburban/ residential	79-81				

OTHER:

Wind data collected at _____
 Wind data from _____ used for modeling.
 Mixing height data from Peoria, IL GWS used for modeling.

MODELING

o Modeling Status

Model used: City-Specific EKMA- Preliminary Modeling Completed? Yes/No; if Yes, date 3/01/82- Reviewed by: RO(s) No OAQPS No- Final Modeling Completed? Yes/No; if Yes, date 6/30/82- Reviewed by: RO(s) In process OAQPS In process

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date 6/30/82

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Racine, WI #512880017F01				
7/21/79	6&16*	0.087	0.201	
8/01/81	6&16*	0.066	0.200	
7/18/81	6&16*	0.068	0.181	
7/10/79	6&16*	0.080	0.174	
8/26/80	6&16*	0.070	0.170	
7/27/79	6&16*	0.070	0.166	
				% Control Values for Individual Days Not Provided in SIP
Kenosha, WI #511540002F01				
7/21/79	6&16*	0.087	0.258	
7/10/79	6&16*	0.080	0.209	
8/01/81	6&16*	0.066	0.198	
7/11/79	6&16*	0.070	0.177	
7/27/79	6&16*	0.070	0.167	
8/29/80	6&16*	0.070	0.163	

- continued on next page -

o % HC Control Needed to Attain O₃ NAAQS 20 - 41 based on WI O₃ data**

o Remarks: *Due to the limited HC data, range of ratios from 6:1 and 16:1 used for all modeling days to calculate range of HC control. **Lower range based on IL data also presented in draft SIP. All these estimates are tentative. Use of ranges and other aspects of modeling analysis have not been approved by EPA.

Deerfield, IL #141760001F01

7/21/79	6&16*	0.087	0.162
7/17/81	6&16*	0.068	0.161
9/05/79	6&16*	0.057	0.143
7/07/81	6&16*	0.077	0.142
8/29/80	6&16*	0.070	0.139

Waukegan, IL #148020002F01

7/21/79	6&16*	0.087	0.186
8/01/81	6&16*	0.066	0.172
7/10/79	6&16*	0.080	0.158
8/29/80	6&16*	0.070	0.153
8/26/80	6&16*	0.070	0.139

1982 OZONE SIP DATA BASE SUMMARY

CITY: Cincinnati STATE(s): Ohio/Kentucky REGION: V
COUNTIES: OH - Butler, Clermont, Hamilton, Warren; KY - Boone, Campbell, Kenton.

Region IV (Pacific Environmental Services) - Area; Ohio/Kentucky/
RESPONSIBLE AGENCIES: Indiana Council of Government - Highway; Kentucky Department of
Natural Resource Environment Protection, Ohio Environmental Protection Agency and Southwest
Ohio Air Air Pollution Control - Point

EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: NMHC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1982
DATE RECEIVED BY REGIONAL OFFICE: 1/82 POPULATION: 1,625,897 (1980)
REVIEW COMPLETION DATES: NONHIGHWAY 6/15/82 HIGHWAY 7/23/82 1,638,630 (1982)(a)

VOLATILE ORGANIC COMPOUNDS kg/day

303,716	248,750	248,750
Point (31%)	Point (27%)	Point (27%)
208,713	181,630	181,630
Area (28%)	Area (30%)	Area (30%)
123,104	105,964	105,964
Highway (41%)	Highway (43%)	Highway (43%)
Base Year 1980	Baseline Projection 1982	SIP Strategy Projection 1982 (b)

NITROGEN OXIDES kg/day

336,697	347,895	347,895
Point (50%)	Point (54%)	Point (54%)
Area (10%)	Area (10%)	Area (10%)
167,195	186,979	186,979
132,637	124,333	124,333
Highway (40%)	Highway (36%)	Highway (36%)
Base Year 1980	Baseline Projection 1982	SIP Strategy Projection 1987

TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(c)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	58.4	104.2	41.0	114.1	41.0	114.1	-29	+10
Nonhighway Area	52.7	21.3	46.2	21.7	46.2	21.7	-12	+3
Highway	75.7	81.6	64.7	76.5	64.7	76.5	-14	-5
TOTAL	186.7	207.1	151.9	212.3	151.9	212.3	-18	+3

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 54 NO_x 35 (d)

COMMENTS: (a) Interpolated from 1980 and 1987 population. (b) Controls include RACT I and II
only. (c) Calculated percent change for total emissions, not emissions per capita. (d) OH only.
No listing of major NO_x sources in KY.

Non-attainment area Cincinnati, OH/KY

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981
- Have all data been edited by ROs and verified by State/local Agency(ies)? Yes/No
- Are all data entered in SAROAD? Yes/No. If No, what is missing? All NMOC data.
- Accepted by EPA? Yes/No; if Yes, date 12/09/82

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Cincinnati, OH/KY

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD (m)	TRAFFIC ART
Ozone	362720010G02	6950 Ripple Road	Coleman/ Hamilton	OH		rural/ industrial	79-81				
Ozone	361220019G01	1675 Gest Street	Cincinnati/ Hamilton	OH	NAPS	center city/ industrial	79-81	5		91	5551
Ozone	363400002G01	Southeast State County Home	Lebanon/ Warren	OH		suburban/ residential	79-81				
Ozone	180280003F03	Jct. KY 338 & KY 536	East Bend/ Boone	KY		rural/ unqualified	79-81	4			
NMOC/nOx/ Ozone	361220020G01	Drake Hospital West Galbraith Rd.	Cincinnati/ Hamilton	OH		suburban/ residential	79-81	5			

OTHER:

Wind data collected at _____
 Wind data from _____ used for modeling.
 Mixing height data from _____ used for modeling.

MODELING

o Modeling Status

Model used: City-Specific EKMA- Preliminary Modeling Completed? Yes/No; if Yes, date 2/15/82- Reviewed by: RO(s) No OAQPS No- Final Modeling Completed? Yes/No; if Yes, date 9/23/82- Reviewed by: RO(s) Yes OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date 9/22/82

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Warren Co., OH #363400002G01				
6/15/79	3.9*	0.054	0.138	18.0
7/20/80	3.9*	0.068	0.145	16.6
6/13/80	3.9*	0.072	0.147	14.7
6/19/80	3.9*	0.075	0.137	14.3
7/16/80	3.9*	0.073	0.135	11.4
Cincinnati, OH #361220019G01				
6/18/80	3.9*	0.081	0.150	19
6/26/80	3.9*	0.068	0.150	14
6/19/80	3.9*	0.075	0.135	11
6/28/79	3.9*	0.038	0.132	8
7/25/80	3.9*	0.070	0.132	6
Colerain, OH #362720010G02				
7/02/80	3.9*	0.073	0.172	21.6
7/16/80	3.9*	0.073	0.137	10
7/20/79	3.9*	0.050	0.135	9
8/25/80	3.9*	0.070	0.137	7
8/29/80	3.9*	0.055	0.132	3

*Mean median ratio

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o % HC Control Needed To Attain O₃ NAAQS 14.3

o Remarks: _____

Boone Co., KY #180280003F03

6/18/80	3.9*	0.081	0.165	26.3
6/19/80	3.9*	0.075	0.145	20.0
6/15/80	3.9*	0.044	0.160	18.5
6/14/80	3.9*	0.069	0.135	13
7/13/79	3.9*	0.040	0.130	7

1982 OZONE SIP DATA BASE SUMMARY

CITY: Cleveland STATE(s): Ohio REGION: V

COUNTIES: Cuyahoga, Lake, Lorain, Medina

RESPONSIBLE AGENCIES: Northeast Ohio Areawide Coordinating Agency - area and highway; Ohio Environmental Protection Agency - point.

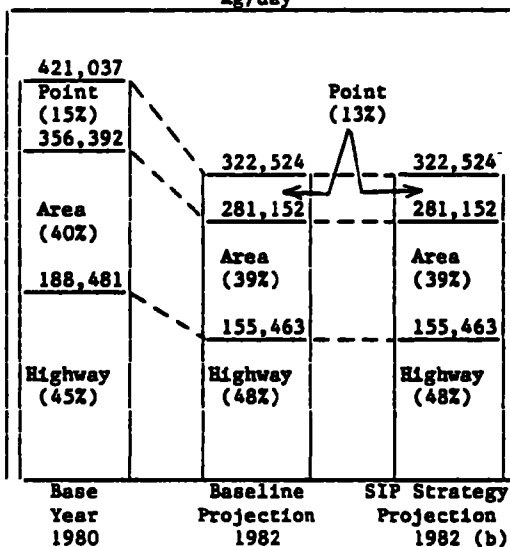
EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: RVOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1982

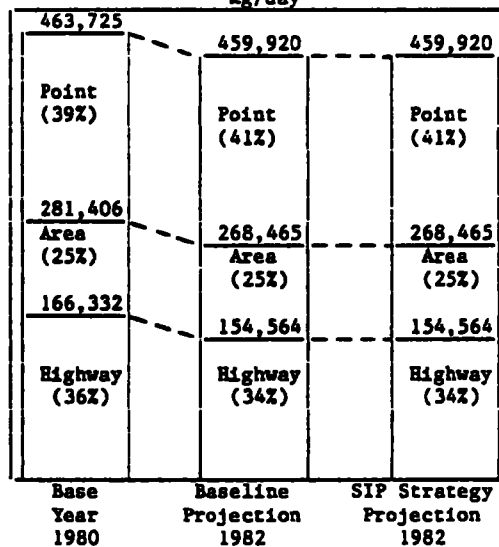
DATE RECEIVED BY REGIONAL OFFICE: 2/82 POPULATION: 2,191,600 (1980)

REVIEW COMPLETION DATES: NONHIGHWAY 3/10/82 HIGHWAY 7/23/82 2,268,000 (1982)(a)

VOLATILE ORGANIC COMPOUNDS kg/day



NITROGEN OXIDES kg/day



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(c)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	29.5	83.2	18.7	84.4	18.7	84.4	-34	+ 5
Nonhighway Area	76.6	52.5	55.4	50.2	55.4	50.2	-25	- 1
Highway	86.0	75.9	68.5	68.1	68.5	68.1	-18	- 7
TOTAL	192.1	211.6	142.2	202.8	142.2	202.8	-23	- 1

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 44 NO_x 21

COMMENTS: (a) Calculated using growth factors in OH SIP. (b) Controls include RACT I and II

only. (c) Calculated percent change is for total emissions, not normalized emissions per capita.

Non-attainment area Cleveland, OH

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981
- Have all data been edited by ROs and verified by State/local Agency(ies)? Yes/No
- Are all data entered in SAROAD? Yes/No. If No, what is missing? All NMOC data collected by Battelle.
- Accepted by EPA? Yes/No; if Yes, date 12/09/82

c Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Cleveland, OH

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD. (m)	TRAFFIC ADT
PM ₁₀ /NO _x	36130003401	East 22nd Street & Woodland Ave	Cleveland/Cuyahoga	OH	NAMS	center city/commercial	81	6		15	6000
PM ₁₀ /NO _x	36130003401	East 152 St.	Cleveland/Cuyahoga	OH		center city/commercial	81				
Ozone	365320002502	71 East High Street	Painesville/Lake	OH	NAMS	center city/commercial	79-81	14	10	27	11800

OTHER

Wind data collected at Greater Cleveland Airport
 Wind data from Greater Cleveland Airport used for modeling.
 Mixing height data from Dayton, Ohio (NWS) used for modeling.
 NMOC species data collected in summer 1981 by Battelle

MODELING

o Modeling Status

Model used: City-Specific EKMA- Preliminary Modeling Completed? Yes/No; if Yes, date unknown- Reviewed by: RO(s) unknown OAQPS No- Final Modeling Completed? Yes/No; if Yes, date 6/09/82- Reviewed by: RO(s) Yes (7/03/82) OAQPS Yes (7/03/82)

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date 6/09/82

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Painesville, OH #365320002G02				
7/14/80	5.78*	0.058	0.152	20.5
8/20/81	5.78*	0.088	0.128	8.0
9/12/79	5.78*	0.069	0.121	0

o % HC Control Needed To Attain O₃ NAAQS 8.0**

o Remarks: *Based on HC species data collected in summer 1981 by Battelle. **Used 2nd high value in 3 years, suggested by Region V, due to monitoring uncertainties/deficiencies. Control value based on 1980 emissions. State projected attainment in 1982 based on estimated emission reductions.

