

**STATUS OF SELECTED  
AIR POLLUTION CONTROL PROGRAMS**

**MAY 1989**

**U.S. Environmental Protection Agency  
Office of Air Quality Planning and Standards**

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Office of Air Quality Planning and Standards**

## TABLE OF CONTENTS

|                                                                                                                                            | <u>Page</u> |
|--------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Introduction                                                                                                                               | iii         |
| <u>OZONE/CO PROGRAMS</u>                                                                                                                   |             |
| National Ozone/Carbon Monoxide Program . . . . .                                                                                           | 1           |
| Antitampering/Fuel Switching . . . . .                                                                                                     | 5           |
| Motor Vehicle Inspection and Maintenance (I/M) . . . . .                                                                                   | 6           |
| Fuel Volatility . . . . .                                                                                                                  | 8           |
| Onboard Refueling Emission Control . . . . .                                                                                               | 9           |
| Cold Temperature Motor Vehicle CO Emissions . . . . .                                                                                      | 10          |
| Ambient Nonmethane Organic Compounds (NMOC)<br>Monitoring . . . . .                                                                        | 11          |
| VOC Emission Factors . . . . .                                                                                                             | 12          |
| Regional Ozone Modeling for Northeast<br>Transport (ROMNET) . . . . .                                                                      | 13          |
| Urban-Scale Photochemical Modeling . . . . .                                                                                               | 15          |
| Documentation of Test Method Capture Efficiency . . . . .                                                                                  | 16          |
| <u>AIR TOXICS PROGRAMS</u>                                                                                                                 |             |
| Schedule for Air Toxics Regulations Currently<br>Being Considered Under Section 112 of the<br>Clean Air Act or Other Authorities . . . . . | 17          |
| National Air Toxics Information Clearinghouse . . . . .                                                                                    | 19          |
| Air Risk Information Support Center (Air RISC) . . . . .                                                                                   | 21          |
| Multiyear Development Plans . . . . .                                                                                                      | 23          |
| High Risk Urban Air Toxics . . . . .                                                                                                       | 24          |
| High Risk Point Sources . . . . .                                                                                                          | 26          |
| National Air Toxics Workshops . . . . .                                                                                                    | 28          |
| Status of Air Toxics Emission Factors and<br>Estimation Tools . . . . .                                                                    | 29          |
| Status of Air Toxics Modeling Guidance . . . . .                                                                                           | 31          |
| Ambient Air Toxics Monitoring - Methods<br>Development and Sample Analysis . . . . .                                                       | 33          |
| Special Urban Toxics Monitoring Program . . . . .                                                                                          | 34          |
| Inhalation Risk Reference Dose . . . . .                                                                                                   | 35          |
| Submittal of VOC Air Toxics Data to AIRS . . . . .                                                                                         | 37          |
| Superfund Amendments and Reauthorization Act<br>Toxic Release Inventory (Title III, Section 313) . . . . .                                 | 39          |
| Air/Superfund Coordination Program . . . . .                                                                                               | 41          |
| <u>PM10 IMPLEMENTATION PROGRAMS</u>                                                                                                        |             |
| Status of Statewide PM-10 SIP Revisions . . . . .                                                                                          | 43          |
| Status of PM-10 Group I SIP Development . . . . .                                                                                          | 45          |
| Status of PM-10 Group II Committal SIP Development . . . . .                                                                               | 46          |
| PM10 Long-Term Nonattainment Policy . . . . .                                                                                              | 47          |
| Rural Fugitive Dust Policy . . . . .                                                                                                       | 49          |
| Urban Fugitive Dust Policy . . . . .                                                                                                       | 50          |
| PM10 Emissions Trading . . . . .                                                                                                           | 51          |
| Wood Smoke Reduction Policy . . . . .                                                                                                      | 53          |
| International Transport Policy . . . . .                                                                                                   | 54          |
| Prescribed Burning/Smoke Management . . . . .                                                                                              | 55          |

## TABLE OF CONTENTS

|                                                                                        | <u>Page</u> |
|----------------------------------------------------------------------------------------|-------------|
| Status of PM10 Samplers . . . . .                                                      | 56          |
| PM10 Emission Factors . . . . .                                                        | 57          |
| Stack Test Method for PM10 . . . . .                                                   | 58          |
| Stack Test Method for Condensable Particulate Matter . . .                             | 59          |
| <u>NSR/PSD PROGRAMS</u>                                                                |             |
| Chemical Manufacturers Association (CMA) Rulemaking . . .                              | 60          |
| NOx PSD Increments . . . . .                                                           | 61          |
| PM10 PSD Increments . . . . .                                                          | 62          |
| Rulemaking Proposal for Strip Mines<br>and Related Fugitive Dust Issues . . . . .      | 63          |
| Improving New Source Review (NSR) . . . . .                                            | 64          |
| New Source Review (NSR) Bulletin Board . . . . .                                       | 66          |
| <u>ACID RAIN PROGRAMS</u>                                                              |             |
| Acid Rain Implementation Issues . . . . .                                              | 67          |
| Implementation of the Special Envoys<br>Report on Acid Rain . . . . .                  | 69          |
| Emission Inventory Research and National Data Base . . .                               | 72          |
| <u>COMPLIANCE/ENFORCEMENT PROGRAMS</u>                                                 |             |
| Status of Rule Effectiveness Studies . . . . .                                         | 74          |
| FY 1989 Compliance Monitoring Strategy . . . . .                                       | 77          |
| Asbestos NESHAP Strategy . . . . .                                                     | 78          |
| <u>OTHER PROGRAMS</u>                                                                  |             |
| Status of National Ambient Air Quality<br>Standards (NAAQS) . . . . .                  | 80          |
| Global Climate Change . . . . .                                                        | 83          |
| Global/Tropospheric Air Pollution Strategies . . . . .                                 | 85          |
| Implementing SIP Processing Recommendations . . . . .                                  | 87          |
| National Air Audit System . . . . .                                                    | 89          |
| Stack Height Litigation . . . . .                                                      | 90          |
| Visibility Protection . . . . .                                                        | 91          |
| Indoor Air Program . . . . .                                                           | 94          |
| Development of Criteria Pollutant Emission<br>Inventory Guidance . . . . .             | 96          |
| Status of Guideline on Air Quality Models . . . . .                                    | 97          |
| Aerometric Information Retrieval System (AIRS) . . . . .                               | 98          |
| FY 1989-90 NSPS Activity . . . . .                                                     | 99          |
| Wood Heater NSPS Status Report . . . . .                                               | 100         |
| Control Technology Center (CTC). . . . .                                               | 101         |
| BACT/LAER Clearinghouse . . . . .                                                      | 104         |
| Emission Measurement Technical Information Center . . . .                              | 105         |
| Air Grants - Program to Identify State/Local<br>Program Activities and Costs . . . . . | 106         |
| Radon Action Program . . . . .                                                         | 108         |
| Radionuclide NESHAP . . . . .                                                          | 109         |
| Status of Bulletin Board for Regulatory Air Models . . .                               | 111         |

## INTRODUCTION

This collection of status reports has been prepared in order to provide a timely summary of selected EPA air pollution control activities to those individuals who are involved with the implementation of these programs. Persons with general questions or those who wish to receive additional copies of this report may contact Bill Hamilton, U.S. Environmental Protection Agency, Air Quality Management Division, Research Triangle Park, NC 27711. Telephone number 919-541-5498 or FTS 629-5498. Persons with specific questions on particular program activities are requested to call the contact person shown on the individual status report.

## NATIONAL OZONE/CARBON MONOXIDE PROGRAM

### Background

The 1977 Clean Air Act (CAA) Amendments allowed areas, under certain conditions, to have until the end of 1987 to attain the national ambient air quality standards (NAAQS) for ozone and carbon monoxide (CO). However, according to data through 1987, 66 areas failed to attain the ozone standard and 50 areas failed to attain the CO standard.

Because of the health implications of these ozone emissions (100 million people living in areas that exceed these NAAQS), EPA took the position that it could not wait for Congress to act and published a proposed post-1987 ozone/CO control policy on November 24, 1987.

Subsequently, Congress enacted the Mitchell-Conte Amendment to the Budget Reconciliation Act of 1987 on December 22, 1987, which postponed EPA implementation of sanctions until August 31, 1988. It also required EPA to make nonattainment designations "within the meaning of Part D" of the CAA.

Because certain States had not made sufficient progress developing the required ozone and CO plans, EPA proposed disapproval for 14 ozone and CO SIP's on July 14, 1987. The EPA also made calls for SIP revisions to 43 States in May-June, 1988.

Several public interest groups have litigated to compel EPA to disapprove State plans and promulgate Federal implementation plans (FIP's) in these areas, most importantly in Los Angeles and Chicago.

### Post-1987 Ozone/Carbon Monoxide Policy

This policy was proposed in the Federal Register on November 24, 1987 but no final action has yet been taken on it.

Key points in the proposed policy include:

1. States have to fully implement all previously required control measures ("leveling the playing field").
2. Flexible attainment deadlines are allowed based on the severity of the problem, but "growth ban" sanctions will be imposed until within 5 years of attainment.
3. Areas that cannot achieve near-term (3-5 years) attainment must achieve minimum annual emissions reductions of 3 percent per year beyond that achieved by federally implemented measures.
4. With certain exceptions, planning areas are expanded to consolidated metropolitan statistical area (CMSA) or metropolitan statistical area (MSA) boundaries.

## NATIONAL OZONE/CARBON MONOXIDE PROGRAM

In general, environmental groups feel the November 1987 proposed policy is not rigorous enough. States would like more explicit Federal direction, such as new control technology guidance and national measures, such as vehicle refueling controls. Industry seems to feel the proposed policy is perhaps better for them than some options discussed in Congress. If Clean Air Act amendments are not passed this summer, we anticipate completing the policy this fall.

### Mitchell-Conte Amendment

On June 6, 1988, EPA listed in the Federal Register the areas not attaining the ozone and/or CO standards by December 31, 1987 (66 ozone and 50 CO) and proposed nonattainment designations for those areas. The SIP calls were done for expanded nonattainment areas (CMSA/MSA).

The notice requested public comment on three possible interpretations of the regulatory consequences of these nonattainment designations:

1. Designations have no regulatory effect and are for information only.
2. Designations trigger the Part D planning and implementation requirements, including a renewed possibility of sanctions.
3. Designations are the same as option 2, but Part D consequences would only be attached to newly designated nonattainment areas.

Generally, OMB, State DOT's, industrial groups, and the Federal Highway Administration (FHWA) favor option 1, while a number of members of Congress, including Senators Mitchell, Burdick and Chafee, as well as environmental groups, favor option 2. The Department of Justice has issued an interpretation that EPA may legally adopt any of these interpretations.

The Mitchell-Conte deferral of sanctions has now expired and the major source construction ban has been imposed as a result of litigation against EPA in Los Angeles, CA; Ventura Co., CA; Sacramento, CA; and both the Illinois and Indiana portions of the Chicago metropolitan area.

### SIP Disapprovals

On July 14, 1987, EPA proposed to disapprove the ozone and/or CO SIP's in 14 areas because the SIP submittals did not persuasively demonstrate attainment.

The proposal covered only those areas with 1987 extensions which had never received full approval of their 1982 submittals

## NATIONAL OZONE/CARBON MONOXIDE PROGRAM

and areas without extensions which had received previous notices of SIP deficiency.

The EPA has taken final disapproval action where the Agency has been litigated--i.e., South Coast (Los Angeles), Ventura Co. CA, Sacramento CA, and Chicago IL. The EPA has received notices of intent to litigate in two more of the original 14 areas, Kern County and Fresno, CA. Also, EPA has deferred the imposition of sanctions in Dallas. EPA expects to take final action on the others shortly after the post 1987 policy is final.

### Federal Implementation Plans (FIP's)

The 1970 CAA requires EPA to implement FIP's when the States fail to adopt and implement SIP's.

The EPA is currently working on FIP's in several areas where the Agency has been sued--South Coast, Ventura Co., Sacramento, and Chicago. In the case of the South Coast, EPA published an advanced notice of proposed rulemaking on December 7, 1988 which described the dilemma created by the expiration of the Clean Air Act and the very disruptive effects of a plan to attain in a short (5-year) time frame.

Further litigation as is about to occur in Kern County and Fresno, CA could result in even more requirements for EPA to promulgate FIP's, with accompanying severe resource demands on, and legal problems for, the Agency.

### SIP Calls

On May 26, 1988, and subsequently, the EPA Regional Administrators sent letters to 42 States and the District of Columbia informing them that their plans were substantially inadequate to attain the ozone and/or CO standards, based on air quality data through 1987.

These SIP calls required States to prepare emissions inventories; correct loopholes, deviations, and deficiencies; and monitor non-methane organic compounds.

This work would be required under any possible future option. New planning and control requirements have been deferred until after the proposed post 1987 policy is made final.

The EPA was recently ordered to set a date-certain by which the State of New York must respond to the May 1988 SIP call. The EPA subsequently notified both the State of New York and the State of New Jersey (because of the similarity of New Jersey's circumstances) that they must submit their SIP revisions by September 1991 or September 1992, depending upon the type of air quality modeling selected. The EPA is being sued in Massachusetts and has been threatened with legal action in the San Francisco Bay area to set dates-certain in those areas.



## NATIONAL OZONE/CARBON MONOXIDE PROGRAM

### 1988 Air Quality Data

In addition to the 66 ozone nonattainment areas proposed from the 1985-87 air quality data, about 30 more areas appear to have experienced violations of the NAAQS based upon 1988 data.

### New York Section 126 Petition For Ozone

On November 17, 1987 New York filed a petition under both the Administrative Procedures Act (APA) and section 126 of the Clean Air Act asking the EPA to take various actions which New York claimed would reduce upwind states' contributions to New York ozone nonattainment. The petition was supplemented on July 15, 1988. The EPA has indicated to New York that those claims under APA are being dealt with by EPA in the context of the proposed post-1987 ozone/CO policy and by Congress in its deliberations on amendments to the Clean Air Act. New York has not specified a hearing date for the Section 126 portion of the petition.

### EPA Contact Person

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## ANTITAMPERING/FUEL SWITCHING

### Background

A 1988 tampering survey showed that tampering and fuel switching rates are alarmingly high. Tampering and fuel switching continues to adversely impact the quality of the Nation's air.

#### 1988 SURVEY RESULTS (Percent)

|                   | <u>NON-I/M</u> | <u>ATP* Only</u> | <u>I/M + ATP</u> |
|-------------------|----------------|------------------|------------------|
| Overall tampering | 23             | 17               | 16               |
| Fuel switching    | 10             | 5                | 4                |

\* ATP = antitampering program

There are 43 existing antitampering/fuel switching programs (ATPs) in 22 States. These programs cover approximately 25% of the nationwide light-duty fleet.

### Current Status

In July, 1988, EPA issued notices of violation proposing \$475,000 in penalties against a group of muffler shops, auto repair facilities and new car dealers for multiple violations of EPA's aftermarket catalyst installation policy.

There are six ATP sites from the 1988 tampering survey where there is both "before" and "after" program implementation survey results. The survey data show that ATPs are very effective in reducing the catalyst-related violation rates. Under-the-hood tampering, however, was not reduced significantly.

The proposed post-1987 ozone/carbon monoxide nonattainment policy includes a proposed policy on enhanced inspection/maintenance. Many areas may implement a new ATP or expand an existing ATP to meet the requirements of the proposed policy.

The final lead phasedown rule allowing only 0.10 grams per gallon of lead in leaded gasoline was implemented on January 1, 1988. Lead phasedown should reduce fuel switching prospectively but is not a short-term solution for the pollution attributable to the many vehicles which already have lead-poisoned catalysts.

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## MOTOR VEHICLE INSPECTION AND MAINTENANCE (I/M)

### Background

The Clean Air Act Amendments of 1977 required the implementation of an I/M program in any area for which the State had demonstrated in its 1979 SIP revision that attainment of the ozone and/or carbon monoxide standards was not possible by the end of 1982. Additional areas adopted I/M after failing to attain the ambient standards by the end of 1982. I/M programs are currently being operated in 63 urban areas in 33 States. By 1991, 2 additional states and 6 additional urban areas are expected to be operating.

### Currently Operating or Scheduled I/M Programs:

| <u>Centralized<br/>Contractor<br/>Operated</u> | <u>Centralized<br/>State/Local<br/>Operated</u> | <u>Decentralized<br/>Computerized<br/>Analyzers</u> | <u>Decentralized<br/>Manual<br/>Analyzers</u> | <u>Anti-tampering<br/>Only -<br/>Inspection</u> |
|------------------------------------------------|-------------------------------------------------|-----------------------------------------------------|-----------------------------------------------|-------------------------------------------------|
| Arizona                                        | Delaware                                        | Alaska:                                             | Idaho                                         | Kentucky:                                       |
| Connecticut                                    | District of                                     | Anchorage                                           | Rhode Island                                  | Cincinnati                                      |
| Illinois                                       | Columbia                                        | Fairbanks                                           |                                               | suburbs                                         |
| Indiana                                        | New Jersey                                      | California                                          | Louisiana                                     | Florida 3/90                                    |
| Oregon                                         | Colorado                                        | Ohio                                                | Kentucky:                                     | Tennessee:                                      |
| Georgia                                        |                                                 | Oklahoma                                            | Louisville                                    | Memphis                                         |
| Massachusetts                                  |                                                 | Texas:                                              | Maryland                                      |                                                 |
| Michigan                                       |                                                 | Houston                                             | Minnesota 1/91                                |                                                 |
| Missouri 4/90*                                 |                                                 |                                                     |                                               |                                                 |
| Ohio:                                          |                                                 | Nevada                                              |                                               |                                                 |
| Cuyahoga                                       |                                                 | New Hampshire                                       |                                               |                                                 |
| County 4/91                                    |                                                 | New Mexico                                          |                                               |                                                 |
| Tennessee:                                     |                                                 | New York                                            |                                               |                                                 |
| Nashville                                      |                                                 | North                                               |                                               |                                                 |
| Washington:                                    |                                                 | Carolina 4/91*                                      |                                               |                                                 |
| Seattle                                        |                                                 | Pennsylvania                                        |                                               |                                                 |
| Spokane                                        |                                                 | Texas:                                              |                                               |                                                 |
| Wisconsin                                      |                                                 | Dallas 1/90*                                        |                                               |                                                 |
|                                                |                                                 | El Paso                                             |                                               |                                                 |
|                                                |                                                 | Utah:                                               |                                               |                                                 |
|                                                |                                                 | Salt Lake                                           |                                               |                                                 |
|                                                |                                                 | Provo 1/91*                                         |                                               |                                                 |
|                                                |                                                 | Davis County 1/91*                                  |                                               |                                                 |
|                                                |                                                 | Virginia                                            |                                               |                                                 |

\* Currently operating with manual analyzers but committed to switching by the date specified.

## MOTOR VEHICLE INSPECTION AND MAINTENANCE (I/M)

### Current Status

In 1987 and 1988, several States were asked to submit corrective plans to EPA, because audits indicated major operating problems.

The Missouri program has submitted a plan to switch to computerized analyzers by March 31, 1990. Davis Co., Utah has also committed to switching to computerized analyzers by January 1991. It is expected that Provo and Salt Lake will switch at the same time. North Carolina is switching to computerized analyzers by April 1991.

The states of Florida and Minnesota have passed legislation to implement centralized, contractor-run I/M programs.

The EPA FY 1989 activities include continuing program audits and support to the States for enhancing I/M programs and reauthorization where legal authority expires in the near future.

### EPA Contact Person

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## FUEL VOLATILITY

### Background

The Agency is concerned over the increasing volatility of motor gasoline. Higher volatility fuel leads to more in-use emissions of evaporative hydrocarbons. This has a significant impact on ozone formation.

The Reid Vapor Pressure (RVP) of EPA's certification test fuel has not changed since it was first specified at 9.0 pounds per square inch (psi) in the early 1970s. At that time this was representative of commercial fuel. Since that time, however, the volatility of Class C commercial fuel has risen to about 11.3 psi on a national average. Since evaporative control systems on cars are designed and tested on 9.0 psi fuel, control systems now in use are not adequate.

In addition, this higher volatility fuel results in more evaporative emissions all along the distribution chain for fuel, at transfer stations, and in vehicle refueling. Control of fuel volatility would also reduce these emissions.

### Current Status

A notice of proposed rulemaking on the issue of fuel volatility was published by EPA in August 1987.

The EPA promulgated Phase 1 of the proposed volatility control program on March 22, 1989, to begin during the summer of 1989.

