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Category: 45 — Criteria for Plan Revisions for Nonattainment Areas

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

DATE: April 30 1981

SUBJECT: Status of 1982 SIP Ozone Data Base

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

TO: Director, Air & Hazardous Materials Division, Regions I-X
Director, Surveillance & Analysis Division, Regions I-X

I am attaching the second status report on the development of the 1982 ozone SIP data base. This report, prepared by my staff, summarizes the status of the emission inventory and air quality data base for each ozone nonattainment area. The report reflects our telephone contacts with members of your staff and visits to Regions II, III, IV and V, and based on these contacts, I am quite pleased with the cooperation of your personnel in providing information.

In general, we are seeing substantial progress in putting together the data base. This is especially true with the planning of special air quality monitoring studies this summer. With some minor exceptions, all the plans are final and the networks are all adequate to produce data for use in city-specific EKMA analyses. Some of the dates for the inventory efforts are uncertain at this point, and I would encourage you to try to firm them up in the next month.

Again, I would like you to note that five areas plan to use models other than city-specific EKMA for their SIP submission. These areas, and the models that will be used, are:

Sacramento - SMOG
San Diego - MADCAP
San Francisco - LIRAQ
Denver - SAI Urban Airshed
Baltimore - a modified version of EKMA

Regions VIII and IX have approved the use of these other models, but Regions III has not yet approved use of an alternate model in Baltimore. Also, any agency that plans to use city-specific EKMA differently than is suggested in our guidance should request EPA approval prior to a commitment. An example of this would be the use of a different chemical mechanism to generate isopleths.

As of mid-April, our general observations on the data base compilation efforts are as follows:

Emission Inventories

In most areas, the base year VOC and NOx inventory efforts are underway, and completion dates are well defined. Generally, base year inventories are to be completed during the summer or fall of this year.

More uncertainty surrounds the completion of the baseline and SIP strategy projections. The baseline projection inventory (which considers growth and the effect of "on-the-books" controls in the projection year) is needed, along with base year emission totals, to run city-specific EKMA in order to develop emission reduction targets. Only a fraction of the ozone nonattainment areas have well-specified completion dates for the baseline projections. Typically, the baseline projections will be finished by fall or winter of 1981, with modeling analyses run shortly thereafter. Very few Regional Offices could state when the SIP strategy projections will be completed. In many instances, SIP strategy inventory development will await the modeling analyses and subsequent designation of stationary and mobile source emission reduction targets. Some areas, however, are already evaluating the impact of alternate control measures in order to save time later on.

My staff attended a number of SIP review meetings during the last quarter involving the Regional Offices and State and local air pollution, planning and transportation agencies. One impression is distinct: the ozone SIP process involves a good deal of institutional complexity. Many agencies are involved in all aspects of the process, and a large number of critical milestones must be achieved. Because of this complex involvement, the Regional Offices must maintain communication among the responsible agencies to assure that: (1) all responsibilities are defined and accepted, and (2) all milestones are identified and are being accomplished. Poor communication is the apparent cause of many inventory problems encountered to date.

Air Monitoring

Generally, all Regions either have made or are making reasonable progress toward acquiring an air monitoring data base for 1982 ozone SIP modeling analyses. However, a few uncertainties or deficiencies still need to be resolved.

In the Northeast, all ambient data bases are complete, except for six nonattainment areas in Region I expected to collect data in the summer of 1981. Monitoring plans are complete for these six areas. Monitoring in Boston (Region I) and in all Region II and III cities was completed in 1979 or 1980 (except Allentown, PA - see report), and the data are now or soon should be available. This includes the 1980 Northeast Corridor Regional Modeling Project (NECRMP) data scheduled to be available soon after May 1, 1981.

An uncertainty in the Northeast is whether models other than city-specific EKMA, as described in EPA guidance, will be used in Baltimore and Connecticut. Regarding this, Regions I and III should determine if the data bases being collected will be adequate for these other models. This is especially important in Connecticut, where data are ostensibly being collected for use in city-specific EKMA.