1982 OZONE SIP DATA BASE SUMMARY

CITY: Detroit STATE(s): Michigan REGION: V

COUNTIES: Wayne, Oakland, Macomb

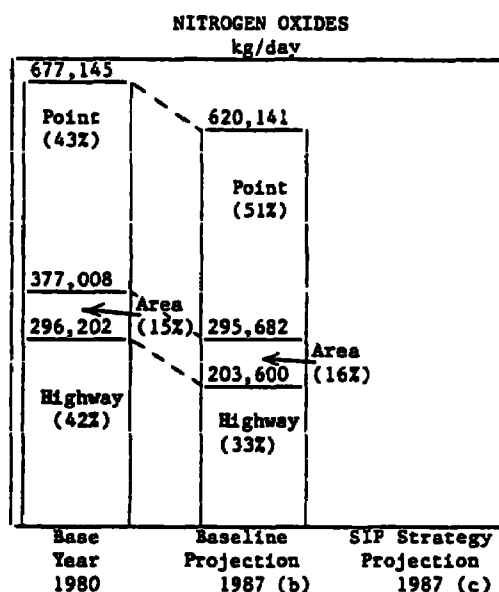
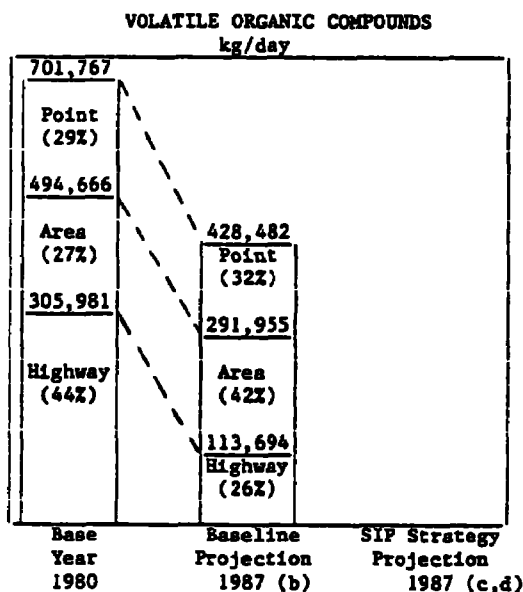
RESPONSIBLE AGENCIES: Michigan Department of Natural Resources

EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: VOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1987

DATE RECEIVED BY REGIONAL OFFICE: 7/82 POPULATION: 4,043,633 (1980)

REVIEW COMPLETION DATES: NONHIGHWAY 9/16/82 HIGHWAY 11/1/82 3,883,800 (1987)(a)



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(e)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	51.2	71.9	35.2	81.1				
Nonhighway Area	46.7	24.8	45.9	26.1				
Highway	75.6	70.8	29.3	52.4				
TOTAL	173.5	167.5	110.4	159.6				

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 55 NO_x (f)

COMMENTS: (a) No '87 population in SIP. Calculated from 1980 census data using SMOG growth factors. (b) No credit taken for I/M on TCM's in baseline projection inventory. (c) No strategy inventory summary tables. Data could not be readily derived from SIP. (d) Controls in SIP include RACT I, II, all 100+ TPY VOC sources, and TCM's. (e) Calculated percent change for total emissions. (f) No major facilities list submitted. Number of VOC sources provided by Region V.

Non-attainment area Detroit, MI

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981
- Have all data been edited by ROs and verified by State/local Agency(ies)?
Yes/NOX
- Are all data entered in SAROAD? Yes/No. If No, what is missing? Some 1981
2nd, 3rd & 4th quarter O3 data and all NMOC & NOx data from modeled sites.
- Accepted by EPA? Yes/NOX if Yes, date 11/29/82

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Detroit, MI

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD. (m)	TRAFFIC ADT
Ozone	231180019601	11600 East Seven Mile Rd.	Detroit/ Wayne	MI		suburban/ residential	79-81				
Ozone	234340003701	16th & Electric Ave.	Port Huron/ St. Clair	MI		suburban/ residential	79-81				
Ozone	233140009002	67700 Gratiot	New Haven/ Macomb	MI		suburban/ commercial	80-81				
Ozone	239963902303	GM-Lake Orion (not in SAROAD)		MI			80				
NMOC/NOx	231180100305	Science Center	Detroit/ Wayne	MI			81				

OTHER:

Wind data collected at 20 meteorological stations set up around the area
 Wind data from above sites used for modeling.
 Mixing height data from Farm Energy Center used for modeling.

MODELING

o Modeling Status

Model used: City-Specific EKMA- Preliminary Modeling Completed? unknown

- Reviewed by: RO(s) _____ OAQPS _____

- Final Modeling Completed? Yes/No, if Yes, date 8/06/82- Reviewed by: RO(s) Yes OAQPS Yes (8/31/82)

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date 8/06/82

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Detroit, MI #231180019G01				
7/18/81	4.8*	0.060	0.158	29.8
/22/80	4.8*	0.091	0.139	24.3
//01/81	4.8*	0.040	0.154	22.7
7/10/80	4.8*	0.060	0.133	21.3
7/07/81	4.8*	0.057	0.128	17.7
GM-Lake Orion, MI #239963902J03 (not in SAROAD)				
6/25/80	4.8*	0.057	0.152	29.6
7/20/80	4.8*	0.057	0.137	24.8
5/28/80	4.8*	0.057	0.129	16.9
8/29/80	4.8*	0.057	0.128	16.7
8/28/80	4.8*	0.008	0.142	8.4
Port Huron, MI #234340003F01				
6/12/80	4.8*	0.057	0.155	33.3
5/28/80	4.8*	0.050	0.145	26.3
6/29/81	4.8*	0.068	0.135	21.4
8/26/80	4.8*	0.055	0.134	19.5
7/18/81	4.8*	0.060	0.130	14.6

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*Mean median ratio

o % HC Control Needed To Attain O₃ NAAQS 27.1

Remarks: _____

New Haven, MI #233140009G02

7/18/81	4.8*	0.060	0.180	39.5
7/19/80	4.8*	0.057	0.149	30.2
8/26/80	4.8*	0.077	0.151	27.1
8/25/80	4.8*	0.057	0.145	22.5
7/14/80	4.8*	0.075	0.131	19.7
7/11/81	4.8*		0.136	18.1
7/17/81	4.8*	0.047	0.129	16.2

1982 OZONE SIP DATA BASE SUMMARY

CITY: Milwaukee STATE(s): Wisconsin REGION: V

COUNTIES: Kenosha, Racine, Walworth, Waukesha, Milwaukee, Washington, Ozaukee

RESPONSIBLE AGENCIES: Wisconsin Department of Natural Resources - Point

Southeastern Wisconsin Regional Planning Commission - Area

EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: VOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1987

DATE RECEIVED BY REGIONAL OFFICE: 7/82 POPULATION: 1,764,919 (1980)

REVIEW COMPLETION DATES: NONHIGHWAY 8/23/82 HIGHWAY 8/23/82 2,007,980 (1987)

VOLATILE ORGANIC COMPOUNDS kg/day

336,379			
Point (26%)			
248,973			
Area (44%)	231,440	231,440	
	Point (23%)	Point (23%)	
	177,767	177,767	
	Area (63%)	Area (63%)	
100,204			
Highway (30%)	31,381	31,381	
	Highway (14%)	Highway (14%)	
Base Year 1980	Baseline Projection 1987 (a)	SIP Strategy Projection 1987 (b)	

NITROGEN OXIDES kg/day

312,373			
Point (43%)			
	301,021	301,021	
	Point (51%)	Point (51%)	
177,623			
Area (16%)	145,841	145,841	
127,057	Area (18%)	Area (18%)	
Highway (41%)	92,298	92,298	
	Highway (31%)	Highway (31%)	
Base Year 1980	Baseline Projection 1987	SIP Strategy Projection 1987	

TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(c)	
Pollutants	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	49.5	76.3	26.7	77.3	26.7	76.3	-39	-15
Nonhighway Area	84.3	28.7	72.9	26.7	72.9	28.7	- 2	+ 6
Highway	56.8	72.0	15.6	45.9	15.6	72.0	-69	-27
TOTAL	190.6	177.0	115.2	149.9	115.2	177.0	-31	- 4

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 51 NO_x 19

COMMENTS: (a) Includes I/M credits (except Walworth County). (b) SIP includes no additional controls beyond RACT I,II. (c) Calculated percent change for total emissions, not per capita.

Non-attainment area Milwaukee, WI

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981
- Have all data been edited by ROs and verified by State/local Agency(ies)? Yes/No
- Are all data entered in SAROAD? Yes/No; If No, what is missing? NMOC data from modeled sites.
- Accepted by EPA? Yes/No; if Yes, date unknown

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Milwaukee, WI

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD (m)	TRAFFIC ADT
PMOC*/NOx	512200045F01	3716 West Milwaukee Ave.	Milwaukee/ Milwaukee	WI	NMPS	center city/ residential	81	9		9	1000
PMOC*/NOx Ozone	512200041F01	2114 East Kenwood St.	Milwaukee/ Milwaukee	WI	NMPS	center city/ residential	79-81	8		22	8000
PMOC*/NOx	512200080F02	University of Wisconsin 606 West Kilbourne Ave.	Milwaukee/ Milwaukee	WI	NMPS	center city/ commercial	81	11		30	6797
Ozone	512600005F01	Crafton High School 1950 Washington St.	Ozaukee Co.	WI	NMPS	suburban/ residential	79-81	9		61	85*

OTHER:

Wind data collected at _____
 Wind data from _____ used for modeling.
 Mixing height data from Wausau, WI used for modeling.
 *PMOC species data gathered by Washington State University

MODELING

o Modeling Status

Model used: City-Specific EKMA- Preliminary Modeling Completed? unknown- Reviewed by: RO(s) OAQPS - Final Modeling Completed? Yes/No; if Yes, date 7/01/82- Reviewed by: RO(s) In process OAQPS In process

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date 7/01/82

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Ozaukee County, WI #512600005F01				
7/23/79	5.46**	0.103	0.206	59.3
8/01/81	5.46**	0.083	0.165	46.1
8/26/80	5.46**	0.068	0.177	41.3
7/07/81	6.4***	0.080	0.139	29.4
6/14/80	5.46**	0.084	0.140	28.6
Milwaukee, WI #512200041F01				
8/01/81	5.46**	0.083	0.202	57.6
7/23/79	5.46**	0.103	0.189	55.7
7/07/81	6.4***	0.080	0.167	47.9
8/26/80	5.46**	0.068	0.172	40.9
8/09/79	5.46**	0.052	0.168	38.9
6/14/80	5.46**	0.084	0.138	26.9

o % HC Control Needed To Attain O₃ NAAQS 29.4 to 40.9*

o Remarks: *Range due to uncertainty of which of two sites to use for control design value. Higher value site believed significantly impacted upon by Chicago but difficult to quantify. Lower value site primarily impacted by Milwaukee. Estimates tentative. Use of range and other aspects of modeling analysis have not been approved by EPA. **Arithmetic mean of ratios of measured values during seven 1981 high O₃ (>0.10 ppm-1 hr max) days. ***Arithmetic mean of ratios of measured values for 7/07/81.

2.6 Region VI

Houston, TX

1982 OZONE SIP DATA BASE SUMMARY

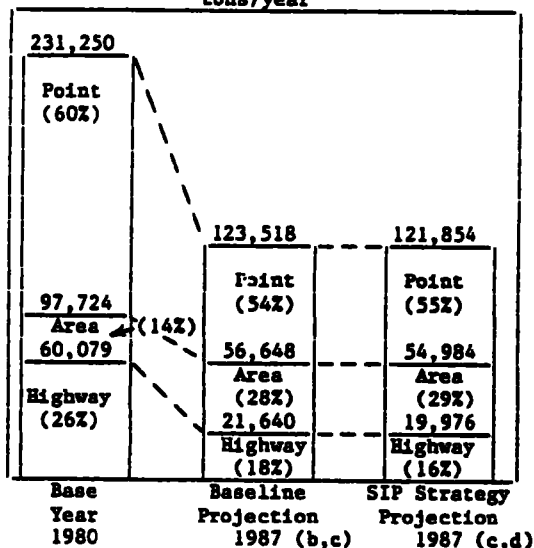
CITY: Houston STATE(s): Texas REGION: VI
COUNTIES: Harris

RESPONSIBLE AGENCIES: Texas Air Control Board - Point and Area
Houston-Galveston Area Council - Highway

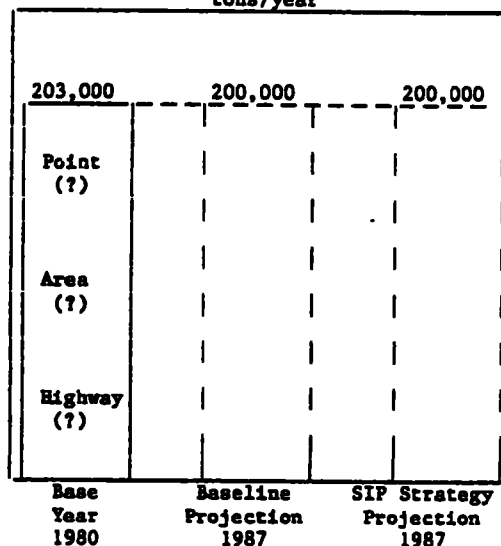
EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: RVOC ,NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1987
DATE RECEIVED BY REGIONAL OFFICE: 3/82 POPULATION: 2,409,544 (1980)
REVIEW COMPLETION DATES: NONHIGHWAY 4/26/82 HIGHWAY 7/23/82 2,900,704 (1987)

VOLATILE ORGANIC COMPOUNDS tons/year



NITROGEN OXIDES (a) tons/year



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(e)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	143.2		50.5		50.5		-52	
Nonhighway Area	33.7	(a)	26.4	(a)	26.4	(a)	+ 7	(a)
Highway	62.1		16.3		15.1		-67(c)	
TOTAL	239.0	209.8(a)	93.2	[150](a)	92.0	[150](a)	-47	[0](a)

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 61 NO_x (f)

COMMENTS: (a) Only base year NO_x emission total provided. Projected NO_x emissions from RO 6 Tech. Support Doc. and are only approximations. (b) Includes the effects of RACT I, II and I/M but not TCM's. (c) I/M reduction based on TACB estimates. RO 6 estimates '87 highway emissions as 33,834 tons. (d) Includes TCM's and all items under footnote (b). (e) Calculated percent change for total emissions, not per capita emissions. (f) No NO_x major facilities list.