The EPA continues to analyze the comments received relating to the proposed Phase 2 of volatility control. We are currently working toward promulgation of a Phase 2 final rule later this year. As proposed, Phase 2 would implement the final step of control and would take effect beginning in the summer of 1992.

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## ONBOARD REFUELING EMISSION CONTROL

### Background/Current Status

Regulation of motor vehicle refueling emissions by means of onboard controls was proposed by EPA on August 19, 1987. At the same time, EPA also proposed controls on the volatility of gasoline.

The comments received on the proposal have been analyzed, and a Supplemental Notice of Proposed Rulemaking (SNPRM) was submitted for OMB review last fall. The SNPRM contains a revised test procedure and deals with "changed circumstances" which include revised onboard design and cost estimates, Stage II implementation in several new areas, a new list of ozone nonattainment areas, and the safety issue.

The SNPRM is intended to address the control of refueling emissions alone. A separate NPRM has been prepared to address excess evaporative and running loss emissions.

The National Highway Traffic Safety Administration (NHTSA) is funding a contract study which reexamines the safety issue. The results of this study are expected to be available during late spring of 1989.

The EPA plans to publish the SNPRM once the results of NHTSA's contract study are made available and the SNPRM is reviewed by OMB.

After the SNPRM is published, EPA plans to continue development of a final rule for onboard controls and possibly to publish such a rule, concurrent with promulgation of a final rule for the second phase of gasoline volatility controls.

### EPA Contact Person

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## COLD TEMPERATURE MOTOR VEHICLE CO EMISSIONS

### Background

At the end of 1987, a significant number of areas were not in attainment of the national ambient air quality standard for carbon monoxide (CO).

About 90 percent of the CO exceedances, nationwide, occur between November and February. Over half of all CO exceedances occur at temperatures below 45°F.

Motor vehicles contribute the vast majority of all CO emissions. The Agency currently tests vehicles for compliance with emissions standards only in the 68° - 86°F temperature range. Setting a cold temperature CO standard may be a cost-effective method of controlling motor vehicle emissions at colder temperatures. Such a standard could help local areas comply with the CO ambient air quality standard.

Other CO control strategies include the use of oxygenated fuels and various types of transportation control measures.

### Current Status

A start action request for an interim rule proposing a cold temperature vehicle CO emission standard was approved on October 12, 1988. The purpose of this interim rule is to assist local areas in their efforts to attain the air quality standard for CO while the Agency determines the level of CO control needed in the long term.

### Future Milestones

Publish NPRM on interim cold CO emission standards:  
December 1989.

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## AMBIENT NONMETHANE ORGANIC COMPOUNDS (NMOC) MONITORING

### Background

Ambient NMOC/NO<sub>x</sub> ratios are an important factor affecting the level of VOC controls needed to reach the ozone air quality standard and are required as input to ozone models (e.g., EKMA) in preparation of ozone SIP's. In the past, characterization of NMOC/NO<sub>x</sub> ratios has been hindered by lack of reliable, practical procedures for measuring NMOC. This problem has been overcome by the preconcentration direct flame ionization detection (PDFID) method.

The EPA has stated that NMOC data from continuous instruments will not be acceptable in future ozone SIP's unless the submitter demonstrates equivalence between these data and GC sum-of-species data. Nor will default values be allowed in substitution for measured values. The PDFID method is an acceptable alternative to the GC sum-of-species method.

During the summers of 1984-88, EPA coordinated special projects to collect NMOC data via the PDFID method. The EPA provided for the analyses of samples at a central analysis facility, while participating State and local agencies collected the samples and shipped them to EPA for analysis. Data recovery is very good; during the 1985-88 period, there was a 90-95 percent data capture. A number of samples were also analyzed by the GC procedure. The sum-of-species concentrations from these samples compared extremely well with the NMOC concentration as determined by the PDFID method.

### Current Status

During the summer of 1989, samples are being collected from 27 sites in 23 cities. The cost per site is \$21,000.

### Future Milestones

EPA plans to coordinate the NMOC monitoring program for the next few summers. Verbal commitments to participate in the summer 1990 program should be made to the cognizant Regional Office no later than January 1, 1990.

Financial commitments are needed by February 1, 1990.

### EPA Contact Person

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## VOC EMISSION FACTORS

### Background/Status

The EPA has continued development of new and revised VOC emission factors for publication in Compilation of Air Pollutant Emission Factors (AP-42) and other reports. Also, as part of the National Acid Precipitation Assessment Program (NAPAP), EPA has filled many previously existing gaps in VOC emission factors. About 600 new VOC factors were developed through the NAPAP effort, using rapid survey, technology transfer techniques, and engineering judgment. In addition, about 400 new factors were developed in this manner for SO<sub>x</sub> and NO<sub>x</sub> sources. All of these new factors were published in the report entitled Criteria Pollutant Emission Factors For The 1985 NAPAP Emission Inventory, EPA-600/7-87-015, May 1987.

The EPA has also recently revised AP-42 sections containing VOC emission factors for the following source categories:

- Refuse (including municipal) Incineration
- Sewage Sludge Incineration
- Waste Oil Combustion
- Polymeric Coating of Supporting Substrates
- Polyester Resin Plastic Product Fabrication
- Waste Oil Combustion
- Wood Stoves
- Soap and Detergents

The above source category section updates were included in Supplement B, AP-42, published in September 1988. Work is scheduled to be completed by the summer 1989 on better VOC emission estimation techniques for surface impoundments at Treatment, Storage and Disposal Facilities (TSDFs) and Publically Owned Treatment Works (POTWs).

Also, EPA has completed the updating of the VOC Species Data Manual, EPA-450/4-80-013, July 1980, to include new VOC species, as well as particulate species information. This report was published in April 1988 in two volumes, entitled VOC Species Manual:

- Volume I, Volatile Organic Species Profile  
EPA-450/2-88-003a, April 1988
- Volume II, Particulate Emissions Species Profile  
EPA-450/2-88-003b, April 1988

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## REGIONAL OZONE MODELING FOR NORTHEAST TRANSPORT (ROMNET)

### Background

It is widely believed that during certain meteorological conditions the transport of ozone and precursor pollutants is a significant factor in the ozone nonattainment problems of the Northeastern States.

A joint EPA/State study, ROMNET, was initiated in October 1987. The modeling domain is rectangular, stretching from the Virginia/North Carolina border to mid-Maine and as far west as the Western border of Ohio. The study's major purposes are two fold: (1) to estimate the effects of regional control strategies on the concentration of ozone and precursors transported from city to city and (2) to develop guidance for considering transport in developing inputs to urban-scale air quality models.

ROMNET is a technical study lasting until October 1990. Results are intended for subsequent use by others, such as the Transport Advisory Group identified in EPA's November 1987 proposed ozone policy, in order to formulate appropriate strategies and policies for reducing ozone in the northeastern U.S.

### Current Status

A protocol for conducting the ROMNET study has been reviewed, approved and distributed to all study participants.

The protocol establishes three technical committees addressing: (1) base case and projected emissions within the domain, (2) selection and appropriate simulation of control strategies, and (3) incorporation of meteorological data and application/interpretation of the U.S. EPA Regional Oxidant Model (ROM). Each of these committees has met twice and provided direction regarding: (1) estimating base case VOC, NOx, and CO emissions; (2) projecting these emissions; (3) adjusting emissions to reflect control strategies; (4) appropriate ways to lump numerous area sources in devising coherent strategies; (5) appropriate ways to categorize strategies including consideration such as geographical, technological and political/institutional considerations; (6) selection of criteria to choose episodes for modeling; and (7) analyses to perform in evaluating episode selection criteria.

A coordinated detailed work plan has been completed and distributed.

Methods for making day-specific emission estimates in ROM-compatible format have been identified.

## REGIONAL OZONE MODELING FOR NORTHEAST TRANSPORT (ROMNET)

A list of recommended control strategies has been prepared and has been approved by the Management Review Committee (MRC).

Recommended episodes have been selected for modeling and have been approved by the MRC.

Base case inventories have been completed.

### Future Milestones

Simulation of control strategies should begin during the first half of 1989. A draft final report, describing ROMNET results and appropriate guidance is expected by October 1990.

Follow-up SIP-related analyses during 1991 and later will be required to integrate the regional ROMNET findings with local control requirements.

### EPA Contact Person

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## URBAN-SCALE PHOTOCHEMICAL MODELING

### Background

A relatively simple as well as a more refined photochemical air quality model is currently recommended for use in developing SIPs for multi-source urban scale ozone problems; those models are respectively OZIPM4/EKMA and the Urban Airshed Model (UAM). The OZIPM4/EKMA model is available on the IBM mainframe computer and a PC version also exists. The OZIPM4 incorporates use of the Carbon Bond 4 mechanism and an improved procedure for constructing isopleth diagrams. An updated version of the UAM model has been obtained from the model developer which contains Carbon Bond 4 chemistry. The model has been installed on EPA's IBM computer and work to gain experience with operation of this model has begun.

### Current Status

A user's guide and guidance for applying OZIPM4/EKMA in SIP's have been prepared and have been subject to public comment. The latter guidance document addresses issues like precursor transport and overwhelming transport more completely.

Contractual studies have begun to apply the UAM in five cities-- New York, St. Louis, Dallas/Ft. Worth, Atlanta, and Philadelphia. The purpose of these applications is to address policy questions and to develop information necessary to prepare guidance for the model's use in SIPs during FY 1990.

The EPA Model Clearinghouse has been expanded to include EKMA and will resolve issues regarding deviations from guidance. Questions on EKMA should be directed to the appropriate Regional Office personnel.

### Future Milestones

Guidance on the use of OZIPM4/EKMA will be completed concurrently with the post-1987 ozone policy. The "five-city" study with UAM will be completed by May 1989 with findings distributed to States. The UAM will be installed on State computers (if desired) for each of the five cities. Analyses preparatory to the development of guidance on the use of UAM in SIP preparation will be completed by September 1989. Guidance on UAM will be released in FY 1990.

### EPA Contact Persons

|                       |                |
|-----------------------|----------------|
| Rich Scheffe          | (919) 541-5391 |
|                       | (FTS) 629-5391 |
| Sharon Reinders       | (919) 541-5684 |
| (Model Clearinghouse) | (FTS) 629-5684 |

## DOCUMENTATION OF TEST METHOD CAPTURE EFFICIENCY

### Background

Two test methods for determining capture efficiency are currently under development by EPA's Office of Air Quality Planning and Standards. One method is based on a liquid/gas material balance which determines the VOC content of the feed on a carbon basis. The other method uses a gas/gas material balance with and without a temporary enclosure.

### Current Status

Preliminary analysis on the procedure used to obtain the VOC content of the feed on a carbon basis has been conducted. Protocols for the two capture efficiency methods are under development.

### Future Milestones

Develop final protocols - June 1989

### EPA Contact Person

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**SCHEDULE FOR AIR TOXICS REGULATIONS CURRENTLY BEING CONSIDERED  
UNDER SECTION 112 OF THE CLEAN AIR ACT OR OTHER AUTHORITIES**

| <u>Pollutant/Source Category</u>                                                                                                                            | <u>Estimated<br/>Proposal<br/>Date</u>                 | <u>Estimated<br/>Final<br/>Date</u> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------|
| Chromium - Comfort Cooling Towers <sup>1</sup>                                                                                                              | Proposed<br>3/29/88                                    | 10/89                               |
| Chromium - Industrial Cooling Towers                                                                                                                        | See Note 6                                             |                                     |
| Chromium - Electroplating                                                                                                                                   | See Note 6                                             |                                     |
| Hazardous Organic NESHAP (covers all eight organic compounds for which notices of intent to list have been published and 13 source categories listed below) | See Note 6                                             |                                     |
| Butadiene Production                                                                                                                                        |                                                        |                                     |
| Miscellaneous Butadiene Sources                                                                                                                             |                                                        |                                     |
| CFC Production                                                                                                                                              |                                                        |                                     |
| Ethylene Oxide Production                                                                                                                                   |                                                        |                                     |
| Ethylene Dichloride Production                                                                                                                              |                                                        |                                     |
| Chlorinated Hydrocarbon Production                                                                                                                          |                                                        |                                     |
| Styrene Butadiene Rubber Production                                                                                                                         |                                                        |                                     |
| Polybutadiene Production                                                                                                                                    |                                                        |                                     |
| Neoprene Production                                                                                                                                         |                                                        |                                     |
| Chlorine Production                                                                                                                                         |                                                        |                                     |
| Chlorinated HC Use in Chemical Production                                                                                                                   |                                                        |                                     |
| Pesticides Production                                                                                                                                       |                                                        |                                     |
| Pharmaceutical Production                                                                                                                                   |                                                        |                                     |
| Ethylene Oxide - Commercial Sterilizers                                                                                                                     | See Note 6                                             |                                     |
| Perchloroethylene - Dry Cleaning                                                                                                                            | See Note 6                                             |                                     |
| Trichloroethylene - Degreasing (also covers perchloroethylene, methylene chloride)                                                                          | See Note 6                                             |                                     |
| Coke Oven Emissions - Charging and Topside Leaks                                                                                                            | Proposed<br>4/23/87<br>Reproposal<br>See Note 6        |                                     |
| Benzene - Coke Oven By-Product Plants                                                                                                                       | Proposed<br>6/6/84<br>Reproposal<br>7/28/88<br>7/28/88 | 8/89                                |
| Benzene - Reconsideration of equipment leak NESHAP and withdrawal of proposals for maleic anhydride, ethylbenzene/styrene, and storage tanks.               |                                                        | 8/89                                |
| Asbestos Revision - Manufacturing, demolition, renovation, fabrication, waste disposal.                                                                     | See Note 6                                             |                                     |
| Rule clarification, monitoring, recordkeeping                                                                                                               | 1/10/89                                                | 2/90                                |

**SCHEDULE FOR AIR TOXICS REGULATIONS CURRENTLY BEING CONSIDERED  
UNDER SECTION 112 OF THE CLEAN AIR ACT OR OTHER AUTHORITIES**

| <u>Pollutant/Source Category</u>                                                                                                                                                                                       | <u>Estimated<br/>Proposal<br/>Date</u> | <u>Estimated<br/>Final<br/>Date</u> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------------------------------------|
| Radionuclides - Reconsideration of existing NESHAP for DOE facilities, NRC licensed facilities, elemental phosphorous plants, underground uranium mines, and uranium mill tailings. Standards for phosphogypsum piles. | 2/89                                   | 8/89                                |

**MULTI-POLLUTANT SOURCES:**

|                                         |          |       |
|-----------------------------------------|----------|-------|
| Municipal Waste Combustion <sup>2</sup> | 11/89    | 2/91  |
| Sewage Sludge Incineration <sup>3</sup> | 2/6/89   | 10/91 |
| Municipal Landfills <sup>2</sup>        | 2/90     | FY91  |
| Hazardous Waste TSDF <sup>4</sup>       | Proposed |       |
| Accelerated Rule                        | 2/5/87   | 8/89  |
| Comprehensive Rule                      | 11/89    | 3/91  |
| Wastewater Facilities <sup>5</sup>      | 2/90     | 2/91  |
| Hospital Waste Incineration NSPS        | 3/92     | 5/93  |

The projects listed below are in various stages of study. No decision has been made on whether or not emission standards are appropriate.

|                        |                                      |
|------------------------|--------------------------------------|
| Multi-Pollutant Source | - Fossil Fuel Combustion             |
|                        | - Machinery Manufacturing/Rebuilding |
| Butadiene              | - Nitrile/ABS Rubber                 |
| Ethylene Oxide         | - Hospital Sterilizers               |
| Methylene Chloride     | - Paint Stripping                    |
|                        | - Aerosols                           |
| Cadmium                | - Primary Cadmium Smelters           |
| Chloroform             | - Pulp Manufacturing                 |

**NOTES:**

- <sup>1</sup> Standards being developed under TSCA, Section 6.
- <sup>2</sup> Standards being developed under Section 111 and 111(d) of the Clean Air Act.
- <sup>3</sup> Standards for sludge management being developed under Clean Water Act amendments by the Office of Water Regulations and Standards. OAQPS is coordinating on incineration provisions.
- <sup>4</sup> Standards being developed under RCRA, Section 3004(n).
- <sup>5</sup> Control techniques document is being produced for use by State and local agencies.
- <sup>6</sup> Alternative policies for responding to the vinyl chloride case proposed in July 1988 (benzene NESHAP proposal). Final action is scheduled for August 31, 1989. Schedule depends on development of priorities for applying policy to remaining NESHAP projects.

**EPA Contact Person**

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## NATIONAL AIR TOXICS INFORMATION CLEARINGHOUSE

### Background

The National Air Toxics Information Clearinghouse was established to assist State and local air pollution control agencies in their development and implementation of air toxics control programs. The Clearinghouse is operated by EPA's Office of Air Quality Planning and Standards. The EPA works closely with STAPPA/ALAPCO to ensure that the Clearinghouse effectively meets the needs of its intended audience.

### Goals and Objectives

The primary purpose of the Clearinghouse is to collect, classify, and disseminate air toxics information from State and local agencies, EPA, and other Federal and international agencies. Providing a mechanism for exchange of information reduces the potential for duplication of efforts.

### Current Status

The Clearinghouse collects information by sending data collection forms annually to all State and local agencies. Agencies are requested to submit information on agency contacts, regulatory program development, acceptable ambient levels, permitted facilities, source testing data, emissions inventories, ambient monitoring, ongoing projects, and published reports on air toxics activities. In addition, an annual survey of Federal ongoing research and regulatory development projects and Federal and international published air toxics information is also conducted. Areas of particular interest (e.g., selection of pollutants of concern, quantifying cancer risks) are covered in more depth in special reports.

Information may be submitted to the Clearinghouse by completing the collection forms and submitting them to the Clearinghouse. If a large amount of data is contained in computer files, this information may be transferred electronically to the Clearinghouse data base (NATICH) files. In addition, the Clearinghouse has a mechanism for agencies to directly enter and edit data contained in NATICH for their agency. This allows continuous updating of the data base.

Clearinghouse information is distributed in five ways.

1. A computerized, user-friendly data base (NATICH), available at a cost of approximately \$10-\$15 per hour of use. The NATICH contains all of the information collected by the Clearinghouse, generally indexed by agency, pollutant, emission source, and research information.



## NATIONAL AIR TOXICS INFORMATION CLEARINGHOUSE

2. Hard copy reports of data contained in NATICH, issued on a regular basis.\*

3. Special reports on specific air toxics issues.\*

4. Bimonthly newsletters containing information on State, local and Federal air toxics programs and activities, research, case studies, etc.\*

\* Available free of charge to Government agencies.

### Future Milestones

In 1989, the feasibility of linking NATICH with the Toxic Release Inventory System (TRIS) will be explored. The TRIS is a data base of information collected as a result of Section 313 (right-to-know) of the Superfund Amendments and Reauthorization Act (SARA).\*\* Early indications are that this linkage should be feasible and, therefore, is likely to occur in FY 1989.

The Clearinghouse newsletter has long been a valuable source of information on issues concerning toxic air pollutants. An index of subjects which have been addressed in the newsletters will be developed and incorporated in the data base.

More useful and efficient ways of retrieving NATICH data are being developed for FY 1989. These improvements will primarily affect the permitting and source test data.

Another development under consideration is a means of printing selected Clearinghouse reports remotely at the user's location.

\*\* See status report entitled "Superfund Amendments and Reauthorization Act Toxic Release Inventory (Title III, Section 313)" for more information on this topic.

### EPA Contact Persons

|                |                                  |
|----------------|----------------------------------|
| Tim Mohin      | (919) 541-5349<br>(FTS) 629-5349 |
| Scott Voorhees | (919) 541-5348<br>(FTS) 541-5348 |
| Nancy Riley    | (919) 541-0805<br>(FTS) 629-0805 |

## AIR RISK INFORMATION SUPPORT CENTER (Air RISC)

### Background

The Air RISC was established in 1988 to assist State and local air pollution control agencies and EPA Regional Offices on technical matters pertaining to health, exposure, and risk assessment for noncriteria air pollutants. It is operated by EPA's Offices of Air Quality Planning and Standards (OAQPS), and Health and Environmental Assessment (OHEA). The Air RISC is managed by a Steering Committee that provides guidance and makes decisions on funding and various operational procedures. Joann Held, from the New Jersey Department of Environmental Protection, represents STAPPA and ALAPCO by her participation as an advisory member to the Steering Committee. Nicholas Ciceretti, from the Philadelphia Air Management Services, is the back-up contact for Ms. Held. Their purpose as advisory members is to ensure that Air RISC is meeting the needs of its client community.