Monitoring plans in Regions IV and V are essentially complete. Region IV is contracting the monitoring efforts in Nashville and Louisville. In Region V, installation of new sites is in progress. Only some minor site changes are possible in both Regions.

Current plans are to reclassify Minneapolis as nonattainment, but the SIP submission date has not been established. However, Minneapolis will be collecting air quality data this summer, and the network is adequate for Level III analyses.

In Region VI, existing data are adequate for Level III analyses, but additional data are being gathered in the summer of 1981 for photochemical modeling to be done after the 1982 SIP analysis. Region VII has obtained air monitoring plans for St. Louis this summer from the State/local agencies. They appear adequate, except that more information has been requested on the extent of meteorological measurements and upwind NMOC sampling.

In Region VIII, a photochemical model is to be applied to Denver, and this approach has been approved by OAQPS. Monitoring plans for Salt Lake City are nearly complete, with a contractor operating two central NOx/NMOC sites. The rest of the network (operated by the State) appears adequate, and additional information is being provided by Region VIII.

In Region IX areas have adequate data bases for Level III analyses. However, the Region has approved the use of several Level I models which we interpret to imply approval of the adequacy of existing/planned data bases for use in these models. Region X's monitoring plans are complete, except for some uncertainty about funding some upper-air meteorological measurements in Portland.

Attachment

cc: E. Tuerk, OANR
R. Campbell, OAQPS
D. Tyler, CPDD

Attachment

TABLE I

Stage I Service Station Exemptions

Region	No Regulation Required	<120,000 gal/yr Throughput Exemption	<2000-gal Capacity Exemption	Attainment Date	Other Exemption
I	ME				
		CT	CT		
			MA		
	ME				
	NH				
			RI		
	VT				
II			NJ		
		NY (met)	NY (met)		
	NY(upstate)				
III			DE		
			DC		
			MD	1987	MD <20,000 gals/mo average throughput [1]
			PA		PA <60,000 gals/yr throughput
			VA (rural)	1987	VA <20,000 gals/mo [2]
	WV				
IV			AL		
			FL		
				1982	GA <3,000 gals
				1987	KY no exemption except farms
			NC		
			SC		

TABLE I
(continued)
Stage I Service Station Exemptions

Region	No Regulation Required	<120,000 gal/yr Throughput Exemption	<2000-gal Capacity Exemption	Attainment Date	Other Exemption
V			IL		
				1987	IN <20,000 gals/mo throughput [3] No action
			MI	1987	MI <250,000 gals/yr throughput [4]
				1987	OH <240,000 gals/hr throughput [5]
			WI		
VI	AR				
			LA	1982	LA <500,000 gals/yr throughput [6]
				1982	NM sub. fill pipe only
	OK				
		TX	TX		
VII	IA				
	KS		MO (Kansas City)		
			MO (St. Louis)		
	NE				
VIII			CO		
			UT		
IX	AZ				
			CA (Bay area)	1987	CA (Bay area) >6,000 gals/mo throughput
			CA (SCAQMD)	1987	CA (San Diego) <550-gal tank
				1982	NV (Las Vegas) <10,000 gals cap. or <96,000 gals/yr throughput
				1982	NV (Truckee Meadows) <10,000 capacity

TABLE I
(continued)
Stage I Service Station Exemptions

Region	No Regulation Required	<120,000 gal/yr Throughput Exemption	<2000-gal Capacity Exemption	Attainment Date	Other Exemption
X		OR		1987	WA 200,000 gals/yr [7]

[1] Federal promulgation 38 FR 34252, December 12, 1973 only exempts tanks < 2,000 gallons.
[2] Conditional approval - requires justification.
[3] No action by EPA - requires justification.
[4] Conditional approval - requires justification.
[5] Conditional approval - requires justification.
[6] 1982 attainment date, State not required to have Stage I regulation.
[7] Approval - State submitted acceptable 5 percent justification.