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1978, 1979 & 1980 (State does not intend to analyze for the effect of 1981 air quality data on control strategy)
- Have all data been edited by ROs and verified by State/local Agency(ies)? Yes/NoX
- Are all data entered in SAROAD? Yes/No; If No, what is missing? Some data from modeled days.
- Accepted by EPA? Yes/No; However, proposed adjustments to data pending EPA approval.*

o Site Descriptions (for sites used in SIP analysis.)Non-Attainment Area
Houston, TX

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD. (m)	TRAFFIC ADT
PM10/NOx	454715001 F01	Seabrook Int. School	Seabrook/ Harris	TX		sub-commercial	78-81	3	40.2		
PM10/NOx	455170002 F01	2701 13th Ave. N	Texas City/ Galveston	TX		sub-residential	78-79	5	48.3	36	500
PM10/NOx	450330009 F01	Georgia at Cunningham	Beaumont/ Jefferson	TX		sub-residential	78-81	4	128.7		
Ozone	452330024 F01	4510 Aldine Mail Rd	Houston/ Harris	TX		sub-residential	78-80	4	16.1		
Ozone	452560034 F01	1262 Mae Dr.	Houston/ Harris	TX		sub-residential	78-81	7	8		
Ozone	452560035 M01	9525 Clinton Dr	Houston/ Harris	TX		sub-industrial	78-80	1	3.2		
Ozone	452560037 M02	1307 Crawford at Pelt	Houston/ Harris	TX		center city/ commercial	78-80	4	cc	13	10,000
Ozone	452560038 M01	8314 Parkhurst	Houston/ Harris	TX		sub-residential	78-80	1	25.7		
Ozone	452560047 M01	4401 1/2 Lang Rd	Houston/ Harris	TX		sub-commercial	78-80	4	11.3	13	100
Ozone	452560039 M01	7834 Piqua	Houston/ Harris	TX		sub-residential	78-80	1	24.1		
Ozone	452560051 M01	13826 Croquet	Houston/ Harris	TX		sub-residential	78-80	3	29		

OTHER:

Wind data collected at TACB stations and Hobby airportWind data from different sites for different runs

used for modeling.

Mixing height data from Victoria & Lake Charles RMS stations

used for modeling.

*TACB has made some adjustments to certain O₃ data based on differences in instrument calibration methods. EPA is examining the documentation submitted by TACB to justify these adjustments.

MODELING

o Modeling Status

Model used: City-Specific EKMA- Preliminary Modeling Completed? Yes/No; if Yes, date 11/81- Reviewed by: RO(s) Yes OAQPS Yes- Final Modeling Completed? Yes/No; if Yes, date unknown- Reviewed by: RO(s) Yes OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date 11/81

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Houston, TX #452330024F01				
4/05/79	6.6	0.102	0.20*	48.5
8/21/80			0.22	46.6
5/31/79	7.5	0.097	0.18*	42.1
6/28/79	6.6	0.10	0.20*	40.3
11/02/80	5.8	0.06	0.21	20.3
Houston, TX #452560034F01				
4/24/79	6.8	0.076	0.20*	52.3
5/17/80	5.7	0.085	0.24	50.0
8/21/80	7.5	0.09	0.26	44.8
10/08/80	5.8	0.115	0.27	41.2
9/13/80	5.8	0.11	0.34	36.5
Houston, TX #452560047H01				
9/13/80	7.5	0.110	0.29	46.7
5/17/80	7.5	0.085	0.22	39.8
8/07/79	7.5	0.08	0.22	35.6
6/28/78	6.6	0.10	0.18*	35.3
7/18/78	6.6	0.097	0.24*	32.7

- continued on next page -

o % HC Control Needed To Attain O₃ NAAQS 41

o Remarks: *These ozone values based on proposed 18% reduction applied by TACB to the measured ozone concentrations for differences in instrument calibration methods. See remarks in Houston - Air Quality.

Houston, TX #452560051H01

6/14/79	6.6	0.114	0.24*	52.0
6/30/78	6.6	0.068	0.29*	50.3
8/25/80	6.6	0.08	0.24	43.7
8/23/80	5.8	0.08	0.26	38.5
8/04/78	6.6	0.076	0.23*	33.3

Houston, TX #452560035H01

5/17/80	7.5	0.085	0.28	51.3
6/30/78	6.6	0.068	0.23	47.5
10/08/80	5.8	0.115	0.35	46.5
9/13/80	5.8	0.110	0.30	38.6
7/18/78	5.8	0.097	0.21*	26.2

Houston, TX #452560038H01

4/24/79	5.8	0.076	0.20*	52
7/18/78	6.6	0.097	0.22*	49.2
4/05/79	6.6	0.102	0.20*	46.2
6/28/79	6.6	0.10	0.20*	40.3
11/03/78	5.8	0.09	0.21*	32.6
7/02/80	7.5	0.04	0.22	32.5

Houston, TX #452560039H01

7/17/78	6.6	0.068	0.21*	44.7
1/05/78	6.6	0.085	0.24*	39.9
1/23/80	5.8	0.105	0.26	35.7
8/04/78	5.8	0.076	0.22*	32.1
11/05/80	5.8	0.03	0.22	--

Houston, TX #452560037H01

5/17/80	7.5	0.085	0.22	43.2
9/13/80	6.6	0.110	0.27	43.0
10/08/80	6.6	0.115	0.26	41.2
10/01/78	5.8	0.068	0.22*	36.6
7/18/78	5.8	0.097	0.23*	31.0

2.7 Region VII

St. Louis, MO/IL

1982 OZONE SIP DATA BASE SUMMARY

CITY: St. Louis STATE(s): Missouri/Illinois REGION: VII

COUNTIES: MO - Jefferson, St. Charles, St. Louis; IL - Madison, St. Clair

RESPONSIBLE AGENCIES: Missouri Department of Natural Resources, Illinois EPA - Point

E-W Gateway Coordinating Council - Highway; RO VII (Pacific Environmental Service) - Area

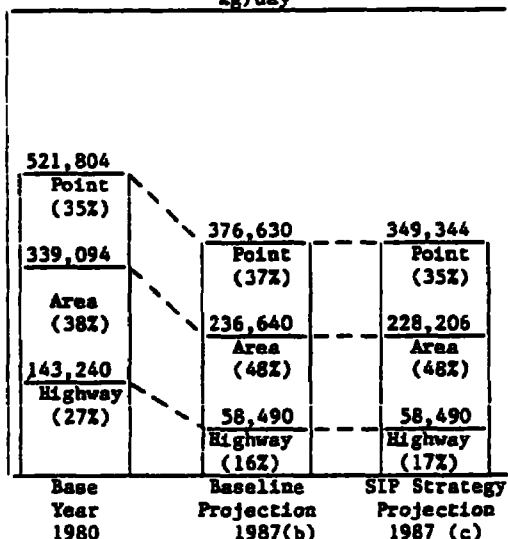
EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: VOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: (a)

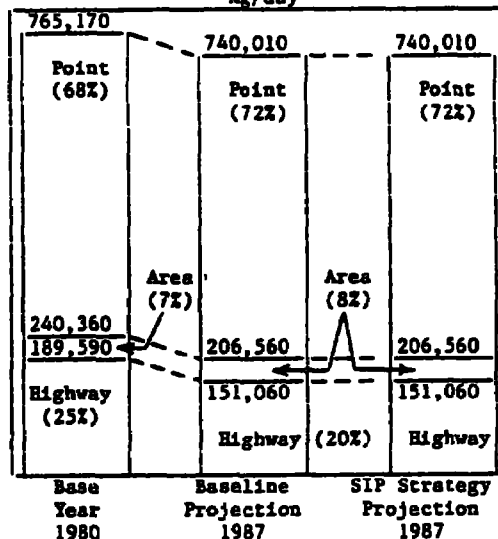
DATE RECEIVED BY REGIONAL OFFICE: 3/4/82 POPULATION: 2,361,000 (1980)

REVIEW COMPLETION DATES: NONHIGHWAY 6/14/82 HIGHWAY 7/23/82 2,532,000 (1987)

VOLATILE ORGANIC COMPOUNDS kg/day



NITROGEN OXIDES kg/day



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(d)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	77.4	222.3	55.5	210.7	47.8	210.7	-34	+ 2
Nonhighway Area	83.0	21.5	70.1	21.9	67.0	21.9	-13	+ 9
Highway	60.7	80.3	23.1	59.7	23.1	59.7	-59	-20
TOTAL	221.1	324.1	148.7	292.3	137.9	292.3	-33	- 3

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 78 NO_x 37

COMMENTS: (a) Attainment by 1987 not demonstrated. (b) I/M credit included in baseline

projection. (c) Controls included in SIP are RACT I, II, I/M, and TCM's. All contingencies

included for IL strategy projections. MO includes RACT on 100 TPY nonRACT sources.

(d) Calculated percent change for total emissions not emissions per capita.

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981
- Have all data been edited by ROs and verified by State/local Agency(ies)?
Xxx/No - (see next item)
- Are all data entered in SAROAD? Xxx/No. If No, what is missing? St. Louis
City data for 1981 still missing due to QA problems; apparently not considered essential for modeling analysis.
- Accepted by EPA? Yes/NA; if Yes, date 11/26/82

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
St. Louis, MO/IL

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD. (m)	TRAFFIC ADT
PMOC/NO _x Ozone	261040001G01	55 Hunter St	Clayton/ St. Louis Co.	MO	SLAMS	suburban/ commercial	79-81	1.8	14		
Ozone	264280064H01	212 Tucker St.	St. Louis City/ St. Louis Co.	MO		center city/ commercial	78-80		CC		
Ozone	264280007H01	8227 South Broadway	St. Louis City/ St. Louis Co.	MO	SLAMS	center city/ residential	79-80	10.5	10		
Ozone	264280061H01	Shreve & I-70	St. Louis City/ St. Louis Co.	MO		center city/ industrial	79-80	3.6	8		
Ozone	264280062H01	River Des Peres & Sulfur	St. Louis City/ St. Louis Co.	MO	SLAMS	center city/ industrial	79-80	4.5	10		
Ozone	264280063H01	Chain of Rocks Meter Sta.	St. Louis City/ St. Louis Co.	MO	SLAMS	center city/ commercial	79-80	2.0	15		
Ozone	264230001G01	5962 S. Lindberg	Afton/ St. Louis Co.	MO	SLAMS	suburban/ commercial	79-81	4.3	18	105	33000
Ozone	261600001G01	3400 Pershall Rd.	Florissant/ St. Louis Co.	MO	NAHS	suburban/ commercial	79-81	1.8	15	25	100
Ozone	264120001G01	St. Charles Rock Rd.	St. Ann/ St. Louis Co.	MO	SLAMS	suburban/ commercial	79-81	4.3	20		
Ozone	264300006G01	305 Weidman Rd.	Queeny Park/ St. Louis Co.	MO	SLAMS	rural/ near urban	79-81	4.2	26		
Ozone	262280012F01	Arnold Tenbrook & Tenbrook	Arnold/ Jefferson	MO	SLAMS	suburban/ residential	1981	30	26		
Ozone	264160002F01	G.E. Store HWY 94	West Alton/ St. Charles Co.	MO	NAHS	suburban/ industrial	79-81	1.5	28	80	2500
Ozone	264160006J05	HWY 94 45 mi. S. of US 40	Wentzville/ St. Charles Co.	MO	SLAMS	rural/ agricultural	80-81	4.0	60		
Ozone	140160006F01	2708 Edwards	Alton/ Madison Co.	IL	SLAMS	suburban/ residential	79-81		30	24	1000
Ozone	144680007F01	Poag Rd.	Edwardsville/ Madison Co.	IL	SLAMS	rural/ agricultural	79-81	4.0	30		
Ozone	144680008F01	District 11 Police Hq., Rt. 159	Maryville/ Madison Co.	IL	SLAMS	rural/ agricultural	79-81	8.0	24		
Ozone	148520007F01	Water Treatment Plant 45 Walcott	Wood River/ Madison Co.	IL	SLAMS	suburban/ industrial	79-81	5.0	26		
Ozone	147960001F03	USDA Bldg.	Waterloo/ Monroe Co.	IL	SLAMS	rural/ agricultural	79-81	5.0	32		
Ozone	142120010F01	13th & Tudor	East St. Louis/ St. Clair	IL			79-81		4		

OTHERWind data collected at various agency sites and Lambert AirportWind data from CEB site (unidentified)

used for modeling.