### Goal and Objectives

The goal of the Air RISC is to support State/local (S/L) agencies and Regional Offices in the implementation of air toxics control programs by providing technical guidance and information on matters pertaining to health, exposure, and risk assessment of toxic air pollutants. The objectives of the center are as follows:

1. To provide a mechanism to transfer to S/L agencies available health and risk assessment information through summaries of health effects information, workshops, and seminars.
2. To provide telephone access to EPA expertise as an initial quick response to individual problems.
3. To provide technical review and/or consultation on site-specific risk assessments.
4. To provide guidance to S/L agencies on how to conduct hazard, exposure and risk analyses, as well as how to interpret their results.
5. To provide a mechanism so that S/L agencies can have access to EPA expertise in answering questions pertaining to the scientific basis for conducting risk assessment.
6. To obtain feedback from S/L's to EPA on technical support needs of those agencies in the area of health and risk assessment.

## AIR RISK INFORMATION SUPPORT CENTER (Air RISC)

### Current Status

The Air RISC became fully operational in the last quarter of FY 1988. The Steering Committee, formed to provide direction and make management decisions regarding Air RISC, meets monthly. The committee includes membership from OAQPS and the Office of Health and Environmental Assessment, with advisory members from the EPA Regional Offices, S/L agencies, the EPA library and EPA's Health Effects Research Laboratory. It is important to note the three kinds of services which Air RISC provides:

1. Hotline - for quick referral to experts, and provisions of available EPA health assessment.
2. Technical assistance - for more in-depth evaluation and retrieval of information than can be provided via the hotline.
3. Technical guidance - for questions general enough in nature to be applicable for many S/L agencies.

### Future Milestones

The next milestones include the preparation of an annual progress report and production of a series of three national workshops in risk assessment and risk communication. These workshops will be held in May and June of 1989. In the summer of 1989, Air RISC will publish a directory of Agency contacts for answers to various questions pertaining to air toxics.

### EPA Contact Persons

#### Office of Air Quality Planning and Standards

Dan Guth (919) 541-5340  
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Air RISC HOTLINE (919) 541-0888  
(FTS) 629-0888

#### Office of Health and Environmental Assessment

Winona Victory (919) 541-4828  
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## MULTIYEAR DEVELOPMENT PLANS

For FY 1989, EPA continued to provide enabling assistance to State and local air pollution control agencies in developing multiyear development plans (MYDP's) for air toxics. By the end of FY 1988, 65 of the universe of 71 MYDP's were considered adequate by EPA whereas the target of adequate MYDP's for the year had been 57. At the beginning of FY 1989, the universe of agencies actively working on MYDP's was 73 and there is a target of 58 adequate plans for the year. Note that a previous designation of adequacy does not automatically qualify a plan as such in subsequent years. The determination of adequacy, however, takes into account the flexibility for a MYDP to concentrate resources in fewer areas of concern and still be considered adequate overall. Milestones in MYDP's indicate progress is being made in program development (e.g, Vermont passed air toxics regulations in FY 1989).

The FY 1989 guidance reemphasizes the concepts of flexibility and incorporation of air toxics concerns in particulate matter and ozone programs. The focus for FY 1989 consists of asking agencies to report progress made in air toxics programs, of moving from the planning phase to an implementation phase of the MYDP program, and of encouraging interoffice coordination with personnel in other but related programs such as the Superfund Amendments and Reauthorization Act of 1986.

The MYDP guidance for FY 1990 will continue the trend toward implementation and interprogram coordination. Progress measurement will continue to be important so enabling efforts by EPA can be focused where needs are greatest. The near-term outlook is to streamline the MYDP update process and increase the emphasis on implementation of the immediate year's milestones.

### EPA Contact Person

Mike Trutna        (919) 541-5345  
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## HIGH RISK URBAN AIR TOXICS

### Background/Status

A major focus of the national air toxics strategy is the multisource, multipollutant urban toxics problem. High residual additive cancer risks from the cumulative effects of multisource, multipollutant situations may exist in many large, densely populated or industrialized urban areas. Problems and solutions vary from city to city. Thus, the identification, investigation, and control in these areas are primarily State and local agency responsibilities. Studies of the problem indicate high cancer risks, even after existing and planned Federal, State, and local regulatory programs for criteria and toxic pollutants are fully implemented. The EPA Regional Offices have been working with State and local agencies to initiate the process of identifying, investigating, and controlling the general air toxics problem in urban multisource areas and to have these agencies begin to develop mitigation programs where needed. Further analyses have been completed on the most recent data available to further evaluate the seriousness of the urban problem in five selected cities. These results are being incorporated into workshops, other reports and planning documents and into technical presentations.

### Future Milestones

Track work planned by State and local agencies for the high risk, urban toxics assessment portion of the multiyear development plan activities. Continue efforts to encourage State and local agencies to undertake additional assessment work and consolidate available funding in a more efficient manner.

Follow up on EPA/STAPPA/ALAPCO workshops on urban air toxics presented in January - April 1989 in Los Angeles, Denver, and Baltimore. Incorporate feedback into future programs.

Continue and support analysis of PIPQUIC (a software package for manipulating and analyzing air toxics data bases) and other newly developing data systems for urban air toxics analyses.

Continue management of the EPA managed Urban Air Toxics Monitoring Program targeted to urban areas (FY 1988 - FY 1991+). Initiate sampling at new monitoring sites in January 1990.

Continue evaluation of candidate SIP control strategies to assess their relative effectiveness in co-controlling both air toxics and criteria pollutants.

Continue analysis of effectiveness of State and local air toxics programs at assessing and mitigating urban air toxics.

Begin analysis of data resulting from earlier monitoring sites and develop risk analysis.

HIGH RISK URBAN AIR TOXICS

ersons

Design of Assessment Activities

EP<sup>7</sup> Southerland (919) 541-5523  
(FTS) 629-5523

atory

ke Trutna (919) 541-5345  
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Monitoring Strategies

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## HIGH RISK POINT SOURCES

The air toxics high risk point source (HRPS) included as an important part of the national air strategy since HRPS are believed to result in many fence-line<sup>m</sup> is where at least  $10^{-4}$  individual lifetime cancer risk. Approximately one million dollars of section 105 funds are base grants for achieving State and local agency programs identifying and evaluating potential HRPS. In addition, approximately \$400K of section 105 funds have been set at the national level to enable funding of certain HRPS initiatives. Typically \$10K to \$20K are given to a State or agency which agrees to address a potential HRPS identified (i.e., promoted initiative) or by the State or local agency itself (i.e., State initiative).

Initial evaluation of the national initiatives program shows that it has been quite successful in accomplishing additional control (about half of the cases reportedly resulted in reduced emissions) and has been popular with participating agencies (14 of the 15 State and local agencies surveyed considered the program beneficial). Considerable progress has and continues to be made by State and local agencies in developing regulatory programs to address new and/or existing sources.

The FY 1989 promoted and State initiatives have been selected. A total of 24 separate activities by 13 States and 3 local agencies will be funded from the \$400K of available funds. All but 2 of these initiatives are State initiatives. Those agencies participating in the initiatives are expected to document the results of the projects so the information can be utilized by other State and local agencies. Some examples of the source types involved are can manufacturing, air toxics from oil spill cleanups, and waferboard production. The following table lists the initiatives for FY 1989.

### STATE INITIATIVES (SI), PROMOTED INITIATIVES (PI) AND NATIONAL DEMONSTRATION PROJECTS (NDP) FUNDED IN 1989

| Activity | Grant Recipient | Project                                                                       | Amount<br>X \$1000 |
|----------|-----------------|-------------------------------------------------------------------------------|--------------------|
| SI       | Rhode Island    | Evaluate emissions of air toxics from a plastic pellet manufacturer           | 15                 |
| SI       | Chattanooga     | Evaluation and potential control of styrene and butadiene at BASF Corporation | 20                 |
| SI       | Kentucky        | Meteorology data for the Ashland Oil study                                    | 15                 |
| SI       | Ohio            | Ethylene oxide sterilizers for small hospitals and clinics                    | 20                 |

HIGH RISK POINT SOURCES

| <u>Activity</u> | <u>Grant Recipient</u> | <u>Project</u>                                                                              | <u>Amount<br/>X \$1000</u> |
|-----------------|------------------------|---------------------------------------------------------------------------------------------|----------------------------|
| SI              | Wisconsin              | Evaluation of toxics emissions from wood-fired boilers                                      | 20                         |
| SI              | Indianapolis           | Evaluation of crematory emissions                                                           | 15                         |
| SI              | Colorado               | Evaluation of potential air toxics emissions from Western Forge Co                          | 20                         |
| SI              | North Dakota           | Evaluation of potential air toxics emissions from the Steiger Case factory                  | 20                         |
| SI              | Alaska                 | Evaluate and regulate air toxics resulting from oil spill cleanups                          | 20                         |
| NDP             | STAPPA/ALAPCO          | Workshop travel support                                                                     | 10                         |
| NDP             | STAPPA/ALAPCO          | SCAQMD Permitting Manual                                                                    | 20                         |
| SI              | Connecticut            | Waste Incineration of Pharmaceuticals                                                       | 20                         |
| SI              | New Jersey             | Pharmaceutical Manufacture                                                                  | 20                         |
| SI              | Philadelphia           | Fabric Coating and Can Manufacturing (2 Projects)                                           | 25                         |
| NDP             | Maryland               | Urban Mitigation Analysis                                                                   | 15                         |
| SI              | Minnesota              | 2 Waferboard Manufacturing Facilities and NDP Urban Area Assessment (Ozone attainment area) | 40                         |
| NDP             | Michigan               | Compliance Prioritization of Air Toxics                                                     | 15                         |
| SI              | Washington             | Carbon Regeneration                                                                         | 15                         |
| PI              | Texas                  | Shell Chemical and Rohm and Haas (2 projects)                                               | 40                         |
| PI              | Louisiana              | Union Carbide in Taft                                                                       | 15                         |
|                 |                        |                                                                                             | <hr/>                      |
|                 |                        |                                                                                             | Total \$400K               |

EPA Contact Person

Mike Trutna      (919) 541-5345  
                         (FTS) 629-5345



## NATIONAL AIR TOXICS WORKSHOPS

One of the best examples of how State and local air pollution control agencies and EPA can constructively work together continues to be the program of national air toxics workshops. A total of eight specialty air toxics workshops were held in 1988 on three separate subjects: Hospital Waste Incinerators/Ethylene Oxide Sterilizers, Air Toxics Modeling, and Air Toxics Permitting/Control Technology. These workshops were developed as a result of feedback on future workshop needs obtained from State and local air pollution control agency participants at the four comprehensive air toxics workshops held in 1987.

The FY 1988 workshops were well received, and as a result, STAPPA/ALAPCO decided to endorse future specialty workshops continuing into FY 1989. Three workshops addressing urban air toxics problems were held in Los Angeles, Denver, and Baltimore during February to April 1989. The urban air toxics workshops focused on evidence of the problem, monitoring, emissions estimation and modeling, risk assessment, and mitigation of urban problems.

The Air Risk Information Support Center will be offering a 3-day workshop on risk assessment and risk communication for State and local agency air pollution control personnel on May 23 in Raleigh, NC, May 30 in Lake Geneva, WI, and June 13 in Tiburon, CA. The workshops will provide sessions on health and exposure assessment for staff involved in any aspect of risk assessment or risk communication. Topics will focus on toxicology, health effects assessment, and exposure assessment. The session on risk communication will use a combination of presentations, group discussions, videotapes, and case studies to develop important areas in risk communication such as public involvement, risk perception, and communicating risk assessment results.

### EPA Contact Persons

#### Urban Air Toxics Workshops

Bill Lamason      (919) 541-5374  
                              (FTS) 629-5374

#### Risk Communication

Melissa McCullough    (919) 541-5646  
                              (919) 629-5646

## STATUS OF AIR TOXICS EMISSION FACTORS AND ESTIMATION TOOLS

### Background

The EPA, through its Office of Air Quality Planning and Standards (OAQPS), has under way a number of different programs to compile and publish emission factors for various air toxics.

### "Locating and Estimating" Series

To date, 17 reports have been published as part of this program dealing with the following substances:

| <u>SUBSTANCE</u>                    | <u>EPA<br/>PUBLICATION NO.</u> | <u>NTIS ORDER<br/>NUMBER</u> |
|-------------------------------------|--------------------------------|------------------------------|
| Acrylonitrile                       | EPA-450/4-84-007a              | PB 84-200609                 |
| Carbon Tetrachloride                | EPA-450/4-84-007b              | PB 84-200625                 |
| Chloroform                          | EPA-450/4-84-007c              | PB 84-200617                 |
| Ethylene Dichloride                 | EPA-450/4-84-007d              | PB 84-239193                 |
| Formaldehyde                        | EPA-450/4-84-007e              | PB 84-200633                 |
| Nickel                              | EPA-450/4-84-007f              | PB 84-210988                 |
| Chromium                            | EPA-450/4-84-007g              | PB 85-106474                 |
| Manganese                           | EPA-450/4-84-007h              | PB 86-117587                 |
| Phosgene                            | EPA-450/4-84-007i              | PB 86-117595                 |
| Epichlorohydrin                     | EPA-450/4-84-007j              | PB 86-117603                 |
| Vinylidene Chloride                 | EPA-450/4-84-007k              | PB 86-117611                 |
| Ethylene Oxide                      | EPA-450/4-84-007l              | PB 87-113973                 |
| Chlorobenzenes                      | EPA-450/4-84-007m              | PB 87-189841                 |
| Polychlorinated<br>Biphenyls (PCBs) | EPA-450/4-84-007n              | PB 87-209540                 |
| Polycyclic Organic<br>Matter (POM)  | EPA-450/4-84-007p              | PB 88-149059                 |
| Benzene                             | EPA-450/4-84-007q              | PB 88-196175                 |
| Organic Liquid<br>Storage Tanks     | EPA-450/4-88-004               | PB 89-129019                 |

The title of each report is Locating And Estimating Air Emissions From Sources Of (Substance) or Locating And Estimating Air Toxics Emissions From (Source Category). Reports to be released shortly include Municipal Waste Combustion, 1,3 Butadiene, Perchloroethylene and Trichlorethylene. Work is also underway on reports dealing with styrene and sewage sludge incineration.

### Compilation of Air Toxics Emission Factors

The general emission factor listing for more pollutants than shown above is available in the report Toxic Air Pollutant Emission Factors For Selected Air Toxic Compounds and Sources (EPA-450/2-88-006a). This report lists available air toxics emission factors and references from which the emission factors were obtained. This document continues to be updated and expanded. There is a personal computer data base system containing the system also.

## STATUS OF AIR TOXICS EMISSION FACTORS AND ESTIMATION TOOLS

### Source/Pollutant Crosswalk

A report, Toxic Air Pollutant Crosswalk: A Screening Tool For Locating Possible Sources Emitting Toxic Air Pollutants (EPA-450/4-87-023a, NTIS # PB-88-161146), was released in December 1987. This report is an aid in locating possible sources for further investigation by listing known valid combinations of SCC, SIC and pollutants from various data sources. It also features a PC computerized data base.

### Air Emissions Species Manual

The Air Emissions Species Manual in two volumes (VOC and particulate, respectively, was released in April 1988 and continues to be updated and expanded, periodically. This report contains various source profiles useful in estimating air toxics emissions, identification of possible sources, source reconciliation work (receptor modeling), photochemical modeling, and other similar uses. The EPA numbers are: Volume I, EPA-450/2-88-003a (NTIS PB-88 225792); Volume II, EPA-450/2-88-033b (NTIS PB-88 225800).

### How To Obtain These Reports

Government agencies generally may obtain single copies of these reports by submitting requests, along with EPA publication number, to: Library (MD-35), U.S. Environmental Protection Agency, Research Triangle Park, NC 27711, telephone numbers (919) 541-2777 or (FTS) 629-2777. These documents are also available for a fee through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, telephone number (703) 487-4650.

### Other Milestones

Reports on emissions factors for municipal incinerators, chromium (update) 1,3 butadiene, perchloroethylene, and trichloroethylene will be published in 1989.

A compilation of mainly State and local air toxics emission inventory questionnaires was published in June 1988 (EPA-450/4-88-008), NTIS number PB 88-236237.

An air toxic area source factors and procedures document will be available in 1989.

A brochure, "Tools for Estimating Emissions of Air Toxics," was published and distributed in June of 1988 and revised in February 1989. This brochure describes the reports above as well as other tools available. For copies, call the EPA contact person shown below.

### EPA Contact Person

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(FTS) 629-5523

## STATUS OF AIR TOXICS MODELING GUIDANCE

### Background

There is increasing emphasis on the assessment of air quality and health impacts of toxic chemical releases. Considerations include both long-term health effects and short-term acute health effects.

Support in both long-term and short-term air quality impacts is being provided for the listing of chemicals as toxic and in the development of control regulations under section 112 of the Clean Air Act (National Emissions Standards for Hazardous Air Pollutants).

Long-term air quality impacts are generally assessed using Guideline Air Quality Models (see status report entitled "Status of Guideline on Air Quality Models"). Short-term impacts must assess the effect of short-term, high volume releases which frequently occur from equipment upsets and malfunctions. These short-term events have not been classically examined.

The EPA sponsored three week-long workshops in 1988 on modeling air toxic releases. About 75 State/local agency modelers attended as well as EPA staff. Each work group featured 1-1/2 days of hands-on computer modeling problem exercises. Course materials will be used by EPA's Air Pollution Training Institute to develop further courses.

The EPA published "A Dispersion Model for Elevated Dense Gas Jet Chemical Releases" in two volumes. The model is known as DEGADIS Version 2.0- and operates on a VAX computer system. The two volumes and diskettes for uploading the program via a PC to the VAX are available from NTIS as PB 88-202379.

### Current Status

The EPA is currently examining available techniques for assessing the air quality impact of short-term releases.

The EPA also published "A Workbook of Screening Techniques for Assessing Impacts of Toxic Air Pollutants." The Workbook is available from NTIS as PB 89-134340.

### Future Milestones

A PC version of the procedures in the Workbook should be available early in FY-1990.

An air toxics model evaluation project has been initiated for a number of models developed by the public and private sector using five available data bases; a report should be published by EPA in the first half of FY 1990 on the performance of a

## STATUS OF AIR TOXICS MODELING GUIDANCE

subset of these models. Reports on the remaining models will follow.

A project to review modeling techniques applicable to area sources of toxics such as landfills, lagoons and soil handling operation has begun in order to identify which if any should be recommended for routine use. Performance evaluation with field data is expected. A report on the soundest technique and how it can be incorporated into a model such as ISC should be available early in FY 1990.

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AMBIENT AIR TOXICS MONITORING  
METHODS DEVELOPMENT AND SAMPLE ANALYSIS

Background

As a part of the ambient air toxic monitoring strategy, a pilot project called the Toxic Air Monitoring System (TAMS) was implemented. The goals for this project are to evaluate methods of sample collection and analysis for pollutants in the ambient air, to characterize ambient concentration of such pollutants in selected urban atmospheres, to gain quality assurance experience, and to share technology with State and local agencies.

Current Status

Presently, the TAMS is being restructured to include methods development for semi-volatile and polar pollutants, as well as volatiles. Four of the ten current sites will be retained, two each in Boston and Houston. The equipment from the sites in Chicago and Seattle/Tacoma will be donated to Regional, State, or local agencies who are interested in collecting further data. Also, ORD's Atmospheric Research and Environment Assessment Laboratory (AREAL) has volunteered to teach those agency staff how to collect and analyze the samples, and will reanalyze the first five samples for quality assurance purposes.

The latest semi-annual status report on the TAMS was issued March 30, 1989. The report provides data through September 1988.

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## SPECIAL URBAN TOXICS MONITORING PROGRAM

### Background/Current Status

Because of concerns regarding high cancer risk from multisource, multipollutant interactions in urban areas, State and local agencies have been seeking ways in which to assess the magnitude of potentially toxic compounds in their ambient air. To assist in filling this need, EPA is coordinating toxic monitoring programs designed to provide air quality data for screening purposes. These programs are separate from programs within the Toxics Air Monitoring System (TAMS) described elsewhere in this compilation of status reports.

In 1987, EPA began managing a program for ambient toxics screening at 19 sites in 18 cities. The first sample was collected on October 1, 1987, and sampling continued until September 30, 1988. Samples were collected over 24-hour periods at 12-day intervals through a special heated manifold in order to prevent aldehydes from being lost on moist surfaces. The canisters were analyzed for selected hydrocarbons and halogenated compounds. A co-located, hi-vol sampler collected particulates for metals and B(a)P analyses. Data were sent to the participating agencies on a quarterly schedule.