Mixing height data from Monet, MO, Little Rock, AK, and Salem, IL

used for modeling

MODELING

o Modeling Status

Model used: City-Specific EKMA- Preliminary Modeling Completed? Yes/X; if Yes, date unknown- Reviewed by: RO(s) Yes OAQPS No- Final Modeling Completed? Yes/X; if Yes, date unknown- Reviewed by: RO(s) In process OAQPS In process

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/X; if Yes, date unknown

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
St. Louis Co., MO #261040001G01				
7/17/80	6*		0.171	46.6
8/22/81	6*		0.153	37.4
6/03/79	6*		0.156	35.2
9/11/79	6*		0.170	33.6
6/30/80	6*		0.139	18.3
St. Louis, MO #264280007H01				
6/03/79	6*		0.153	32.4
10/09/80	6*		0.136	15.5
7/21/79	6*		0.133	13.6
10/07/80	6*		0.133	12.7
St. Louis, MO #264280061H01				
7/20/79	6*		0.151	31.7
7/19/79	6*		0.148	30.9
7/21/79	6*		0.143	21.0

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o % HC Control Needed To Attain O₃ NAAQS 24.9**

o Remarks: *Determined from median NMOC and NO_x values for 1981 at suburban site; no usable NMOC data from CBD in base years. **Based on proposed -13.6% adjustment of 4th highest control value for Florissant, MO site as credit for estimated reduction in VOC emissions from 1979 to 1980. Still tentative, proposed adjustment and use of some assumptions deviating from EPA guidance have not been approved ***Illogical result.

St. Louis, MO #264230001G01

7/13/80	6*	0.171	45.6
7/17/81	6*	0.161	40.3
7/09/79	6*	0.150	31.2
7/21/79	6*	0.130	8.0
8/15/80	6*	0.128	5.2

Flourissant, MO #261600001G01

6/30/80	6*	0.199	53.9
8/26/80	6*	0.177	41.9
7/22/79	6*	0.165	38.8
9/11/79	6*	0.188	38.5
9/07/80	6*	0.162	37.1

0.042

St. Ann, MO #264120001G01

9/11/79	6*	0.210	6.9
7/25/80	6*	0.138	18.6
6/30/80	6*	0.137	16.1
7/17/81	6*	0.133	8.7
7/22/79	6*	0.133	6.5

Queeny Park, MO #264300006G01

7/10/79	6*	0.175	45.5
7/19/80	6*	0.152	31.3
7/22/79	6*	0.146	24.1
9/11/79	6*	0.151	23.2
7/17/79	6*	0.139	14.9

Arnold, MO #262280012F01

7/17/81	6*	0.180	48.9
7/10/81	6*	0.140	27.5

West Alton, MO #264160002F01

8/27/80	6*	0.162	34.3
7/11/81	6*	0.148	32.5
5/18/79	6*	0.153	29.8
5/28/81	6*	0.151	27.7
7/03/79	6*	0.145	24.6

Wentzville, MO #264160008J05

4/21/80	6*	0.161	28.6
7/17/80	6*	0.144	21.4
7/18/80	6*	0.127	2.9

St. Louis, MO #264280063H01

7/08/79	6*	0.147	26.3
8/09/80	6*	0.143	25.6
7/21/79	6*	0.143	21.0

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Alton, IL #140160006F01

7/14/80	6*	0.141	19.8
8/25/80	6*	0.136	13.2
8/27/80	6*	0.134	15.0
9/10/79	6*	0.134	11.8
7/25/80	6*	0.129	6.5

Edwardsville, IL #144680007F01

8/09/80	6*	0.170	35.5
7/19/80	6*	0.153	31.4
7/25/80	6*	0.148	28.5
6/30/80	6*	0.142	17.4
9/11/79	6*	0.141	12.5

Maryville, IL #144680008F01

7/19/80	6*	0.142	15.4
9/06/80	6*	0.135	13.2
7/16/80	6*	0.129	5.3
7/25/80	6*	0.127	4.5

Wood River, IL #148520007F01

6/30/80	6*	0.140	18.4
7/14/80	6*	0.142	15.5
8/27/80	6*	0.141	13.9
8/09/80	6*	0.132	12.1
7/19/80	6*	0.133	8.2

Waterloo, IL #147960001F03

7/11/80	6*	0.128	4.5
7/13/80	6*	0.128	5.1
7/10/80	6*	0.128	5.9
7/02/80	6*	0.126	1.9

East St. Louis, IL #142120010F01

7/19/80	6*	0.143	23.2
6/18/80	6*	0.134	14.1
7/13/80	6*	0.132	5.3
8/09/80	6*	0.129	1.9
6/30/80	6*	0.125	***

2.8 Region VIII

Denver, CO

Salt Lake City, UT

1982 OZONE SIP DATA BASE SUMMARY

CITY: Denver STATE(s): Colorado REGION: VIII

COUNTIES: Boulder, Adams, Jefferson, Douglas, Arapahoe and Denver

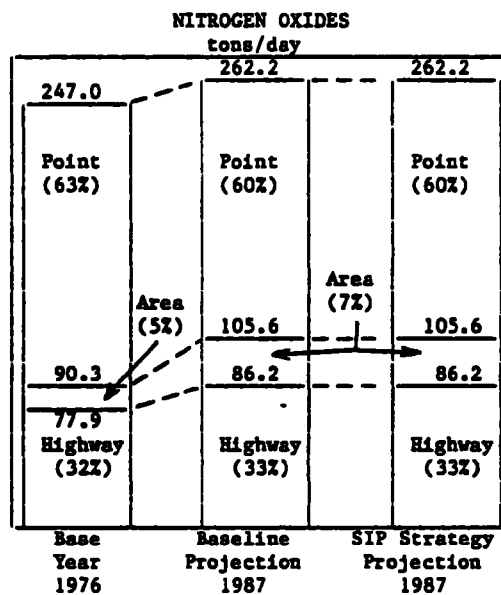
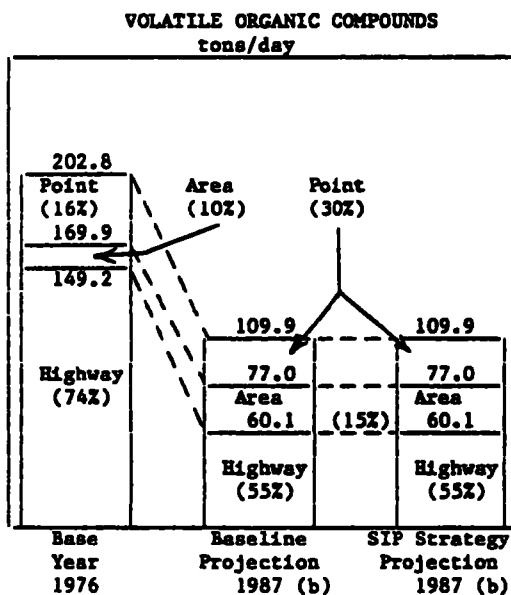
RESPONSIBLE AGENCIES: Colorado Department of Health; Denver Regional Council of Governments

EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: RHC, NO_x BASE YEAR: 1976 (a) O₃ ATTAINMENT YEAR: 1987

DATE RECEIVED BY REGIONAL OFFICE: 1/82 POPULATION: 1,424,657 (1976)

REVIEW COMPLETION DATES: NONHIGHWAY 5/28/82 HIGHWAY 7/23/82 1,876,600 (1987)



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(c)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	21.0	100.0	15.9	75.8	15.9	75.8	0	0
Nonhighway Area	13.2	7.9	8.2	9.4	8.2	9.4	-18	+56
Highway	95.2	49.7	29.1	41.8	29.1	41.8	-60	+11
TOTAL	129.4	157.6	53.2	127.0	53.2	127.0	-46	+ 6

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 17 NO_x 21

COMMENTS: (a) 1976 data base developed for use with Urban Airshed Model. (b) Cannot determine if 1987 inventory is baseline or SIP strategy. Controls in SIP include RACT I,II, all 100⁺ TPY VOC sources, I/M, and TCMS. (c) Calculated percent change is for total emissions, not per capita.

Non-attainment area

Denver, CO

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1975 & 1976
- Have all data been edited by ROs and verified by State/Local Agency(ies)?
Yes/NO
- Are all data entered in SAROAD? Yes/NO. If No, what is missing? _____
- Accepted by EPA? Yes/NO; if Yes, date 6/80

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area Denver, CO											
POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD (m)	TRAFFIC ADT
Ozone	062210001F01	E. 78 th Ave. & Steel St.	Melby/ Adams	CO	NAPS	suburban/ industrial	75-81	4	10 NPE	17	500

OTHER:

Wind data collected at about 24 sites within the Denver area
 Wind data from above indicated sites used for modeling
 Mixing height data from Stapleton International Airport used for modeling

MODELING

o Modeling Status

Model used: SAI - Urban Airshed- Preliminary Modeling Completed? Yes/No; if Yes, date 3/1/82- Reviewed by: RO(s) Yes OAQPS Yes- Final Modeling Completed? Yes/No; if Yes, date 3/1/82- Reviewed by: RO(s) Yes OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date 6/80

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Welby - #062210001F01				
7/28/76	NA	0.04	0.171*	54

[Note: Above based on preliminary modeling done prior to 10/78]

Highest Site (not identified)
based on measurementsmeasured - model
estimated

7/28/76	0.18	0.15
8/03/76	0.17	0.14
7/29/75	0.11	0.13

Modeled Peak Estimated Anywhere in Area

7/29/75	0.22
8/03/76	0.21
7/28/76	0.18

*Design value used in modeling for Denver based on this being second highest ozone concentration measured in Denver area in 1976.

o % HC Control Needed To Attain O₃ NAAQS 54o Remarks: NA = Not applicable for model used

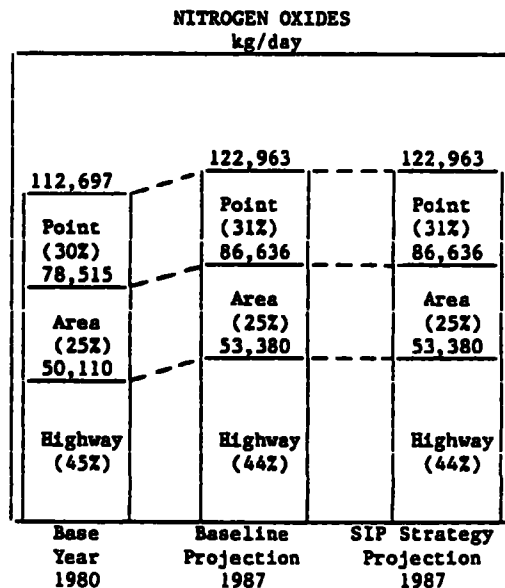
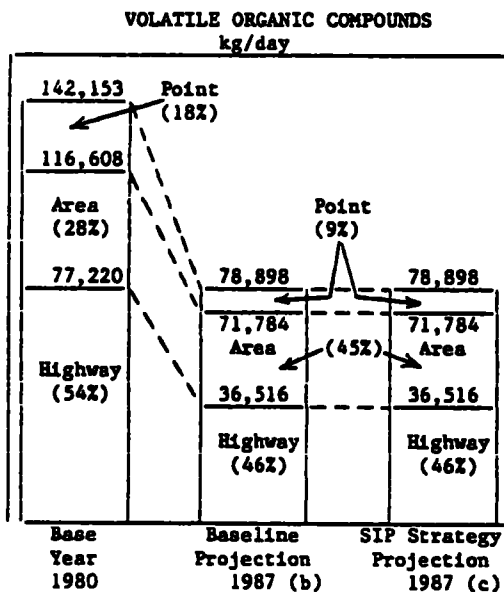
1982 OZONE SIP DATA BASE SUMMARY

CITY: Salt Lake City STATE(s): Utah REGION: VIII
COUNTIES: Salt Lake and Davis

RESPONSIBLE AGENCIES: Utah Department of Health - Nonhighway
Wasatch Front Regional Council, Utah Department of Transportation - Highway

EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: MMHC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1984 (a)
DATE RECEIVED BY REGIONAL OFFICE: 2/82 POPULATION: 766,000 (1980)
REVIEW COMPLETION DATES: NONHIGHWAY 6/9/82 HIGHWAY 7/23/82 873,000 (1987)



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(d)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	33.4	44.6	8.2	43.9	8.2	43.9	-72	+12
Nonhighway Area	51.4	37.1	40.4	35.8	40.4	35.8	-10	+10
Highway	100.8	65.4	41.8	61.2	41.8	61.2	-53	+7
TOTAL	185.6	147.1	90.4	140.9	90.4	140.9	-45	+9

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 8 NO_x 11

COMMENTS: (a) Attainment would be projected for December 1, 1983 if I/M were implemented.

(b) I/M included in baseline calculation. (c) Controls include RACT I,II, I/M, and TCMS.

(d) Calculated percent change is for total emissions, not emissions per capita.