The EPA provides the sampling equipment needed to collect the samples, while the participating State and local agencies provide manpower to collect the samples. The samples are analyzed by a central contractor. Participating agencies provide necessary funds to support the program.

The program is being repeated in 1989. Samples from 13 sites in 11 cities are being collected.

### Future Milestones

EPA plans to coordinate similar programs during the next few years. The next one is scheduled to begin on January 1, 1990. Verbal commitments to participate in that program should be made to the cognizant Regional Office by October 31, 1989.

Financial commitments (\$21K per each site) are needed by November 30.

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## INHALATION RISK REFERENCE DOSE

### Background

The risk reference dose (RfD) is a benchmark level (exposure concentration or dose) used by EPA for assessment of noncancer health effects. The RfD is an estimate (with uncertainty spanning perhaps an order of magnitude) of a daily exposure to the human population (including sensitive subgroups) that is likely to be without appreciable risks of deleterious effects during a lifetime.

Derivation of an RfD involves review of toxicological literature, determination of the critical endpoint and critical study, and selection of appropriate uncertainty factors. Based on all the data from human and animal studies, the endpoint which is most relevant to humans is selected and the no-observed-adverse effect level (NOAEL) is identified. The RfD is derived from the NOAEL by consistent application of typically order of magnitude uncertainty factors that reflect various types of data used to estimate RfD's, and an additional modifying factor reflecting a scientific judgment of the entire data base for the chemical. After derivation, the RfD and supporting documentation are reviewed by an intra-Agency work group, and acceptable RfD's are verified and included in the Integrated Risk Information System (IRIS) data base.

To date, EPA has developed and verified oral RfD's and a methodology for development of inhalation RfD's has been prepared. The draft document titled "Interim Methods for Development of Inhalation Reference Doses" (August 1977) was reviewed in a public workshop in October 1987. Verification meetings of the RfD work group for inhalation RfD's are under way.

An informal work group with Agency-wide participation is planned to discuss the use of RfD's in OAQPS risk assessment and regulatory decisions.

### Current Status

A total of 305 oral RfD's have been verified and are available on IRIS.

Inhalation reference doses have been verified for five chemicals (methylene chloride, p-dichlorobenzene, tetrahydrofuran, hydrochloric acid, and carbon disulfide).

Supporting documentation has been prepared for inhalation RfD's for approximately 60 additional chemicals.



INHALATION RISK REFERENCE DOSE

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## SUBMITTAL OF VOC AIR TOXICS DATA TO AIRS

### Background

The Interim State and Local Air Toxic Volatile Organic Chemical Data Base was created to:

Compile State, local and Federal volatile organic chemical (VOC) data collected at fixed monitoring sites on a voluntary basis.

Provide for information exchange for participating agencies.

Provide participating agencies with an opportunity to share VOC data and information on sampling and analytical methods, siting, averaging times of individual measurements, and VOC summary statistics such as maximum and second maximum values quarterly and annual averages, etc.

Remain in effect until the VOC data is stored on AIRS (FY 1988-89).

During 4th quarter FY 1988 AIRS became capable of handling VOC data; therefore, there was no need to keep the Interim VOC data base active.

### Current Status

Data base is no longer active because AIRS is now available. The final report, "The EPA Interim Data Base for Air Toxic Volatile Organic Chemicals," is now available. There were 12 participating agencies in the interim VOC data base:

State: California Air Resources Board, California Department of Health Services, Louisiana Department of Environmental Quality, Massachusetts Department of Environmental Quality, New Jersey Department of Environmental Protection, and the Texas Air Control Board.

Local: Bay Area Air Quality Management District (San Francisco, CA), Clark County Department of Health (Las Vegas, NV) Sacramento Air Pollution Control District, and the Philadelphia Department of Health.

Federal: Environment Canada, U. S. Environmental Protection Agency.

VOC Pollutants and Benzo(a)Pyrene

- 96 pollutants with some data
- 35 pollutants with 10 or more site-years of data to characterize individual VOC distributions

## SUBMITTAL OF VOC AIR TOXICS DATA TO AIRS

148 monitoring sites measuring VOCs and/or BaP

- 69 sites classified as center city
- 26 sites classified as rural
- 25 sites classified as suburban
- 28 sites unclassified

### Future Milestones

The urban air toxics monitoring program data collected in cooperation with State and local agencies will be placed in AIRS during FY 1989.

The Toxic Air Monitoring Sites (TAMS) VOC data will be placed in AIRS during FY 1989.

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SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT  
TOXIC RELEASE INVENTORY (TITLE III, SECTION 313)

Background

The development of a Toxic Release Inventory (TRI) was mandated by Congress through the Superfund Amendments and Reauthorization Act (SARA) of 1986. The "right to know" law provided for the public to have access to information on the quantity of emissions to the environment of over 300 specific chemicals and groups of chemicals, and obligated industry to provide this data to EPA and to State agencies. The Office of Toxic Substances (OTS) of EPA has principal responsibility to compile information submitted by industry in a computerized data base accessible to the public. Initial reporting from an estimated 30,000 manufacturing facilities (in Standard Industrial Classification codes 20 through 39) on 300,000 forms was due by July 1, 1988. Reporting facilities were required to provide estimates (no measurements are required) of their annual releases to the air, water, and land, aggregated by facility for each chemical. All continuous and accidental releases were combined, with air emissions separated into the general categories of fugitive emissions and stack emissions.

The Office of Air Quality Planning and Standards (OAQPS) coordinated with OTS on development of TRI implementation activities. OAQPS has assumed responsibility for interpretation of TRI data with respect to air emissions in response to inquiries from State and local agencies, from within EPA, and from Congress. The OAQPS is also supporting State and local agencies in their use and interpretation of the TRI data, since these agencies are the first point of contact for public inquiries.

Current Status

Information and guidance materials were forwarded through EPA's Regional Offices to State and local air pollution control agencies prior to the July 1 deadline. Over 75,000 forms have been received by OTS and have been computerized. These data were made available for internal EPA use from 17,500 reporting facilities during the first quarter of FY 1989. State agencies will also have early access to the EPA data base through a timesharing arrangement at the Regional Office level.

Future Milestones

The computerized data base will be available to the public in June of 1989. Public access will be through the computer facilities of the National Library of Medicine, which will enable association of the TRI data with health effects and other information available through the Hazardous Substances Data Bank.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT  
TOXIC RELEASE INVENTORY (TITLE III, SECTION 313)

Several user-friendly software programs will be developed to enable users to search the TRI files.

The OAQPS is participating in the planning and development of data retrieval programs for the publicly available data base to be operated by the National Library of Medicine. In addition, OAQPS will provide access to the TRI data for State and local air pollution control agencies through the National Air Toxics Information Clearinghouse (NATICH).

The EPA is developing plans for use of the TRI data by the various program offices. The OAQPS anticipates the principal utility of the data will be in the preliminary evaluation and prioritization of pollutants and source categories and to focus supplemental information gathering. There are potential uses by OAQPS, contingent upon resource availability, in development of emission factors, in cross-checking with other EPA data bases, in support of urban air toxics analyses, in PSD reviews, and in responding to Congressional and EPA management questions. The OAQPS is currently comparing data from the TRI data base with information gathered under the air toxics regulatory program to identify areas of potential concern. At this point, many of the potential uses are uncertain until a better understanding of the quality and completeness of the collected data is available.

EPA Contact Persons

|               |                                  |
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## AIR/SUPERFUND COORDINATION PROGRAM

The purpose of the Air/Superfund Coordination program is to assist EPA Regional Superfund offices in evaluating Superfund sites and developing plans for site cleanup.

Air/Superfund coordinators are assigned in each Regional air office. Assistance to Superfund activities includes site support services, such as consultation and review of proposals, plans, and studies, and participation in decisions related to preresidential, remedial, and removal actions that may have significant air impacts. Regional air offices also may perform field evaluations during removal and preresidential actions at selected sites and consult with Superfund contractors in areas such as air modeling, monitoring, and the use and effectiveness of air pollution control devices.

The program includes a number of activities in support of Regional air offices. These activities and the overall management of the Air/Superfund Program are the responsibility of the Office of Air Quality Planning and Standards (OAQPS). A brief description of support activities is described below:

Regional Office Coordination involves the exchange of information among Regional air offices and between Regions and OAQPS and provides updated technical information to Regions and OAQPS and periodic reports on ongoing studies. Coordination meetings are held at four month intervals to provide Regions an opportunity to exchange information, help to guide the overall program, participate in workshops, and receive briefings on pertinent technical and administrative subjects.

Training is required to instruct Regional air office staff on Superfund program issues, methods, and procedures; and Regional Superfund staff on air issues, methods, procedures, and services and expertise which can be provided by air offices. The training for Superfund staff focuses on the fundamentals of air pollution control, including monitoring, modeling, emission controls, health effects from ambient concentrations, and risk analysis techniques unique to air pollution control.

National technical guidance studies provide Regional air and Superfund staffs with technical support, data, and guidance needed to improve the quality of the data base and the analysis of air issues associated with Superfund sites.

Technical assistance is provided to Regional air offices to assist them in evaluating specific sites, analyses prepared by Superfund contractors, and preparing recommendations on remedial actions needed to minimize air impacts.

Three national technical guidance studies were initiated in FY 1987 and are expected to continue through FY 1989. Region III

### AIR/SUPERFUND COORDINATION PROGRAM

has the lead for the first study which provides procedures for air pathway analysis and defines monitoring and modeling methodologies needed to gather data required for these analyses. Region I has the lead for the second study which provides emission factors and methods for estimating emissions at sites prior to initiating remedial action. Region V has the lead for the third study which provides information and guidance to improve our ability to estimate emissions during remedial actions. Field studies will extend these studies to improve our data base and ability to estimate air emissions and ambient levels of air toxics.

Reports on estimating emissions from Superfund sites were released in March, 1989 and the report on air pathway analysis is scheduled for release in June, 1989. A national workshop on the use of these manuals in evaluating Superfund sites, which will be co-sponsored by the Air and Waste Management Association and EPA, is scheduled for the Fall, 1989.

Additional national technical guidance studies which were initiated in FY 1989 include: (1) design of air strippers and soil vapor extraction systems and their impact on air emissions, (2) guidance on developing data quality objectives for air studies, (3) selection of optimum dispersion models for low level air toxic releases from Superfund sites, (4) procedures for incorporating emission and ambient air data from Superfund site studies into existing data systems, and (5) guidance for more effective review of potential air impacts based on Superfund site studies.

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## STATUS OF STATEWIDE PM-10 SIP REVISIONS

### Background

Each SIP for particulate matter must be revised for PM-10 as follows:

To include State ambient air quality standards for PM-10 at least as stringent as the NAAQS;

To trigger preconstruction review for new or modified sources which would emit significant amounts of either PM or PM-10 emissions;

To invoke the emergency episode plan to prevent PM-10 concentrations from reaching the significant harm level of 600 ug/m<sup>3</sup>;

To meet ambient PM-10 monitoring requirements of 40 CFR 58; and,

To meet the requirements of 40 CFR 51.322 and 51.323 to report actual annual emissions of PM-10 (beginning with emissions for 1988) for point sources emitting 100 tons per year or more.

### Current Status\*

| Region | Universe | Draft SIP | Public Hearing | Final SIP | Comments                                      |
|--------|----------|-----------|----------------|-----------|-----------------------------------------------|
| I      | 6        | 2         | 1              | 1         | Draft for NH and RI, final for ME             |
| II     | 4        | 0         | 0              | 1         | Final for VI                                  |
| III    | 6        | 4         | 4              | 2         | Draft DE, DC, MD, PA, VA;<br>Final for DE, VA |
| IV     | 8        | 8         | 8              | 5         | Final for FL, GA, MS, NC, SC                  |
| V      | 6        | 0         | 4              | 2         | Final IN and MN                               |
| VI     | 5        | 5         | 4              | 4         | AR, OK, LA, NM, draft for TX                  |
| VII    | 4        | 4         | 3              | 3         | Draft for KS, final for MO, NE, IA            |
| VIII   | 6        | 0         | 0              | 0         |                                               |
| IX     | 7        | 0         | 1              | 1         | Development plans not submitted               |
| X      | <u>4</u> | <u>0</u>  | <u>0</u>       | <u>0</u>  |                                               |
|        | 56       | 23        | 25             | 21        |                                               |

\*Based on data in the PM-10 bulletin board tracking system.

### Future Milestones

Comment on draft SIP revisions and prepare notices of proposed rulemaking on final SIP's submitted to EPA.



STATUS OF STATEWIDE PM-10 SIP REVISIONS

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## STATUS OF PM-10 GROUP I SIP DEVELOPMENT

### Background

The SIP's for PM-10 Group I areas are required to include a control strategy and a demonstration that the strategy will attain and maintain the NAAQS. Developing a SIP for a Group I area requires completing several data gathering and processing tasks. Milestones we are tracking include the following: (1) complete emission inventory, (2) submit model protocol, (3) reconcile model results, (4) analyze alternative control strategies, (5) select final strategy, (6) submit draft SIP, (7) hold public hearing, (8) adopt regulations, (9) submit final SIP.

### Current Status\*

| <u>Region</u> | <u>Universe</u> | <u>Emission Inventories Complete</u> | <u>Reconcile Model Results</u> | <u>Alternative Control Strategies</u> | <u>Public Hearing</u> | <u>Submit Final SIP</u> |
|---------------|-----------------|--------------------------------------|--------------------------------|---------------------------------------|-----------------------|-------------------------|
| I             | 2               | 2                                    | 0                              | 0                                     | 0                     | 0                       |
| II            | 0               | 0                                    | 0                              | 0                                     | 0                     | 0                       |
| III           | 1               | 1                                    | 0                              | 0                                     | 0                     | 0                       |
| IV            | 0               | 0                                    | 0                              | 0                                     | 0                     | 0                       |
| V             | 7               | 7                                    | 0                              | 0                                     | 0                     | 0                       |
| VI            | 1               | 1                                    | 1                              | 1                                     | 0                     | 0                       |
| VII           | 0               | 0                                    | 0                              | 0                                     | 0                     | 0                       |
| VIII          | 14              | 10                                   | 1                              | 4                                     | 3                     | 0                       |
| IX            | 16              | 16                                   | 3                              | 3                                     | 1                     | 0                       |
| X             | <u>17</u>       | <u>2</u>                             | <u>0</u>                       | <u>5</u>                              | <u>0</u>              | <u>0</u>                |
|               | 58              | 39                                   | 5                              | 13                                    | 4                     | 0                       |

\*Based on information entered in the PM-10 bulletin board tracking system.

### Future Milestones

Have completed PM-10 SIP's for 35 Group I areas submitted to EPA by October 1989.

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## STATUS OF PM-10 GROUP II COMMITTAL SIP DEVELOPMENT

### Background

A committal SIP for PM-10 Group II areas is simply an authoritative letter from the State agency or board committing to monitor PM-10 in accordance with 40 CFR 58, report any exceedances and violations of the NAAQS, evaluate the adequacy of existing regulations for particulate matter, and revise the SIP as necessary to attain and maintain the PM-10 NAAQS. We are tracking when States submit drafts, hold public hearings, and submit final SIP's.

### Current Status\*

| Region | Universe | Public Hearing | Final SIP | Comments                             |
|--------|----------|----------------|-----------|--------------------------------------|
| I      | 0        | 0              | 0         |                                      |
| II     | 3        | 0              | 3         | Final for NY, NJ, and PR             |
| III    | 9        | 8              | 4         | Final for PA, VA                     |
| IV     | 4        | 2              | 4         | All submitted                        |
| V      | 40       | 40             | 40        | All submitted                        |
| VI     | 11       | 11             | 11        | All submitted                        |
| VII    | 6        | 5              | 5         | Final for all except KS              |
| VIII   | 18       | 5              | 15        | Final for all except MT(2) and WY(1) |
| IX     | 13       | 7              | 6         | Final for AZ only                    |
| X      | <u>9</u> | <u>0</u>       | <u>6</u>  |                                      |
|        | 113      | 78             | 94        |                                      |

\*Based on data in the PM-10 bulletin board tracking system.

### Future Milestones

Committal SIP's will be sought for the remaining 19 areas.

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## PM-10 LONG-TERM NONATTAINMENT POLICY

### Background

It is clear that attaining the new PM-10 standard will be a long-term problem for a number of areas. Preliminary estimates indicate that 22 areas, ranging in size from small rural agricultural and mountain communities to major urban areas are unlikely to attain the standards in 3 to 5 years. The severity of the PM-10 problem varies substantially with the mix of sources and the populations exposed in these areas.

### Current Status

A policy statement was issued November 4, 1988 regarding action to take on SIP's for areas that are unlikely to attain the standards in 3 to 5 years or long-term nonattainment areas (LTNA). The LTNA policy states that a SIP should be disapproved if it does not include a persuasive demonstration of attainment and, also, does not include a reasonable control strategy. The Regional Office should consult with OAQPS and OGC concerning the action to be taken for a SIP that does require a reasonable control strategy but does not include a persuasive demonstration of attainment.

A task force including representatives from Regions, OAQPS, and OGC was formed in April 1988 to examine the issues surrounding approving SIP's that are not adequate to attain the standards. The task force found that an adverse judicial decision in a case involving Abramowitz v. EPA in the Ninth Circuit presents a significant constraint to approving only selected parts of a SIP. The Abramowitz court held that EPA exceeded its authority by approving individual control measures but declining to judge whether or not those measures would achieve attainment. The Abramowitz court did not express a view as to whether or not EPA could approve individual control measures at the same time it disapproved the attainment demonstration in the SIP.

For these reasons, the task force strongly supports amending the Clean Air Act and has advanced a concept paper addressing PM-10 long-term nonattainment to numerous congressional staff, including the group of nine, who embodied much of this thinking in their draft amendments.

### Future Milestones

OAQPS is working on guidance/sub-policies that will flesh out control approaches for long-term nonattainment problems associated with key source categories, including wood stoves, urban fugitive dust, prescription burning, atmospherically formed particles (e.g., sulfates, nitrates) and rural fugitive dust.

## PM-10 LONG-TERM NONATTAINMENT POLICY

They will be issued as resources to support their development become available.

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## RURAL FUGITIVE DUST POLICY

### Background

When the EPA promulgated the PM-10 NAAQS, it retained, on an interim basis, the 1977 Rural Fugitive Dust Policy (RFDP). This policy, which was originally intended for use with the TSP NAAQS, allowed States with rural fugitive dust areas (RFDA's) to deemphasize the control of fugitive dust in rural areas when developing and enforcing their State implementation plans (SIP's) for attainment and maintenance of the NAAQS for PM-10. The policy directs that efforts to control particulate matter be expended first at sources in urban areas and next at certain large manmade sources in rural areas. Concurrent with the promulgation, EPA proposed three alternative policies for controlling rural fugitive dust and solicited comments on the alternatives and on the adequacy of the definitions which are used in identifying RFDA's (52 FR 24716).

### Current Status

The EPA has formed an interagency work group to review the rural fugitive dust policy and the public comments on the proposed alternative policies. The work group has made progress on evaluating the policy and commenting on developing mechanisms for controlling fugitive dust in rural areas.

The EPA has started an economic analysis of three areas to determine the impact of each of the alternative policies. The cost/benefits for each alternative fugitive dust policy for two areas has been completed. The analysis for the third area is currently in review.

Since rural fugitive dust is an element of the PM-10 long-term nonattainment problem, EPA has decided to issue the RFDP as a memorandum and guidance documents under the long-term nonattainment policy.

### Future Milestones

No schedule for publishing the policy has been established.

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## URBAN FUGITIVE DUST POLICY

### Background

Fugitive dust in urban areas generally is due to vehicle resuspension of dust on and around paved roads, unpaved roads, and parking, or windblown dust emitted from open areas with inadequate ground cover. Previous efforts to control paved road emissions have proven unsuccessful, largely because they relied on periodic street cleaning to reduce surface loadings. Under the urban fugitive dust policy now under development, programs to prevent dust from reaching the road surface will be emphasized. The policy will also address unpaved roads and areas. It will identify best available control measures (BACM) and additional control measures (ACM) for adoption and implementation under the PM-10 long-term nonattainment policy umbrella.

### Current Status

A technical support document, "Control of Open Fugitive Dust Sources," EPA-450/3-88-008, September 1988, was developed by the Emission Standards Division of EPA/OAQPS and distributed to the PM-10 Regional contacts. The document provides control and cost effectiveness information and a regulatory framework which will be helpful in developing and reviewing State implementation plans for PM-10. Workshops have been held in Region IX and in Seattle, Washington to discuss this support document in detail.

The EPA is now in the process of developing a draft of the Urban Fugitive Dust Policy.

### Future Milestones

Policy will be issued spring 1989.

The workshop for "Control of Open Fugitive Dust Sources" mentioned above is available for those Regions interested.

Additional workshops will be held if requested by the Regions.

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## PM-10 EMISSIONS TRADING

### Background

The EPA Emissions Trading Policy statement was published in the Federal Register on December 4, 1986 (51 FR 43814). Among other things, the policy statement addresses requirements for trading particulate emissions as TSP but not as PM-10. The rules for trading must be confirmed as applicable to PM-10 trades or revised when necessary.

### Current Status

A paper addressing many of the policy questions was prepared jointly with EPA's Office of Standards and Regulations for presentation at the APCA/EPA Specialty Conference held in San Francisco February 23-25, 1988. The paper sets forth the following special rules regarding PM-10 trades:

#### Demonstrating Ambient Equivalence

Analysis of ambient equivalence is not required if the sum of the PM-10 emissions increases looking only at the increasing sources is less than 15 tpy.

#### Baseline for Measuring Emission Reduction Credits (ERC's)

1. Group I areas - treated as nonattainment areas
  - a. Trade must show progress-yield 20 percent net decrease
  - b. Prior reductions not creditable
  - c. Baseline emissions lower of actual, SIP allowable, RACT allowable
2. Group II areas - treated as unclassifiable area until shown to be attaining the NAAQS
  - a. Trade is not required to show progress
  - b. Prior reductions are not creditable
  - c. Baseline emissions lower of actual, SIP allowable, or RACT allowable
3. Group III areas - treated as attainment areas without demonstrations
  - a. Trade is not required to show progress
  - b. Prior reductions are not creditable
  - c. Baseline emissions lower of actual or SIP allowable unless Level II analysis demonstrates that higher allowable values will not interfere with NAAQS or PSD increments



## PM-10 EMISSIONS TRADING

### Prior (Banked) Emission Reductions

Credit generally cannot be granted for emission reductions made before the ambient monitoring data are or were collected for use in developing the PM-10 SIP. (Reductions prior to 1985 would generally not be creditable because areas were grouped for SIP development based on 1985-1987 ambient data.)

### Precursors of Secondary Particles

ERC's for reducing emissions of precursors to secondary particles can be obtained if:

- the precursor is emitted from a local source (in the same airshed);
- a model applicable to the area has been developed to demonstrate proportional benefit to PM-10 of reducing precursor emissions;
- the control strategy for the area requires reduction of secondary particles and has been demonstrated by dispersion modeling to attain the PM-10 NAAQS.

### Future Milestones

Define what constitutes a "significant increase" in ambient PM-10 concentrations.

Prepare a policy statement addressing how emission trading rules are to be met for sources of PM-10.

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## WOOD SMOKE REDUCTION POLICY

### Background

Wood smoke from residential wood heaters and fireplaces significantly impacts concentrations of PM-10 in several Group I areas. This is especially true in the northwest quarter of the Nation (Regions VIII and X). Concentrations reach episodic levels when inversions trap smoke in mountain valleys.

Since some Group I areas impacted by wood smoke could require several years to attain the PM-10 NAAQS, a statement identifying the key elements which should be addressed in SIP's for areas with long-term nonattainment problems is being developed.

### Current Status

Development of technical guidance is nearing completion. The guidance will discuss control measures (and their effectiveness) for smoke from residential wood combustion that should be included in SIP's.

The SIP's in long-term nonattainment wood smoke areas should address four points:

1. Reducing emissions from the current population of stoves through installation, safety, and maintenance inspections; permits; incentives to convert to cleaner stoves or alternative clean fuels.
2. Curtailing the use of wood stoves and fireplaces during adverse meteorological conditions.
3. Preventing continued long-term increases in wood smoke emissions by limiting future growth in the numbers of wood stoves and fireplaces, making alternative fuels available, stopping subsidies for wood combustion (i.e., free wood from State and national forests).
4. Establishment of a concerted "outreach" program to educate the public on the need for curtailment programs and improving the burn efficiency in existing stoves.

### Future Milestones

Issue a policy statement, technical guidance, and conduct workshops in Regions VIII and X in the spring of 1989.

### EPA Contact Person

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## INTERNATIONAL TRANSPORT POLICY

### Background

In some locations along the U.S./Mexican border, EPA has classified areas as PM-10 Group I or II. In at least two of these areas (El Paso, Texas, and Nogales, Arizona), we have strong indication that the high PM concentrations result from transport of pollution from Mexico.

The EPA's present international transport policy is based upon two 1978 memorandums, both clearly stating that Congress did not provide any relief from Clean Air Act requirements for areas impacted by foreign emissions. However, both also state that the SIP for the U.S. side of the border should assume that the foreign sources will be sufficiently controlled to attain national ambient air quality standards at the border.

### Current Status

States are now developing SIP's for Group I PM-10 areas along the U.S./Mexican border. As part of those efforts, States must identify the sources of particulate matter. If it is coming from Mexico, the States can follow EPA's existing policy, i.e., assume that the Mexican sources will be controlled sufficiently to attain the standards at the border.

In a related matter, the EPA is currently working with the U.S. State Department toward the adoption of an annex to the 1983 U.S./Mexican agreement. That annex would deal with air pollution along the border.

### Future Milestones

If problems with the existing international transport policy are identified as a result of the PM-10 SIP development process, EPA will then review that policy.

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## PRESCRIBED BURNING/SMOKE MANAGEMENT

### Background

One of the five major causes of long-term PM-10 nonattainment is the emissions from prescribed burning for silviculture and agriculture activities. In the past, EPA has treated episodes of high PM concentrations caused by prescribed burns the same as episodes caused by wildfires, i.e., considered them as exceptional events. However, high concentrations from prescribed burning is a routine occurrence in some parts of the country and, to a limited extent, are controllable.

### Current Status

At this time, EPA does not have a specific policy on prescribed burning. However, we have established an interagency task force, through the National Wildfire Coordinating Group (NWCG), to assist EPA in establishing such a policy. Our basic philosophy in discussions with the NWCG is that although prescribed burning is a useful and sometimes the only tool available to accomplish silviculture and agriculture goals, it should only be conducted using good smoke management techniques.

An outline of a draft policy statement has been developed. However, work on the full policy statement was delayed because of NWCG's need to address the wildfires that occurred last summer.

### Future Milestones

By the end of October 1989, we plan to develop a schedule for a draft policy.

### EPA Contact Person

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## STATUS OF PM-10 SAMPLERS

### Background

The PM-10 network design and siting requirements of 40 CFR 58 were promulgated on July 1, 1987. Under Section 58.34 of this action, the National Air Monitoring Stations (NAMS) for PM-10 and the State and Local Air Monitoring Stations (SLAMS) for Group I and II areas were required to be operational by August 1, 1988. Group I areas were those having a high probability for violating the PM-10 national ambient air quality standard, based upon an analysis of that area's total suspended particulate air quality data. Group II areas were those where the data were inconclusive. The remaining SLAMS are required to be operational by August 1, 1989.

### Current Status

Excellent progress has been made in procuring and installing PM-10 samplers in the past several months. On October 31, 1988 there were 1,091 samplers operating at 746 sites, and these totals were increased to 1,114 samplers at 763 sites on December 31, 1988. The latest information as of February 28, 1989 now shows that there are 1,179 samplers operating at 826 sites.

### EPA Contact Person

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## PM<sub>10</sub> EMISSION FACTORS

### Background

The EPA is continuing development of PM<sub>10</sub> emission factors and is assisting States in filling gaps in PM<sub>10</sub> emission inventories where published PM<sub>10</sub> emission factors are not yet available for particular source categories.

### Current Status/Future Milestones

PM<sub>10</sub> emission factors have been published in AP-42 in the Fourth Edition (September 1985) and in Supplement A (October 1986). Additional PM<sub>10</sub> factors were published in Supplement B, September 1988, for:

- Residential Wood Stoves
- Waste Oil Combustion
- Refuse Incineration
- Sewage Sludge Incineration
- Grain Elevators and Processing Plants
- Crushed Stone Processing
- Western Surface Coal Mining
- Wildfire and Prescribed Burning
- Unpaved Roads
- Aggregate Handling and Storage Piles
- Industrial Paved Roads
- Industrial Site Wind Erosion

Efforts are ongoing to fill gaps in PM<sub>10</sub> emission factors by technology transfer and engineering judgment techniques. Gap fillers developed to date have been published in Gap Filling PM<sub>10</sub> Emission Factors For Selected Open Dust Sources, EPA-450/4-88-003 (February 1988) and in NEDS Source Classification Codes and Emission Factor Listing, August 1988. These two reports were also distributed to STAPPA/ALAPCO member agencies in August 1988.

Additional PM<sub>10</sub> emission factors for approximately 350 source operations have been developed under a technology transfer study and proposed to us by a contractor. They are being reviewed and those approved should be made available and distributed to State/local agencies in May 1989. The EPA Emission Factor Clearinghouse is compiling a prioritized listing of needed emission factors, principally for PM<sub>10</sub>, based on a survey of the Regional Offices. The list will be published in the clearinghouse newsletter, soliciting gap filling proposals from any agency having relevant emissions test data or a developed technique for estimating emissions. The first periodic newsletter is scheduled to be published in April 1989.

### EPA Contact Person

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## STACK TEST METHOD FOR PM-10

### Background

Two methods have been developed to measure PM-10. The Constant Sampling Rate (CSR) method uses EPA M17 fitted with either a cyclone or an inertial impactor particle separator and the Exhaust Gas Recycle (EGR) method uses a special sampling train equipped with a means to maintain constant flow through a cyclone and variable flow at the sampling nozzle. Both methods have an in-stack filter and an out-of-stack filter held at a constant temperature of 248°F.

### Current Status

Originally, the package proposing PM-10 stack test methods was to be published in 40 CFR Part 52. However, in response to recommendations from the Agency's Office of General Counsel, OAQPS is now proposing to add both methods to Part 51, Appendix M. The result is to create a repository for example SIP methods in Part 51. Methods in Appendix M or their equivalent will be required in SIP's.

### Future Milestone

Publication of proposed rulemaking in Federal Register -  
May 1989

### EPA Contact Person

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## STACK TEST METHOD FOR CONDENSIBLE PARTICULATE MATTER

### Background

A stack test method for determining condensible particulates is currently under evaluation by EPA's Office of Air Quality and Planning Standards. This method modifies Method 5 to include procedures for analyzing the impingers for condensibles. Additionally, a nitrogen purge is required to remove any dissolved SO<sub>2</sub> in the impinger water, which, if not removed, may form artifacts which are not considered to be condensibles.

### Current Status

Laboratory testing has been completed, and two field tests have been performed. Additionally, a draft protocol has been developed.

### Future Milestones

Perform additional field test (optional).

Develop final protocol.

### EPA Contact Person

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## CHEMICAL MANUFACTURERS ASSOCIATION (CMA) RULEMAKING

### Background

In 1982, EPA negotiated a Settlement Agreement with the CMA stemming from litigation over regulations for PSD and nonattainment area new source review that EPA promulgated on August 7, 1980. The EPA agreed to propose revisions to the 1980 regulations according to the changes listed in two parts of the Settlement Agreement--Exhibit A and Exhibit B. In August 1983, EPA proposed Exhibit A changes related to fugitive emissions, Federal enforceability, definition of "significant," innovative control technology waivers, secondary emissions, offset banking, prior source shutdowns, and health and welfare equivalence. In a subsequent action, final action on fugitive emissions was taken by EPA in October 1984.

With regard to Exhibit B, the changes to be proposed would allow sources to compute emissions reduction credits for netting and offsetting as the difference between an old and a new or modified emissions unit's potential to emit on an hourly basis. (The 1980 regulations required that emission reduction credits be computed as the difference in typical actual emissions and new actuals [which by definition, if a unit has not commenced normal operations, is its potential to emit] on an annual basis.) Work on the Exhibit B rulemaking has been suspended several times since 1982, primarily due to resource shortages within EPA.

### Current Status

Final rulemaking on the Exhibit A portion of the CMA Settlement Agreement is expected to be published in May. The EPA is currently analyzing the environmental and economic impacts of promulgating the revisions stipulated in Exhibit B, as well as other regulatory alternatives that have been identified. A work group was formed in 1988 to review the results of the analyses conducted to support proposed rulemaking. The work group consists of representatives of EPA Headquarters and Regional Offices.

### Future Activities

As stated above, final action on Exhibit A is expected to be published in May. Rulemaking on Exhibit B is scheduled for proposal in December 1989.

### EPA Contact Persons

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## NOx PSD INCREMENTS

### Background

In early 1987, EPA was ordered by the court to develop prevention of significant deterioration (PSD) regulations for nitrogen oxides. On February 8, 1988, PSD increments for nitrogen dioxide (NO<sub>2</sub>) were proposed by EPA, and on October 17, 1988, the NO<sub>2</sub> increments were promulgated. Two petitions for reconsideration of the final rules were received by EPA. One of these petitions has since been dropped.

### Current Status

The EPA is developing guidance on preparing SIP and delegation of authority agreements, setting up and maintaining NO<sub>x</sub> emission inventories, and gathering data needed for ambient air quality analyses. Drafts of this guidance are to be distributed for peer review in the summer of 1989.

### Future Activities

The NO<sub>2</sub> increments regulations are to become effective on October 17, 1989. States are allowed 9 months from that date to submit approvable SIP's or "delegation of authority" agreements, and EPA has an additional 4 months (until November 17, 1990) to review and approve (or disapprove them).

On November 17, 1990, for States not having an approved SIP or delegation agreement, EPA Regional Offices are to assume responsibility for PSD permitting, at least for that portion of the permits dealing with NO<sub>2</sub> increment analysis requirements.

The baseline date for the NO<sub>2</sub> increments was February 8, 1988. All major source construction since that date has consumed NO<sub>2</sub> increment. For areas where the minor source baseline date has been triggered, minor sources (including area and mobile sources) also consume increment. At present, there is no Federal requirement for NO<sub>2</sub> increment consumption analyses between the major source baseline date and the date the NO<sub>2</sub> increments programs are implemented in each State. However, if a State has elected not to require NO<sub>2</sub> increment consumption analysis during this interim period, it must explain (in its SIP or delegation agreement revision) how it plans to determine increment consumption retroactively.

### EPA Contact Person

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## PM<sub>10</sub> PSD INCREMENTS

### Background

On July 1, 1987 (52 FR 24634), EPA promulgated revised national ambient air quality standards for particulate matter. In making this revision, EPA established a new indicator based on particles nominally 10 microns and less in diameter (PM<sub>10</sub>) to replace the total suspended particulate (TSP) indicator for both the primary and secondary standards. However, EPA retained the TSP indicator for the prevention of significant deterioration (PSD) increments for particulate matter and announced its intent to promulgate, in a subsequent rulemaking, PM<sub>10</sub> increments which would be equivalent to the existing TSP increments (52 FR 24685).

### Current Status

Since its formation on August 25, 1987, an EPA work group has been meeting regularly to review and assist in the development of PM<sub>10</sub> increments. The work group consists of representatives from EPA Headquarters and Regional Offices, the Department of Energy, the National Park Service, and the Bureau of Land Management. The rulemaking package proposing PM<sub>10</sub> increments has completed EPA Red Border review and will be undergoing OMB review in May 1989.

### Future Activities

In accordance with section 166 of the Clean Air Act, EPA plans to propose PM<sub>10</sub> increments, as selected by the work group, in the summer of 1989. Promulgation of the new increments is anticipated in the summer of 1990. The PM<sub>10</sub> increments would then become effective 1 year after their date of promulgation as required by section 166 of the Act. States will have 9 months from the effective date to adopt the new increments and submit revised plans to EPA for approval. When EPA approves a State's revision to its PSD SIP (containing new PM<sub>10</sub> increments), all TSP area designations within the jurisdiction of such SIP will also be deleted. Consequently, in any area where a TSP area designation no longer exists, Class II and III TSP increments will not apply.

For mandatory Federal Class I areas, increments are not tied to the area designation process. The EPA intends to allow States to implement the new Class I PM<sub>10</sub> increments as a surrogate for the existing Class I TSP increments, assuming they are equally protective of the Class I areas of concern.

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## RULEMAKING PROPOSAL FOR STRIP MINES AND RELATED FUGITIVE DUST ISSUES

### Background

On August 7, 1980, EPA listed 30 source categories for inclusion of fugitive emissions in new source review applicability determinations. Surface coal mines were not included on this list and, as a result, the Sierra Club sued EPA to compel listing. In its response to the D.C. Circuit Court of Appeals remand, EPA commenced rulemaking for surface coal mines. Subsequently, on October 26, 1984, EPA proposed that surface coal mines be listed, pursuant to the criteria set forth for section (302[j]) rulemaking.

In a related issue on fugitive dust, the mining industry has strongly advocated changes to the definition of "source" and the review of secondary emissions. The presence of certain categories on the "list of 30" mentioned above could trigger PSD review of mines even if EPA has not promulgated a listing of surface coal mines.

### Current Status/Future Milestones

The EPA continues to analyze the comments received and anticipates final action on the surface coal mines proposal in 1989. This rulemaking will also respond to the industry concerns described above on related fugitive emissions issues for surface coal mines.

In a related development, the Department of Interior issued regulations in the November 8, 1988 Federal Register for roads at surface and underground mines, including surface coal mines. The EPA is currently analyzing the impact of this proposal on the surface coal mines final action that is now under development.

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## IMPROVING NEW SOURCE REVIEW (NSR)

### Background

In 1986, EPA formed a special task force on NSR. The principal purpose in organizing this task force was to address growing concerns about the consistency and certainty of permits issued under the Clean Air Act's NSR requirements. The basic goal of the task force effort was to improve the timeliness, certainty, and effectiveness of the NSR permit process.

In December 1986, the task force issued a draft report of its findings and options for improving the NSR permits. The members of the task force concluded that, in general, program problems could best be resolved by improvements in:

1. Additional general NSR program assistance and detailed technical training and assistance in the determination of BACT.
2. Enhanced communications and information flow between EPA and the State/local permitting agencies in a manner consistent with State/local permitting procedures and manpower.

### Current Status/Future Milestones

In December 1987, EPA began to implement several initiatives designed to improve NSR program implementation. The initiatives included:

- increased emphasis on Regional review of State permit actions during the public comment period;
- development of the "top-down" approach to determining BACT;
- development of guidance regarding deficient permit actions;
- increased Regional and State agency training.

In addition, EPA formed an NSR task group which, in consultation with State/local agency representatives, will monitor the progress and problems associated with NSR program implementation. The first meeting of the task group was held on May 18, 1988. A second meeting was held on January 30, 1989.

Progress to date in implementing NSR program improvements includes the following:

- All Regions have now taken steps to increase their overview of State permit actions during the public comment period.
- A contract has been let in order to develop "top-down" BACT guidance.

#### IMPROVING NEW SOURCE REVIEW (NSR)

- Guidance regarding deficient permit actions was developed and issued by EPA in 1988.
- Training manuals on NSR implementation are being updated by EPA, and a training course will be available in late 1989.

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## NEW SOURCE REVIEW (NSR) BULLETIN BOARD

### Background/Current Status

Federal policy determinations play a very significant role in the everyday implementation of the PSD and nonattainment area new source review programs.

The EPA has established a new source review electronic bulletin board, which is available for use by State/local agencies implementing the NSR regulations.

This bulletin board allows the user to:

- access a listing and summary of EPA NSR program policy and guidance memorandums;
- obtain a complete copy of recent reference memorandums;
- obtain a current listing of EPA program contacts; and
- send and receive messages within general and specific categories.

The NSR bulletin board is now operational. State/local agencies should contact their Regional NSR Contact for a copy of the user's manual.

### User Summary Thru March 1989

|                                                                    |     |
|--------------------------------------------------------------------|-----|
| Cumulative Total Users.....                                        | 45  |
| Cumulative Total State/local Users.....                            | 27  |
| Number of Times Bulletin Board Accessed.....                       | 507 |
| Cumulative number of messages on Bulletin Board.....               | 44  |
| Cumulative number of policy/guidance files<br>for downloading..... | 24  |

### EPA Contact Persons

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## ACID RAIN IMPLEMENTATION ISSUES

### Background

In 1984, EPA initiated an effort to explore with the States the issues that might arise in implementing an acid rain control program. Over 200 implementation issues were identified as associated with potential legislation that focused on emission reductions. In late 1984, Congress appropriated \$3 million of Section 105 funds to examine implementation, administrative and institutional issues.