Non-attainment area Salt Lake City, UT

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981
- Have all data been edited by ROs and verified by State/local Agency(ies)? Yes/NA
- Are all data entered in SAROAD? Yes/NA. If No, what is missing? _____
- Accepted by EPA? Yes/NA; if Yes, date 12/23/82

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Salt Lake City, UT

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD. (m)	TRAFFIC ADT
PMDC/NOx	460920010P05	Devereaux Mansion 350 East South Temple	Salt Lake City/ Salt Lake	UT		center city/ commercial	81	4	2 NW		
PMDC/NOx	460220003P05	Atkinson Site	North Salt Lake/ Davis	UT		rural/ industrial	81	4	6 NW		
Ozone	460920001F01	Health Department Bldg 610 South 2nd East	Salt Lake City/ Salt Lake	UT	NAHS	center city/ commercial	79-81	8	cc	44	9500
Ozone	460060001F01	Bountiful	Bountiful/ Davis	UT	NAHS	center city/ commercial	79-81	4	14 N	127	10120

OTHER-

Wind data collected at Salt Lake City Airport and other sites.

Wind data from above sites used for modeling.

Mixing height data from NAHS site at Salt Lake City Airport used for modeling.

MODELING

o Modeling Status

Model used: City-Specific EKMA- Preliminary Modeling Completed? Yes/NA; if Yes, date 3/82- Reviewed by: RO(s) Yes OAQPS No- Final Modeling Completed? Yes/NA; if Yes, date 7/82- Reviewed by: RO(s) Yes OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/NA; if Yes, date unknown

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Salt Lake City, UT #460920001F01				
7/22/80	9	0.08	0.182	47
7/16/80	9	0.08	0.169	39
7/18/80	9	0.08	0.171	34
6/28/80	9	0.08	0.155	29
6/28/79	9	0.08	0.149	14
Bountiful, UT #460060001F01				
8/11/80	9	0.08	0.178	38
6/28/79	9	0.08	0.190	36
7/22/81	9	0.08	0.163	35
7/28/81	9	0.08	0.155	24
7/28/80	9	0.08	0.164	20

o % HC Control Needed To Attain O₃ NAAQS 29

Remarks: _____

2.9 Region IX

Fresno, CA

Los Angeles -
South Coast Basin, CA

Sacramento, CA

San Diego, CA

San Francisco - Bay Area
Air Quality Management District, CA

Ventura/Oxnard, CA

1982 OZONE SIP DATA BASE SUMMARY

CITY: Fresno STATE(s): California REGION: LX

COUNTIES: Fresno County Only

RESPONSIBLE AGENCIES: Fresno Air Pollution Control Division (FAPCD) - Point Sources, CARB - Area Sources, CALTRANS and Council of Fresno County Governments - Highway

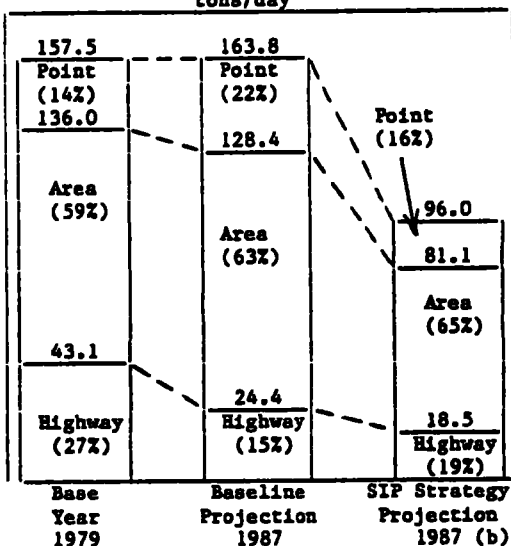
EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: RHC, NO_x BASE YEAR: 1979 O₃ ATTAINMENT YEAR: (a)

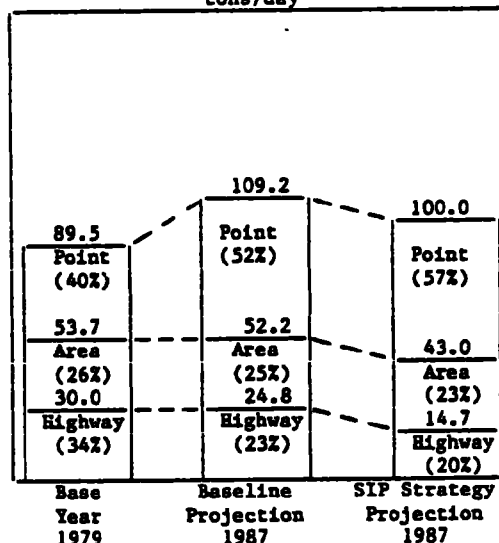
DATE RECEIVED BY REGIONAL OFFICE: 1/82 POPULATION: 484,600 (1979)

REVIEW COMPLETION DATES: NONHIGHWAY 3/5/82 HIGHWAY 7/23/82 591,240 (1987)

VOLATILE ORGANIC COMPOUNDS tons/day



NITROGEN OXIDES tons/day



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(c)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	40.3	67.2	54.4	87.6	22.9	87.6	-31	+59
Nonhighway Area	174.3	44.5	160.0	42.1	96.3	35.8	-33	- 2
Highway	80.9	56.2	37.5	38.1	28.4	30.3	-57	-34
TOTAL	295.5	167.9	251.9	167.8	147.6	153.7	-39	+12

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 6 NO_x 8

COMMENTS: (a) Attainment not demonstrated by 1987. (b) Controls include RACT I,II, I/M, TCMs, other RACT, and control of nonhighway mobile sources. (c) Calculated percent change is for total emissions not emissions per capita.

Non-attainment area Fresno, CA

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1978, 1979 & 1980
- Have all data been edited by ROs and verified by State/Local Agency(ies)? Yes/No
- Are all data entered in SAROAD? Yes/No. If No, what is missing? _____
- Accepted by EPA? Yes/No; if Yes, date unknown

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Fresno, CA.

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (m)	DISTANCE FROM RD (m)	TRAFFIC ADT
Ozone	052630001 F01	Storte St.	Firebaugh/Fresno	CA	SLAMS	rural	79-80		55		
Ozone/NOx TMC	052800005 F01	3250 E. Olive	Fresno/Fresno	CA	SLAMS	suburban/ commercial	78-80	4	cc	24	15000
Ozone/NOx	052800240 101	5704 E. Butler	Fresno/Fresno	CA	NAMS	suburban/ residential	78-80	6	cc	510	1200
Ozone	052800241 101	Shaw & Maple	Fresno/Fresno	CA	NAMS	suburban/ residential	76-80	6	cc	234	20000
Ozone	052820003 101	Dinky Creek Rd.	Shaver Lake/ Fresno	CA	SLAMS	remote	78-80		60		

OTHER

Wind data collected at _____

Wind data from _____ used for modeling.

Mixing height data from _____ used for modeling.

MODELING

o Modeling Status

Model used: City-Specific EKMA- Preliminary Modeling Completed? Yes/No; if Yes, date unknown- Reviewed by: RO(s) Yes OAQPS No- Final Modeling Completed? Yes/No; if Yes, date unknown- Reviewed by: RO(s) Yes (1/82) OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date unknown

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Firebaugh, CA #052630001F01				
10/01/79	9.5		0.14	35
8/01/79	9.5		0.14	22
7/20/79	9.5		0.14	15
7/17/79	9.5		0.13	12
7/24/79	9.5		0.13	12
10/2/79	9.5		0.13	9
10/4/79	9.5		0.13	7
Fresno, CA #052800005F01				
7/17/79	9.3		0.17	59
9/14/80	9.3		0.17	58
7/25/80	9.3		0.16	56
7/24/79	9.3		0.17	55
7/27/80	9.3		0.15	46
Fresno, CA #052800024F01				
10/2/80	12.0		0.20	75
7/25/80	12.0		0.18	69
8/02/78	12.0		0.18	66
10/1/80	12.0		0.17	59
7/25/80	12.0		0.19	48

- continued on next page -

o % HC Control Needed To Attain O₃ NAAQS 70*

o Remarks: *Closer examination of assumptions concerning transported ozone and prevailing NMOC/NO_x ratios for design day may be warranted. Any change in these assumptions could alter % HC control needed.

Fresno, CA #052800241101

7/24/80	16.8		0.21	79
10/4/78	16.8		0.18	73
9/13/79	16.8		0.18	71
8/03/79	16.8	0.15	0.18	70
10/12/78	16.8		0.18	70

Shaver Lake, CA #052820003101

8/03/79	11.4		0.15	47
7/31/79	11.4		0.14	21
8/02/78	11.4		0.13	10
9/04/80	11.4		0.13	9
7/24/78	11.4		0.13	7

1982 OZONE SIP DATA BASE SUMMARY

CITY: Los Angeles/SCAB STATE(s): California REGION: IX

COUNTIES: Los Angeles, Orange, Riverside and San Bernardino

RESPONSIBLE AGENCIES: California Air Resource Board, South Coast AQMD - Nonhighway

Southern California Association of Government, CALTRANS - Highway

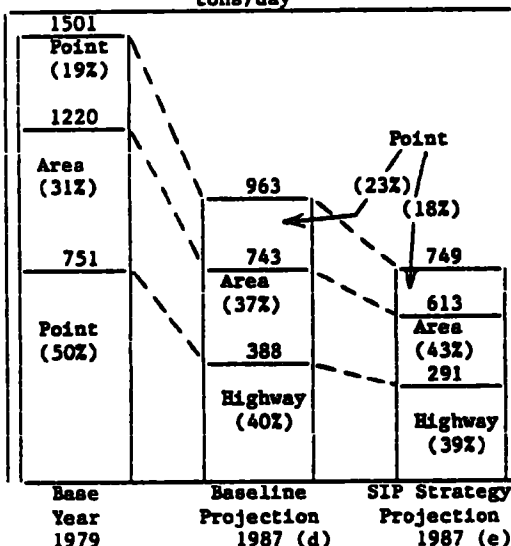
EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: ROC(a), NO_x BASE YEAR: 1979 O₃ ATTAINMENT YEAR: (b)

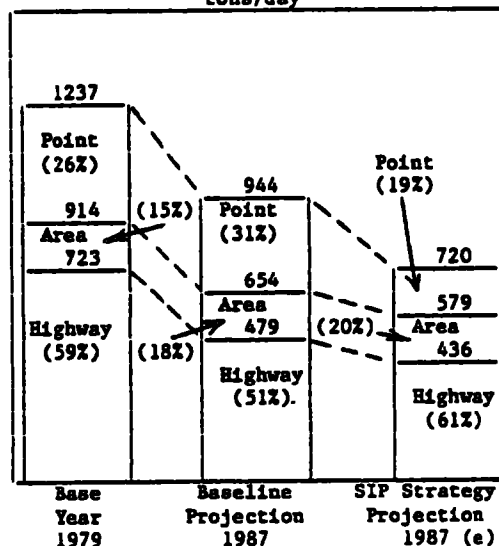
DATE RECEIVED BY REGIONAL OFFICE: 1/82 POPULATION: 11,600,000 (1979)

REVIEW COMPLETION DATES: NONHIGHWAY 3/5/82 HIGHWAY 7/23/82 12,800,000 (1987)

VOLATILE ORGANIC COMPOUNDS (c)
tons/day



NITROGEN OXIDES (c)
tons/day



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(f)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	22.0	25.3	15.6	20.6	9.7	10.0	-52	-56
Nonhighway Area	36.8	15.0	25.2	12.4	22.9	10.2	-31	-25
Highway	58.8	56.7	27.6	34.0	20.7	31.0	-61	-40
TOTAL	117.6	97.0	68.4	67.0	53.3	51.2	-50	-42

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 280 NO_x 95

COMMENTS: (a) Includes 1.7% (wt.) ethane. (b) Attainment not projected. (c) Point/area splits estimated by EPA (MDAD) from review of source categories in summary tables. (d) Could not be determined if baseline includes I/M credits. (e) Controls include RACT I,II, I/M, TCMs, other RACT, and NO_x emission reduction. (f) Calculated percent change is for total emissions, not emissions per capita.