A total of 47 State Acid Rain (STAR) projects were funded to examine potential implementation issues. Two workshops were conducted to review progress of the STAR projects--one in Pittsburgh, PA in 1985, and one in Asheville, NC in 1986. Proceedings of both workshops are available. In consultation with representatives from the National Association of Regulatory Utility Commissioners (NARUC), EPA prepared a report on acid rain implementation issues from the perspective of State utility commissioners.

### Current Status

STAR projects are completed; copies of project summaries and final reports are currently available. A draft Final Report of the STAR program is being completed and printed. The EPA co-sponsored a workshop between State air agency and utility regulatory officials on January 30 and 31, 1989.

The EPA is currently examining issues regarding the integration of acid rain control programs with existing regulatory programs affecting sources of sulfur oxides. The principal objectives in this effort include minimizing inefficiency and duplication among regulatory efforts and promoting design of implementation programs responsive to multiple goals. Among the programs under consideration are national ambient air quality standards for sulfur oxides, revised significant harm levels, potential standards for fine particles and acid aerosols, new source performance standards review, and stack height regulations.

The EPA is now evaluating the existing infrastructure for emissions data collection, storage and retrieval in order to plan modifications appropriate for support of emissions tracking, progress monitoring, and emissions trading activities likely to arise under potential acid rain legislation.

### Future Milestones

Distribution of final report on the STAR program.



## ACID RAIN IMPLEMENTATION ISSUES

Proceedings of the EPA/STAPPA/NARUC workshop are expected by May 1, 1989.

Meetings with State air agency officials to discuss related implementation issues of common concern in early and mid 1989.

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IMPLEMENTATION OF THE SPECIAL ENVOYS  
REPORT ON ACID RAIN

Background and Current Status

At their March 1985 summit conference, President Reagan and Canadian Prime Minister Mulroney appointed Special Envoys Drew Lewis and William Davis, respectively, to study and report to them on acid rain.

The Special Envoys Report was accepted by President Reagan in January 1986. It found that acid rain is indeed a problem between Canada and the United States, but that neither country is in a position to solve the problem at the present time. It recommended a \$5 billion, 5-year (\$2.5 billion Federal, \$2.5 private) retrofit control technology demonstration program in the United States, review by each country of its existing legal authority and programs affecting acid rain, and continued research.

Appropriations for Clean Coal Technologies - On March 18, 1987, President Reagan reiterated his acceptance of the Joint Envoys report and initiated actions to carry out the 5-year, Federal/private, demonstration program. On December 22, 1987, President Reagan signed Public Law No. 100-202. This law provides \$575 million over fiscal years 1988 (\$50 million) and 1989 (\$525 million) for the Department of Energy (DOE) to conduct an innovative clean coal technology (ICCT) program to demonstrate on a commercial scale retrofit or repowering ICCT. These technologies will be selected using criteria essentially the same as those recommended by the Special Envoys. The DOE issued the solicitation for ICCT projects on February 22, 1988. A total of 54 proposals were received, and on September 28, 1988, DOE selected 16 projects for further negotiation. The EPA's Frank Princiotta (ORD) served as an advisor to the DOE Source Evaluation Board (SEB). Recently, President Bush asked for \$710 million in fiscal year 1990; his budget also proposes that the remaining funds be provided in 1991 and 1992. The DOE has requested an additional \$1.2 billion to complete ICCT funding. In March, DOE published the draft Round 3 solicitation; the final is due out in May 1989. Frank Princiotta is expected to again serve on the SEB.

ICTAP Participation - To provide advice to DOE on the ICCT program, Eileen Claussen of EPA's Office of Air and Radiation, and John Skinner, Director of the Office of Environmental Engineering and Technology Demonstration, were named to the Department of Energy's Innovative Control Technology Advisory Panel (ICTAP). There are 36 other Federal, industry, environmental, union, academic, Canadian, and state representatives to ICTAP, including Alabama, Illinois, Indiana, Michigan, New Hampshire, Pennsylvania, Wyoming and the Navajo Nations. This Panel met for the first time on September 30, 1987, again on February 25, 1988, June 22, and November 30 1988.

## IMPLEMENTATION OF THE SPECIAL ENVOYS REPORT ON ACID RAIN

ICTAP has produced two reports, one on clean coal technology commercialization incentives, and one on status of innovative clean coal technologies.

Review of Existing Authorities - The recommended review of existing U.S. authorities was completed and given to Canada in March 1987. We also conducted our own analysis of the Canadian air pollution and acid rain programs.

Participation in Continuing Discussions with Canadians - Discussions regarding a possible bilateral accord between the United States and Canada on acid rain began at a May 22, 1987 meeting of the U.S.-Canadian Bilateral Advisory and Consultative Group (BACG). The U.S. continues to hold regular discussions with the Canadians on this and other subjects. The last meeting of the BACG took place on January 25, 1988. President Bush met with Prime Minister Mulroney in February 1989 and said, regarding acid rain, that the time for study alone was over. In his budget, President Bush said that he would ask Congress to establish an acid rain program that would obtain significant SO<sub>2</sub> and NOx emission reductions by a certain date. The Administration's acid rain program will include market-based approaches, supplementing and modifying the traditional command-and-control approaches.

VP Task Force on Regulatory Relief - This Task Force reviewed current law to see if opportunities existed to encourage innovation in control technology, and developed recommendations for several Federal agencies. In 1988, President Reagan endorsed these recommendations. The four recommendations applicable to EPA are:

- 'New-New' Bubbles - encourage greater use of the recently promulgated policy of allowing emissions trading between two sources subject to certain new source performance standards (NSPS).
- Complimentary Use of 'New-New' Bubbles and Innovative Technology Waivers - encourage use of these existing emission trading options by utilities that are uncertain whether an innovative clean coal technology will actually achieve NSPS levels before a waiver expires.
- Commercial Demonstration Permits - expand the availability and applicability of commercial demonstration permits (40 CFR 60.45a) that allow utility boilers using innovative control technologies to meet less stringent standards than required for other new sources.
- NOx Control Strategies for Ozone - issue guidance encouraging those areas of the country that can reduce ozone by controlling NOx to examine the potential role of nitrogen oxides (NOx) reductions in place of more expensive volatile

IMPLEMENTATION OF THE SPECIAL ENVOYS  
REPORT ON ACID RAIN

organic compound (VOC) reductions in State implementation plans (either through interpollutant emission trades or direct State regulatory actions).

Future Milestones

The DOE will select projects for ICCT Round 3 by December 27, 1989. Two additional ICCT project solicitations may be issued by DOE in 1990 through 1992 if Congress appropriates the remainder of the \$2.5 billion requested by DOE.

Implementation of the full \$2.5 billion control technology demonstration program, by the Administration, or enactment of a similar program by Congress.

The final report of the Direct Delayed Response Project is due out by June 1, 1989. This report should provide data to determine the rate and amount of acidification of surface waters in the U.S.

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## EMISSION INVENTORY RESEARCH AND NATIONAL DATA BASE

### Background

The 1985 National Acid Precipitation Research Program (NAPAP) Emissions Inventory has been completed and is being successfully utilized in the NAPAP assessment, atmospheric chemistry studies (acid deposition and photochemical oxidants), as well as in the analysis of legislative and regulatory proposals. Thus, the need for and value of high quality emissions data has been established by the 1980 and 1985 NAPAP Emissions Inventories. However, it has also been demonstrated that EPA needs a much better method for estimating area source emissions and a much less costly and time consuming method for collecting point source data.

### Current Status

The EPA intends to improve its emissions inventory program through a three pronged program: (1) development of a better methodology for estimating emissions, especially area source emissions; (2) development of improved implementation capabilities at the sources, States and Regions; and (3) development of improved data accountability policy and procedures. A research plan has been developed to accomplish this objective and outputs are targeted to allow a test implementation of the new system for calendar year 1992. Major products include: (1) improved area source emissions methodology, (2) enhanced emissions inventory capability at States and Regions, (3) revised emission inventory policy and procedures, and (4) 1992 emission inventory.

Several emission inventory activities which were developed as part of NAPAP should continue into the 1990's to provide the necessary scientific data to support atmospheric chemistry models. This includes collection of utility data via Department of Energy (DOE) EIA-767 and the National Utility Reference File. In addition, 1990/91 Episodic Emissions Data needs to be collected and enhanced to support episodic runs of the acid deposition models. To complete the picture of emissions into the atmosphere, natural source emission estimates need to be continued. Further, for data quality enhancements to be made with reduction in the uncertainty of emission estimates, a field test program is needed to improve emission and allocation factors. Even a modest program will pay significant dividends in this area. Major products would be: (1) utility emissions data, (2) 1990/91 Episodic Emission Data, (3) natural source emission data, and (4) revised emission factors.

### Future Milestones

FY 1990 and 1991 funding is now being completed and will determine the extent of initiating the studies defined above. At

## EMISSION INVENTORY RESEARCH AND NATIONAL DATA BASE

this time it seems unlikely, for a number of reasons, that EPA will embark on a program to compile a 1990 national emission inventory data base similar to the 1985 effort. Instead, efforts will be concentrated on improving the overall emissions inventory process and on providing States, Regions, and EPA Headquarters with better systems and tools with which to generate complete, comprehensive and accurate national emission inventories by 1992 or so.

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## STATUS OF RULE EFFECTIVENESS STUDIES

### Background

On March 31, 1988, EPA transmitted its final rule effectiveness protocol to provide the Regions with the criteria and procedures necessary to conduct a rule effectiveness study. Each Region was requested to commit to at least one rule effectiveness evaluation in an ozone nonattainment area for FY 1989.

The studies include two phases; a field inspection phase and an office investigation phase. Field inspections and file reviews are being conducted to determine compliance and to calculate or measure emissions at sources included in the sample to determine the percentage effectiveness of the regulations. The office investigations will supplement the field inspections for the purpose of identifying specific program implementation problems that should be addressed by the State and/or EPA.

Fifteen separate studies have been initiated by the Regions on a variety of source categories including gasoline marketing, petroleum refineries, surface coating at aerospace facilities, autocoating, papercoating, graphic arts and miscellaneous metal parts coating.

### Current Status

| <u>Region</u> | <u>Study Description</u>                                | <u>Status</u>                                                                                                                                                      |
|---------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I             | Miscellaneous metal parts coating (MMPC) in Connecticut | Plan to send section 114 letters to about 200 sources. Expect a large number to be exempt. Plan to inspect some exempts to verify data and about 20 major sources. |
| II            | 1-Papercoaters in New Jersey                            | They have submitted draft protocol to State and are awaiting comments.                                                                                             |
|               | 2-Gasoline loading terminals in New Jersey              | Reviewing section 114 letters. Contractor assistance planned.                                                                                                      |
|               | 3-Gasoline marketing in metro New York, Stages I, II    | Protocol received Dec 21. Expect to start inspections in late April.                                                                                               |

## STATUS OF RULE EFFECTIVENESS STUDIES

| <u>Region</u> | <u>Study Description</u>                                                                                                        | <u>Status</u>                                                                                                                                                                                                                                                                  |
|---------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| III           | 1-Gasoline marketing and refineries in Regions projected post-1987 nonattainment areas<br><br>2-Graphic arts in D.C. metro area | Currently writing report on work done in FY 1988 in Pennsylvania. Planning section is developing workplan with EPA doing support work for Stage I in Washington, D.C. metro area and graphic arts facilities.                                                                  |
| IV            | Autocoating in Georgia                                                                                                          | Plan to inspect all sources. This represents 7 1/2% of stationary source inventory.                                                                                                                                                                                            |
| V             | Miscellaneous metal parts coating in metro Cleveland                                                                            | Protocol submitted March 14.                                                                                                                                                                                                                                                   |
| VI            | VOC tank storage in Houston and Baton Rouge areas (2 studies)                                                                   | Negotiating with States on protocols. Contractor to inspect 400 tanks. Region to accompany inspections.                                                                                                                                                                        |
| VII           | Gasoline marketing including delivery vessels, terminals, and service stations in Kansas and Missouri                           | Protocol received for Stage I - 2/2/89. Region completed inspections for Stage I with about 20% compliance.                                                                                                                                                                    |
| VIII          | 1-Petroleum refineries - fugitive emissions or storage tanks<br><br>2-Pharmaceuticals - carbon monoxide                         | Region has completed summary of work done in Utah in last few years at 5 petroleum refineries. For floating roof tanks, determined rule effectiveness to be 80% and emission inventory to be good. Summary currently being reviewed by State.<br><br>Preparing draft protocol. |
| IX            | Aerospace coating in California                                                                                                 | Protocol submitted March 10. South Coast inspections complete - found 90.9% of sources out of compliance. Plan to issue about 24 NOV's.                                                                                                                                        |
| X             | PM-10 at major industrial sources including large pulp mills, aluminum smelters, etc., in Washington                            | Also finishing up an Oregon VOC study from last year.                                                                                                                                                                                                                          |



## STATUS OF RULE EFFECTIVENESS STUDIES

### Summary of State Participation

State participation has been cautious. Some fear that the main purpose of the program is to monitor their implementation programs. Concern has also been expressed over the use of the final results. Resources are a problem but most States are negotiating with Regions and participating in protocol review and/or inspections.

### Preliminary Findings from Studies

NOVs issued in Region III for Stage I violations identified in rule effectiveness study.

Support from EPA's Office of Mobile Sources used for Region III Stage I study is being requested from States as an enforcement technique independent of rule effectiveness studies.

Region VII completed Stage I inspections, demonstrating compliance rate of 79 percent.

Region VIII paper study on floating roof tanks (from data collected over past few years) indicates an 80 percent rule effectiveness and a good emission inventory.

Region IX plans to issue about 24 NOVs. (The District refuses to issue violations to sources with approved permits.)

Region IX's study found the estimation of projected emission reductions associated with the rule to be way off.

Region IX found that the responses to the section 114 letters identified everything found in the field investigations. (They suspect this is due to the statement referring to criminal action.)

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## FY 1989 COMPLIANCE MONITORING STRATEGY

### Background

The EPA issued the FY 1989 Compliance Monitoring Strategy (CMS) on March 31, 1988. Issuance of the Strategy was the culmination of a multiyear effort focusing on some very important issues raised about the inspection grant program and EPA's Inspection Frequency Guidance.

New features of the CMS that address these issues are: (1) the ability to address local air pollution concerns, (2) the use of inspection targeting, (3) the accounting for the total inspection activity, and (4) the focus on national priorities.

### Current Status

The Compliance Monitoring Strategy replaced the Inspection Frequency Guidance in FY 1989. The strategy requires EPA and the State to negotiate a State inspection plan that addresses national priorities and spells out FY 1989 inspection commitments. Sources in the negotiated inspection plans have been flagged in EPA's Compliance Data System.

Training in the use of the inspection targeting model portion of the CMS has been conducted and continued support is being offered. A program that downloads CDS data directly into the Inspection Targeting Program was recently made available to CMS users.

### Future Milestones

Analysis of the first full year under the CMS will occur in the second quarter of FY 1990.

A status check on Regional CMS implementation will be made during Regional visits in the third quarter of FY 1989.

The EPA's Program Evaluation Division (PED) will initiate a study in the third quarter of FY 1989 on how to get wider acceptance and implementation of the CMS.

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## ASBESTOS NESHAP STRATEGY

### Background

On March 31, 1988, EPA issued a revised Asbestos NESHAP Strategy. The original strategy, issued on April 6, 1984 intended to promote 100 percent compliance through the implementation of an inspection plan. According to the 1984 strategy, an inspection plan could consist of inspecting "all sources, all contractors, or any other program consistent with the Agency goal of 100 percent compliance."

Because the annual notification rate has risen to over 50,000 in FY 1988, it is no longer feasible for most agencies to inspect all sites. Inspecting all contractors may have been the best alternative for an effective inspection plan under the 1984 strategy, however, the 1984 strategy did not fully describe how such a plan would be implemented. After auditing three Regional asbestos NESHAP enforcement programs, the Inspector General's office remarked that the 1984 strategy "does not provide additional criteria for developing an effective inspection strategy."

The revised strategy provides criteria for targeting inspections among a field of an estimated 5,000 contractors as opposed to selecting inspection sites from over 50,000 notifications. Inspection efforts focused on contractors should result in a more resource-effective enforcement program.

Appendix A of the strategy establishes a computerized asbestos NESHAP compliance tracking system using dBase III. Regions are expected to send quarterly reports of the data elements defined in Appendix A to Headquarters, preferably through electronic transmission. The aggregated nationwide data base will be used to target inspections and promote enforcement as described in the 1988 strategy.

### Current Status

As of April 4, 1989, EPA has received input to the National Asbestos Registry System (NARS) for the first quarter FY 1989 from all but four States. We expect that these States will report. Data completeness and quality are generally good to excellent. The EPA is now working to put the State and EPA reports together for the first truly national NARS report, containing summarized compliance experience of every contractor active in the first quarter of FY 1989.

### Future Milestones

Reports on progress of the implementation of the 1988 strategy.

ASBESTOS NESHAP STRATEGY

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## STATUS OF NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)

### Background

The 1977 Clean Air Act Amendments require review and revision, if needed, of all existing NAAQS by December 1980 and at 5-year intervals thereafter.

- Review of the ozone standard was completed February 1979. The standard was raised from 0.08 parts per million (ppm) to 0.12 ppm, maximum 1-hour concentration.
- The non-methane hydrocarbon standard was revoked January 1983.
- Review of the carbon monoxide standard was completed in September 1985. No change was made to the primary standards; secondary standards were revoked.
- The nitrogen dioxide standard was reaffirmed in June 1985.

Major revisions to the particulate matter standards were promulgated on July 1, 1987. The primary and secondary standards are identical and based on particles less than or equal to 10 micrometers in diameter (PM<sub>10</sub>) rather than total suspended particulate matter (TSP). The revised standards are 50 micrograms per cubic meter, expected annual arithmetic mean, and 150 micrograms per cubic meter, 24-hour average, with no more than one expected exceedance per year. Also on July 1, 1987, an Advance Notice of Proposed Rulemaking was published to solicit comment on a possible fine particle (less than 2.5 micrometers) secondary standard to protect against visibility impairment.

### Sulfur Dioxide (SO<sub>2</sub>)

The revised criteria document for sulfur oxides (and particulate matter) was issued in March 1984 in conjunction with the proposed revision to the particulate matter NAAQS. The criteria document was again updated in an addendum that was issued July 1987. The staff paper for sulfur oxides was completed in 1982 and updated to reflect the revised criteria in an addendum dated December 1986.

The EPA's proposed decision not to revise the SO<sub>2</sub> standards was announced in the Federal Register on April 26, 1988. Controlled human exposure studies reviewed in the criteria document and staff paper addenda have prompted consideration of a short-term SO<sub>2</sub> primary standard in addition to the existing standards. Accordingly, the April 1988 Federal Register notice also solicited comment on the alternative of adding a 1-hour SO<sub>2</sub> primary standard of 0.4 ppm. EPA also proposed to revise the 24-hour significant harm level for SO<sub>2</sub> by changing it from 1.00 ppm to 0.29 ppm. In addition, EPA proposed a new short-term significant harm level of 5 ppm, 5 minute average, together with a 1-hour guide of 2.5 ppm. Associated episode criteria were also

## STATUS OF NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)

proposed. In addition, EPA also proposed several technical changes to the SO<sub>2</sub> NAAQS to codify prior Agency guidance.

The comment period on EPA's proposed decision not to revise the SO<sub>2</sub> standards closed on November 22, 1988 and a meeting of EPA's Clean Air Scientific Advisory Committee (CASAC) to discuss the proposal is tentatively scheduled for the summer of 1989. Final action on the proposal is anticipated in mid-1990.

### Ozone

The key issues confronting EPA in the ozone standard review are the significance of emerging longer-term health effects data and the appropriate averaging time for controlling welfare effects. Attainment and maintenance of the existing one-hour ozone standard appears more important than ever based on the accumulation of the collective health and welfare effects data base.

At a December 1987 meeting, CASAC informally advised EPA of the need for a one-hour standard at a level not higher than 0.12 ppm and their continuing concern over new longer-term health effects data. Most CASAC members, however, did not feel adequate data were available to set a new longer-term standard. The EPA subsequently met with CASAC on December 14-15, 1988 to complete discussion on the acute health and welfare effects data and discuss plans for completing the review. At that meeting, CASAC recommended that EPA complete action on the review of the 1-hour ozone standard. Although most CASAC members supported tightening the 1-hour secondary standard to 0.010 ppm, the CASAC membership was split on the need for a tighter 1-hour primary air quality standard.

The EPA's current plan is to complete review of the 1-hour ozone standard. When adequate data are deemed to be available to make a judgment on the need for a new longer-term standard, such a judgment will be made.

Proposal of revised or reaffirmed standards will probably not occur until 1991.

### Lead

The primary and secondary ambient air quality standards for lead (1.5 micrograms per cubic meter, quarterly average) were established in October 1978.

CASAC closed on the revised criteria document and addendum in August 1986. The Committee reviewed the second external review draft of the staff paper in March 1986. A third draft of the staff paper was reviewed by CASAC in April 1989, along with an assessment of the carcinogenicity of lead.

## STATUS OF NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)

The EPA has spent considerable effort in the past two years developing and validating an exposure analysis methodology. A draft report was submitted to CASAC's lead exposure subcommittee in August 1988 and was reviewed by the subcommittee on October 25, 1988. The final report was completed in March 1989.

Proposal in the Federal Register is scheduled for mid-1990.

### Carbon Monoxide (CO)

Preparation of a criteria document for the next review of the CO air quality standard is now under way. Public and CASAC review of the criteria document and the staff paper should be complete by fall 1990.

### Summary of NAAQS Status

Carbon Monoxide - Last review completed 9/85, new criteria document scheduled for CASAC review 3/90

Nitrogen Dioxide - Last review completed 6/85, new criteria document scheduled for CASAC review 5/90

Particulate Matter (PM10) - Last review completed 7/87

Sulfur Oxides - Last review completed 9/73; recent proposal 4/88, promulgation scheduled for mid-1990

Lead - Standard promulgated 10/78; proposal scheduled for mid-1990

Ozone - Last review completed 2/79; proposal scheduled for 1991

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## GLOBAL CLIMATE CHANGE

### Background

In September 1987, the U.S. and 23 other nations signed the Montreal Protocol on Substances that Deplete the Ozone Layer, a landmark agreement on the protection of the stratospheric ozone layer. The Protocol entered into force on January 1, 1989, and as of March 1, 1989, had been ratified by 36 nations. In accordance with the U.S. commitment under the Protocol on August 12, 1988, the EPA issued its final rule on stratospheric ozone protection. This rule places limits on the domestic production and consumption of chlorofluorocarbons (CFCs) and halons.

On August 12, 1988, the Agency also published an advance notice of proposed rulemaking for possible future actions on this issue. The Agency is considering additional rulemaking in the event that timely progress is not made toward the reduced use of these stratospheric ozone depleting chemicals.

Additional scientific studies released subsequent to the Protocol show that the depletion of the stratospheric ozone layer might be of greater risk than was originally anticipated. In light of these events, President Bush recently called for even greater efforts in halting the depletion of stratospheric ozone by calling for a complete phaseout of CFCs and halons by the turn of the century.

### Current Status

In 1989, EPA's Global Change Division will be involved in implementing the domestic regulatory program as well as domestic and international activities in support of the Montreal Protocol. The EPA is involved in activities related to global warming and other atmospheric change issues.

The major areas of attention in 1989 are the implementation of the domestic program, preparation of economic, environmental, scientific and technical assessments in support of the Montreal Protocol, and both international and domestic efforts on alternative technologies and technology transfer.

To domestically implement the final rule, the EPA is completing and implementing a production and consumption tracking system for the chemicals that are regulated. This involves putting in place reporting and recordkeeping systems and operating these systems. EPA is involved in harmonizing data on imports and exports and assessing the market response to regulation.

The EPA is also participating in a series of international protocol assessments and studies. The first of these assessments required under the Protocol is scheduled for 1989. These assessments include the analysis of technical issues (i.e.,



## GLOBAL CLIMATE CHANGE

controls and substitutes) and economic issues (e.g., costs of reductions, benefits) related to the 1989/90 assessments. The EPA will also be assessing the scientific issues that are related to the 1989/90 assessment.

The EPA is working closely with the State Department in efforts to encourage other countries to join the Protocol. This includes work on technology and the transfer of existing technologies among lesser developed countries. The work on alternative technologies includes support for reducing barriers to recycling, technologies to reduce emissions from halons and technology transfer. This work also includes assessments of new chemical alternatives and alternatives for CFCs and halons.

The EPA is also involved in studying the emissions associated with global climate change. These include emissions from a variety of natural and manmade sources. EPA will be actively involved in the assessment of the possible control strategies in controlling the sources of global warming.

### Future Milestones

International Protocol assessments (technical, economic, scientific and environmental) are to be completed in the late summer of 1989.

The public comment period on an advanced notice of proposed rulemaking closed on November 1, 1988. A decision on any future Agency regulatory action is expected some time in the summer/fall of 1989.

International negotiations will be ongoing throughout 1989-90. This includes the first meeting of affected parties and the initiation of negotiations on Protocol limits at Helsinki, Finland in April 1989.

### EPA Contact Persons

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## GLOBAL/TROPOSPHERIC AIR POLLUTION STRATEGIES

### Background

Preliminary analyses of the impacts of projected changes in global climate and stratospheric ozone suggest a potential for severely compromising efforts to address both rural and urban ozone problems, increasing background levels of ozone and carbon monoxide, and changing weather circulation patterns that may themselves have significant implications for all major air pollutants. During the 1988 summer heat waves, many areas of the U.S. experienced some of the worst ozone problems of the past decade. The combination of heat and stagnant air, which are likely to become more typical in North America with greenhouse warming, appear to be major factors in some of these severe ozone readings.

Long-range strategies for ozone and acid deposition need to consider the potential consequences of climate change over the next 20 to 50 years. Moreover, control strategies for tropospheric and global concerns should be examined to enhance the potential for common solutions and minimize situations in which controls for ground level air pollution impede progress on global issues.

### Current Status

The EPA has begun an assessment of global-tropospheric air pollution. The assessment will: 1) examine likely changes in ozone and possibly other air pollutants expected with changes in temperature, UV-B, air stagnation, and natural and anthropogenic emissions, and 2) examine current and alternative strategies for limiting changes over the next 20 to 50 years.

Work on Phase I of the assessment has begun using in-house capabilities and assistance from two contractors--SAI and Alliance Technologies Corporation. Phase I will analyze peak ozone concentrations in eight cities out to the year 2030 using the EKMA model. Emission forecasts will be made considering changes in population, technology, and climate. Phase II, to be initiated later this year, will examine a broader range of ozone and oxidant implications (PAN, O-3 dose, long-term O-3 concentrations) in selected areas using more sophisticated models and boundary conditions influenced by climate considerations.

The Office of Air and Radiation sponsored a symposium with The Climate Institute entitled, "Air Quality Management: Confronting Changes in Climate, Technology and Society." It was held on April 18-19 in Washington, D.C., at the Hall of States. The symposium identified and discussed long-range air pollution planning and featured implications for current air pollution strategies.

## GLOBAL/TROPOSPHERIC AIR POLLUTION STRATEGIES

### Future Milestones

Initial assessments should be available mid-year, 1989.

### EPA Contact Persons

|                  |                                            |
|------------------|--------------------------------------------|
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## IMPLEMENTING SIP PROCESSING RECOMMENDATIONS

### Background

Prompted by concern for SIP processing delays, the impact of delays on meeting program objectives, and the negative effect of delays on EPA's relationship with State and local control agencies, EPA established a task group to identify problems in, and recommend changes to, the SIP review process. The recommendations of the task group have been approved by senior EPA management and are described in the report entitled "Final Report of the Task Group on SIP Processing" dated October 1987. The task group identified two basic problems with the current approach to SIP review: (1) excessive review of SIP packages, and (2) uncertainty regarding the outcome of EPA review. The EPA has initiated a program to improve the process of SIP review based upon the recommendations of the task group.

An intra-Agency task force was formed to implement the recommendations contained in the task group report. As a result of the recommendations and implementation discussions, EPA issued a policy memorandum on the increased use of direct final rulemaking for noncontroversial SIP actions, a policy on the review of implementation packages received from the States for completeness, and a policy on grandfathering SIP actions submitted prior to policy changes. The use of direct final processing is a program instituted in 1982 (47 FR 27073) and has, where used, resulted in substantially decreased processing times. The task group report recommended increased use of this effective tool to enhance SIP processing.

Guidance on "completeness criteria" was issued on March 18, 1988 to the EPA Regional Offices. The Regional Offices have been discussing these criteria with the appropriate State/local control agencies and in many cases have incorporated the completeness criteria into the FY 1989 section 105 air grants conditions. The objective of this program is to ensure that SIP packages submitted by the State are complete from the perspective of EPA review. SIP processing will be expedited by having complete packages submitted and the EPA Regional Offices not having to request additional information from the State to determine whether the revision is approvable. By sharing these criteria with the States, submitting agencies will be more familiar with EPA requirements prior to SIP submission.

On June 27, 1988, EPA issued a policy permitting the grandfathering of certain SIP actions from meeting the requirements of recently issued EPA policies. Where approval of such action has no significant or lasting environmental impact, grandfathering the action may better serve the purpose of EPA.

## IMPLEMENTING SIP PROCESSING RECOMMENDATIONS

### Current Status

On January 19, 1989, EPA published two Federal Register notices announcing the implementation of the SIP processing reform initiatives. The first notice (54 FR 2214) announces the internal processing procedures being implemented to reduce the amount of review each SIP revision receives in order to reduce the amount of time a revision is reviewed by EPA. The second notice (54 FR 2138) proposes changes to 40 CFR Part 51 to incorporate provisions in EPA regulations requiring submittals to contain certain basic information prior to submission by the State to EPA for review. The intent of this effort to review submissions for completeness is to ensure that limited EPA resources are not expended reviewing submissions which are inherently unreviewable due to the lack of basic administrative and/or technical information. Public comments on these FR notices are presently being reviewed with the promulgation of the completeness policy in the Federal Register expected by the end of 1989.

### Future Milestones

The EPA is currently conducting workshops for EPA Regional Offices and States to provide information on all phases of the implementation of the SIP processing reform initiatives. In addition, EPA is also developing procedures for internal oversight of the SIP review process.

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## NATIONAL AIR AUDIT SYSTEM

### Background

The National Air Audit System (NAAS) was developed through the joint effort of STAPPA/ALAPCO and EPA in FY 1983. The program was designed to audit five phases of the air quality management program in State and selected local control agencies. These areas are: (1) air quality planning and SIP activity, (2) new source review, (3) compliance assurance, (4) air monitoring, and (5) automobile inspection and maintenance.

Audits are now conducted on a 2-year cycle with sixty-five audits (44 State and 21 local and territorial agencies) having been conducted in the FY 1986-87 cycle.

### Current Status

The EPA Regional Offices identified 333 priority deficiencies as a result of the FY 1986-87 audit program. Many of these deficiencies have already been corrected through the joint efforts of State and local agencies and the EPA Regional Offices. Through the process of grant negotiations and EPA/State/local agreements, the remaining deficiencies will be addressed.

The EPA distributed the audit guidance and protocol for the FY 1988-89 audit cycle on April 1, 1988. During the course of the 2-year cycle, each State in each Region should receive an audit. In FY 1988, the EPA Regional Offices conducted audits in 21 States and 6 local agencies. Because of resource and travel constraints, and court-mandated FIP activities, only a handful of audits (with the exception of I/M) will be conducted in FY 1989. Due to this and the need to reexamine the NAAS (discussed below) the present 2-year cycle will be extended into FY 1990. Hopefully this extension will allow many of the audits to be done.

### Future Milestones

In an effort to improve the NAAS, EPA is creating a work group to reexamine the goals of the NAAS. Participation in this process will include input from members of STAPPA/ALAPCO who were involved in the development of the original NAAS. It is EPA's intent to ensure that the NAAS meets the goals of both EPA and State and local agencies by identifying problem areas with recommendations on how these deficiencies can be corrected through the cooperation of EPA and the audited agencies.

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## STACK HEIGHT LITIGATION

### Background

On February 8, 1982 EPA issued regulations restricting the use of tall stacks and other dispersion techniques as methods by which national ambient air quality standards could be attained. These regulations implement section 123 of the 1977 Clean Air Act Amendments. The 1982 regulations were challenged in court and portions were reversed or remanded to EPA. On July 5, 1985, revised stack height regulations were published. Portions of the 1985 regulations were subsequently challenged.

### Current Status

On January 22, 1988, the U.S. Court of Appeals for the D.C. Circuit issued its opinion in NRDC v. Thomas, 838 F.2d 1224 (D.C. Cir. 1988). The court upheld the 1985 regulations, except for three grandfathering provisions which were remanded for further consideration and rulemaking. These provisions affect emissions credit for: (1) use of the formula height for certain sources constructed before 1/79, (2) pre-10/83 within formula height increases, and (3) original construction with merged stacks.

In March 1988 five petitions for rehearing were filed. All five petitions were denied in April 1988. In June and July 1988 industry groups filed petitions requesting review by the U.S. Supreme Court of the D.C. Court of Appeals decision. On October 11, 1988, the U.S. Supreme Court declined to review the case.

### Future Milestones

A development plan for revisions to the stack height regulation to account for the remanded items listed above was established in January 1989. This plan schedules the notice of proposed rulemaking to be published in November 1989.

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## VISIBILITY PROTECTION

### Background

#### Ambient Standards

On July 1, 1987, EPA rescinded the TSP-based secondary national ambient air quality standard and instituted PM-10-based 24-hour and annual secondary standards to protect against soiling and nuisance effects. On the same date, EPA published an advance notice of proposed rulemaking which solicited comment regarding the development of a secondary national ambient air quality standard for fine particles (those less than 2.5 micrometers in aerodynamic diameter). The principal welfare effect to be addressed by such a standard is impairment of visibility.

#### Class I Area Protection

Visibility rules to protect visual air quality in Federal Class I areas were promulgated by EPA on December 2, 1980. These rules were based on the requirements of section 169A of the Clean Air Act.

In 1982, the Environmental Defense Fund (EDF) sued EPA to implement the visibility rules for States that had not submitted SIP's. Because EPA has a nondiscretionary duty under section 110(c) of the Clean Air Act to implement rules for those States which fail to do so, EPA entered into a settlement agreement with EDF to implement the December 1980 visibility rules in three parts. The first part, completed in July 1985, established a monitoring strategy and new source review procedures for visibility impacts in the Class I areas. The second part, completed in November 1987, established: (1) a long-term strategy for visibility protection which included periodic review of the SIP's to ensure progress in remedying existing problems and preventing future problems, and (2) protection for specific views (integral vistas) which extend beyond the borders of the Roosevelt-Campobello International Park (RCIP). The third part required EPA to address existing impairments in the Class I areas which can be reasonably attributed to a specific source or group of sources. The settlement agreement was recently revised to allow EPA to address the existing impairment in two parts.

The EPA, along with other Federal agencies, has created a technical steering committee called the Interagency Monitoring of Protected Visual Environments Committee (IMPROVE) to oversee the Federal monitoring effort. The EPA has set aside a portion of the section 105 grant funds to operate the monitoring network. The EPA has agreed to fund the program through FY 1989.



## VISIBILITY PROTECTION

### Current Status

#### Ambient Standards

At this time, EPA is reviewing comments made in response to the advance notice of proposed rulemaking for a fine particle standard.

The Natural Resources Defense Council, Inc., filed suit on the PM-10 rulemaking which, in part, challenges EPA's decision to defer action on a possible fine particle secondary standard to protect visibility. This case was combined with other suits on the PM-10 standards. Oral arguments for the combined case are now scheduled for December 1989.

#### Class I Area Protection

On September 15, 1988, EPA proposed regulations to address existing impairment in the RCIP, Voyageurs National Park, Petrified Forest National Park, and Saguaro Wilderness and clarify the integral vista listing for the RCIP. The EPA received only favorable comments on the proposal. The EPA delayed action on existing impairment in the Grand Canyon and Canyonlands National Parks because the results of the 1986-1987 winter haze study (called WHITEX) were not scheduled to be available until November 1988.

The EPA also delayed action on the existing impairment in the Moosehorn Wilderness because the source in question was in the process of securing a PSD permit for a plant modification which would eliminate the impairment.

### Future Actions

#### Ambient Standards

The EPA is continuing its assessment of the need for a possible fine particle secondary ambient air quality standard. Current activities include updating EPA's assessment of the scientific literature and developing methodologies to assess alternative approaches.

#### Class I Area Protection

The public comment period on the proposal of the September 15, 1988 proposal described above closed on November 14, 1988. Under the EDF settlement agreement, final action must be completed by May 15, 1989.

The National Park Service submitted a draft WHITEX report to EPA in February 1989. This document was subsequently distributed to all interested parties. The EPA held a technical meeting to discuss the report in April 1989 in Lakewood, Colorado.

## VISIBILITY PROTECTION

The Maine Department of Environmental Protection, the EPA, the National Park Service, and the source are discussing the above-mentioned PSD permit and required controls for the source impacting the Moosehorn Wilderness. The permit should be issued by spring 1989. After the permit is either issued or denied, EPA will take action, if necessary, on addressing any remaining impairment.

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#### Ambient Standards

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## INDOOR AIR PROGRAM

### Background

In Title IV of the 1986 Superfund Amendments and Reauthorization (SARA), Congress gave EPA a clear mandate to:

- 1) establish a federally-coordinated indoor air research program,
- 2) disseminate information on indoor air pollution and mitigation techniques, and
- 3) assess the appropriate Federal role in solving indoor air pollution problems.

In June 1987, EPA submitted to Congress a report on its Indoor Air Program for the following 12-18 months as required by Title IV of the Superfund amendments. The report stated that it is EPA's policy to reduce risks from indoor air pollution by using one or more of the following strategies, as needed:

- Issuing regulations under existing statutes to reduce significant health risks.
- Increasing state and local government and private sector capacity to identify and solve indoor air pollution problems through information dissemination and technical assistance.
- Referring problems to other Federal agencies with appropriate regulatory authority.
- Requesting separate indoor air regulatory authority from Congress, if appropriate.

An Interagency Committee on Indoor Air Quality (CIAQ) coordinates Federal research activities on indoor air issues. Sixteen Federal agencies are members; four serve as co-chairs. Eileen Claussen, Director of the Office of Atmospheric and Indoor Air Programs in EPA's Office of Air and Radiation, serves as the EPA co-chair.

### Current Status

The indoor air program has two publications which the Agency is now distributing:

- A Directory of State Indoor Air Contacts, prepared by the Public Health Foundation (PHF) and issued jointly by EPA and the PHF. They are available from the EPA Public Information Center (PM-211B), 401 M Street, SW., Washington, DC 20460. The directory lists staff contacts in state agencies for up to sixteen indoor air related issues for each State.
- A booklet for the general public on indoor air quality, "The Inside Story: A Guide to Indoor Air Quality."

The EPA is working with other public and private sector organizations to prepare three technical manuals. One pertains

## INDOOR AIR PROGRAM

to the diagnosis, prevention, and mitigation of building-related illness; other addresses how to assess and mitigate risks from exposure to environmental tobacco smoke; and the third contains guidance for new home construction techniques that will avoid or minimize indoor air quality problems.

The EPA is working with the Public Health Service and the National Environmental Health Association to produce a self-paced, self-directed course on indoor air pollution. The primary audience for this course is staff in State and local agencies with indoor air responsibilities.

The EPA has conducted a survey of private sector organizations that are offering indoor air diagnostic and mitigation services to the public. A report describing the results of this survey is scheduled to be released this summer.

The Indoor Air Quality Act of 1989 (S. 657), which was introduced by Senator Mitchell and seventeen co-sponsors is similar to the bill reported out of the Senate Environment and Public Works Committee in the last Congress. Congressman Kennedy is expected to introduce an identical bill in the House.

A Report to Congress on Indoor Air Quality, also required by SARA, Title IV, has been prepared and awaiting final OMB clearance.

### Future Milestones

Substantial effort in the remainder of FY 1989 will be devoted to completing the training and informational materials and reports that are listed above.

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## DEVELOPMENT OF CRITERIA POLLUTANT EMISSION INVENTORY GUIDANCE

### Current Status/Future Milestones

Revised emission inventory guidance being developed by EPA includes:

- General technical guidance for preparation of emission inventories projections for VOC, NO<sub>x</sub> and CO (stationary and mobile sources).
- Revised guidance for tracking of reasonable further progress (RFP) in ozone and CO control programs.