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1978, 1979 & 1980 (1981 data will be addressed by State in a later submittal.)
- Have all data been edited by ROs and verified by State/local Agency(ies)? Yes/No
- Are all data entered in SAROAD? Yes/No. If No, what is missing? _____
- Accepted by EPA? Yes/No; if Yes, date unknown

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Los Angeles/San Bernardino, CA

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD (m)	TRAFFIC ADT
Ozone/NOx	050500002101	803 Loren Ave.	Azusa/ Los Angeles	CA	SLAMS	suburban/ industrial	78-81	5	48	12	1000
Ozone/NOx	050500002101	228 W. Palm	Burbank/ Los Angeles	CA	SLAMS	suburban/ industrial	78-81		27		
Ozone/NOx	052680001101	14838 Foothill Blvd.	Fontana/ Los Angeles	CA	NAHS	rural/ industrial	78-81	5	90	235	12000
Ozone/NOx THC	055120001101	24811 San Fernando Rd.	Newhall/ Los Angeles	CA	SLAMS	suburban/ commercial	78-81		52		
Ozone/NOx THC	053760004101	1196 E. Walnut St.	Pasadena/ Los Angeles	CA	NAHS	city center/ commercial	78-81	6	35	21	20550
Ozone	055820001101	3713 S. Gabriel Riv.	Pico Rivera/ Los Angeles	CA	SLAMS	suburban/ residential	78-81	8	25	75	8000
Ozone/NOx THC	056040001101	924 N. Garey Ave.	Pomona/ Los Angeles	CA	SLAMS	suburban/ commercial	78-81		55		
Ozone/NOx THC	056400003F01	1450 Penna. Ave.	Riverside/ Riverside	CA		rural/ agricultural	78-81	4	110	25	40000
Ozone/NOx THC	064680001101	172 W. 3rd St.	San Bernardino/ St. Bernard	CA	SLAMS	city center/ commercial	78-81		110		
Ozone	066700005101	24171 Lake Dr.	Lake Gregory/ St. Bernard	CA	SLAMS	rural/near urban	78-81		125		
Ozone/NOx	057180001101	22201 Santa Canyon Rd.	Santa Ana/ Orange	CA	SLAMS	rural/ agricultural	78-81		45		
Ozone/NOx THC	058440004F01	1350 S. Bernardino Rd.	Upland/ St. Bernard	CA	SLAMS	city center/ commercial	78-81	7	65	24	6000
Ozone	055160002101	US Navy Fleet Anal. Ctr.	Norco/ Riverside	CA	SLAMS	suburban/ residential	78-81				

OTHER

Wind data collected at _____
 Wind data from _____ used for modeling.
 Mixing height data from _____ used for modeling.

MODELING

o Modeling Status

Model used: City-Specific EKMA

- Preliminary Modeling Completed? Yes/No; if Yes, date 11/81

- Reviewed by: RO(s) Yes OAQPS No

- Final Modeling Completed? Yes/No; if Yes, date unknown

- Reviewed by: RO(s) Yes OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date 11/81

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Azusa, CA #05050002101				
9/30/80			0.41	
6/23/78			0.40	
7/18/79			0.40	
Burbank, CA #050900002101				
6/27/80			0.35	
Fontana, CA #052680001101				
9/12/79			0.42	
9/18/79			0.42	
10/02/80			0.42	
6/08/78			0.36	
Newhall, CA #055120001101				
10/03/80			0.36	
Pasadena, CA #055760004101				
9/10/79			0.44	
9/11/79			0.44	
6/27/79			0.43	
7/14/78	10.3	0.21	0.42	85*
9/19/79			0.42	
9/30/80			0.41	

- continued on next page -

o % HC Control Needed To Attain O₃ NAAQS 85*

o Remarks: *Design control value based on information in draft SIP. Not known if control value is 4th highest for site.

Pico Rivera, CA #055820001I01	
9/29/78	0.43
9/28/78	0.39
9/26/78	0.36
Pomona, CA #056040001I01	
7/13/78	0.41
10/13/78	0.39
Riverside, CA - #056400003F01	
9/29/80	0.37
San Bernardino, CA #056680001I01	
7/22/80	0.36
7/16/80	0.35
Lake Gregory, CA #056700005I01	
6/11/79	0.35
Santa Ana, CA #057180001I01	
6/12/79	0.35
pland, CA #058440004F01	
10/08/80	0.38
Norco-Prado Park, CA #055160002I01	
5/12/78	0.40

1982 OZONE SIP DATA BASE SUMMARY

CITY: Sacramento STATE(s): California REGION: IX

COUNTIES: Placer, Sacramento, Solano, Sutter, Yolo

RESPONSIBLE AGENCIES: California Air Resources Board - Nonhighway

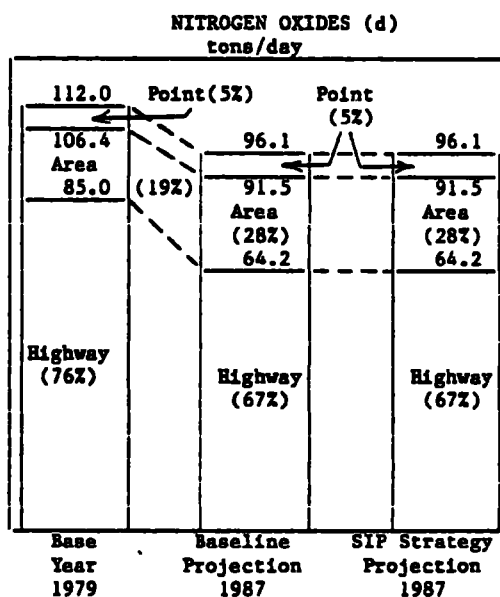
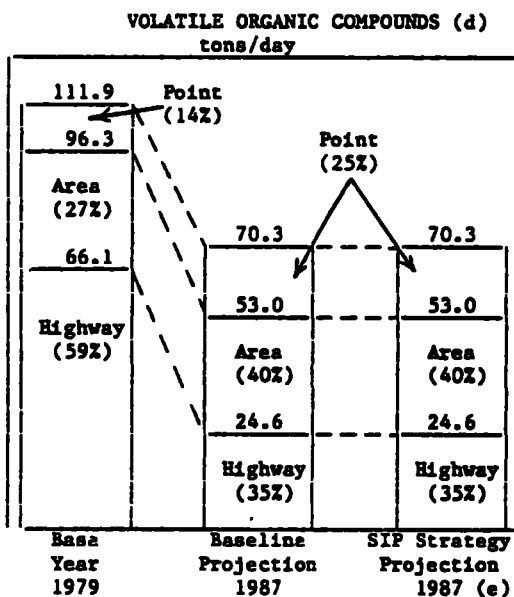
Sacramento Council of Governments, CALTRANS - Highway

EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: RHC, NO_x BASE YEAR: 1979 O₃ ATTAINMENT YEAR: (a)

DATE RECEIVED BY REGIONAL OFFICE: 1/82 POPULATION: 973,400 (1979)(b)

REVIEW COMPLETION DATES: NONHIGHWAY 3/5/82 HIGHWAY 11/1/82 1,069,000 (1987)(c)



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(f)	
Pollutants	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	14.6	5.2	14.7	3.9	14.7	3.9	+11	-18
Nonhighway Area	28.2	20.0	24.2	23.2	24.2	23.2	- 6	+28
Highway	61.7	79.4	20.9	54.6	20.9	54.6	-63	-24
TOTAL	104.5	104.6	59.8	81.7	59.8	81.7	-37	-14

Number of Facilities Greater than 250 kg/day (100 TPF): VOC (g) NO_x (g)

COMMENTS: (a) Attainment not projected. (b) 1979 population extrapolated from 1985 data in SIP and 1980 census. (c) Interpolated between 1985 and 2000 populations. (d) Limited documentation for stationary source portion of inventory. (e) Controls include I/M, some RACT, TCMS. (f) Calculated percent change is for total emissions, not emissions per capita. (g) Listing of major VOC/NO_x emitting facilities not submitted.

Non-attainment area Sacramento, CA

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1978, 1979 & 1980 (State does not intend to evaluate the effect of 1981 air quality data on control strategy)
- Have all data been edited by ROs and verified by State/local Agency(ies)? Yes/No
- Are all data entered in SAROAD? Yes/No. If No, what is missing? Data from 1978, 1979 & 1980 missing for some sites.
- Accepted by EPA? Yes/No; if Yes, date unknown

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area Sacramento, CA											
POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (m)	DISTANCE FROM RD. (m)	TRAFFIC ADT
Ozone	051370001F01	7400 Sunrise Blvd.	Citrus Heights/ Sacramento	CA	NAHS	suburban/ mobile	78-81	7	20	52	25000
Ozone	052660001F01	City Corp Yard	Folsom/ Sacramento	CA	NAHS	suburban/ commercial	78-81	6	25	150	1000
Ozone	055180002101	7823 Black Foot Way	N. Highland/ Sacramento	CA	SLWS	suburban/ residential	78-81		14		
Ozone	056405810101	5000 Rocklin Rd.	Rocklin/ Sacramento	CA	SLWS	rural/ agriculture	78-81		30		
Ozone	056600001101	Creekside School	Sacramento/ Sacramento	CA		suburban residential	78-81		cc		

OTHER:

Mind data collected at _____
 Mind data from _____ used for modeling.
 Mixing height data from _____ used for modeling.

Non-attainment area Sacramento, CA

MODELING

o Modeling Status

Model used: SMOG in final modeling (EKMA used in preliminary modeling)

- Preliminary Modeling Completed? Yes/No; if Yes, date unknown
- Reviewed by: RO(s) Yes OAQPS No
- Final Modeling Completed? Yes/No; if Yes, date unknown
- Reviewed by: RO(s) Yes OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date unknown

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Sacramento, CA 7/21/78*	#056600001I01 **	**	0.22	50

o % HC Control Needed To Attain O₃ NAAQS 50

o Remarks: *Only this day modeled using SMOG to calculate control requirements.
Several site-days considered in preliminary modeling using EKMA. **No other
details about inputs to the SMOG model provided.

1982 OZONE SIP DATA BASE SUMMARY

CITY: San Diego STATE(s): California REGION: IX

COUNTIES: San Diego County

RESPONSIBLE AGENCIES: San Diego Air Pollution Control Division (APC) - nonhighway

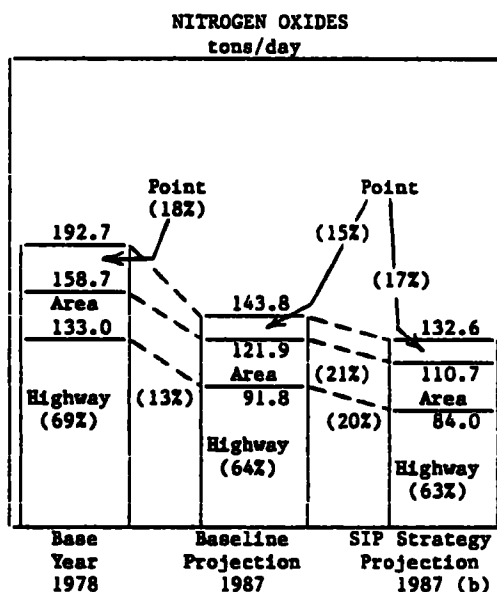
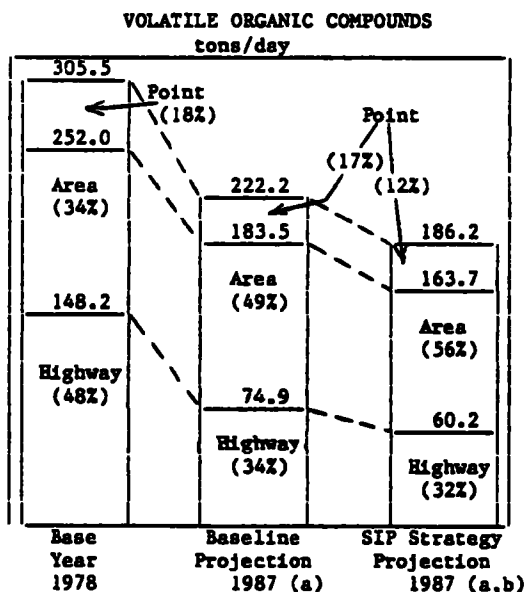
CALTRANS - highway

EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: RVOC, NO_x BASE YEAR: 1978 O₃ ATTAINMENT YEAR: 1987

DATE RECEIVED BY REGIONAL OFFICE: 8/81 POPULATION: 1,690,000 (1978)

REVIEW COMPLETION DATES: NONHIGHWAY 2/12/82 HIGHWAY 11/1/82 2,170,000 (1987)



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(c)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	23.8	18.3	16.2	9.2	9.4	9.2	-58	-36
Nonhighway Area	55.8	13.8	45.5	12.6	43.4	11.2	0	+ 3
Highway	79.7	71.5	31.4	38.4	25.2	35.2	-59	-36
TOTAL	164.3	103.6	93.1	60.2	78.0	55.6	-39	-31

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 19 NO_x 7

COMMENTS: (a) Point/area split estimated by EPA (MDAD) for 1987 baseline and SIP strategy inventories. (b) Controls include RACT I,II, I/M, TCMs, other RACT, nonhighway mobile source reductions, and NO_x emission reductions. (c) Calculated percent change is for total emissions, not per capita emissions.