Revised guidance reports are expected to become available in the winter of 1989.

Personal computer based system for compilation and reporting of ozone and CO SIP emission inventories are being developed by EPA as a tool for State and local agencies. System to be available in the spring of 1989. Enhancements to follow.

Specific PM<sub>10</sub> emission inventory requirements and additional general inventory guidance have been included in a supplement to the PM<sub>10</sub> SIP Development Guideline issued in June 1988.

### EPA Contact Persons

#### (VOC/NO<sub>x</sub>/CO)

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#### PM<sub>10</sub>

E. L. Martinez              (919) 541-5575  
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## STATUS OF GUIDELINE ON AIR QUALITY MODELS

### Background

The Guideline on Air Quality Models was originally issued 4/78, revised 9/86 and supplemented 1/88. It is incorporated by reference in 40 CFR 51.166 and 52.21 and is referenced in EPA guidance for development of SIP revisions; it was prepared in response to requirements of Sections 165(e)(3)(D), 301 and 320 of the Clean Air Act.

The Fourth Conference on Air Quality Modeling was held October 12-13, 1988, in Washington, D.C. The conference sought public comment on the merits of expanding the modeling guideline to include a variety of new techniques for such issues as complex terrain, roadway intersections, visibility, long-range transport, and others. A number of States participated.

### Current Status

The public comment period for the fourth modeling conference closed on February 13, 1989. Over thirty separate commenters responded; their comments are contained in Docket No. A-88-04. EPA staff has summarized those comments and is in the process of developing responses through intra-agency work groups.

### Future Milestones

The EPA plans to publish in 1990 a notice of proposed rulemaking on formal changes to the modeling guideline to incorporate those new techniques that appear to enhance the regulatory modeling program. Public comments will be solicited on that proposal.

### EPA Contact Person

Joe Tikvart        (919) 541-5561  
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## AEROMETRIC INFORMATION RETRIEVAL SYSTEM (AIRS)

### Background/Status

The basic AIRS Air Quality Subsystem (AIRS/AQS) has been in production since July 1987. The development team is currently upgrading the system in FY 1989 to add an ad hoc batch capability, two new retrievals, and various minor enhancements. All the Regional Offices, 28 States and 4 local agencies are directly accessing AIRS/AQS as of February 1989.

The AIRS Facility Subsystem (AIRS/AFS) is in the software development stage of the project. Currently, selected Regions and States are performing early access pilot testing on various segments of the AFS software while still in the development environment. This joint effort between the Technical Support Division (TSD) and the Stationary Source Compliance Division (SSCD) of EPA/OAQPS has worked closely with State/local agencies, Regional Offices, and the National Computer Center throughout this project.

Hardware and telecommunications support for the State and Regional Office end users is being coordinated with the National Computer Center throughout this project.

### Future Milestones

For the AIRS/AQS, training is planned for another 15 States in FY 1989. In addition, maintenance, enhancements and user support activities will be provided as needed by the end users.

The AIRS/AFS is currently scheduled to go into production in October 1989. The Regions will be trained in August and September 1989. At least 16 States will be trained and provided with direct access beginning in FY 1990.

### EPA Contact Persons

|               |                |
|---------------|----------------|
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FY 1989-90 NSPS ACTIVITY

FY 1989

Proposals

Small Steam Generating Units  
SOCMI-Reactor Processes

Promulgations

Calciners and Dryers (2 NSPS)  
Refinery Wastewater Treatment  
SOCMI-Air Oxidation  
SOCMI-Distillation  
Magnetic Tapes  
Polymer Coating of Fabric  
Portland Cement Revision  
Refinery FCCU Revision  
Sewage Sludge Revision

Under Development

Medical Waste Incineration

EPA Contact Person

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FY 1990

Proposals

Municipal Landfills NSPS, 111(d)  
Municipal Waste Combustion NSPS,  
111(d)

Promulgations

Small Boilers  
Polymers Manufacturing (4 NSPS)

Review of NSPS

None

Under Development

SOCMI Batch Processes  
SOCMI Reactor Processes  
Offset Lithography  
Medical Waste Incineration



## WOOD HEATER NSPS STATUS REPORT

### Background

On February 26, 1988, EPA promulgated new source performance standards (NSPS) for residential wood heaters. These new source standards are unique in a number of respects. The regulations require that all performance testing be done by EPA accredited laboratories. These laboratories obtain and maintain accreditation by performing a series of annual proficiency tests with the prescribed test methods.

When accredited, these laboratories may perform certification tests on individual model stoves to determine compliance. In a phase-in program, all model stoves must be certified between 1990 and 1992 for sale to the public.

### Current Status

Eight laboratories are currently accredited by EPA as of March 31, 1989, with one additional laboratory applying for accreditation. Of these accredited laboratories, six have completed the 1989 annual proficiency test. All 1989 proficiency tests will be completed by June 1, 1989. As of April 3, there are 181 federally certified stove models.

### EPA Contact Persons

#### Accreditation of Laboratories

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#### Certification Program

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## CONTROL TECHNOLOGY CENTER (CTC)

### Background

The CTC was formed in 1987 to assist State and local air pollution control agencies and EPA Regional Offices in their implementation of programs to control air toxics, VOC and criteria pollutant emissions. It is operated by EPA's Offices of Air Quality Planning and Standards (OAQPS) and Research and Development (ORD) and draws from the expertise of those two organizations. It has been in operation for over two years. A STAPPA/ALAPCO work group headed by Mr. Paul Munn and Mr. John Glunn was formed to assure a close working relationship between STAPPA/ALAPCO and the CTC.

Three levels of support are provided - a HOTLINE (for a rapid response to questions), direct engineering assistance (for more in-depth support to State and local agencies and Regional Offices), and technical guidance projects (for dissemination of information of broad national interest).

### Status and Future Milestones

The CTC receives over 600 HOTLINE requests for assistance per year. An additional 400-600 telephone requests for assistance per year are received directly by staff engineers. HOTLINE calls are the common basis for engineering assistance and technical guidance projects.

The CTC has completed 9 engineering assistance and 10 technical guidance projects since its inception. On-going projects include 3 engineering assistance and 12 technical guidance projects. A list of recently completed and on-going projects follows. These products are made available to all State and local agencies and Regional Offices without charge. They are available to others through the National Technical Information Service for a nominal fee.

### ENGINEERING ASSISTANCE PROJECTS

| <u>Project Name and No.</u>                                     | <u>Completion Date</u> |
|-----------------------------------------------------------------|------------------------|
| Emissions from Agricultural Plastics<br>Burning (87-2), Florida | 4/89                   |
| Spray Booth Control Evaluation (88-4)<br>Connecticut            | 5/89                   |
| Methylene Chloride Sources (88-9)<br>New York                   | 5/89                   |
| Arsine/Phosphine Scrubber (88-10)<br>San Diego                  | 6/89                   |

CONTROL TECHNOLOGY CENTER (CTC)

ENGINEERING ASSISTANCE PROJECTS (CONT'D)

| <u>Project Name and No.</u>                                                         | <u>Completion Date</u> |
|-------------------------------------------------------------------------------------|------------------------|
| Creosote Wood Treatment (88-13)<br>Virginia                                         | 5/89                   |
| Evaluation of Wastewater Treatment System<br>(88-14), West Virginia                 | 4/89                   |
| Formaldehyde Emissions from Manufacture of<br>Veneer Wood Products (89-4), Virginia | 5/89                   |
| Outdoor Abrasive Blasting (89-6)<br>Puget Sound                                     | 10/89                  |
| Emissions from Solder Manufacturing (89-7)<br>Illinois                              | 5/89                   |

TECHNICAL GUIDANCE PROJECTS

|                                                                     |       |
|---------------------------------------------------------------------|-------|
| Advisory System - Controlling Air Toxics<br>(CAT Enhancement)(87-1) | 7/89  |
| CAT/HAP Manual Brochure (88-3)                                      | 7/89  |
| Fiberglass Structures (88-5)                                        | 6/89  |
| Hospital Waste Incineration Training Manual<br>(88-6)               | 4/89  |
| Air toxic Emissions From Steel Plants (88-9)                        | 6/89  |
| Surface Impoundment Emission Factors (88-11)                        | 6/89  |
| Tireburning (88-12)                                                 | 5/89  |
| Control Of Condensable Particulate Emissions<br>(89-2)              | 10/89 |
| Flexible Packaging Emission Control (89-3)                          | 10/89 |
| HAP Manual Update (89-5)                                            | 12/89 |
| Ultrasonic Cleaning of Rotogravure Printing<br>Cylinders (89-10)    | 7/89  |
| Waferboard Control Evaluation (89-11)                               | 7/89  |
| Electrostatic Precipitator Model (89-13)                            | 12/89 |

CONTROL TECHNOLOGY CENTER (CTC)

EPA Contact Person

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Office of Research and Development:

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CTC HOTLINE:     (919) 541-0800  
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## BACT/LAER CLEARINGHOUSE

### Background

The BACT/LAER Clearinghouse was established to assist State and local air pollution control agencies in selecting best available control technology (BACT) and the lowest achievable emission rate (LAER) for new or modified sources in a nationally consistent manner. The goals of the BACT/LAER Clearinghouse are to: (1) provide State and local air pollution control agencies with current information on the case-by-case technology determinations that are made nationwide, and (2) promote communication, cooperation, and sharing of control technology information among permitting agencies.

### Current Status

The EPA intends to publish the 4th (1989) supplement to the "BACT/LAER Clearinghouse - A Compilation of Control Technology Determinations" in June 1989. A memorandum was sent on March 2, 1989, to all BACT/LAER Clearinghouse contacts at State and local air pollution control agencies and EPA Regional Offices to request that new determinations be submitted to the Clearinghouse by April 28, 1989, in order to be included in the 1989 supplement.

The March 2, 1989, memorandum noted above also advised that changes to the BACT/LAER Information System (BLIS) are being considered to improve its accessibility and usefulness. These improvements include a user-friendly, menu-driven access system and inclusion of performance verification data. Comments on the proposed improvements, suggestions on additional improvements and/or reports on existing BLIS problems were also requested. The user-friendly improvements are underway and should be complete by late 1989. A teleconference with appropriate STAPPA/ALAPCO representatives in late April or early May will be scheduled to discuss other proposed improvements before proceeding.

The "top-down" BACT policy and the need to consider noncriteria pollutants have put new demands on BLIS. There is a need to increase participation, improve the quality of data and assure that all agencies have direct access to BLIS.

### EPA Contact Person

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## EMISSION MEASUREMENT TECHNICAL INFORMATION CENTER

### Background

To promote consistent, uniform application of stationary source emission test methods in the development and enforcement of emission control programs on a national basis, the Emission Measurement Technical Information Center (EMTIC) was established in late 1988. Key features of EMTIC include a technical information exchange network and a test method depository.

The EMTIC was organized by the Emission Measurement Branch of the Technical Support Division of OAQPS and will be conducted as a joint effort including the Quality Assurance Division of ORD and the Stationary Source Compliance Division of OAQPS.

### Current Status

The list of participants for the Technical Information Exchange Network has been completed. The first mail-out of technical information was sent in January 1989.

### Future Milestones

Second mail-out of technical information - April 1989.

### EPA Contact Person

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AIR GRANTS - PROGRAM TO IDENTIFY STATE AND LOCAL  
PROGRAM ACTIVITIES AND COSTS

Background

In 1986, EPA and STAPPA/ALAPCO reached agreement on several principles for governing the air grants process. Among these was a recognition that each grantee agency implements a number of recurring activities in enforcement, monitoring, new source review, planning, etc., which form the foundation of the agency's air pollution control program. Following the establishment of these principles, EPA agreed to work with STAPPA/ALAPCO to develop the data base necessary for defining this foundation. Efforts started in late 1986, focusing on the design and conduct of a survey of each State and local agency.

A pilot program was developed jointly by EPA and STAPPA/ALAPCO in the spring of 1987. The pilot program consisted of 12 States and 6 local agencies participating in a survey of agency activities and associated costs. By October 1, 1987, the surveys were completed and data compiled for a limited series of analyses. Copies of the individual submissions, summary information and cost data were sent to the Regional Offices, the participating agencies, and STAPPA/ALAPCO for review.

Following the pilot exercise, it was jointly recommended by EPA and STAPPA/ALAPCO to expand the pilot program to all agencies in 1988. To bolster support for the survey, the Presidents of STAPPA and ALAPCO sent a letter to the membership on January 22, 1988, encouraging their full participation. The survey package and instructions for conducting the 1988 exercise were sent to the EPA Regional Offices in February 1988.

Initially, the due date for sending in completed questionnaires was April 1, 1988, but by May 15 only 55 forms had arrived and, by the end of July, only 70 forms had been received. One-quarter to one-third of the questionnaires showed an attempt to display air program data in the level of detail asked for by the form. The remainder offered much less detail and many were incomplete. Two primary reasons for the reluctance of agencies to participate appeared to be that a number of agencies felt threatened by an EPA request for detailed program information, and that the questionnaire represented yet another burden on already strained resources. Also, a few agencies stated that the format of the questionnaire was incompatible with their accounting or tracking systems; therefore, they could only provide estimates for some activities. By the end of the year, EPA had received 86 survey forms from an original mailing to 106 S/L agencies. These participants represented about 82 percent of the section 105 grant monies. While the level of response was high, the survey generally suffered from a lack of enthusiasm at both the EPA Regional and S/L agency levels. This is evident from the extreme tardiness of the responses from many agencies and from the spotty and often very general information provided by many respondents.

AIR GRANTS - PROGRAM TO IDENTIFY STATE AND LOCAL  
PROGRAM ACTIVITIES AND COSTS

At the September 1988 STAPPA/ALAPCO meeting, it was agreed that the Funding Committee would informally poll the general membership regarding any possible follow-up with agencies that did not fully complete the original survey questionnaire. Following the Funding Committee's poll, it was concluded that no specific follow up would be taken. Instead an article would be prepared for inclusion in the STAPPA/ALAPCO Newsletter requesting that any pass-through local that desired to submit data pertaining to their agency should do so. As a result of that article, EPA received no additional survey forms.

Current Status

The data on the survey forms have been compiled in a computerized data base for statistical analyses. Various completeness checks, data integrity checks, and a number of statistical analyses have been performed on the data set. At present, a draft national report showing EPA's statistical findings is being prepared for distribution to the Regional Offices and STAPPA/ALAPCO. A summary of statistical information extracted from the data set was presented at the April, 1989 STAPPA/ALAPCO meeting in Nashville. A final report on State/Local program cost estimates will be prepared and distributed to all participants by July, 1989.

Future Milestones

The EPA and STAPPA/ALAPCO will be reviewing the data gathered through this survey for purposes of deciding if a periodic update of this information is warranted. Also, efforts are underway to use this information in implementing the pilot core program in the chosen areas of monitoring, compliance, and new source review.

EPA Contact Person

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## RADON ACTION PROGRAM

### Background

In response to growing concern about elevated radon concentrations in houses situated on the Reading Prong in Pennsylvania and New Jersey, the EPA established the Radon Action Program in September 1985. Since then, high radon levels have been found in nearly every State. Program activities were expanded in 1986, 1987, and 1988 in response to the growing scope and complexity of the radon problem. The goal of the Radon Action Program is to significantly reduce the health risks associated with radon exposure through a partnership with the States and other Federal agencies. The program consists of four main elements: problem assessment, mitigation and prevention, capability development, and public information.

### Current Status

In October 1988, the Indoor Radon Abatement Act (IRAA) was signed into law (15 USC 2661-2671). The IRAA sets a new long-term national goal that indoor radon levels equal those found outdoors. The IRAA directs EPA to undertake a variety of activities to address the growing public concern over dangers posed by exposure to radon. These activities include assisting States with program development, developing Regional radon training centers, surveying schools and workplaces, developing model construction standards, evaluating mitigation methods, establishing proficiency programs, developing user fees for proficiency and training programs, and providing public information including the revision of "A Citizen's Guide to Radon." A number of activities described in the law have been initiated. Others, notably the State grant program, the Regional radon training centers, a mitigation contractor proficiency program, and the Federal buildings study, are new.

### Future Milestones

By October 1989, EPA will have made significant progress in implementing the IRAA. For example, we plan to have awarded the first State grants, established three Regional radon training centers, and initiated the mitigation contractor proficiency program. In 1990, EPA will, among other things, complete the revision of the citizen's guide, update the guidance for radon measurements in schools, and publish the model construction standards. We will also continue awarding State grants, establish two additional Regional radon training centers, and continue the contractor proficiency program.

### EPA Contact Person

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## RADIONUCLIDE NESHAP

### Background

On December 27, 1979, EPA listed radionuclides as a hazardous air pollutant under Section 112 of the Clean Air Act. On April 6, 1983, the Agency proposed standards regulating radionuclide emissions from: (1) elemental phosphorus plants, (2) DOE facilities, (3) NRC licensees and non-DOE federal facilities, and (4) underground uranium mines. In February of 1984, The Sierra Club filed suit in U.S. District Court to compel EPA to take final action on the proposed standards. As a result, the Agency was ordered to promulgate final standards or make a finding that radionuclides are not hazardous air pollutants and to delist them.

Consequently, in October of 1984, EPA withdrew the proposed standards and concluded no additional regulation was needed. At the same time, the Agency stated its intention to promulgate a different standard for underground uranium mines and also announced its intentions to regulate radon-222 emissions from licensed uranium mills. On December 11, 1984, the Court found EPA in contempt of its order to promulgate final standards. The Court again directed that EPA issue final emission standards for the original four categories or make a finding that radionuclides are not hazardous air pollutants. EPA complied with the court order by promulgating standards for emissions from elemental phosphorus plants, DOE facilities, and NRC-licensed and non-DOE federal facilities. On April 17, 1985, The Agency promulgated a work-practice standard for radon-222 emissions from underground uranium mines; and on September 24, 1986 EPA promulgated a final rule regulating radon-222 emissions from licensed uranium mill processing sites, establishing work practices for new tailings.

The latest Agency action was subsequently challenged by several environmental groups and the uranium mining industry. On July 28, 1987, the U.S. Court of Appeals remanded to the Agency the emission standard for vinyl chloride, also promulgated under Section 112 of the Clean Air Act. The Court concluded that the Agency improperly considered cost and technological feasibility without first making a determination based exclusively on risk to health. Consequently, the Agency concluded the standards for elemental phosphorus plants, DOE facilities, NRC-licensed facilities and non-DOE federal facilities, underground uranium mines, and uranium mill tailings should be reconsidered. After consultations between all parties to the litigation, the Court granted EPA's motion for a voluntary remand and established a schedule eventually calling for the Agency to propose regulations for all source categories by February 28, 1989 and to promulgate final regulations by August 31, 1989.

## RADIONUCLIDE NESHAP

### Current Status

On February 28, 1989, the Agency proposed four alternative approaches for controlling radionuclide emissions from the following 12 source categories:

1. Department of Energy Facilities
2. NRC and non-DOE facilities
3. Nuclear power reactors and support facilities
4. Elemental-phosphorus plants
5. Coal-fired utility and industrial boilers
6. High-level-nuclear-waste-disposal facilities
7. DOE radon sources
8. Phosphogypsum piles
9. Underground uranium mines
10. Surface uranium mines
11. Licensed uranium mill tailings piles
12. Disposal of uranium mill tailings piles.

This action follows the court-mandated, two-step process for regulating hazardous air pollutants set forth in the vinyl chloride decision. That decision mandated that the Agency establish a "safe" or "acceptable" level of risk based on health considerations before setting an "ample margin of safety" and taking into account costs and technological feasibility. Public hearings were held the week of April 10, 1989.

### Future Milestones

The public comment period will close May 15, 1989, and final regulations are to be promulgated by August 31, 1989.

### EPA Contact Person

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## STATUS OF BULLETIN BOARD FOR REGULATORY AIR MODELS

### Background

Over the past several years, the EPA has offered regulatory air quality dispersion models to the public via the National Technical Information Service for operation on mainframe computers. Changes in computer technology as well as communications technology have made it possible for the EPA to provide model code for personal computers through electronic transfer methods, specifically electronic bulletin board service.

### Current Status

A bulletin board service is being developed to improve the transfer of models to the modeling community and facilitate communications by providing a forum for ideas and information. Initially all regulatory models will be available for downloading.

### Future Milestones

The bulletin board service will be initiated by early summer, 1989. All regulatory models and several screening models will be offered. It is hoped that by the end of FY 1989 that all regulatory models will be PC compatible.

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