Non-attainment area San Diego, CA

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1978, 1979 & 1980 (1981 data will be addressed in a later submittal).
- Have all data been edited by ROs and verified by State/local Agency(ies)?
Yes/~~No~~
- Are all data entered in SAROAD? Yes/~~No~~. If No, what is missing? _____
- Accepted by EPA? Yes/~~No~~; if Yes, date _____ unknown

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
San Diego, CA

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD. (m)	TRAFFIC ADT
Ozone	056820006101	2300 Victoria Drive	Alpine/ San Diego	CA	SLAMS	rural/ near urban	78-81	18			
CO ₂ /HC	056800006101	Kearney Mesa	San Diego City/ San Diego	CA	SLAMS	center city/ commercial	78-81	6		200	10000

OTHER:

Wind data collected at 8 monitoring sites, 8 airport sites; Montgomery Airport (alt)
 Wind data from above sites used for modeling
 Mixing height data from Montgomery Airport (radiance) used for modeling

Non-attainment area San Diego, CA

MODELING

o Modeling Status

Model used: MADCAP

- Preliminary Modeling Completed? Yes/No; if Yes, date 4/20/82

- Reviewed by: RO(s) No OAQPS No

- Final Modeling Completed? X/No; if Yes, date _____

- Reviewed by: RO(s) In process OAQPS In process

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date unknown

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Alpine, CA #056820006I01				
7/25/78	NA**	0.06***	0.14	31
7/22/77	NA**	0.07***	0.18	

o % HC Control Needed To Attain O₃ NAAQS 31*

o Remarks: *EKMA modeling of the same day indicates 47% HC reduction required.
Also, this day had little if any O₃ transport from the LA Basin. Additional
documentation needed to verify design day selection (effect of transport from
LA Basin) and to support several input assumptions. **Not applicable to this
modeling analysis. ***Values given for EKMA analysis - not specified for
MADCAP.

1982 OZONE SIP DATA BASE SUMMARY

CITY: San Francisco STATE(s): California REGION: IX

COUNTIES: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara (plus portions of Solano and Sonoma counties)

RESPONSIBLE AGENCIES: Bay Area Air Quality Management Division, California Air Resource Board - Highway; Metropolitan Planning Commission - Highway

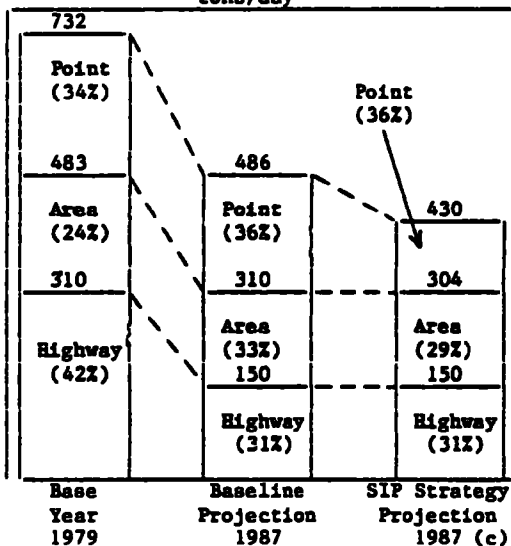
EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: ROG, NO_x BASE YEAR: 1979 O₃ ATTAINMENT YEAR: 1987

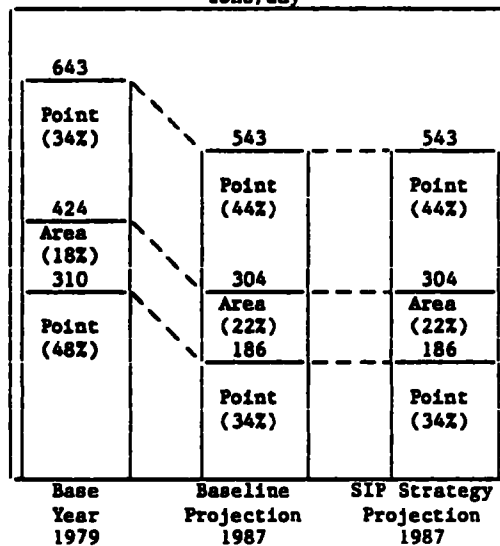
DATE RECEIVED BY REGIONAL OFFICE: 1/82 POPULATION: 4,982,000 (1979)

REVIEW COMPLETION DATES: NONHIGHWAY 3/5/82 HIGHWAY 11/1/82 5,690,000 (1987)(a)

VOLATILE ORGANIC COMPOUNDS (b)
tons/day



NITROGEN OXIDES (b)
tons/day



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(d)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	45.4	40.0	28.1	38.2	24.6	38.2	-38	+ 9
Nonhighway Area	31.6	20.8	25.6	18.8	20.1	18.8	-27	+ 4
Highway	56.6	56.6	24.0	29.7	24.0	29.7	-52	-40
TOTAL	133.6	117.4	77.7	86.7	68.7	86.7	-41	-16

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 43 NO_x 29

COMMENTS: (a) 1987 population interpolated from ABAG '81 projections for 1980 and 1990.

(b) Point/area splits derived from EPA (MDAD) review. (c) Controls include RACT I,II, I/M, other RACT and area source controls on commercial/consumer solvents. (d) Calculated percent change is for total emissions, not emissions per capita.

Non-attainment area San Francisco, CA

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1978, 1979 & 1980 (1981 data will be addressed by State in a later submittal.)
- Have all data been edited by ROs and verified by State/local Agency(ies)? Yes/~~XXX~~
- Are all data entered in SAROAD? ~~Yes~~/No. If No, what is missing? Information on sites used for final SIP analysis not yet available.
- Accepted by EPA? ~~Yes~~/No; if Yes, date _____

o Site Descriptions (for sites used in SIP analysis.)

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD. (m)	TRAFFIC ADT
Ozone	054240001101	306 University Ave.	Los Gatos/ Santa Clara	CA	NAVS	center city residential	79-81	5	0	22	10000

OTHER -

Wind data collected at _____

Wind data from _____ used for modeling.

Mixing height data from _____ used for modeling.

MODELING

o Modeling Status

Model used: LIRAQ- Preliminary Modeling Completed? Yes/No; if Yes, date 4/20/82- Reviewed by: RO(s) Yes OAQPS No- Final Modeling Completed? Yes/No; if Yes, date unknown- Reviewed by: RO(s) Yes OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date unknown

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Los Gatos, CA 9/25/78	#054240001F01 *	*	0.23	31

o % HC Control Needed To Attain O₃ NAAQS 31o Remarks: *No other details about inputs to the LIRAQ model provided

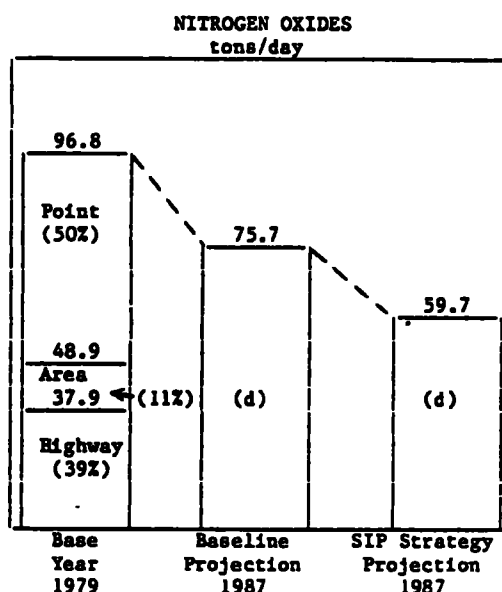
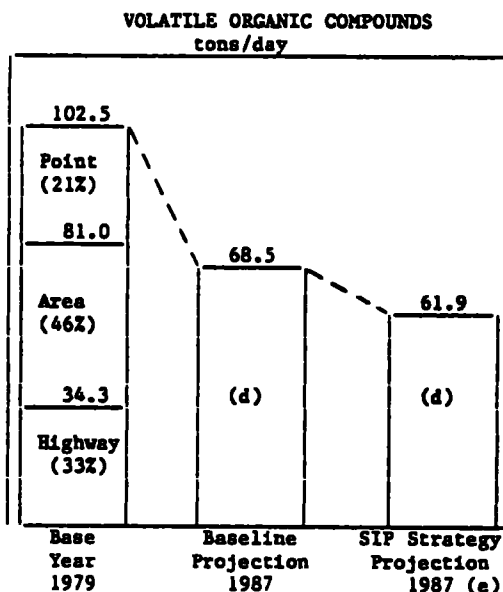
1982 OZONE SIP DATA BASE SUMMARY

CITY: Ventura/Oxnard STATE(s): California REGION: IX
COUNTIES: Ventura County - Only

RESPONSIBLE AGENCIES: Ventura County Air Pollution Control Division - Point; California
Air Resources Board - Area; CALTRANS - Highway

EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: ROC(s), NO_x BASE YEAR: 1979 O₃ ATTAINMENT YEAR: (b)
DATE RECEIVED BY REGIONAL OFFICE: 1/82 POPULATION: 506,203 (1979)
REVIEW COMPLETION DATES: NONHIGHWAY 3/11/82 HIGHWAY 7/23/82 644,000 (1987)(c)



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(f)	
	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Pollutants								
Point Sources	38.7	86.4						
Nonhighway Area	84.1	19.6	(d)		(d)		(d)	
Highway	61.7	68.2						
TOTAL	184.5	174.2	96.6	106.7	87.3	84.2	-40	-38

Number of Facilities Greater than 250 kg/day (100 TPY): VOC (g) NO_x (g)

COMMENTS: (a) ROC includes ethane. (b) Attainment by '87 not demonstrated. (c) Extrapolated to 1987 from 1983 and 1985 population data. (d) Breakdown of emissions into specified categories not readily available from summary tables. (e) Controls include RACT I,II, I/M, TCMs, some RACT III, NO_x source control, and other miscellaneous VOC controls. (f) Calculated percent change is for total emissions, not emissions per capita. (g) No listing of major VOC/NO_x facilities.

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981
- Have all data been edited by ROs and verified by State/local Agency(ies)?
Yes/No
- Are all data entered in SAROAD? Yes/No. If No, what is missing? _____
- Accepted by EPA? Yes/No; if Yes, date unknown

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Ventura-Oxnard, CA

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT. (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD. (m)	TRAFFIC ADT
Ozone	055340001 101	401 Signal Hill	Ojoms/Ventura	CA	SLAPS	center city/ commercial	79-81		20		
Ozone	055560001 101	545 Central Ave.	El Rio/Ventura	CA	NAVS	rural/ agricultural	79-80	6	20	115	3000
Ozone	056080001 101	Naval Civil Eng. Lab.	Port Hueneme	CA	SLAPS	remote	79-81		17		
Ozone	057870001 101	5400 Cochran St.	Simi. Valley	CA	NAVS	suburban/ residential	79-81	6	16	115	7000
Ozone	058240001 101	1135 Windsor Dr.	Thousand Oaks	CA		suburban/ residential	79-81		25		
Ozone	058490002 101	Seaside Tr. St. & Figueroa St.	Ventura/Vent. Co	CA	SLAPS	suburban/ mobile	79-81		8		
Ozone	058500001 101	355 N. Main	Piru/Ventura	CA	SLAPS	rural/ agricultural	79-81		40		

OTHER.

Wind data collected at _____

Wind data from _____ used for modeling.

Mixing height data from _____ used for modeling.

MODELING

o Modeling Status

Model used: City-Specific EKMA- Preliminary Modeling Completed? Yes/No; if Yes, date unknown- Reviewed by: RO(s) Yes OAQPS No- Final Modeling Completed? Yes/No; if Yes, date 11/81- Reviewed by: RO(s) Yes(1/82) OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date 11/81

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Ojai, CA #055340001I01 (Ojai Valley)				
8/11/80	9.5*	0.09	0.18	42
9/18/81	9.5*		0.20	
8/12/80	9.5*		0.17	
7/25/80	9.5*		0.17	
7/26/80	9.5*		0.17	
8/10/80	9.5*		0.17	
7/17/79	9.5*		0.18	
8/09/80	9.5*		0.18	
9/20/79	9.5*		0.17	
3/08/79	9.5*		0.17	
9/11/79	9.5*		0.18	

- continued on next page -

42 Ojai Valley Portion

48 Oxnard Plain Portion

o % HC Control Needed To Attain O₃ NAAQS 42 Ojai Valley Portionu Remarks: *NMOC/NO_x ratio of 9.5 used for the entire Ventura-Oxnard analysis.

Port Hueneme, CA #056080001F01

6/09/79	9.5*	0.19
9/06/79	9.5*	0.15
2/11/79	9.5*	0.13
9/11/79	9.5*	0.13
10/2/80	9.5*	0.13

Simi Valley, CA #057670001I01 (Oxnard Plain)

8/05/79	9.5*	0.19
7/18/81	9.5*	0.23
6/18/81	9.5*	0.20
7/31/79	9.5*	0.19
9/20/79	9.5*	0.19

0.09

48

Thousand Oaks, CA #058240001I01

10/2/80	9.5*	0.19
9/12/79	9.5*	0.17
6/27/80	9.5*	0.17
9/14/79	9.5*	0.17
10/3/80	9.5*	0.17
9/11/79	9.5*	0.18
2/08/79	9.5*	0.17

Ventura, CA #058490002I01

6/04/81	9.5*	0.15
4/29/81	9.5*	0.14
4/13/80	9.5*	0.13
10/2/80	9.5*	0.13
11/3/80	9.5*	0.13

Piru, CA #058500001I01

6/05/81	9.5*	0.19
9/11/79	9.5*	0.22
10/2/80	9.5*	0.21
6/29/81	9.5*	0.18
8/09/80	9.5*	0.18
10/3/80	9.5*	0.19
9/18/81	9.5*	0.18
7/17/79	9.5*	0.18
6/18/81	9.5*	0.18
6/27/81	9.5*	0.18

2.10 Region X

Portland, OR/Vancouver, WA
Seattle, WA

1982 OZONE SIP DATA BASE SUMMARY

CITY: Portland STATE(s): Oregon/Washington REGION: X

COUNTIES: OR - Clackamas, Multnomah, Washington; WA - Clark.

RESPONSIBLE AGENCIES: Oregon Department of Environmental Quality - Nonhighway (Oregon)

Clark County RPC - Nonhighway (Washington), Portland Metropolitan Service District- Highway

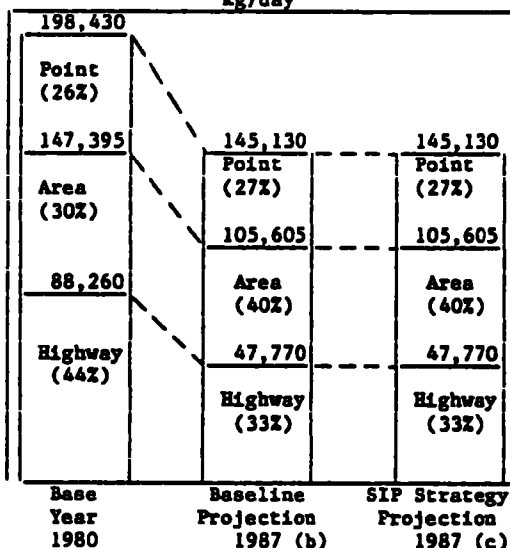
EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: VOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1987

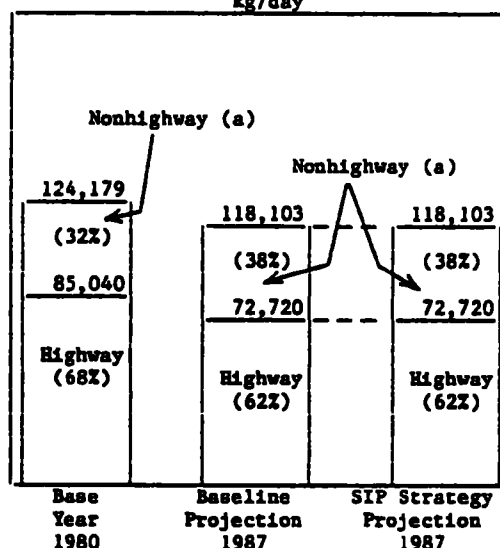
DATE RECEIVED BY REGIONAL OFFICE: OR- 1/82; WA- 4/8 POPULATION: 1,245,020 (1980)

REVIEW COMPLETION DATES: NONHIGHWAY: OR- 3/21 HIGHWAY OR- 7/23 1,410,670 (1987)
WA- 6/23 WA- 11/1

VOLATILE ORGANIC COMPOUNDS kg/day



NITROGEN OXIDES kg/day



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(d)	
Pollutants	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	41.0	31.4(a)	28.0	32.2(a)	28.0	32.2(a)	-23	+15(a)
Nonhighway Area	47.5		41.0		41.0		- 2	
Highway	70.9	68.3	33.9	51.5	33.9	51.5	-46	-15
TOTAL	159.4	99.7	102.9	83.7	102.9	83.7	-27	- 5

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 32 NO_x (e)

COMMENTS: (a) NO_x inventory has no breakdown by point and area nonhighway sources. Summaries include all nonhighway sources. (b) I/M program included in baseline projection for OR only. (c) No additional controls for '87. Includes RACT I,II, TCMs, I/M (OR only). (d) Calculated percent change for total emissions, not per capita emissions. (e) No listing of sources emitting >250kg/year of NO_x.

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981
- Have all data been edited by ROs and verified by State/local Agency(ies)?
Yes/No
- Are all data entered in SAROAD? ~~Yes~~/No. If No, what is missing? Clark site is not in SAROAD
- Accepted by EPA? Yes/No; if Yes, date 7/09/82

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Portland, OR

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROBE HT (m)	DISTANCE FROM CC (km)	DISTANCE FROM RD. (m)	TRAFFIC ADT
PM10/NOx	Not in SAROAD	Clark School	Portland/Multnomah	OR		suburban/residential	74-B1	4		46	50-60
Ozone	380260004F03	Carus	Carus/Clackamas	OR	NAMS	rural/agricultural	79-B1	4	29	9	900

OTHERWind data collected at Several sites and at local airportsWind data from Federal Building used for modeling.Mixing height data from Salem, Oregon RMS Soundings used for modeling.

MODELING

o Modeling Status

Model used: City-Specific EKMA

- Preliminary Modeling Completed? Yes/No; if Yes, date 11/20/81, report date _____
- Reviewed by: RO(s) Yes OAQPS No
- Final Modeling Completed? Yes/No; if Yes, date unknown
- Reviewed by: RO(s) Yes OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date unknown

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Carus, OR #380260004F03				
8/11/81	6.8	0.06	0.216	48 *
8/07/81	6.8	0.04	0.142	29 *
8/06/81	6.8	0.04	0.146	26 *
8/08/81	6.8	0.04	0.126	9 *
8/18/81	6.8	0.04	0.124	8 *

- o % HC Control Needed To Attain O₃ NAAQS 26*
- o Remarks: *Due to deficiencies in Oregon's modeling approach and selection of control requirement, the Region has done some additional EKMA runs which have resulted in % HC control values which differ from those listed here. The Region's modeling exercise indicates 9.5% VOC control. However, the State still intends to use the 26% value which it calculated.

1982 OZONE SIP DATA BASE SUMMARY

CITY: Seattle STATE(s): Washington REGION: X

COUNTIES: Pierce, Snohomish, King

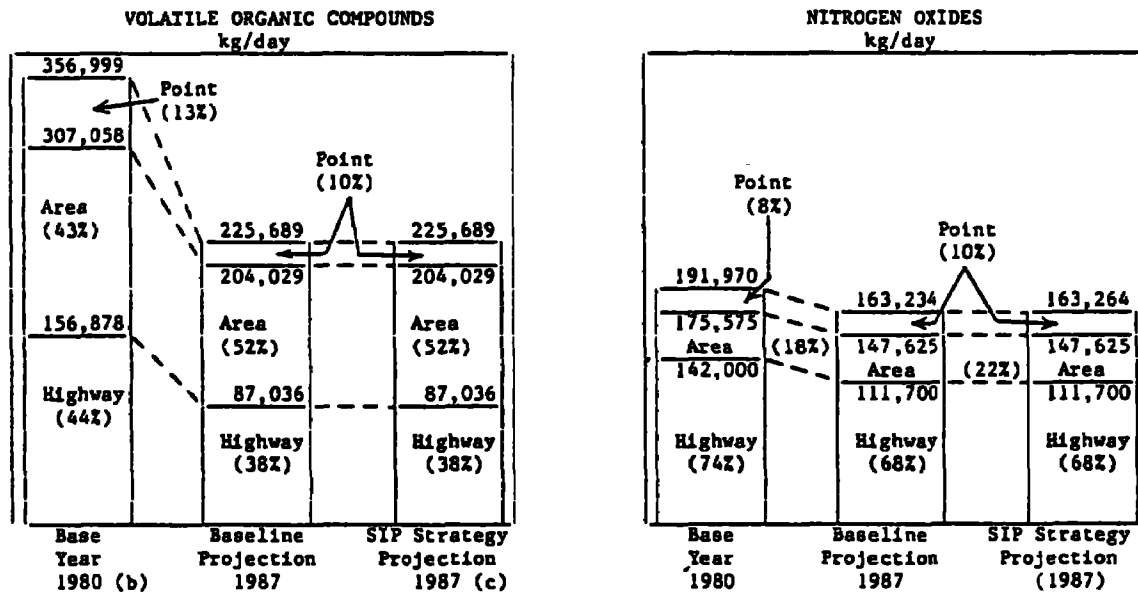
RESPONSIBLE AGENCIES: Puget Sound Air Pollution Control Agency - Nonhighway

EMISSION INVENTORY DATA SUMMARY

POLLUTANTS INVENTORIED: VOC, NO_x BASE YEAR: 1980 O₃ ATTAINMENT YEAR: 1984

DATE RECEIVED BY REGIONAL OFFICE: 4/82 POPULATION: 2,033,000 (1980)

REVIEW COMPLETION DATES: NONHIGHWAY 6/2/82 HIGHWAY 7/23/82 2,316,000 (1987)(a)



TOTAL AQCR EMISSIONS NORMALIZED BY POPULATION (g/cap/day)

Inventory	Base Year		Baseline Projection		SIP Projection		Total % Change(d)	
Pollutants	VOC	NO _x	VOC	NO _x	VOC	NO _x	VOC	NO _x
Point Sources	22.1	7.7	9.3	6.8	9.3	6.8	-51	0
Nonhighway Area	76.3	16.5	50.5	15.5	50.5	15.5	-25	+ 7
Highway	77.2	69.8	37.6	48.2	37.6	48.2	-45	-21
TOTAL	175.6	94.0	97.4	70.5	97.4	70.5	-37	-15

Number of Facilities Greater than 250 kg/day (100 TPY): VOC 34 NO_x 12

COMMENTS: (a) Interpolated from 1980 and 1990 population data. (b) Base year emissions from highway vehicles interpolated by EPA (MDAD) from 1977 and 1982 estimates. (c) Controls include RACT I - III, I/M, TCMs and RACT on 100+TPY nonRACT sources. (d) Calculated percent change for total emissions not emissions per capita.

Non-attainment area Seattle, WA

AIR QUALITY

o Air Quality Data Base - Status

- Base Years: 1979, 1980 & 1981
- Have all data been edited by ROs and verified by State/local Agency(ies)?
Yes/No
- Are all data entered in SAROAD? X&X/No. If No, what is missing? All modeled data from Graham and some NMOC & NOx from other modeled sites.
- Accepted by EPA? Yes/M&; if Yes, date 7/09/82

o Site Descriptions (for sites used in SIP analysis.)

Non-Attainment Area
Seattle, WA

POLLUTANTS	SAROAD #	SITE ID	CITY/COUNTY	STATE	SITE TYPE	STATION TYPE	AVAILABLE DATA	PROB HT (m)	DISTANCE FROM CC (m)	DISTANCE FROM RD (m)	TRAFFIC ADT
NMOC/NOx	491840082 F01	5th & Jackson	Seattle/King Co	WA	NAMS	city center	81	7		450	20,000
Ozone	490980010 F01	Lake Sammamish	Lake Sammamish/King Co	WA	NAMS	rural/unqualified	79-81	7	28	320	4000
Ozone	491560004 F01	Firwood Fire Station	Fife/Pierce Co	WA	NAMS	suburban/residential	80-81	5	8	25	500
Ozone	Not in SAROAD	Graham	Graham/Pierce Co	WA	SLAMS	rural/agricultural	78-81	8	64	42	100
Ozone	492100001 101	Sumner	Sumner/Pierce Co	WA	NAMS	suburban/residential	79-81	4	45	110	1000

OTHER

Wind data collected at Several of the agency sites and at local airports

Wind data from Fort Union (Seattle) used for modeling.

Mixing height data from Fort Union (Seattle) used for modeling.

Non-attainment area Seattle, WA

MODELING

o Modeling Status

Model used: City-Specific EKMA

- Preliminary Modeling Completed? Yes/No; if Yes, date 3/05/82, report date
- Reviewed by: RO(s) Yes OAQPS No
- Final Modeling Completed? Yes/No; if Yes, date unknown
- Reviewed by: RO(s) Yes OAQPS Yes

o Key Modeling Information (Final Modeling Only)

- Modeling Days Selected? Yes/No; if Yes, date unknown

<u>Site-Days Modeled</u>	<u>NMOC/NO_x Ratio(s)</u>	<u>Transported O₃ Concen- tration(ppm)</u>	<u>Peak O₃ Concentration (ppm)</u>	<u>Calculated % HC Control</u>
Graham, WA				
8/07/81**	*	***	0.14	22
8/08/81**	*	***	0.14	22
8/10/81**	*	***	0.14	22
8/11/81**	*	***	0.15	22
Lake Sammamish, WA #490980010F01				
8/11/81**	*	***	0.15	33
Sumner, WA #492100001101				
8/10/81**	*	***	0.15	36
8/07/81**	*	***	0.13	14
8/11/81**	*	***	0.13	14
Firwood, WA #491560004F01				
8/10/81**	*	***	0.13	16

o % HC Control Needed To Attain O₃ NAAQS 24.3****

o Remarks: *NMOC/NO_x ratios of 9.5:1, 4.1:1, and 3.4:1 were used on all days modeled. The ratio which gave the most control was used to establish the control required for each day. **No exceedances were observed in 1980. Exceedances in 1979 were modeled. Although specific information on these days is not available, the 1979 data will not affect the control requirements, according to the Region. ***Values of zero were incorrectly used for the modeling runs. ****Additional modeling using transported ozone of 0.035 was conducted by the Region resulting in a revised % HC control value of 24.3%.